# SOUTHERN CRESCENT TECHNICAL COLLEGE FACULTY CREDENTIALS MANUAL

March 15, 2021

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#### INTRODUCTION

Southern Crescent Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 to award associate degrees, diplomas, and technical certificates of credit. The Commission can be contacted at 404-679-4500. A major part of the reaffirmation process and ongoing compliance with SACSCOC standards involves sufficiently justifying and documenting the teaching qualifications of our institution's faculty.

The purpose of Southern Crescent Technical College's *Faculty Credentials Manual* is to provide technical and procedural clarification for individuals responsible for faculty selection, credentialing, and qualifications. Procedures, forms, and general information are based on guidelines specified in "Comprehensive Standard 6.2a" in SACSCOC's *Principles of Accreditation*, which reads as follows:

For each of its educational programs, the institution justifies and documents the qualifications of its faculty members. Qualified, effective faculty members are essential to carry out the mission of the institution and to ensure the quality and integrity of its academic programs. The emphasis is on overall qualifications of a faculty member, rather than simply academic credentials. While academic credentials in most cases may well be the standard qualification for faculty members, other types of qualifications may prove to be appropriate. Examples could include appropriately related work experiences in the field, professional licensure and certifications related to the teaching assignment, honors and awards, continuing professional development, relevant peer-reviewed publications, and/or continuous documented excellence in teaching. These types of qualifications are especially important in professional, technical, and technology-dependent fields. It is the institution's obligation to justify and document the qualifications of its faculty.

#### **FACULTY CREDENTIAL GUIDELINES**

Southern Crescent Technical College employs competent faculty members qualified to accomplish the mission and goals of the institution. When determining acceptable qualifications of its faculty, the College gives primary consideration to the highest earned degree in the discipline. The College also considers competence, effectiveness, and capacity, including, as appropriate, undergraduate and graduate degrees, related work experiences in the field, professional licensure and certifications, honors and awards, continuous documented excellence in teaching, or other demonstrated competencies and achievements that contribute to effective teaching and student learning outcomes.

Southern Crescent Technical College employs full and part-time faculty members whose credentials are appropriate to teach their assigned courses. As a term and condition of employment, Southern Crescent Technical College requires instructional program personnel to hold a master, baccalaureate, associate degree, or diploma in the teaching discipline and appropriate, relevant work experience.

The master's degree is required for faculty who teach degree level general education core courses. The appropriate degree/diploma will reflect the requirements of College accrediting agencies and state and/or national licensing boards. Particular to the technical program areas, it is required that any past work experience considered include the competencies, skills, and knowledge levels that the instructor will be expected to teach. Faculty who teach in fields that issue certifications or licenses must hold the certification or license appropriate to their field. Exceptions to these requirements may be made based on the extent of work history and experience, professional certifications/licensures, professional training, or type of program in which an instructor is sought.

Southern Crescent Technical College strives to provide the highest quality education to its students; therefore, adjunct faculty must meet the same qualifications as full-time faculty. Any occupational experience must meet the current requirements of the appropriate licensing boards for the area of instruction, if applicable. It is also a requirement for faculty to possess and maintain the appropriate professional credential for or related to the field or position.

General education faculty in diploma programs must hold a baccalaureate degree and have a minimum of fifteen semester hours in their respective teaching disciplines. Faculty teaching in the associate degree programs must hold a master's degree or have 18 graduate hours in their respective teaching disciplines. As with degree programs, exceptions to these requirements may be made based on the extent of work history and experience, professional certifications/licensures, professional training or type of program in which an instructor is sought.

In addition to the minimum academic and experiential requirements, certified specialist course faculty must possess, or obtain within one year of their employment, faculty certifications as applicable. A comprehensive faculty credentials roster of full-time and part-time faculty grouped by program includes a faculty's assigned courses and qualifications to teach the courses is maintained for all Southern Crescent Technical College faculty in the Office of the Human

Resources and in the Division of Academic Affairs. Regular monitoring and on-going review of teaching assignments ensure the qualifications of faculty members and their commitment to technical education and training.

#### CRITERIA FOR SELECTION OF FACULTY

The selection of faculty members is one of the most important tasks performed at Southern Crescent Technical College. Faculty members are selected according to the guidelines set forth in the "Faculty Credential Guidelines" section of this manual. Outstanding professional experience and demonstrated contributions to the teaching discipline may be presented in lieu of formal academic preparation. Such cases will be justified by the College on an individual basis. Justifications based on academic credentials and justification in lieu of academic credentials are outlined below:

#### Justification based on academic credentials:

- Faculty teaching general education courses at the undergraduate level: doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).
- Faculty teaching associate degree courses designed for transfer to a baccalaureate degree: doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).
- Faculty teaching associate degree courses not designed for transfer to the baccalaureate degree: bachelor's degree in the teaching discipline, or associate's degree and demonstrated competencies in the teaching discipline.
- Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline.

#### Alternate Justification in lieu of academic credentials:

Southern Crescent Technical College established an Alternate Justification for situations when a faculty member's qualifications do not align with credentials required for teaching a specific course. In such cases, the College will accept faculty based on *equivalency* of credentials, with *equivalency* defined as preparation at least equal to those who possess the exact minimum qualifications defined for respective courses in this document. This category includes those whose professional experience has provided them with knowledge that is equivalent to that gained from a formal course of study. *Equivalency* may also be granted on the basis of eminence in the field. Artists, authors, winners of widely-recognized prestigious awards or national

certifications, performers, or others may have developed skills and knowledge that prepare them to teach in their respective disciplines.

In these rare and exceptional cases, outstanding professional experience and demonstrated contributions to the teaching discipline may be presented in lieu of formal academic preparation for faculty members teaching both transfer and non-transfer courses - see Appendix B – Faculty Qualifications by Course Competency Form. Such cases MUST be justified per course competency by the College on an individual basis. Particular care must be taken in qualifying faculty members to teach transferable courses. The Vice President for Academic Affairs will provide final approval of this type of justification for faculty.

#### **DOCUMENTATION OF ACADEMIC CREDENTIALS**

Faculty who are qualified to teach based, either in whole or in part, on their academic credentials must have received their qualifying degree(s) and any other qualifying coursework from an accredited institution. Specifically, the institution must be accredited by an accrediting agency recognized by the United States Department of Education or the Council for Higher Education Accreditation. It is not sufficient for a program within an institution to be accredited. Rather, the credential granting institution itself must meet this requirement. Official transcripts are required for all qualifying degrees and coursework. They must reflect the successfully completed credential(s) and must be on file in the Office of Human Resources.

An official transcript is defined as a transcript or other academic record that includes notation that it is official. Each individual official transcript must meet the authentication criteria based on the issuing institution's standards. The transcripts must possess all of the following:

- 1. the issuing institution's official seal;
- 2. signature of the appropriate authorizing agent, preferably the institution's registrar;
- 3. the institution's official transcript paper;
- 4. the institution's watermark or other identifier; and
- 5. date of issue.

The official transcripts are required to be sent to the Human Resources department upon accepting the job offer to be an instructor. Official electronic transcripts are also acceptable. It is the responsibility of the instructor to provide official transcripts. The Human Resources Department is responsible for ensuring the authenticity of the transcript.

If the qualifying credential(s) is (are) from an institution outside of the United States, the U.S. equivalency of the credential(s) must be evaluated by an approved credential evaluation service, even if the transcript provided is in English. Faculty under consideration for hire will bear the expense of the credentials evaluation. The agencies acceptable to Southern Crescent Technical College in determining faculty qualifications to evaluate foreign degrees/credit for U.S.

equivalencies and are listed in the section entitled "Foreign Credential Evaluation Services and Helpful Websites".

The hiring of individuals whose qualifying degree is from a non-regionally accredited institution in the United States will be considered on a case-by-case basis. When hiring such individuals, deans must consider additional criteria beyond those listed on the Certification of Credential form. Criteria to be considered include the degree issuing institution's reputation, whether the institution is accredited or recognized by other agencies or organizations, and a thorough evaluation of the candidate's course work and experience. If a perspective faculty member is deemed desirable, then it is the Dean's responsibility to fully document the instructor's educational background and experience. This documentation shall be submitted to the Vice President for Academic Affairs via an official memorandum for review. If the Vice President for Academic Affairs agrees with the Dean's assessment of the perspective faculty member's academic preparation and experience, the Dean will be instructed to prepare the perspective faculty member's credentialing file in accordance with current standards.

#### **DOCUMENTION OF OTHER DEMONSTRATED COMPETENCIES**

For all faculty qualified by means other than their academic credentials (degrees and coursework) alone, appropriate evidence of the other demonstrated competencies and achievements must be provided in addition to official transcripts. The evidence provided should include dates that correspond to the qualifying activities. When qualifying a faculty member on the basis of his or her related work experience in the field, specific job titles and detailed relevant duties must also be provided. It is the responsibility of the College to keep on file for all full-time and part-time faculty official documentation of professional and work experience as well as technical and performance competency (e.g., copies of current licensures, awards, certificates, or diplomas), records of publications, and other qualifications. Additional evidence should be provided as appropriate.

#### **RESPONSIBILITIES**

#### Vice President for Academic Affairs

The Vice President for Academic Affairs has responsibility for the verification and validation of all faculty credential requirements.

#### Academic Deans

It is the responsibility of the Academic Dean for each department to ensure faculty members are qualified to teach each course they are assigned. If a current faculty member is assigned a course that he/she has never taught, the appropriate Dean shall review the faculty member's credentialing file to ensure that he/she has proper credentials to teach the course.

Note: Transcripts received from institutions of higher education outside of the United States must be evaluated by approved external sources prior to employment.

#### **Faculty**

It is the responsibility of faculty members to provide the College with documentation for the purpose of verifying their credentials. This documentation may include official transcripts, vita, resume, licensure, certificates, and work related teaching experience. The expense to obtain the aforementioned documentation shall be the sole responsibility of each faculty member. New faculty members must provide official transcripts as a condition of employment. An official transcript is defined as an academic record which includes notation indicating the transcript is official. Each transcript must contain the following: the issuing institution seal, the signature of the authorizing agent/registrar, the institution's official transcript paper, the institution's watermark and date of issuance.

#### **Human Resources**

It is the responsibility of Human Resources to ensure that all required documentation for credentialing is on file for new faculty and to maintain those files.

#### FOREIGN CREDENTIAL EVALUATION SERVICES AND HELPFUL WEBSITES

Southern Crescent Technical College accepts foreign transcript evaluations only from The National Association of Credential Evaluation Services (website <a href="www.naces.org">www.naces.org</a>). NACES currently includes the following members:

A2Z Evaluations, LLC 216 F Street, #29 Davis, CA 95616

Phone: (530) 400 9266 Email: <u>info@A2Zeval.com</u> http://www.A2Zeval.com

Center for Applied Research, Evaluations, &

Education, Inc. P.O. Box 18358 Anaheim, CA 92817 Phone: (714) 237-9272 Fax: (714) 237-9279

Email: <a href="mailto:eval\_caree@yahoo.com">eval\_caree@yahoo.com</a>
<a href="http://www.iescaree.com">http://www.iescaree.com</a>

**Education International, Inc.** 

29 Denton Road Wellesley, MA 02482 Phone: (781) 235-7425 Fax: (781) 235-6831

Email: edit@gis.net

http://www.educationinternational.org

**Educational Credential Evaluators, Inc.** 

P.O. Box 514070

http://www.ece.org

Milwaukee, WI 53203-3470 Phone: (414) 289-3400 Fax: (414) 289-3411 Email: eval@ece.org

**Foreign Educational Document Service** 

P.O. Box 4091 Stockton, CA 95204 Phone: (209) 948-6589

http://www.documentservice.org

Foundation for International Services, Inc.

14926 - 35th Avenue West

Suite 210

Lynnwood, WA 98087 Phone: (425) 248-2255 Fax: (425) 248-2262 Email: info@fis-web.com http://www.fis-web.com

Global Credential Evaluators, Inc.

P.O. Box 9203

College Station, TX 77842-9203

Phone: (800) 707-0979

Fax: (512) 388-3174

Email: gce@gceus.com

http://www.gceus.com

http://www.gcevaluators.com

Global Services Associates, Inc.

409 North Pacific Coast Highway, #393

Redondo Beach, CA 90277 Phone: (310) 828-570 Email: <u>info@globaleval.org</u> http://www.globaleval.org

**International Academic Credential Evaluators** 

P.O. Box 2465

Denton, TX 76202-2465 Phone: (940) 383-7498 Fax: (940) 382-4874 Email: <u>staff@iacei.net</u> http://www.iacei.net

**Educational Records Evaluation Service. Inc.** 

601 University Avenue, Suite 127

Sacramento, CA 95825-Phone: (916-921-0790 Fax: (916) 921-0793 Email: edu@eres.com http://www.eres.com e-Val Reports

10924 Mukilteo Speedway, #290

Mukilteo, WA 98275 Phone: (425) 349 -5199 Fax: (425) 349-3420

Email: <u>brad@e-valreports.com</u> http://www.e-valreports.com

Evaluation Service, Inc. 333 W. North Avenue, #284 Chicago, IL 60610

Phone: (847) 477-8569 Fax: (312) 587 3068

Email: <u>info@evaluationservice.net</u> http://www.evaluationservice.net

Foreign Academic Credential Service, Inc.

P.O. Box 400

Glen Carbon, IL 62034 Phone: (618) 656-5291 Fax: (618) 656-5292 http://www.facsusa.com

International Consultants of Delaware, Inc.

3600 Market Street, Suite 450 Philadelphia. PA 19104

Phone: (215) 387-6950 Ext. 603

Fax: (215) 349-0026 Email: <u>icd@icdeval.com</u> http://www.icdeval.com International Education Research Foundation Inc.

P 0 Box 3665

Culver City, CA 90231-3665 Phone: (310) 258-9451 Fax: (310) 342-7086 Email: information@ierf.org

http://www.ierf.org

Josef Silny & Associates, Inc.

**International Education Consultants** 

7101 S. W. 102 Avenue

Miami, FL 33173

Phone: (305) 273-1616 Fax: (305) 273-1338

Fax: (305) 273-1984 (Translations)

Email: info@jsilny.com http://www.jsilny.com

Span Tran Educational Services, Inc. 7211 Regency Square Blvd., Suite 205

Houston, TX 77036-3197 Phone: (713) 266-8805 Fax: (713) 789-6022

http://www.spantran-edu.com

World Education Services, Inc.

P.O. Box 5087

Bowling Green Station New York, NY 10274-5087 Phone: (212) 966-6311 Fax: (212) 739-6100

Email: <a href="mailto:info@wes.org">info@wes.org</a>
<a href="http://www.wes.org/">http://www.wes.org/</a>

The website <u>www.collegesource.org</u> provides accreditation information on colleges. The website <u>www.sacscoc.org</u>" has links to the other accrediting agencies, and it provides a .pdf document of the SACS member institutions.

#### CLARIFICATION OF CREDENTIALING TERMS AND GUIDELINES

The following definitions relate to qualifying faculty by credentials. All instructors of record for the courses contained in Appendix B must be qualified under the preceding and following terms and guidelines.

#### **Instructor of Record**

The term "instructor of record" refers to any individual teaching a course whose name appears on the grade roll for the course, including independent studies and clinical/lab instruction. The instructor of record meets with the class, teaches independently, evaluates the students' performances, and is responsible for assigning the grades to students.

#### **Teaching Discipline (or Concentration)**

Preferred concentration (major) as identified on the transcript; the majority of the faculty member's coursework should be related (by prefix or course title/description) to this concentration and should closely correspond to competencies for those courses within the discipline in which the faculty will be teaching.

#### **Related Teaching Discipline**

Related disciplines must be closely related to the teaching discipline. In completing the Faculty Qualifications Review Form (FQR), you may also use this section to document coursework that strengthens the faculty member's overall case; all relevant qualifying coursework should be included, even if it is not part of the faculty member's major course of study. Related disciplines may be grouped into one of the following two categories and must meet the **additional conditions** described below.

- 1. **Broadly Related:** A discipline is considered "broadly related" when such a specialization qualifies a person to teach a significant number of courses throughout the broad scope of the designated teaching discipline. (*Guideline: Qualifies for approximately five or more courses within the teaching discipline.*)
- 2. **Selectively Related:** A discipline is considered "selectively related" when such a specialization does not qualify a person to teach a significant number of courses throughout the broad scope of the discipline but does qualify him or her to teach a more restrictive set of courses in the teaching discipline. (*Guideline: Qualifies for four or fewer courses within the teaching discipline.*)

Additional Conditions: In either category identified above, it must be common collegiate practice for a person holding a degree in the "related" discipline at the appropriate level, to teach throughout the broad scope of the teaching discipline (in the case of a broadly related discipline) or a restricted course selection in the teaching discipline (in the case of a selectively related discipline).

In all cases, coursework in a related discipline and/or work/professional experience directly related to the teaching discipline must be sufficient to qualify the faculty member for the specific course competencies of each course taught.

**APPENDIX A: CREDENTIAL EVALUATION FORM** 



#### **CREDENTIAL EVALUATION FORM**

An original academic transcript must be forwarded directly from the faculty member's college/university to the Office of Human Resources. Signatures on this form indicate that all necessary academic history, license(s), certifications(s), etc., have been evaluated and copy/copies attached and that an exceptions form has been completed if applicable.

Name:				Beginning Term:		Status:	Full-Time Adjunct
Degree(s) – List all (exactly as listed on transcripts)							
Academi	c Degree(s)	Institution(s)	Major				Date Awarded
Technica Credit	l Certificate of						
Technica	l Diploma:						
Associate	e's Degree:						
Bachelor	's Degree:						
Master's	Degree:						
Doctoral	Degree:						
Other:							
Justifica	tion of Academic F	Preparation					
Other Cre	edential Qualifiers	: (License/Certification, Profession	onal/Wo	ork Experience, Ho	nors/Awar	ds, Publ	ications, Other)
All SCTC	classes the instruc	ctor is qualified to teach:					
Faculty N	lame:		ID No	umber:			
Supervisi	ing Dean:		Lo	cation:			
Dean's S	ignature:		Da	ate:			
Chief Aca	ademic		Da	ate:			

APPENDIX B: FACULTY QUALIFICATION BY COURSE COMPETENCY

# **Faculty Qualification by Course Competency**

Faculty Name:	Date:	Date:		
Subject Area:	Campus/Site:			
Note: Please complete one form p	per course.			
Course Number				
Course Title				
Course Description				
Course Competencies	Justification/Experience - Please provide detailed information.			
Submitted by:				
Dean, Academic Affairs Date				
Approved by:				

APPENDIX C: CREDENTIAL REQUIREMENTS BY COURSE PREFIX

#### CREDENTAL REQUIREMENTS BY COURSE PREFIX

ACCT: Accounting CRJU: Criminal Justice Technology HORT: Horticulture

ACRP: Auto Collision Repair CTDL: Commercial Truck Driving HUMN: Humanities

AIR: Air Conditioning Technology CUUL: Culinary Arts IDFC: Industrial Fundamental Courses

AMCA: Advanced Machine Tool DENA: Dental Assisting IDSY: Industrial Systems Technology

ALHS: Allied Health Science DFTG: Drafting LOGI: Logistics

ARTS: Art DIET: Diesel Equipment Technology MAST: Medical Assisting

AUMF: Automated Manufacturing Technology ECCE: Early Childhood Care and Education MATH: Mathematics

AUTT: Automotive Technology ECGT: Electrocardiography Technology MCHT: Machine Tool Technology

BIOL: Biology ECON: Economics MCTX: Mechatronics

BUAS: Building Automation Systems ELCR: Electronics Technology MEGT: Mechanical Engineering

BUSN: Business Technology ELTR: Electrical Technology MGMT: Business Management

CABT: Cabinetmaking EMCT: Electrical Construction and Maintenance MKTG: Marketing Management

CARP: Carpentry EMSP: Emergency Medical Services Professions MUSC: Music Appreciation

CAVT: Cardiovascular EMPL: Interpersonal Relations and Professional NAST: Nurse Aide

CCSP: Central Sterile Processing Development ORTT: Orthopedic Technology

CHEM: Chemistry ENGL: English PARA: Paralegal Studies

CIST: Computer Information Systems ENGT: Engineering Technology PHAR: Pharmacy Technology

CMTT: Construction Management ESCI: Environmental Technology PHLT: Phlebotomy Technology

COFC: Construction Fundamental Core FILM: Film Production PHYS: Physics

COLL: College Life FOSC: Forensic Science Technology PLBG: Plumbing

COMM: Communications FRSC: Fire Science PNSG: Practical Nursing

COMP: Introduction to Computer HECT: Health Care Technician POLS: Political Science

COSM: Cosmetology HIST: History PPFT: Pipefitting

**PSYC:** Psychology

**RADT: Radiologic Technology** 

**READ: Reading** 

**RESP: Respiratory Care** 

**RNSG: Registered Nursing** 

**SCMA: Supply Chain Management** 

SOCI: Sociology

SPCH: Speech

**SURG: Surgical Technology** 

THEA: Theatre

WELD: Welding

## ACCT: Accounting

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ACCT 1100	Financial Accounting I	Introduces the basic financial accounting concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle for a personal service business, the accounting cycle for a merchandising business, inventory, cash control and receivables. Laboratory work demonstrates theory presented in class.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 1105	Financial Accounting II	Introduces the intermediate financial accounting concepts that provide the student with the necessary skills to maintain a set of books for a partnership and corporation.  Topics include: Fixed and Intangible Assets, Current and Long-Term Liabilities (Notes Payable), Payroll, Accounting for a Partnership, Accounting for a Corporation, Statement of Cash Flows, and Financial Statement Analysis, Laboratory work demonstrates theory presented in class.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 1115	Computerized Accounting	Emphasizes operation of computerized accounting systems from manual input forms. Topics include: company creation (service and merchandising), chart of accounts, customers transactions, vendors transactions, banking activities, merchandise inventory, employees and payroll, and financial reports. Laboratory work includes theoretical and technical application.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 1120	Spreadsheet Applications	This course covers the knowledge and skills to use spreadsheet software through course	UN	Preferred qualifications are a master's degree in accounting or a master's degree	Instructor must hold a bachelor's degree in accounting. In addition, a minimum of three

ACCT 1125	Individual Tax Accounting	demonstrations, laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts, creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually and collaborating and securing data.  Provides instruction for the preparation of individual federal income tax returns. Topics include: taxable income, income adjustments, schedules, standard deductions, itemized deductions, exemptions, tax credits, and tax calculations.	UN	with at least 18 graduate semester hours in accounting. Minimum three years of current in-field work experience.  Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	years of current in-field work experience in accounting and MS Excel is required.  Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 1130	Payroll Accounting	Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include: payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers, and analyzing and journalizing payroll transactions.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2000	Managerial Accounting	Emphasizes the interpretation of data by management in planning and controlling business activities. Topics include Managerial Accounting Concepts, Manufacturing Accounting using a Process Cost System, Cost Behavior and Cost-Volume-Profit, Budgeting and Standard Cost Accounting, Flexible Budgets, Standards Costs and Variances, and Capital Investment Analysis and Budgeting Laboratory work demonstrates theory presented in class.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2100	Accounting Internship I	Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations and provides insights into accounting applications on the	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three

ACCT 2105	Accounting Internship II	job. Topics include appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and development of productivity. The half-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other projects as required by the instructor.  Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations and provides insights into accounting applications on the job. Topics include: appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and development of productivity. The full-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2110	Accounting Simulation	projects as required by the instructor.  Students assume the role of a business owner where he/she can directly experience the impact and importance of accounting in a business. At the end of the simulation course, the student will have completed the	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting.  Minimum three years of current in-field	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is
		entire accounting cycle for a service business, merchandising business and a corporation using an Accounting Information System software (different from software used in ACCT 1115-Computerized Accounting). Emphasis placed on providing students with real-world opportunities for the application and demonstration of accounting		work experience.	required.

		skills by using Simulation Projects will enable them to build a foundation for understanding and interpreting financial statements. Topics include company creation, chart of accounts, customers transactions, vendors transactions, banking activities, merchandise inventory, employees and payroll, financial statements, preparation of payroll tax forms and preparation of income tax forms. Laboratory work includes theoretical and technical application.			
ACCT 2115	Bookkeeper Certification Review	Reviews the topics of adjusting entries, correction of accounting errors, payroll, depreciation, inventory, internal controls and fraud prevention. Prepares the students to take certification testing.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2120	Business Tax Accounting	Provides instruction for preparation of both state and federal partnership, corporation and other business tax returns. Topics include: organization form, overview of taxation of partnership, special partnership issues, corporate tax elections, adjustments to income and expenses, tax elections, forms and schedules, tax credits, reconciliation of book and tax income, tax depreciation methods, and tax calculations.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2125	Capstone Review Course of Accounting Principles	Guides the student in dealing with ethics, internal control, fraud and financial statement analysis in the accounting environment which will require students to confront and resolve accounting problems by integrating and applying skills and techniques acquired from previous courses. Will prepare students in developing a personal code of ethics by exploring ethical dilemmas and pressures they will face as	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.

ACCT 2135	Introduction to Governmental and Nonprofit Accounting	accountants. Will help the student understand financial statement analysis and the relation to fraud, and fraud detection. Will prepare the student for the ACAT Comprehensive Examination for Accreditation in Accountancy.  Provides an introduction to financial reporting and accounting principles for state/local governments and nonprofit entities.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is
				work experience.	required.
ACCT 2140	Legal Environment of Business	Introduces law and its relationship to business. Topics include: legal ethics, legal processes, business contracts, business torts and crimes, real and personal property, agency and employment, risk-bearing devices, and Uniform Commercial Code.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting.  Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2145	Personal Finance	Introduces practical applications of concepts and techniques used to manage personal finance. Topics include: cash management, time value of money, credit, major purchasing decisions, insurance, investments, retirement, and estate planning.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2150	Principles of Auditing	Introduces the student to the auditor responsibilities in the areas of professional standards, reports, ethics and legal liability. Students learn about the technology of auditing; evidence gathering, audit/assurance processes, internal controls, and sampling techniques. The specific methods of auditing the revenue/receipts process, disbursement cycle, personnel and payroll procedures, asset changes, and debt and equity are learned. Finally procedures related to attest	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.

		engagements and internal auditing are reviewed.			
ACCT 2155	Principles of Fraud Examination	Provides instruction of the basic principles and theories of occupational fraud. Topics include: fraud concepts, skimming, cash larceny, billing schemes, check tampering, payroll schemes, expense reimbursement schemes, register disbursement schemes, non-cash assets fraud, corruption schemes, and accounting principles and fraud.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting. Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.
ACCT 2250	Representation and Specialized Returns	This course prepares students to take the Enrolled Agent Examination focusing on representation and specialized returns.	UN	Preferred qualifications are a doctorate degree in accounting or a doctorate degree in a related field with at least 18 graduate semester hours in Accounting.  Minimum three years of current in-field work experience.	Instructor must hold a master's degree in accounting or a master's degree with a minimum of 18 graduate semester hours in accounting. In addition, a minimum of three years of current in-field work experience is required.

## ACRP: Auto Collision Repair

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ACRP 1000	Introduction to Auto Collision Repair	This course provides instruction in procedures and practices necessary for safe and compliant operation of auto collision repair facilities. It introduces the structural configuration and identification of the structural members of various unibodies and frames used for automobiles as well as equipment and hand tools used in collision repair tasks.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 1005	Automobile Component Repair and Replacement	This course provides instruction in removal and replacement methods of a variety of non-structural cosmetic and safety features of the automobile as well as bolt-on body panels.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 1010	Foundations of Collision Repair	This course introduces the materials, tools, and operations required to repair minor collision damage and it provides instruction in non-metallic auto body repair techniques.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 1015	Fundamentals of Automotive Welding	This course introduces welding and cutting procedures used in auto collision repair. Emphasis will be placed on MIG welding techniques through a variety of different procedures.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 1017	Mechanical and Electrical Systems I	This course introduces the various mechanical and electrical systems found on vehicles typically requiring repair of damages incurred through automobile collisions.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 1019	Mechanical and Electrical Systems II	This course introduces the various electrical, heating and AC components, engine cooling, fuel and intake, restraint systems found on vehicles typically requiring repair of damages incurred through automobile collisions.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

					in-field experience in auto collision repair is required.
ACRP 2001	Introduction to Auto Painting and Refinishing	This course covers the safety procedures followed during the painting and refinishing processes used in a shop during collision repairs. Basic surface preparations will be discussed and practiced. Spray gun types and basic operations will be introduced.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 2002	Painting and Refinishing Techniques	This course covers the fundamental refinishing tasks of mixing, matching and applying various types of automotive paints. Paint defect causes and cures will be examined in depth. Final delivery detailing and tasks will also be practiced and discussed.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.
ACRP 2009	Refinishing Internship	Provides occupation-based learning opportunities for students pursuing the Paint and Refinishing specialization. Students will be mentored by qualified professional technicians as they experience working in the Automotive Collision Repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility. Topics include: sanding, priming, and paint preparation; special refinishing application; urethane enamels; tint and match colors; and detailing.	UN	Preferred qualifications are an associate's degree in auto collision or related field and five years' in-field experience in auto collision repair.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in auto collision repair is required.

# AIR: Air Conditioning Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
AIRC 1005	Refrigeration Fundamentals	Introduces the basic concepts, theories, and safety regulations and procedures of refrigeration. Topics include an introduction to OSHA, safety, first aid, laws of thermodynamics, pressure and temperature relationships, heat transfer, the refrigerant cycle, refrigerant identification, and types of AC systems.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1010	Refrigeration Principles and Practices	This course introduces the student to basic refrigeration system principles and practices, and the major component parts of the refrigeration system. Topics include refrigeration tools, piping practices, service valves, leak testing, refrigerant recovery, recycling, and reclamation, evacuation, charging, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1020	Refrigeration Systems Components	This course provides the student with the skills and knowledge and skills to install, test, and service major components of a refrigeration system. Topics include compressors, condensers, and evaporators, metering devices, service procedures, refrigeration systems and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1030	HVACR Electrical Fundamentals	This course provides an introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include AC and DC theory, electric meters, electrical diagrams, distribution systems, electrical panels, voltage circuits, code requirements, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1040	HVACR Electrical Motors	This course provides the student with the skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include diagnostic techniques, capacitors, installation procedures, types of electric motors, electric motor service, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.

AIRC 1050	HVACR Electrical Components and Controls	Provides instruction in identifying, installing, and testing commonly used electrical components in an air conditioning system.  Topics include: pressure switches, transformers, other commonly used controls, diagnostic techniques, installation procedures, solid state controls, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1060	Air Conditioning Systems Application and Installation	Provides instruction on the installation and service of residential air conditioning systems. Topics include: installation procedures, split-systems, add-on systems, packaged systems, system wiring, control circuits, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1070	Gas Heat	This course introduces principles of combustion and service requirements for gas heating systems. Topics include servicing procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1080	Heat Pumps and Related Systems	This course provides instruction on the principles, applications, and operation of a residential heat pump system. Topics include installation and servicing procedures, electrical components, geothermal ground source energy supplies, dual fuel, valves, and troubleshooting techniques.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 1090	Troubleshooting Air Conditioning Systems	This course provides instruction on the troubleshooting and repair of major components of a residential air conditioning system. Topics include troubleshooting techniques, electrical controls, air flow, the refrigeration cycle, electrical servicing procedures, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2005	Design and Application of Light Commercial Air Conditioning	Continues in-depth instruction on components and functions of air conditioning systems with emphasis on design and application of light commercial air conditioning systems. Topics include the following: refrigeration piping, hydronic piping, pump sizing, commercial load design, air flow, codes, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in commercial air conditioning applications.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2010	Light Commercial Air	Emphasizes the study of complex control systems on light commercial air conditioning	UN	Preferred qualifications are an associate's degree in air conditioning or related field	Instructor must possess appropriate licensure, certification, or additional

	Conditioning Control Systems	systems. Topics include: pneumatic controls, electronic controls, electrical controls, mechanical controls, and safety.		and five years' in-field experience in air conditioning and five years' experience in commercial air conditioning.	professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2020	Light Commercial Air Conditioning Systems Operation	Provides in-depth study of the operation of light commercial air conditioning systems. Topics include: boiler operations, refrigeration components, energy management, codes, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in air conditioning and five years' experience in commercial air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2040	Residential Systems Designs	Presents advanced refrigeration and electrical skills and theories. Topics include: heat gain and heat loss, duct design, zone control, equipment selection, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in commercial air conditioning and design.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2050	Georgia State and Local Residential Air Conditioning Codes	Presents advanced level residential air conditioning code concepts and theories. Topics include: local residential air conditioning codes, state residential air conditioning codes, gas piping, refrigeration piping, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in residential air conditioning codes.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2060	Air Distribution Systems for Residential Air Conditioning	Continues development of air systems concepts, theories, and skills. Emphasis will be placed on test and balance techniques and fan laws. Topics include: test and balance techniques, fan laws, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in residential air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2070	Commercial Refrigeration Design	Provides an increased level of concepts and theory beyond ACT 102. Students are introduced to more design theory in commercial refrigeration. Topics include: refrigeration heat calculation, equipment selection, refrigeration piping, codes, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in commercial air conditioning and design.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.
AIRC 2080	Commercial Refrigeration Application	Introduces the application of fundamental theories and concepts of refrigeration. Emphasis will be placed on equipment application and installation procedures. Topics include: equipment application, installation procedures, cycle controls, energy management, and safety.	UN	Preferred qualifications are an associate's degree in air conditioning or related field and five years' in-field experience in commercial air conditioning.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in air conditioning systems is required.

AIRC 2090	Troubleshooting	Continues to provide experience in	UN	Preferred qualifications are an associate's	Instructor must possess appropriate
	and Servicing	maintenance techniques in servicing light		degree in air conditioning or related field	licensure, certification, or additional
	Commercial	commercial refrigeration systems. Topics		and five years' in-field experience in	professional credentials relevant to the
	Refrigeration	include: system clearing, troubleshooting		commercial refrigeration.	teaching discipline. In addition, three years
		procedures, replacement of components,			in-field experience in air conditioning
		and safety.			systems is required.

#### AMCA: Advanced Machine Tool

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
AMCA 2010	Advanced Milling I	Provides instruction in advanced techniques of milling machine operations. Emphasis is placed on skill development through laboratory practice. Topics include: vertical milling, horizontal milling, compound angles, gear cutting, and safety.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2030	Advanced Milling II	Provides instruction in advanced techniques of milling machine operations and is a continuation of Advanced Milling I. Emphasis is placed on skill development through laboratory practice. Topics include: indexing; rotary table; boring, facing, and turning; straddle milling, and safety.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2050	Advanced Lathe Operations I	Provides instruction in advanced lathe operations and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include: eccentric turning, special setups, tolerance turning, and safety.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2070	Advanced Lathe Operations II	Provides instruction in advanced lathe operations and procedures and is a continuation of Advanced Lathe Operations I. Emphasis is placed on skill development through laboratory experiences. Topics include: eccentric turning, special setups, tolerance turning, and safety.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2090	Advanced Grinding Operations II	Provides instruction in advanced grinding operations and procedures and is a continuation of Advanced Grinding Operations I. Emphasis is placed on skill development through laboratory experiences. Topics include: surface grinding, cylindrical grinding, tool and cutter grinding, grinding theory, and safety.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2110	CNC Fundamentals	Provides a comprehensive introduction to computer numerical controlled (CNC) machining processes. Topics include: safety, Computer Numerical Control of machinery, setup and operation of CNC machinery,	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

AMCA 2130	CNC Mill	introduction to programming of CNC machinery, introduction to CAD/CAM.  Provides instruction for the safe operation	UN	Preferred qualifications are an associate's	in-field experience in machining and manufacturing is required. Instructor must possess appropriate
AMOA 2130	Manual Programming	and manual programming of computer numerical controlled (CNC) milling machines. Topics include: safety, calculation for programming, program codes and structure, program run and editing of programs.	ON	degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2150	CNC Lathe Manual Programming	Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) Lathes. Topics include: safety, calculations for programming, program codes and structure, program run and editing of programs.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2170	CNC Practical Applications	Provides additional instruction in part holding and fixture design. Students will also gain additional experience in print-to-part development of CNC programming. Topics include: safety, fixture design and manufacturing, and CNC part manufacturing.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.
AMCA 2190	CAD/CAM Programming	Emphasizes the development of skills in computer aided design (CAD) and computer aided manufacturing (CAM). The student will design and program parts to be machined on computer numerical controlled machines.  Topics include: hardware and software, drawing manipulations, tool path generation, program posting, and program downloading.	UN	Preferred qualifications are an associate's degree in machine tool or related field and five years' in-field experience in machining and manufacturing.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in machining and manufacturing is required.

#### ALHS: Allied Health Science

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ALHS 1011	Structure and Function of the Human Body	Focuses on basic normal structure and function of the human body. Topics include general plan and function of the human body, integumentary system, skeletal system, muscular system, nervous and sensory systems, endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, and reproductive system.	UN	Preferred qualifications are a bachelor's degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years.	Instructor must possess a diploma from an accredited institution in nursing or related health science field. In addition, must have three years of related work experience in healthcare within the past seven years.
ALHS 1015	Basic inorganic Chemistry	Introduces chemical concept principles, laws, and techniques applicable to the medical laboratory. Topics include laboratory safety, fundamental principles of chemistry, weight and measures, solutions, and basic laws of chemistry.	UN	Preferred qualifications are a master's degree in Chemistry or specific related occupational coursework, training, or certification. Three years of related work experience within the past seven years.	Baccalaureate Degree in Chemistry or specific related occupational coursework, training, or certification.
ALHS 1040	Introduction to Health Care	Introduces a grouping of fundamental principles, practices, and issues common in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include basic life support/CPR, basic emergency care/first aid and triage, vital signs, infection control/blood and air-borne pathogens.	UN	Preferred qualifications are a bachelor's degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years.	Instructor must possess a diploma from an accredited institution in nursing or related health science field. In addition, must have three years of related work experience in healthcare within the past seven years.
ALHS 1054	Spanish for Allied Health Workers	An introduction to the Spanish language and Latino culture as applied to the allied health industry. Topic include introductory conversational Spanish with emphasis on allied health industry and on medical terminology vocabulary in the areas of Spanish verbs, nouns and grammar and understanding and appreciating the aspects of Latino culture for more effective management. Additional concentration on completing physical assessments in Spanish and questioning of patients as to their health conditions, needs, ad concerns.	UN	Preferred qualifications are a baccalaureate degree in a healthcare related field with three years of collegelevel Spanish or speak Spanish as their native tongue.	Instructor must possess a baccalaureate degree in a healthcare related field with three years of college-level Spanish or speak Spanish as their native tongue.
ALHS 1060	Diet and Nutrition for	A study of the nutritional needs of the individual. Topics include nutrients, standard	UN	Preferred qualifications are a bachelor's degree from an accredited institution in nursing or related health science field.	Instructor must possess a diploma from an accredited institution in nursing or related health science field. In addition, must have

	Allied Health Sciences	and modified diets, nutrition throughout the lifespan, and client education.		Three years of related work experience within the past seven years.	three years of related work experience in healthcare within the past seven years.
ALHS 1090	Medical Terminology for Allied Health Sciences	Introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include origins (roots, prefixes, and suffixes), word building, abbreviations and symbols, and terminology related to the human anatomy.	UN	Preferred qualifications are a bachelor's degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years.	Instructor must possess a diploma from an accredited institution in nursing or related health science field. In addition, must have three years of related work experience in healthcare within the past seven years.
ALHS 1140	Health Care Communication s	Effective communication skills are essential for all health care workers. This course aims to improve understanding of the ways in which people communicate and relate to each other in various health care settings. It also seeks to promote more effective communication and relationships among health care workers, patients, and other health team members. Course content is designed for front line workers in any health care profession or setting.	UN	Preferred qualifications are a master's degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years.	Instructor must hold a baccalaureate degree from an accredited institution in nursing or related health science field. In addition, must have three years of related work experience in healthcare within the past seven years.

#### ARTS: Art

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ARTS 1101	Art Appreciation	Explores the visual arts and the relationship to human needs and aspirations. Students investigate the value of art, themes in art, the elements and principles of composition, and the materials and processes used for artistic expression. Well-known works of visual art are explored. The course encourages student interest in the visual arts beyond the classroom.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in art or art history or a doctorate degree with at least 18 graduate semester hours in any combination of visual arts classes or art history.	Instructor must hold a master's degree in art or a master's degree with at least 18 graduate semester hours in any combination of visual arts classes or art history.

# AUMF: Automated Manufacturing Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
AUMF 1110	Flexible Manufacturing Systems	This course provides instruction in manufacturing control process and work cell interfacing. Emphasis is placed on open and closed loop systems. Instruction is also given in the area of linear integrated circuits. Topics include process control, sensor and cell level interfacing, fluid level, pressure, and flow measurement, pneumatic controls, and human factors and safety.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 1120	Programmable Controllers	This course studies basic programmable controller application skills and techniques, and programmable controllers in typical environments as an element of a complex manufacturing cell. Topics also discussed will include the hands-on development of the programming, operation, and maintenance of industrial PLC systems.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 1130	Applied Hydraulics, Pneumatics, and Mechanics	Emphasizes mechanical techniques for maintaining, troubleshooting, installing, and repairing drives, conveyor systems, and valves. Topics include gas laws; pressure and force calculations; hydraulic systems vs pneumatic systems; cylinders, pressure controls, and system controls; hydraulic and pneumatic symbology; hydraulic and pneumatic system layout; interfacing hydraulic or pneumatic systems with other systems; applied mechanisms; belt, chain, and gear drives; drive train components; valves; and conveyor systems.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 1150	Introduction to Robotics	Explores basic robotic concepts. Studies robots in typical application environments. Topics include robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation and robot controllers, controller architecture in a system, robotic language programming, and human interface issues.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.

AUMF 1210	Flexible Manufacturing Systems II	This course reviews flexible manufacturing system electrical, electronic and mechanical principles by providing opportunities to plan and prepare for constructing and operating an actual flexible automated system.  Emphasis is also placed on work cell design by allowing students to work in instructor-supervised teams assembling and operating automated production system cells. Topics include flexible system planning and preparation, work cell design, prototype or demonstration work cell operation, and work cell debugging and troubleshooting.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 1560	Manufacturing Production Requirements	This course provides learners with the knowledge and skills associated with quality and productivity in the manufacturing environment. Topics include world class manufacturing, statistical process control, and problem solving.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 1580	Automated Manufacturing Skills	This course provides learners with an introduction to computerized process control and the operational requirements associated with automated machines. It provides theory on basic mechanical fundamentals, the use of hand and power tools, and basic equipment systems found in manufacturing facilities.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
AUMF 2060	Work Cell Design Laboratory	Allows students to work in instructor- supervised teams, assembling and operating an automated production system's cell. Students will select equipment, write specifications, design fixtures and interconnects, integrate systems/provide interfaces, and operate the assigned system. Topics include: work cell requirement analysis, work cell specifications, work cell assembly, work cell programming, work cell debugging/troubleshooting, and prototype or demonstration work cell operation.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.

#### AUTT: Automotive Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
AUTT 1010	Automotive Technology Introduction	Introduces basic concepts and practices necessary for safe and effective automotive shop operations. Topics include: safety procedures; legal/ethical responsibilities; general service; hand tools; shop organization, management, and work flow systems.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1020	Automotive Electrical Systems	Introduces automotive electricity, emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators and regulators, lighting system, gauges, horn, wiper/washer, and accessories.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1030	Automotive Brake Systems	Introduces brake systems theory and its application to automotive systems and anti-lock brake system (ABS) to include ABS components and ABS operation, testing, and diagnosis. Topics include: hydraulic system diagnosis and repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous brake components (wheel bearings, parking brakes, electrical, etc.) diagnosis and repair; test, diagnose, and service electronic brake control system.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1040	Automotive Engine Performance	Introduces basic engine performance systems which support and control four stroke gasoline engine operations and reduce emissions. Topics include: general engine diagnosis, computerized engine controls and diagnosis, ignition system diagnosis and repair, fuel and air induction, exhaust systems, emission control systems diagnosis and repair, and other related engine service.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1050	Automotive Suspension	Introduces students to principles of steering, suspension, wheel alignment, electronic steering, and electronic active	UN	Preferred qualifications are an associate's degree in automotive or	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the

	and Steering Systems	suspension. Topics include: general suspension and steering systems diagnosis; steering systems diagnosis and repair; suspension systems diagnosis and repair; related suspension and steering service; wheel alignment diagnosis, adjustment and repair, wheel and tire diagnosis and repair.		related field and five years' in-field experience.	teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1060	Automotive Climate Control Systems	Introduces the theory and operation of automotive heating and air conditioning systems. Students attain proficiency in inspection, testing, service, and repair of heating and air conditioning systems and related components. Topics include: a/c system diagnosis and repair; refrigeration system component diagnosis and repair; heating, ventilation, and engine cooling systems diagnosis and repair; operating systems and related controls diagnosis and repair; refrigerant recovery, recycling, and handling.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 1070	Automotive Technology Internship	This elective course will provide the student with an opportunity to relate what they have learned in the classroom and lab to a real world situation either at a place of business or at a technical college. Under the supervision of an experienced ASE certified automotive technician or their instructor, the student will obtain a greater admiration and appreciation of the material learned in the classroom and lab. The internship will also serve the function of bridging the lessons learned at school and applying that to real world situations. The suitability of the work setting will be determined by having a conference with the automotive instructor and the prospective employer. The student will have the option to take the internship program at an approved place of employment or at the college if he or she wishes and perform all the live work duties of the service writer, parts department personnel, and	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.

AUTT 2010	Automotive	technician to include writing the repair order, ordering parts (if applicable) and repairing the vehicle. Student must work a minimum of 150 hours during the semester to receive credit for this course.  This course introduces the student to	UN	Preferred qualifications are an	Instructor must possess appropriate
	Engine Repair	automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include general engine diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.		associate's degree in automotive or related field and five years' in-field experience.	licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 2020	Automotive Manual Drive Train and Axles	This course introduces basics of rear-wheel drive, front-wheel drive, and four-wheel drive line related operation, diagnosis, service and related electronic controls.  Topics include: drive shaft and half shaft, universal and constant-velocity (CV) joint diagnosis and repair; ring and pinion gears and differential case assembly; limited slip differential; drive axle shaft; four-wheel drive/all-wheel drive component diagnosis and repair. Introduces basics of front and rear-wheel drive. Clutch operation, diagnosis and service are included.  Electronic controls related to transmission/transaxles operation are discussed. Topics include: clutch diagnosis and repair; transmission/transaxles diagnosis and repair.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.
AUTT 2030	Automotive Automatic Transmissions and Transaxles	Introduces students to basic automatic transmission/transaxle theory, operation, inspection, service, and repair procedures as well as electronic diagnosis and repair. Topics include: general automatic transmission and transaxle diagnosis; in vehicle and off vehicle transmission and transaxle maintenance, adjustment and repair.	UN	Preferred qualifications are an associate's degree in automotive or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in automotive technology is required.

AUTT 2100	Automotive	This course will give students the basic	UN	Preferred qualifications are an	Instructor must possess appropriate
	Alternative	knowledge to understand Electric Drive		associate's degree in automotive or	licensure, certification, or additional
	Fuel Vehicles	Vehicles, Hybrid Electric Vehicles, and		related field and five years' in-field	professional credentials relevant to the
		Alternative Fuel Vehicles. The course will		experience.	teaching discipline. In addition, three years
		cover components, operation, precautions,			in-field experience in automotive technology
		and diagnostics of BEV, HEV, Fuel Cell			is required.
		Vehicles, and other fuel vehicles. The			
		student will become familiar with the			
		unique hybrid systems and repair			
		procedures on various hybrid vehicles. This			
		course is a program elective which can be			
		used as a substitute for AUTT 1070			
		(Internship).			

# BARB: Barbering for Cosmetologists

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
BARB 1000	Introduction to	Introduction to Barber/Styling Implements is	UN	Preferred qualifications are a diploma in	Instructor must possess a diploma in
	Barber/Styling	designed to give an overview of the barbering		cosmetology. In addition, instructor must	cosmetology. In addition, must have current
	Implements	profession. Students are also taught the		have current master cosmetologist license,	master cosmetologist license, barbering
		fundamentals of each barber/styling		barbering license and minimum three years	license and minimum three years of in-field
		implement. Emphasis will be placed on the		of in-field work experience.	work experience.
		maintenance and care of each implement.			
		Topics include: Barbering history, personality			
		development, professional barbering ethics,			
		and professional barbering image, safety,			
		and reception and telephone techniques,			
		nomenclature, types and sizes, proper use			
		and care, and maintenance.			
BARB 1010	Science: Sterilization,	Introduction to Barber/Styling Implements is	UN	Preferred qualifications are a diploma in	Instructor must possess a diploma in
	Sanitation, and	designed to give an overview of the barbering		cosmetology. In addition, instructor must	cosmetology. In addition, must have current
	Bacteriology	profession. Students are also taught the		have current master cosmetologist license,	master cosmetologist license, barbering
		fundamentals of each barber/styling		barbering license and minimum three years	license and minimum three years of in-field
		implement. Emphasis will be placed on the		of in-field work experience.	work experience.
		maintenance and care of each implement.			
		Topics include: Barbering history, personality			
		development, professional barbering ethics,			
		and professional barbering image, safety,			

		and reception and telephone techniques, nomenclature, types and sizes, proper use and care, and maintenance.			
BARB 1022	Haircutting and Shampooing I	This course introduces the theory and skills necessary to apply basic haircutting techniques. Safe use of haircutting implements are stressed. The course also introduces the fundamental theory and skills required to shampoo hair. Laboratory training includes shampooing a live model. Topics include patron preparation, haircutting terminology, safety and sanitation, implements, basic haircutting techniques, shampoo chemistry, and shampoo procedures.	UN	Preferred qualifications are a diploma in cosmetology. In addition, instructor must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.
BARB 1024	Haircutting and Shampooing II		UN	Preferred qualifications are a diploma in cosmetology. In addition, instructor must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.
BARB 1030	Haircutting/Basic Styling	Continues the theory and application of haircutting techniques and introduces hairstyling. Topics include: introduction to styling, client consultation, head and hair analysis, style cutting techniques, and implements for style cutting and tapering techniques.	UN	Preferred qualifications are a diploma in cosmetology. In addition, instructor must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license, barbering license and minimum three years of in-field work experience.
BARB 1040	Shaving	Introduces the theory and skills necessary to prepare and shave a patron. Simulated shaving procedures will precede practice on	UN	Preferred qualifications are a diploma in cosmetology. In addition, instructor must have current master cosmetologist license,	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license, barbering

live models. Topics include: patron	barbering license and minimum three years	license and minimum three years of in-field
preparation, beard preparation, shaving	of in-field work experience.	work experience.
techniques, once-over shave techniques, and		
safety precautions.		

# BIOL: Biology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
BIOL 1111	Biology I	Provides an introduction to basic biological concepts with a focus on living cells. Topics include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology.	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 1111L	Biology Lab I	Selected laboratory exercises paralleling the topics in BIOL 1111. The laboratory exercises for this course include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology.	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 2113	Anatomy and Physiology I	Introduces the anatomy and physiology of the human body. Emphasis is placed on the development of a systemic perspective of anatomical structures and physiological processes. Topics include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous and sensory systems.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 2113L	Anatomy and Physiology Lab I	Selected laboratory exercises paralleling the topics in BIOL 2113. The laboratory exercises for this course include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous sensory systems.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 2114	Anatomy and Physiology II	Continues the study of the anatomy and physiology of the human body. Topics include the endocrine system, cardiovascular system, blood and lymphatic system, immune system,	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.

		respiratory system, digestive system, urinary system, and reproductive system.		qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	
BIOL 2114L	Anatomy and Physiology Lab II	Selected laboratory exercises paralleling the topics in BIOL 2114. The laboratory exercises for this course include the endocrine system, cardiovascular system, blood and lymphatic system, immune system, respiratory system, digestive system, urinary system, and reproductive system.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 2117	Introductory Microbiology	Provides students with a foundation in basic microbiology with emphasis on infectious disease. Topics include microbial diversity, microbial cell biology, microbial genetics, interactions and impact of microorganisms and humans, microorganisms and human disease.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.
BIOL 2117L	Introductory Microbiology Lab	Selected laboratory exercises paralleling the topics in BIOL 2117. The laboratory exercises for this course include microbial diversity, microbial cell biology, microbial genetics, interactions and impact of microorganisms and humans, and microorganisms and human disease.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in biology or a doctorate degree with at least 18 graduate semester hours in biology with an emphasis in anatomy and physiology. Other preferred qualifications include Medical Doctor (MD), Doctor of Chiropractic (DC), Doctor of Veterinary Medicine (DVM).	Instructor must hold a master's degree in biology or a master's degree with at least 18 graduate semester hours in biology.

# BFMT: Building and Facilities Maintenance

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
BFMT 1030	Fundamentals of Structured Maintenance	Provides introductory skills in basic building repair and maintenance. Topics include: carpentry and cabinet repairs, tile and floor repairs, paints and finishes, lab and shop safety, building codes, handicap accessibility, conduit installation, and waterproofing.	UN	Preferred qualification are an associate's degree in construction or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in building and facility maintenance is required.
BFMT 1050	Fundamentals of Plumbing	Provides introductory skills in basic plumbing. Topics include: basic pipe sizing, fitting identification and terminology, pipe joining, valve identification, plumbing repairs, and lab and shop safety.		Preferred qualification are an associate's degree in construction or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in building and facility maintenance is required.

# **BUAS: Building Automated Systems**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
BUAS 1010	BAS Fundamentals	BAS Fundamentals provides an overview of the BAS industry in general. Topics include history, BAS manufacturers & contractors, industry scope & trends, careers in BAS, overview of point types, required skills, types of BAS systems, and general BAS architecture.	UN	automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.

# BUSN: Business Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
BUSN 1100	Introduction to Keyboarding	This course introduces the touch system of keyboarding placing emphasis on correct techniques. Topics include: computer hardware, computer software, file management, learning the alphabetic keyboard, the numeric keyboard and keypad, building speed and accuracy, and proofreading. Students attain a minimum of 25 GWAM (gross words a minute) on 3-minute timings with no more than 3 errors.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1180	Computer Graphics and Design	(Elective course not offered but could be transferred into the Business Administrative Technology program.) Introduces how to design and transmit electronic communications; create graphics on-line; and insert animation and sound to computer-generated charts, graphs, and diagrams.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1190	Digital Technologies in Business	Provides an overview of digital technology used for conducting business. Students will learn the application of business activities using various digital platforms.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1200	Machine Transcription	Emphasizes transcribing mailable documents from dictation using word processing software. Topics include: equipment and supplies maintenance and usage, work area management, transcription techniques, productivity and accuracy, proofreading, and language arts skills.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1210	Electronic Calculators	Develops skill in the use of electronic calculators to interpret, solve, and record results of various types of problems involving the four arithmetic processes.  Topics include: machine parts and features,	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.

		touch system techniques, and arithmetic applications.			
BUSN 1220	Telephone Training	Familiarizes the student with the proper use of current telephone technology to include equipment, techniques, and attributes.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1230	Legal Terminology	(Elective course not offered but could be transferred into the Business Administrative Technology program.) This course introduces the spelling, pronunciation, definition, and usage of basic legal terms. The course broadly covers general law terms as well as specialized legal terminology. Topics include: word origins, word building, abbreviations and symbols, correct spelling, pronunciation, and meanings of terminology related to the court system, contracts, family law, real estate, litigation, wills/probate, bankruptcy, and other areas of the law.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1240	Office Procedures	Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, workplace mail, records management, travel/meeting arrangements, electronic mail, and workplace documents.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1250	Records Management	(Elective course not offered but could be transferred into the Business Administrative Technology program.)Introduces records management concepts for use in any office environment. Topics include: Basic Records Management Concepts; Alphabetic, Numeric, Subject, and Geographic Filing; and Records Retention, Transfer, and Disposition of Records.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1300	Introduction to Business	Introduces organization and management concepts of the business world and in the office environment. Topics include business in a global economy, starting and	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years'	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must

		organizing a business, enterprise management, marketing strategies and financial management.		experience in office procedures and MS Office Suite software.	have three years' experience in an office setting using MS Office Suite software.
BUSN 1310	Introduction to Business Culture	(Elective course not offered but could be transferred into the Business Administrative Technology program.) Provides skills and attitudes necessary to function effectively both professionally and interpersonally in the workplace. Topics include: health and wellness; exercise; stress, time, and money management; work ethics; wardrobe on the job; workplace communications; and business entertainment, travel, and international culture.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1320	Business Interaction Skills	(Elective course not offered but could be transferred into the Business Administrative Technology program.) This course equips participants with the tools to communicate and interact more effectively in person, in writing and on the telephone with both internal and external customers.  Participants also learn how to work in teams to create a collaborative environment for accomplishing goals. This course consist of the following: language of business, communication skills, working with information, business writing, team and collaborative skills, and resolving interpersonal conflict.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1330	Personal Effectiveness	This course focuses on the skills needed to be effective in the corporate environment. The participants learn the importance of effectively managing time, stress and change as they relate to work behavior and quality of work. Topics include: time management, stress management, interview skills/job development, resume writing, and managing change.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1340	Customer Service Effectiveness	(Elective course not offered but could be transferred into the Business Administrative Technology program.) This course emphasizes the importance of customer service throughout all businesses. Topics	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years'	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.

		include: customer service challenges and problem solving; strategies for successful customer service; effective communication and dealing with difficult customers; empowerment, motivation, and leadership; customer retention and satisfaction measurement; and excellence in customer service.		experience in office procedures and MS Office Suite software.	
BUSN 1400	Word Processing Applications	This course covers the knowledge and skills required to use word processing software through course demonstrations, laboratory exercises and projects. Minimal document keying will be necessary as students will work with existing documents to learn the functions and features of the word processing application. Topics and assignments will include: word processing concepts, customizing documents, formatting content, working with visual content, organizing content, reviewing documents, sharing and securing content.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1410	Spreadsheet Concepts and Applications	This course covers the knowledge and skills required to use spreadsheet software through course demonstrations, laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts, creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually and, collaborating and securing data.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1420	Database Applications	This course covers the knowledge and skills required to use database management software through course demonstrations, laboratory exercises and projects. Topics and assignments will include: database concepts, structuring databases, creating and formatting database elements, entering and modifying data, creating and modifying queries, presenting and sharing data and, managing and maintaining databases.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.

BUSN 1430	Desktop Publishing and Presentation Applications	This course covers the knowledge and skills required to use desktop publishing (DTP) software and presentation software to create business publications and presentations. Course work will include course demonstrations, laboratory exercises and projects. Topics include: desktop publishing concepts, basic graphic design, publication layout, presentation design, and practical applications.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 1440	Document Production	Reinforces the touch system of keyboarding placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents. Topics include: reinforcing correct keyboarding technique, building speed and accuracy, formatting business documents, language arts, proofreading, and work area management.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2160	Electronic Mail Applications	This course provides instruction in the fundamentals of communicating with others inside and outside the organization via a personal information management program. Emphasizes the concepts necessary for individuals and workgroups to organize, find, view, and share information via electronic communication channels. Topics include: Internal and External Communication, Message Management, Calendar Management, Navigation, Contact and Task Management, and Security and Privacy.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2170	Web Page Design	This course provides instruction in the concepts necessary for individuals to create and manage professional quality web sites. Topics include: Web Site Creation, Web Page Development and Design, Hyper link Creation, Test, and Repair, Integration, Web Site Navigation, and Web Site Management.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2180	Speed and Accuracy Keying	(Elective course not offered but could be transferred into the Business Administrative Technology program.) Further develops	UN	Preferred qualifications are a master's degree in business, business management, business administration. In	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must

		speed and accuracy through analysis of keying and prescribed practice drills. Topics include: building speed and accuracy and straight-copy proofreading.		addition, instructor must have three years' experience in office procedures and MS Office Suite software.	have three years' experience in an office setting using MS Office Suite software.
BUSN 2190	Business Document Proofreading and Editing	Emphasizes proper proofreading and editing for business documents. Topics include: applying proofreading techniques and proofreaders marks with business documents; proper content, clarity, and conciseness in business documents; and business document formatting.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2200	Office Accounting	Introduces fundamental concepts of the accounting cycle for a sole proprietor service business. Topics include: accounting equation, analyzing business transactions, journalizing and posting transactions, accounts receivable and accounts payable subsidiary ledgers, financial statements, cash control, and payroll concepts.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2210	Applied Office Procedures	This course focuses on applying knowledge and skills learned in prior courses taken in the program. Topics include: communications skills, telecommunications skills, records management skills, office equipment/supplies, and integrated programs/applications. Serves as a capstone course.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2220	Legal Administrative Procedures	(Elective course not offered but could be transferred into the Business Administrative Technology program.) Emphasizes essential skills required for the legal office. Topics include: legal terminology, preparation of legal documents and correspondence, ethics, and legal office tasks.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2230	Office Management	(Elective course not offered but could be transferred into the Business Administrative Technology program.) Provide students with an overview of management concepts, styles, and skills. Topics include: management styles, leadership traits, ergonomics/workflow, communication	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.

		channels, business ethics, supervisory techniques, and job performance evaluation techniques.			
BUSN 2240	Business Administrative Assistant Internship I	(Elective course not offered but could be transferred into the Business Admin. Technology program.) Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.
BUSN 2250	Business Administrative Assistant Internship II	(Elective course not offered but could be transferred into the Business Admin. Technology program.) Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.	UN	Preferred qualifications are a master's degree in business, business management, business administration. In addition, instructor must have three years' experience in office procedures and MS Office Suite software.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have three years' experience in an office setting using MS Office Suite software.

# CABT: Cabinetmaking

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CABT 1080	Cabinet Design & Layout	This course provides instruction in the planning, design and layout of cabinet units. Emphasis will be placed on adherence to blueprint specs. Topics include: parts identification, styles, and floor plan arrangements, estimation procedures, layout to specs, shop working sketches shop management and CAD.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in cabinetry is required.
CABT 1114	Cabinet Components	Instruction provides application of tool and equipment uses techniques to the task of cutting out cabinet components. Topics include: equipment safety, frame member, cutting, shelving cutting, drawer components & door cutting and material optimization.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience cabinetry is required.
CABT 1116	Cabinet Assembly	Provides instruction in the fundamental procedures used for assembly of cabinet bases, wall units and face frames.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in cabinetry is required.

#### CARP: Carpentry

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CARP 1070	Site Layout, Footings and Foundations	Introduces the concepts and practices of basic site layout, footings, and foundation construction. Students will use layout equipment for on-site laboratory practice. Topics include: zoning restrictions and codes, batter board installation, builder's level, squaring methods, footings, plot plan interpretation, materials estimation, foundation types, foundation forms, edge forms, waterproofing, soil testing and excavation.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in carpentry is required.
CARP 1105	Floor and Wall Framing	This course provides instruction in floor and wall materials and materials estimation, framing production of walls and partitions, and framing production of flooring.  Emphasis is placed on practical application of skills. Topics include estimation and computation procedures, rough layouts, and layout and installation procedures.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in carpentry is required.
CARP 1110	Ceiling and Roof Framing Covering	This course provides instruction in the theory and practical application of skills required to construct ceiling and roof framings and coverings. Topics include systems and materials identification, layout procedures, installation procedures, cost and materials estimation, and safety precautions.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in carpentry is required.
CARP 1112	Exterior Finishes and Trim	Introduces materials identification, estimation, and installation procedures for exterior finish and trim materials to include window and door units. Emphasis will be placed on competency development through laboratory practice. Topics include: doors and windows, siding types, materials identification, materials estimation, and installation procedures.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in carpentry is required.
CARP 1114	Interior Finishers I	This course introduces the procedures and methods for identifying materials, cost estimating, and installation of interior finishes and trim. Topics include materials	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the

		identification; cost estimating, trim, insulation, doors, gypsum wallboard, and paneling used in finishing jobs.			teaching discipline. In addition, three years in-field experience in carpentry is required.
CARP 1190	Interior Finishes II	Introduces finish floor coverings for residential construction projects. Emphasis will be placed on identification, estimation and installation of various types of hard and soft floor coverings. This course introduces design, construction and installation of fireplace trim. The course also introduces locating and installing cabinets and millwork. Topics include: identification of flooring materials, flooring estimation procedures, flooring installation procedures, fireplace trim, cabinets and millwork.	UN	Preferred qualifications are an associate's degree in carpentry or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in carpentry is required.

#### CAVT: Cardiovascular Technology

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Course Prefix	Course Title	Course Description	Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CAVT 1002	Medical Physics	In this course the student is introduced to theory of medical instrumentation and physics found in the cardiovascular sciences.  Performance of laboratory procedure is used to reinforce understanding of biomedical applications of equipment and uses as well as proper technique in safety. Topics include: electrical circuit theory, hospital equipment safety and medical instruments and equipment.	UN	Preferred qualifications are a master's degree in cardiovascular technology or related field from a nationally or regionally accredited college or university. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 1030	Electrophysiology and Cardiac Anatomy	Introduces the concepts essential in the performance and interpretation of 12 lead EKG and heart sounds. As a study of the anatomy, physiology, structural relationships, and the pathophysiology of the human heart and vascular system, the course concentrates on specialized terminology, cardiac and vascular anatomy, and electrophysiology. Topics include: heart anatomy, circulatory system, heart electrical system, physical heart defects, electrocardiograph, preparation for various electrocardiographic examinations, physical principles and pathophysiology of heart sounds, exercise physiology, stress testing, Holter monitoring, cardiac pacemakers, and cardiac rehabilitation programs. Laboratory experiences will be provided.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.

CAVT 1100	Cardiac Catheterization Fundamentals	Provides an overview of cardiovascular invasive diagnosis and therapy. Includes an introduction of the cardiac catheterization lab. Topics include: x-ray therapy, safety, positioning, coronary arteriography, pharmacology, invasive cardiac measurements and calculations, and specialty procedures.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 1020	Cardiac Catheterization I	This course includes an intensive study of the role of the Cardiovascular Technology student in the various diagnostic invasive cardiac catheterization procedures such as right and left heart procedures, temporary pacemakers, Swan-Ganz catheters, and coronary angioplasty. This includes identification of angiographic images and data as well as basic interventional techniques. Topics include: introduction to cardiac catheterization, medical legal ethics in the cardiac catheterization lab, angioplastic data, hemodynamic principles, special techniques in cardiac catheterization, and interventional techniques. Additional topics include emergency life support, cardiac pharmacology, and cardiac pathology and advance cardiac life support.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 1021	Cardiac Catheterization Clinical I	Clinical prep will provide hands-on experience and will serve as an introduction to the competencies, rotations, and expectations of the student while in the cardiac catheterization lab in a student capacity. Topics include:	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3)	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required.

		ethical and legal behavior in the catheterization laboratory, environmental safety in the catheterization laboratory, clinical orientation, monitoring skills, and basic life support. The student will perform and complete various competencies to prepare for the clinical experience in each rotation.		years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 1080	Advanced Hemodynamics and Cardiac Physiology	The student is introduced to various forms of invasive monitoring. Various forms of invasive access are studied, including right and left heart catherization, arterial line setups, and appropriate care. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. Also provides an overview of cardiovascular physiology and pathophysiology. Topics include: hemodynamics, aseptic technique, infection control, biochemistry of the cardiac muscle, conduction system, electrocardiogram, pathophysiology of acquired diseases, embryological development, and pathophysiology of congenital diseases.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 1090	Drug Calculations and Administration	Uses basic mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, basic pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and

				treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 2020	Cardiac Catheterization II	An intensive study of the role of the CV Technologist in the various invasive Cardiac Catheterization procedures such as: Right and Left heart catheterization, temporary pacemakers, Swan-Ganz, and coronary angioplasty, Topics include: general principles of acid-base and blood gas collection, interpretation and analogies, cardiac surgery and peripheral vascular disease, basic principles of electrophysiology and pacemaker technology, congenital heart disease and corrective surgeries, and basic hemodynamic review. Lab experience will be provided.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 2030	Cardiac Catheterization Clinical II	Provides hands-on experience in performing invasive cardiac catheterization procedures while being monitored by a registered preceptor. Topics include: policies and procedures class, ethical and legal behavior in the catheterization laboratory, scrubbing skills, monitoring skills, circulating skills, and advanced cardiac life support (ACLS) certification.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology,

				cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 2050	Cardiac Catheterization Clinical III	The course provides a culminating clinical experience which allows students to analyze information and procedural instruction provided throughout the program. Offers an intensive study of the hands-on experience in role of the cardiac catheterization technologist in advanced cardiovascular procedures related to the catheterization lab while being monitored by a registered preceptor with emphasis on continuing to develop skills in scrubbing, monitoring and circulating during diagnostic and interventional procedures. Topics include: professional conduct, infection control, scrubbing skills, monitoring skills and circulation skills.	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.
CAVT 2070	Cardiac Catheterization Registry Review I	An intensive review to prepare the student for the national examination. Topics include: cardiovascular anatomy and physiology, cardiovascular disease and pathophysiology, hemodynamic data, diagnostic techniques and patient care assessments. C	UN	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three (3) years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic and specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.	Associate of Applied Science Degree in Cardiovascular Technology or a related field from a nationally or regionally accredited college or university is required. Three years Diagnostic and Interventional Cardiac Catheterization experience which includes: Cath Lab radiographic & specialty equipment and procedures, diagnosis and treatment of heart disease, heart rhythm interpretation, and other modalities and procedures such as open heart surgery, electrophysiology, echocardiography and cardiac rehabilitation. Current, unencumbered Registered Cardiovascular Invasive Specialist (RCIS) credential.

#### CCSP: Central Sterile Processing

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CSSP 1010	Central Sterile Supply Processing Technician	This course provides an overview of the Central Sterile Processing and Distribution profession and develops the fundamental concepts and principles necessary to successfully participate as an entry level Central Sterile Processing Technician. Emphasis will be placed on the profession of Central Sterile Processing, basic sciences and related subjects, infection control, aseptic technique, equipment management, sterilization, instrumentation and supplies, legal issues, inventory management, safety, quality assurance, professional development and healthcare trends. Students completing this course will be eligible to apply to take the International Association of Healthcare Central Service Materiel Management (IAHCSMM) certification exam.	UN	Associate's degree in healthcare science or related field. In addition, certification through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.	Instructor must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.
CSSP 1020	Central Sterile Supply Processing Technician Practicum I	This course complements CSSP 1010 Central Sterile Supply Processing Technician, providing the practical hours necessary to meet the International Association of Healthcare Central Service Materiel Management (IAHCSMM) requirements to sit for the certification examination.	UN	Associate's degree in healthcare science or related field. In addition, certification through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.	Instructor must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.
CSSP 1022	Central Sterile Supply Processing Technician Practicum II	This course complements CSSP 1010 Central Sterile Supply Processing Technician, providing the practical hours necessary to meet the International Association of Healthcare Central Service Materiel Management (IAHCSMM) requirements to sit for the certification examination.	UN	Associate's degree in healthcare science or related field. In addition, certification through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.	Instructor must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Three years of current Central Sterile Processing experience.

# CHEM: Chemistry

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CHEM 1151	Survey of Inorganic Chemistry	Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include measurements and units, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in chemistry or a doctorate degree with at least 18 graduate semester hours in chemistry.	Instructor must hold a master's degree in chemistry or a master's degree with at least 18 graduate semester hours in chemistry.
CHEM 1151L	Survey of Inorganic Chemistry Lab	Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in chemistry or a doctorate degree with at least 18 graduate semester hours in chemistry.	Instructor must hold a master's degree in chemistry or a master's degree with at least 18 graduate semester hours in chemistry.
CHEM 1211	Chemistry I	Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, and stoichiometry and gas laws.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in chemistry or a doctorate degree with at least 18 graduate semester hours in chemistry.	Instructor must hold a master's degree in chemistry or a master's degree with at least 18 graduate semester hours in chemistry.
CHEM 1211L	Chemistry Lab I	Selected laboratory exercises paralleling the topics in CHEM 1211. The laboratory exercises for this course include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in chemistry or a doctorate degree with at least 18 graduate semester hours in chemistry.	Instructor must hold a master's degree in chemistry or a master's degree with at least 18 graduate semester hours in chemistry.

#### CIST: Computer Information Systems

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CIST1001	Computer Concepts	Provides an overview of information systems, computers and technology. Topics include: Information Systems and Technology Terminology, Computer History, Data Representation, Data Storage Concepts, Fundamentals of Information Processing, Fundamentals of Information Security, Information Technology Ethics, Fundamentals of Hardware Operation, Fundamentals of Networking, Fundamentals of Software Design Concepts, Fundamentals of Software Design Concepts, Fundamentals of Software, (System and Application), System Development Methodology, Computer Number Systems conversion (Binary and Hexadecimal), Mobile computing.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years' industry experience.
CIST 1122	Hardware Installation and Maintenance	This course serves to provide students with the knowledge of the fundamentals of computer technology, networking, and security along with the skills required to identify hardware, peripheral, networking, and security components with an introduction to the fundamentals of installing and maintaining computers. Students will develop the skills to identify the basic functionality of the operating system, perform basic troubleshooting techniques, utilize proper safety procedures, and effectively interact with customers and peers. This course is designed to help prepare students for the CompTIA A+ certification examination.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1130	Operating Systems Concepts	Provides an overview of modern operating systems and their use in home and small business environments. Activities will utilize the graphical user interface (GUI) and command line environment (CLI This will include operating system fundamentals; installing, configuring, and upgrading	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

		operating systems; managing storage, file systems, hardware and system resources; troubleshooting, diagnostics, and maintenance of operating systems; and networking.		certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	
CIST 1200	Database Management	Provides an overview of the skills and knowledge of database application systems which are used in business government and industry. Topics include: history, database terminology and concepts, database system logical organization, data manipulation, database design concepts, models, normalization, Entity Relationship diagramming, physical database, networking and databases, and database security.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1210	Introduction to Oracle Databases	This course provides an introduction to the Oracle database management system platform and to Structured Query Language (SQL). Topics include database vocabulary, normalization, Oracle DML and DDL statements, SQL Statements, views and constraints. **Course will be accepted when transferred in from another institution with a grade of a C or better but may not be offered at this institution.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1220	Structured Query Language (SQL)	Includes basic database design concepts and solving database retrieval and modification problems using the SQL language. Topics include: database Vocabulary, Relational Database Design, Date retrieval using SQL, Data Modification using SQL, Developing and Using SQL Procedures.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1305	Program Design and Development	An introductory course that provides problem solving and programming concepts for those that develop user applications. An emphasis is placed on developing logic, troubleshooting, and using tools to develop solutions. Topics include: problem solving and programming concepts, structured	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications

CIST 1401	Computer Networking	programming, the four logic structures, file processing concepts, and arrays.  Introduces networking technologies and prepares students to take the CompTIA's	UN	certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.  Preferred qualifications are a master's degree in computer science, or related	for this subject. In addition, Instructor must have a minimum of three years industry experience.  Instructor must hold a master's degree in computer science, or related degree with at
	Fundamentals	broad-based, vendor independent networking certification exam, Network +. This course covers a wide range of material about networking, including local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: basic knowledge of networking technology, network media and topologies, network devices, network management, network tools and network security.		degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 1510	Web Development I	Explores the concepts of Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), XML, and XHTML following the current standards set by the World Wide Web Consortium (W3C) for developing interlinking web pages that include graphical elements, hyperlinks, tables, forms, and image maps.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 1520	Scripting Technologies	Students learn how to use the features and structure of a client side scripting language, explore the features on server side scripting and develop professional web applications that include special effects, interactive, dynamic, validated, and secure forms.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition,	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

				instructor must have a minimum of three years' industry experience.	
CIST 1530	Web Graphics I	Students will explore how to use industry standard or open source graphics software programs to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays. The course includes a final project that allows students to develop a Web page/site using the chosen software.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1540	Web Animation I	In this course, students will use scripting and the latest in industry standard or open source software to cover the creation and manipulation of images and animations.  Topics include graphic types, organizational methods, drawing tools, beginning to complex object modeling and an introduction to scripting.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 1601	Information Security Fundamentals	This course provides a broad overview of information security. It covers terminology, history, security systems development and implementation. Student will also cover the legal, ethical, and professional issues in information security.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 2122	A+ Preparation	This course serves to prepare students to complete the CompTIA A+ certification examination. It will provide students with advanced knowledge of computer technology, networking, and security fundamentals. Students will possess the skills required to identify hardware, peripherals, networking components, and security components. Students will understand basic operating system	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

CIST2130	Desktop support Concepts	functionality and troubleshooting methodology while practicing proper safety procedures and effective interaction skills with customers and peers.  This course is designed to give an overview to Desktop Support Management. The learning outcomes include: computer support specialists soft skills, computer support service management, computer support operations and computer support job setting.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition,	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2222	Administering	Provides instruction on how to administer a	UN	instructor must have a minimum of three years' industry experience.  Preferred qualifications are a master's	Instructor must hold a bachelor's degree in
	Microsoft SQL Server	Microsoft SQL server. Topics include: planning, installation and configuration, configuring and managing security, managing and maintaining data, monitoring and optimization, and troubleshooting.		degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2224	Designing and Implementing Databases with Microsoft (SQL) Server	Shows how to design and implement a database solution using Microsoft SQL Server. Topics include: developing logical data model and physical design, creating data services, creating physical database, and maintaining a database.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2311	Visual Basic I	Visual Basic I introduces event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsoft's Visual Studio development environment. Topics include numeric data types and variables, decision making structures,	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications

		arrays, validating input with strings and functions, repetition and multiple forms, test files, lists and common dialog controls.		certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 2312	Visual Basic II	Visual Basic II teaches client-server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational and XML databases. Advanced features of Visual Basic are explored.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2341	C# Programming I	This course is designed to teach the basic concepts and methods of objected-oriented design and C#.Net programming. Use practical problems to illustrate C#.Net application building techniques and concepts. Develop an understanding of C#.Net vocabulary. Create an understanding of where C#.Net fits in the application development landscape. Create an understanding of the C#.Net Development Environment, Visual Studio and how to develop, debug, and run C#.Net applications using the Visual Studio. Continue to develop student's programming logic skills. Topics include: C#.NET Language History, C#.NET Variable Definitions, C#.NET Control Structures, C#.NET Functions, C#.NET Classes, C#.NET Objects, and C#.NET Graphics.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2342	C# Programming II	This course is an intermediate course in C#.NET Programming. It is assumed that the student knows the C#.NET syntax as well as basic object oriented concepts. Intermediate C#.NET teaches clientserver systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition,	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

		relational databases. Advanced features of C# windows programming are explored.		instructor must have a minimum of three years' industry experience.	
CIST 2351	PHP Programming I	An introductory PHP programming course that teaches students how to create dynamic websites. Topics include: PHP and basic web programming concepts, installing PHP, embedding PHP in HTML, variables and constants, operators, forms, conditional statements, looping, arrays, and text files.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 2352	PHP Programming II	Reinforces and extends the concepts learned in PHP Programming I. Topics include: Database retrieval and updating, multiple form handling, regular expressions, and advanced array processing.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2361	C++ Programming I	Provides opportunity to gain a working knowledge of "C++" programming. Includes creating, editing, executing, and debugging "C++" programs of moderate difficulty. Topics include: basic "C++" concepts, simple I/O and expressions, I/O and control statements, arrays, pointers, structures, managing data and developing programs.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 2362	C++ Programming II	Develops skills for the programmer to write programs using the language of C++. Emphasis is placed on utilizing the added features of C++, which will be added to the skills mastered in Introduction to C++ Programming. Topics include: objects, classes, inheritance, overloading, polymorphism, streams, containers, and exceptions.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition,	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

				instructor must have a minimum of three years' industry experience.	
CIST 2371	Java Programming I	This course is designed to teach the basic concepts and methods of objected-oriented design and Java programming. Use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK. Continue to develop student's programming logic skills. Topics include: JAVA Language History, JAVA Variable Definitions, JAVA Control Structures, JAVA Methods, JAVA Classes, JAVA Objects, and JAVA Graphics.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields.  Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, Instructor must have a minimum of three years industry experience.
CIST 2372	Java Programming II	This course is an intermediate course in Java Programming. It is assumed that the student knows the Java syntax as well as basic objects oriented concepts. The student will use classes and objects provided by the core Java API. They will use these classes to accomplish tasks such as Database access, File access, exception handling, running threads, using sockets to talk across a network, and remotely calling methods using RMI techniques.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2373	Java Programming III	This course is a course in building Web Applications using Java Enterprise Edition (JEE). It is assumed that the student knows Java Standard Edition as the concepts and techniques build on that foundation. The student will install Web, Application and Database servers. The student will learn to build Web Applications using JEE technologies, such as Servlets, Java Server Pages and Enterprise JavaBeans.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2381	Mobile Application Development	This course explores mobile guidelines, standards, and techniques. This course includes design and development	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with

		techniques for multiple mobile devices, platforms, and operating systems. Students will develop mobile applications using state of practice development tools, languages and devices.		hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	either three years of industry experience or industry certifications for this subject.
CIST2382	Mobile Application Development II	This course provides an opportunity to develop a working knowledge of mobile programming that Includes creating, editing, executing, and debugging mobile applications. Students learn how to use mobile development technologies and toolkits to develop mobile applications.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2411	Microsoft Client	Provides the ability to implement, administrator, and troubleshoot Windows Professional Client as a desktop operating system in any network environment.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2412	Microsoft Server Directory Services	Provides students with knowledge and skills necessary to install, configure, manage, support and administer Windows Server. Topics include server deployment, server management, and monitor and maintain servers, application and data provisioning, and business continuity and high availability.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2413	Microsoft Server Infrastructure	Provides students with knowledge and skills necessary to install, configure, manage, support and administer Microsoft Directory Services.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with

				fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	either three years of industry experience or industry certifications for this subject.
CIST 2414	Microsoft Server Administrator	Provides students with knowledge and skills necessary to install, configure, manage, support and administer a Microsoft network infrastructure.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2420	Microsoft Exchange Server	Provides students with the knowledge and skills necessary to install, configure, manage, support and administer Microsoft Exchange Server.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST2431	UNIX/LINUX Introduction	This course introduces the UNIX/Linux operating system skills necessary to perform entry-level user functions. Topics include: history of UNIX/Linux, login and logout, the user environment, user password change, the file system, hierarchy tree, editors, file system commands as they relate to navigating the file system tree, UNIX/Linux manual help pages, using the UNIX/Linux graphical desktop, and command options. In addition, the student must be able to perform directory and file displaying, creation, deletion, redirection, copying, moving, linking files, wildcards, determining present working directory and changing directory locations.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

CIST2432	UNIX/Linux Server	This course covers UNIX/Linux operating system administration skills necessary to perform administrative functions. Topics include: installing UNIX/Linux, configuring and building a custom kernel, adding and removing software packages, managing run levels, managing users and groups, implementing security permissions, introduction to shell programming, managing and fixing the file system, managing memory and swap space, managing and scheduling jobs, managing system logs, understanding the boot process, system configuration files, file backup and restore, file compression, fault tolerance, and printing.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST2433	UNIX/Linux Advanced Server	This course covers UNIX/Linux operating system advanced administration skills necessary to perform advanced administrative functions. Topics include: understanding UNIX/Linux networking, managing network printing, configuring and troubleshooting TCP/IP on UNIX/Linux, configuring DHCP, DNS, a Web server, an FTP server, an E-mail server, and understanding NIS (yp) and NFS. Also, includes the following: understanding advanced security issues such as firewalls and NAT, using network commands, use of graphical system such as X Windows, sharing files and printers, and advanced shell programming.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST2434	UNIX/Linux Scripting	Course covers UNIX/Linux shell programming techniques necessary for UNIX/Linux System Administrators to understand and create shell script programs in a UNIX/Linux environment. Topics include: shell variables, running shell script program, conditional processing, looping structures, arithmetic operators, logical operators such as AND, OR, and NOT, positional parameters and process variables, redirection, piping and standard	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

		error, use of backslash, quotes and back quotes.			
CIST 2451	Cisco Network Fundamentals	This course provides students with classroom and laboratory experience in current and emerging network technology. Topics include basics of communication converged networks, OSI and TCP/IP network models, Application layer protocols, services, and applications, Transport layer protocols and services, Network layer addressing and routing concepts, IPv4 and IPv6, calculating IPv4 subnets, Data Link layer and the encapsulation process, Physical layer components and data encoding, Ethernet and network protocol analysis, network cabling, and basic network configuration.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2452	Cisco Routing Protocols and Concepts	The goal is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. Topics include basics of routing, static routing, dynamic routing, distance vector routing, distance vector routing, distance vector routing protocols, VLSM and CIDR, routing table indepth, link state routing, and link state routing protocols.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2453	Cisco LAN Switching and Wireless	The goal is to develop an understanding of how switches are interconnected and configured to provide network access to LAN users. This course also teaches how to integrate wireless devices into a LAN. Topics include LAN design, basic switch concepts and configuration, VLAN concepts and configuration, STP concepts and configuration, Inter-VLAN routing, and basic wireless concepts and configuration.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2454	Cisco Connecting Networks	This course discusses the WAN technologies and network services required by converged applications in a complex network. Topics include introduction to WANs, private WAN technologies and protocols, Network	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

		Address Translation (NAT), public WAN technologies and protocols, network monitoring, and network troubleshooting.		hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	
CIST 2471	CCNP ROUTE: Implementing IP Routing	Teaches students how to implement, monitor, and maintain routing services in an enterprise network. The course covers how to plan, configure, and verify the implementation of complex enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4/IPv6 environments. The course includes configuration of secure routing solutions. Comprehensive labs emphasize handson learning and practice to reinforce configuration skills.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2472	CCNP SWITCH: Implementing IP Switching	Teaches students how to implement, monitor, and maintain switching in converged enterprise campus networks. The course covers how to plan, configure, and verify the implementation of complex enterprise switching solutions. The course also covers the secure integration of VLANs, WLANs, voice and video into campus networks. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2473	CCNP TSHOOT: Maintaining and Troubleshooting IP Networks	Teaches students how to monitor and maintain complex enterprise routed and switched IP networks. Skills learned include the planning and execution of regular network maintenance as well as support and troubleshooting using technology-based process and best practices based on systematic and industry recognized approaches. Extensive labs emphasize hands-on learning and practice to reinforce troubleshooting techniques.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2510	Web Technologies	In Web Technologies, students will investigate one or more software packages that help automate Web content creation. Students will explore and utilize various	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with

		features of software packages such as CSS, multimedia incorporation, scripting technologies, form creation, search functionality, advanced image techniques and database connectivity.		fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	either three years of industry experience or industry certifications for this subject.
CIST 2531	Web Graphics II	Students will further explore how to use an industry standard or open source graphics software program to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2541	Web Animation II	In this continuation of Web Animation I, students build on their basic scripting knowledge to incorporate advanced scripting techniques in an animated project. They will also explore how to create realistic graphics using inverse kinematics, how to create and edit advanced tweens and how to incorporate various media types into a Web based animation or movie. The course concludes with the completion of a Web animation project.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2550	Web Development	Web Development II teaches students how to manipulate data in a database using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database information with a web application. Database access may be accomplished using a web programming language (such as PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulating data in a database, working with a relational database via Open Database Connectivity (ODBC), working with different database systems, developing forms and applications to interact with a	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

CIST 2560	Web Application Programming I	database server(s), modifying data in a database, and controls and validation.  CIST 2560 explores W3C and Microsoft .NET programming standards in order to practice various web programming techniques for creating web forms, providing web navigation, and accessing data that produce dynamic interactive web applications. Students may use Microsoft Visual Basic .NET, Microsoft C# .NET, or another .NET language.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2580	Interactive and Social Apps Integration	This course explores social and interactive web application technology and its effect on the business model. Topics include interactive and social web business model, interactive and social business web requirements and successful interactive and social integration.		Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2611	Implementing Internet / Intranet Firewalls	Students will learn how to plan, design, install and configure firewalls that will allow key services while maintaining security. This will include protecting the Internal IP services, configuring a firewall for remote access and managing a firewall.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2921	IT Analysis, Design, and Project Management	IT Analysis, Design, and Project Management will provides a review and application of systems life cycle development methodologies and project management. Topics include: Systems planning, systems analysis, systems design, systems implementation, evaluation, and project management.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition,	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

CIST 2950	Web Systems Project	CIST 2950 is a capstone course providing a realistic experience for students working in a team to develop a complete web systems project.	UN	instructor must have a minimum of three years' industry experience.  Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. Alternatively, the Instructor may hold a master's degree in computer science or related degree with industry certifications for this subject. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.
CIST 2991	CIST Internship I	Provides the instructor and student a 3 credit hour opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements.	UN	Preferred qualifications are a master's degree in computer science, or related degree with at least 18 graduate semester hours in any combination of the qualifying fields. The Instructor may hold a master's degree in computer science or related degree with industry certifications. In addition, instructor must have a minimum of three years' industry experience.	Instructor must hold a bachelor's degree in computer science. Alternatively, Instructor can hold a related bachelor's degree with either three years of industry experience or industry certifications for this subject.

# CMTT: Construction Management

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
СМП 2010	Residential Estimating Review	This course introduces the complete estimating process from excavation to completed residence. Topics include the sequencing of construction, materials calculation, blueprint interpretation methods of construction, working with subcontractors, and final estimate assembly.	UN	Preferred qualifications are an associate's degree in construction management or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction management is required.
СМТТ 2020	Construction Drafting I	This course provides instruction in producing residential floor plans and elevations using computer-aided drafting and design (CAD) software. Topics include system setup and system management, software menus and basic functions, prototype drawings, and two and three dimensional drafting and dimensioning.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction management is required.

CMTT 2050	Residential Code Review	This course covers building codes as they apply to typical residential applications.  Topics include international residential codes, working with building inspectors, permits and inspections, and site visits.	UN	Preferred qualifications are an associate's degree in construction management or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction management is required.
CMTT 2130	Computerized Construction Scheduling	This course provides instruction in the use of application software for scheduling construction work. The use of contemporary construction scheduling & management software is emphasized. Topics include software overview, scheduling methods and requirements, and computerized scheduling of a simulated construction job.	UN	Preferred qualifications are an associate's degree in construction management or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction management is required.
CMTT 2170	Construction Contracting	This course provides an in depth study of the contractual relationship between the parties involved in building construction contracting. Topics include bonds, insurance, bidding, awarding, and subcontracting types and conditions.	UN	Preferred qualifications are an associate's degree in construction management or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction management is required.

#### COFC: Construction Fundamental Core

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
COFC 1000	Safety	This course provides a review of general safety rules and practices giving student's information about state and federal regulations including OSHA Hazard Communication Standards and Material Safety Data Sheets (MSDS). Emphasis is placed on electrical, fire, lifting, and ladder and scaffolding practices.	UN	Preferred qualifications are an associate's degree and five years of work experience in a construction safety or in a related industrial trade.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.
COFC 1011	Overview of Building Construction Practices	This course covers the introduction to the different crafts in the building trades through an overview of the building process. The student is also introduced to the attitudes and life skills required to succeed in the construction industry. Topics include an introduction to the construction trades, workplace expectations, professional ethical standards, proper practices, fundamentals	UN	Preferred qualifications are an associate's degree and five years of work experience in a construction safety or in a related industrial trade.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.

COFC 1020	Professional Tool	of measurement, working in teams, learning for success, and life skills. This course provides instruction in the use of	UN	Preferred qualifications are an	Instructor must possess appropriate
	Use and Safety	professional tools for the construction trades. Emphasis will be placed on the safe use of each tool discussed. Topics include layout and measuring tools, cutting tools, sawing tools, drilling and boring tools, finishing and fastening tools, general shop tool use, and job site setup.		associate's degree and five years of work experience in a construction safety or in a related industrial trade.	licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.
COFC 1030	Materials and Fasteners	This course introduces the fundamental array of building materials used in residential and commercial construction. Topics include fasteners, wood products, concrete, brick and block, plumbing materials, finishing materials, manufactured products and an introduction to construction cost estimation.	UN	Preferred qualifications are an associate's degree and five years of work experience in a construction safety or in a related industrial trade.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.
COFC 1050	Construction Print Reading Fundamentals	This course introduces the reading and interpretation of prints and architectural drawings for all of the construction trades. Topics include types of plans, scales, specifications, conventions, and schedules.	UN	Preferred qualifications are an associate's degree and five years of work experience in a construction safety or in a related industrial trade.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.
COFC 1080	Construction Trades Core	his course introduces the student the basic fundamentals of the construction trades. Topics include: Basic Safety, Construction Math, Hand and Power Tools, Construction Drawings, Rigging Materials Handling and Job-Site Communications and Work Ethics Skills.	UN	Preferred qualifications are an associate's degree and five years of work experience in a construction safety or in a related industrial trade.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in construction safety or industrial trade is required.

## COLL: College Life

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
COLL 1500	College Success & Career Exploration	This course may be taken by a student enrolled in any program of study. It can be used as an occupational elective or an additional course. Apply physiological, social and psychological principles to success in college, the world of work and life. Explore personality, interests and values to increase self-understanding and select an appropriate major and career. Learn about careers of the future. Discover strategies for lifelong learning by identifying your learning style and applying psychological principles of learning and memory to academic study strategies. Apply life management techniques such as time and money management to accomplish personal goals. Examine adult stages of development and develop a plan for wellness and living a long and healthy life. Learn strategies for motivation and stress management. Practice creative and critical thinking techniques.	UN	Preferred qualifications are a master's degree with experience teaching First Year College Experience courses. In addition, three years of teaching experience is required.	Instructor must hold a bachelor's degree. In addition, three years of teaching experience is required.

## COMM: Introduction to Computer

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
COMM 1100	Human Communication	Introduction to the fundamental components of the human communication process. The course provides a basic history of the communication discipline from ancient rhetorical roots through modern social sciences. The course emphasizes selected methods and practices in dyadic, small group, and oral presentational settings. Course content also covers communication models, as well as a survey of a variety of human communication modes and methods, including verbal, nonverbal, small group, interpersonal, mass, organizational, public, and intercultural communication.		semester hours in communication or speech.	Instructor must hold a master's degree in communication, public speaking, speech, or a master's degree with at least 18 graduate semester hours in communication or speech. Speech therapy and speech pathology are not appropriate credentials for this course.

## COMP: Introduction to Computer

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
COMP 1000	Computer Literacy	This course introduces the fundamental concepts, terminology, and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include introductions to computer and digital terminology and usage, operating systems, Internet and digital communication, word processing applications, spreadsheet applications, database applications, and presentation applications			•

#### COSM: Cosmetology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
COSM 1000	Introduction to Cosmetology Theory	Introduces fundamental both theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: state rules, and regulations; state regulatory agencies, image; bacteriology; decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty Standards Act compliance, and anatomy and physiology. Consultation, safety precautions, skin conditions, product knowledge, basic facials, facial massage, corrective facial treatments, hair removal, and make-up application. Other topics in this course include advanced skin treatments in electrotherapy, light therapy, galvanic current, high frequency, and microdermabrasion.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1010	Chemical Texture Services	Provides instruction in the chemistry and chemical reactions of permanent wave solutions and relaxers, application of permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Topics include: permanent wave techniques, chemical relaxer techniques, chemistry, physical and chemical change, safety procedures, permanent wave and chemical relaxer application procedures, hair analysis, scalp analysis, permanent wave procedures (in an acceptable time frame), relaxer application (in an acceptable time frame), and Hazardous Duty Standards Act Compliance.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1020	Hair Care and Treatment	Introduces the theory, procedures and products used in the care and treatment of the scalp and hair, disease and disorders and their treatments and the fundamental theory and skills required to shampoo,	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.

		condition, and recondition the hair and scalp.			
COSM 1030	Haircutting	Introduces the theory and skills necessary to apply haircutting techniques, advanced haircutting techniques, proper safety and decontamination precautions, hair design elements, cutting implements, head, hair and body analysis, and client consultation.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1040	Styling	Introduces the fundamental theory and skills required to create shaping, pin curls, finger waves, roller placement, blow dry styling, thermal curling, thermal pressing, thermal waving, artificial hair and augmentation, and comb-outs. Laboratory training includes styling training on manikin. Topics include: braiding/intertwining hair, styling principles, pin curls, roller placement, finger waves, skip waves, ridge curls, blow dry styling, thermal curling, thermal pressing, thermal waving, artificial hair and augmentation, comb-outs, and safety precautions.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1050	Hair Color	Introduces the theory and application of temporary, semi-permanent, demi-permanent-deposit only, and permanent hair coloring, hair lightening, and color removal products and application. Topics include: principles of color theory, hair structure, color, tone, classifications of color, hair lightening, color removal, application procedures, safety precautions, client consultation, product knowledge, hair color challenges, corrective solutions, and special effects.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1060	Fundamentals of Skin Care	This course provides a comprehensive study in care of the skin for theory and practical application. Emphasis will be placed on client consultation, safety precautions, skin conditions, product knowledge, basic facials, facial massage, corrective facial treatments, hair removal, and make-up application. Other topics in this course	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.

		include advanced skin treatments in electrotherapy, light therapy, galvanic current, high frequency, and microdermabrasion.			
COSM 1070	Nail Care and Advanced Techniques	Provides training in manicuring, pedicuring and advanced nail techniques. Topics include: implements, products and supplies, hand and foot anatomy and Physiology, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions and practices, and advanced nail techniques (wraps/tips/acrylics).	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1080	Physical Hair Services Practicum	Nail Care and Advanced Techniques)Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is required by the Georgia State Board of Cosmetology. This course includes a portion of the required hours for licensure. Topics include: scalp and hair treatments; haircutting; styling; dispensary; reception; safetyprecautions/decontamination; and Hazardous Duty Standards Act compliance.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1090	Hair Services Practicum I	This course provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color, foiling, lightening, hair and scalp treatments; haircutting; clipper design, precision cutting, styling; dispensary; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; product knowledge, customer service skills, client retention, State Board Rules and	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.

		Regulations guidelines, and State Board foundation prep.			
COSM 1100	Hair Services Practicum II	Provides experience necessary for professional development and completion of requirements for state licensure.  Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting. Topics include: texture services; permanent waving and relaxers; hair color and lightening; skin, scalp, and hair treatment; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1110	Hair Services Practicum III	Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; dispensary; styling; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1115	Hair Services Practicum IV	This course provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting. Topics include: permanent waving and relaxers; hair color and lightening; hair and	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.

COSM 1120	Salon Management	scalp treatments; haircutting; dispensary; styling; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation.  Emphasizes the steps involved in opening and operating a privately owned salon.  Topics include: law requirements regarding employment, tax payer education / federal and state responsibilities, law requirements for owning and operating a salon business, business management practices, and	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1125	Skin and Nail Care Practicum	public relations and career development.  This course provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting. Topics include: skin treatment; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1180	Nail Care I	Provides additional experience in Manicuring and Pedicuring techniques required of applicants for state licensure. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, nail repair, artificial nails, pedicure, nail art, reception, dispensary, advanced/new techniques, documentation, customer service skills, safety precautions, federal/state agency compliance, and state board foundation prep.	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
COSM 1190	Nail Care II	Provides nail care experience on live models. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number	UN	Preferred qualifications are a cosmetology associate's degree, current instructor cosmetologist license, and a minimum three years of in-field work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and

of applications required by the state board	minimum three years of in-field work
of cosmetology in theory and service credit	experience.
requirements for this course. Emphasis is	
placed on performance, using live models	
in an actual or simulated occupational	
setting. Topics include: manicure, nail	
repair, artificial nails, pedicure, nail art,	
electric drill, reception, dispensary,	
advanced/new techniques, documentation,	
customer service skills, safety precautions,	
federal/state agency compliance, and state	
board comprehension.	

## CRJU: Criminal Justice Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CRJU 1010	Introduction to Criminal Justice	Introduces the development and organization of the criminal justice system in the United States. Topics include: the American criminal justice system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1021	Private Security	Provides an orientation to the development, philosophy, responsibility, and function of the private security industry. A historical and philosophical perspective of private security will help students better understand the present stage of private security, its principles, its legal authority and its effect on society in general. Topics include: private security: an overview; basic security goals and responsibilities; when prevention fails; and security systems at work: putting it all together.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1030	Corrections	Provides an analysis of all phases of the American correctional system and practices, including its history, procedures, and objectives. Topics include: history and evolution of correctional facilities; legal and administrative problems; institutional facilities and procedures; probation, parole, and prerelease programs; alternative sentencing; rehabilitation; community involvement; and staffing.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1040	Principles of Law Enforcement	This course examines the principles of the organization, administration, and duties of federal, state and local law enforcement agencies. Topics include: history and philosophy of law enforcement, evaluation of administrative practices, problems in American law enforcement agencies, emerging concepts, professionalism, and community crime prevention programs.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

CRJU 1043	Probation and Parole	This course will cover the history of both juvenile and adult probation as well as the history of parole. The probation and parole systems will be covered generally with a special emphasis on the Georgia systems and related laws. Topics include: history and philosophy of probation and parole; function of the probation and parole systems; Georgia law related to probation and parole; characteristics and roles of probation and parole officers; and special issues and programs of probation and parole.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1050	Police Patrol Operations	This course presents the knowledge and skills associated with police patrol operations. Emphasis is placed on patrol techniques, crimes in progress, crisis intervention, domestic disputes, Georgia Crime Information Center procedures, electronics communications and police reports. Topics include: foundations, policing skills and communication skills.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1052	Criminal Justice Administration	This course explores the managerial aspects of effective and efficient police administration. Emphasis is directed towards increasing organizational skills and overcoming interdepartmental and interagency non-communication. Topics include: environmental management, human resources, and organizational concerns.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1054	Police Officer Survival	This course examines the critical issues involved in the survival of a police officer in all aspects including their physical, mental, and psychological wellbeing. Emphasis is placed on personal protection skills, defensive tactics, handcuffing techniques, patrol tactics, vehicle stops, building searches and use of force.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1056	Police Traffic Control and Investigation	This course examines enforcement of traffic laws and procedures for traffic accident investigation. Emphasis is placed on Georgia traffic laws, traffic law enforcement,	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

		recognition of impaired driving, and traffic accident investigation. Topics include: regulations, impaired driving, and traffic accident investigation.		Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	
CRJU 1062	Methods of Criminal Investigation	This course presents the fundamentals of criminal investigation. The duties and responsibilities of the investigator both in field and in the courtroom are highlighted. Emphasis is placed on techniques commonly utilized by investigative personnel as well as the procedures used for investigating various crimes.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1063	Crime Scene Processing	This course presents students with practical exercises dealing with investigating crime scenes and gathering various forms of physical evidence. Emphasis is placed on crime scene assessment, search, fingerprinting, and evidence collection.  Topics include: crime scene management, evidence characteristics, identification, documentation and collection as well as techniques for developing and lifting latent fingerprints.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1065	Community- Oriented Policing	Presents the fundamentals for the community-oriented policing philosophy, including the comparison of traditional and community policing philosophies; law enforcement and community relationships; importance of political and public support and involvement; attitudinal changes involving the roles of police management, supervisors and line personnel; creation of partnerships with community organizations, businesses, private security, other governmental agencies, and special interest groups; and police problem-solving methodologies. Topics include: foundations of community-oriented policing, partnerships and problem-solving in community-oriented policing, and community-oriented policing projects and programs.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

CRJU 1068	Criminal Law for Criminal Justice	This course introduces criminal law in the United States, but emphasizes the current specific status of Georgia criminal law. The course will focus on the most current statutory contents of the Official Code of Georgia Annotated (O.C.G.A.) with primary emphasis on the criminal and traffic codes. Topics include: historic development of criminal law in the United States; statutory law, Georgia Code (O.C.G.A.) Title 16 - Crimes and Offenses; statutory law, Georgia Code (O.C.G.A.) Title 40 - Motor Vehicle and Traffic Offenses; and Supreme Court rulings that apply to criminal law.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1072	Introduction to Forensic Science	The origin, history and role of forensic science in the investigative process. Philosophical, rational and practical framework that supports a case investigation will be outlined. The unifying principles of forensic science, the rooting of forensic science in the pure sciences, and the unique ways in which a forensic scientist must think will also be discussed. The special areas of forensic science will be explored.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1074	Applications in Introductory Forensics	This course complements CRJU 1072: Introduction to Forensics, focusing particularly on the practical application of forensic science in law enforcement including the following: crime scene investigation; interview and interrogation techniques; as well as case preparation and courtroom testimony.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 1075	Report Writing	Explains and demonstrates the effectiveness of the entire criminal investigation process by the quality of notes reports, and accurate documentation. An examination of what goes into the preparation, content, elements, mechanics, and format of documenting the criminal investigation process. Topics include: Field notes, initial information, observations, evidence, victims, witnesses, property, neighborhood canvass, crime	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

		scene, laboratory analysis and results, investigative follow-up, suspect statements, and the characteristics essential to quality report writing.			
CRJU 1400	Ethics and Cultural Perspectives for Criminal Justice	This course provides an exploration ethics and cultural perspectives in criminal justice. In presenting ethics, both the individual perspective and the organizational standpoint will be examined. Four areas of ethical decision making opportunities are studied including: law enforcement ethics; correctional ethics; legal profession ethics; and policymaking ethics. The presentation of cultural perspectives is designed to aid law enforcement officers to better understand and communicate with members of other cultures with whom they come in contact in the line of duty. Topics include: defining and applying terms related to intercultural attitudes, role-play activities related to intercultural understanding, developing interpersonal/intercultural communication competence, and development of personal intercultural growth plan.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 2020	Constitutional Law for Criminal Justice	This course emphasizes those provisions of the Bill of Rights which pertain to criminal justice. Topics include: characteristics and powers of the three branches of government; principles governing the operation of the U.S. Constitution, the Bill of Rights and the Fourteenth Amendment.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 2050	Criminal Procedure	Introduces the procedural law of the criminal justice system which governs the series of proceedings through which government enforces substantive criminal law. The course offers an emphasis on the laws of arrest and search and seizure; the rules of evidence, right to counsel, and the rights and duties of both citizens and officers. The course covers in depth appropriate Case Law and court	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

		rulings that dictate criminal procedure on the State and Federal Level.			
CRJU 2060	Criminology	Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. Topics include: sociological, psychological, and biological causes of crime; effectiveness of theories in explaining crime; theory integration; and application of theory to selected issues.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of in- field work experience.
CRJU 2070	Juvenile Justice	Analyzes the nature, extent, and causes of juvenile delinquency, and examines processes in the field of juvenile justice. Topics include: survey of juvenile law, comparative analysis of adult and juvenile justice systems, and prevention and treatment of juvenile delinquency.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 2090	Criminal Justice Practicum	Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue a professional research project supervised by the instructor. Topics include: criminal justice theory applications.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of in- field work experience.
CRJU 2100	Criminal Justice Internship/Exter nship	Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue an externship in a related agency supervised by the instructor. Topics include: criminal justice theory applications.	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.
CRJU 2110	Homeland Security	The course provides an introduction to the principles of homeland security, roles and responsibilities of constituencies and implications for criminal justice fields. Topics include: intelligence and warning, border and	UN	Preferred qualifications are a master's degree of criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training	Instructor must hold a bachelor's degree in criminal justice or related field. In addition, must have a minimum of three years of infield work experience.

		transportation security, domestic		(POST) instructor certification. In addition,	
		counterterrorism, protecting critical		a minimum of five years of professional	
		infrastructure, defending against		work experience in a related field is	
		catastrophic threats, and emergency		required.	
		preparedness and response.			
CRJU 2201	Criminal Courts	This course examines the historical context	UN	Preferred qualifications are a master's	Instructor must hold a bachelor's degree in
		on the development, functions, and		degree of criminal justice, master's degree	criminal justice or related field. In addition,
		controversies in the courts system. Topics		of public safety, master's degree of public	must have a minimum of three years of in-
		include: introduction to the courts;		administration in justice administration, or	field work experience.
		participants of a trial; courtroom processes;		Peace Officers Standards and Training	
		and the post-conviction process.		(POST) instructor certification. In addition,	
				a minimum of five years of professional	
				work experience in a related field is	
				required.	

## CTDL: Commercial Truck Driving

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CTDL 1010	Fundamentals of Commercial Driving	Fundamentals of Commercial Driving introduce students to the transportation industry, federal and state regulations, records and forms, industrial relations, and other non-driving activities. This course provides an emphasis on safety that will continue throughout the program.	UN	Preferred qualifications are an associate's degree and three years of work experience in commercial truck driving.	Instructor must possess a valid Georgia commercial truck driving licensure: class A. In addition, one year of experience in commercial truck driving.
CTDL 1020	Combination Vehicle Basic Operation and Range Work	This course familiarizes students with truck instruments and controls and performing basic maneuvers required to drive safely in a controlled environment and on the Driving Range. Each student must receive 12 hours behind the wheel (BTW) instructional time in range operations such as operating a tractor trailer through clearance maneuvers, backing, turning, parallel parking and coupling/uncoupling.	UN	Preferred qualifications are an associate's degree and three years of work experience in commercial truck driving.	Instructor must possess a valid Georgia commercial truck driving licensure: class A. In addition, one year of experience in commercial truck driving.
CTDL 1030	Combination Vehicle Advanced Operations	Advanced Operations develops students' driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. These safe operating practices are integrated into the development of driving skills on the road. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of forty four (44) hours BTW instructional time in any combination (with CTDL 1020) of range and street/road driving. Note: state law requires that whenever a combination vehicle is operated on public roads an instructor must be present in the vehicle while the student is driving.	UN	Preferred qualifications are an associate's degree and three years of work experience in commercial truck driving.	Instructor must possess a valid Georgia commercial truck driving licensure: class A. In addition, one year of experience in commercial truck driving.

## **CUUL: Culinary Arts**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
CUUL 1000	Fundamentals of Culinary Arts	Provides an overview of the professionalism in culinary arts, culinary career opportunities, Chef history, pride, and espirit d corp. Introduces principles and practices necessary to food, supply, and equipment selection, procurement, receiving, storage, and distribution. Topics include: cuisine, food service organizations, career opportunities, food service styles, basic culinary management techniques, professionalism, culinary work ethics, quality factors, food tests, pricing procedures, cost determination and control, selection, procurement, receiving, storage, and distribution. Laboratory demonstration and student experimentation parallel class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess a ServSafe Certification and at least 12 credit hours of culinary courses from an American Culinary Federation (ACF) accredited culinary program.
CUUL 1110	Culinary Safety and Sanitation	Emphasizes fundamental kitchen and dining room safety, sanitation, maintenance, and operation procedures. Topics include: cleaning standards, O.S.H.A. M.S.D.S. guidelines, sanitary procedures following SERV-SAFE guidelines, HACCAP, safety practices, basic kitchen first aid, operation of equipment, cleaning and maintenance of equipment, dishwashing, and pot and pan cleaning. Laboratory practice parallels class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess a ServSafe Certification and at least 12 credit hours of culinary courses from an American Culinary Federation (ACF) accredited culinary program.
CUUL 1120	Principles of Cooking	This course introduces fundamental food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, basic cooking principles, methods of food preparation, recipe utilization, and nutrition. Laboratory demonstrations and student experimentation parallel class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA),	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.

				Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCE).	
CUUL 1122	Foundations of Cooking Principles	This Course introduces fundamental food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, introduction to basic production mise en place, classical knife cuts, basic stock preparation methods, mother sauce techniques and preparations, small sauces and derivatives from mother sauce, basic thickening agents, classical soup preparation methods, introduction methods of food preparation, recipe utilization, and nutrition. Laboratory demonstrations and student experimentation parallel class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 1124	Foundations of Cooking Techniques	This Course introduces fundamental food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, methods of food preparations, classical knife cuts, kitchen aromatics, regional cuisine history, and introduction to safe food preparations, recipe utilization, and nutrition. Laboratory demonstrations student experimentation and parallels class work. Course Capstone is based on The American Culinary Federations Certification: Certified Culinarian written and practical exams.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 1129	Fundamentals of Restaurant Operations	Introduces the fundamentals of dining and beverage service and experience in preparation of a wide variety of quantity foods. Course content reflect American Culinary Federation Education Institute apprenticeship training objectives. Topics include: dining service/guest service, dining service positions and functions, international dining services, restaurant business laws,	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC),	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.

		preparation and setup, table side service, and beverage service and setup, kitchen operational procedures, equipment use, banquet planning, recipe conversion, food decorating, safety and sanitation, and production of quantity food. Laboratory practice parallels class work.		Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCE).	
CUUL 1220	Baking Principles	Baking Principles presents the fundamental terms, concepts, and methods involved in preparation of yeast and quick breads and baked products. Emphasis is placed on conformance of sanitation and hygienic work habits with health laws. Course content reflects American Culinary Federation Educational Institute cook and pastry apprenticeship training objectives, along with Retail Bakery Association training program. Topics include: baking principles; Science and use of baking ingredients for breads, desserts, cakes, pastries; weights, measures, and conversions; preparation of baked goods, baking sanitation and hygiene, baking supplies and equipment. Laboratory demonstrations and student experimentation parallel class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 1320	Garde Manger	Introduces basic pantry manger principles, utilization, preparation, and integration into other kitchen operations. Course content reflects American Culinary Federation Educational Institute apprenticeship pantry, garnishing, and presentation training objectives. Topics include: pantry functions; garnishes, carving, and decorating; buffet presentation; cold preparations; hot/cold sandwiches; salads, dressings and relishes; breakfast preparation; hot/cold hors d'oeuvres; chaudfroids, gelees, and molds; and pats and terrines. Laboratory practice parallels class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 1370	Culinary Nutrition and Menu Development	This course emphasizes menu planning for all types of facilities, services, and special diets. Topics include: menu selection, menu development and pricing, nutrition, special	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator

		diets, cooking nutritional foods, and organics. Laboratory demonstrations and student management and supervision parallel class work.		experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CSCE),	(CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2130	Culinary Practicum	This course familiarizes the student with the principles and methods of sound leadership and decision making in the hospitality industry and provides the student with the opportunity to gain management/supervision experience in an actual job setting. Students will be placed in an appropriate restaurant, catering, or other food service business for four days per week throughout the semester. On-the-job training topics include: restaurant management/on-off premise catering/food service business, supervisory training, and management training, on-off premise catering, hotel kitchen organization, kitchen management, restaurant kitchen systems, institutional food systems, kitchen departmental responsibilities, and kitchen productivity. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various decision making processes, the ability to make sound and timely decisions, leadership within the framework of the major functions of management, and delegation of authority and responsibility in the hospitality industry.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2140	Advanced Baking and International Cuisine	This course introduces international cuisine and acquisition of advanced cookery techniques. Course content reflects American Culinary Federation Educational Institute cook apprenticeship training objectives and provides background for those aspiring to become chefs. Topics	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.

		include: international cuisine, advanced grill cookery, advanced vegetable cookery, advanced meat cookery, advanced line cookery, advanced fry cookery and nutrition. Laboratory practice parallels class work.  ***Provides in-depth experience in preparing many types of baked goods commonly found in restaurants and hotels. Course content reflects American Culinary Federation and Retail Bakery Association training objectives and provides background for those aspiring to become pastry chefs or bakery supervisors. Topics include: breads, pies, cakes, pastry dough, puff pastry, icing, filling, and candy. Laboratory practice parallels class work.		Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCE).	
CUUL 2142	International Cuisine	This course introduces international cuisine and acquisition of advanced cookery techniques. Course content reflects American Culinary Federation Educational Institute cook apprenticeship training objectives and provides background for those aspiring to become chefs. Topics include: international cuisine, advanced grill cookery, advanced vegetable cookery, advanced meat cookery, advanced line cookery, advanced fry cookery and nutrition. Laboratory practice parallels class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2160	Contemporary Cuisine	This course emphasizes all modern cuisine and introduces management concepts necessary to the functioning of a commercial kitchen. Topics include: international cuisine, cuisine trends, kitchen organization, kitchen management, kitchen supervision, competition entry, nutrition, menu selection, layout and design, and on/off premise catering. Laboratory demonstration and student experimentation parallel class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2170	American Regional Cuisine	This course emphasizes the terms, concepts, and methods central to American Cuisine food preparation. Course content reflects	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef

		American Culinary Federation Educational Institute apprenticeship training objectives. Topics include kitchen aromatics, regional cooking principles and history, and methods of American regional food preparation. Laboratory demonstrations and student experimentation parallel class work.		years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	(CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2190	Principles of Culinary Leadership	This course familiarizes the student with principles, skills, methods, and behaviors necessary for sound leadership of people in their job responsibilities. Emphasis will be placed on real-life concepts, personal skill development, applied knowledge, and managing human resources. Course content is intended to help leaders, managers, and supervisors deal with a dramatically changing workplace that is affected by technology changes, a more competitive and global market place, corporate restructuring, and the changing nature of work and the workforce. Topics include: Leadership Principles, Leadership Relative to the Function of Management; Decision Making Process; Building and Effect Organizational Culture; Human Resource Management; and Delegating Management, Organization, and Control.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CSCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.
CUUL 2250	Advanced Baking Principles	Provides in-depth experience in preparing many types of baked goods found in restaurants, country clubs, and hotels. Course content reflects American Culinary Federation and Retail Bakery Association training objectives and provides background for those aspiring to become Executive Pastry Chefs, Working Pastry Chefs and Bakers. Topics include: Artisan Breads, Tarts, Tortes, Pastry Dough, Puff Pastry, Icing (buttercreams and meringues), Filling (sauces and coulis), Sugar, Chocolates, and Confections. Laboratory practice parallels class work.	UN	Preferred qualifications are a bachelor's degree in culinary arts, or an associate's degree in a closely related field. Three years of post-secondary teaching experience; American Culinary Federation (ACF) Certified Sous Chef (CSC), Certified Chef de Cuisine (CCC), Certified Executive Chef (CEC), Certified Master Chef (CMC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA), Certified Secondary Culinary Educator (CSCE), Certified Culinary Educator (CCCE).	Instructor must possess American Culinary Federation (ACF) Certified Executive Chef (CEC), Certified Executive Pastry Chef (CEPC), Certified Culinary Administrator (CCA) and/or Certified Culinary Educator (CCE). Must also be ServSafe certified and ServSafe Examination Proctor.

### **DENA: Dental Assisting**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
DENA 1030	Preventive Dentistry	Provides students with theory and clinical experience in the area of preventive and public health dentistry. Topics include: etiology of dental disease; patient education techniques; plaque control techniques; types and use of fluoride; diet analysis for caries control; and dietary considerations for the dental patient.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1050	Microbiology and Infection Control	Introduces fundamental microbiology and infection control techniques. Topics include: classification, structure, and behavior of pathogenic microbes; mode of disease transmission; body's defense and immunity; infectious diseases; and infection control procedures in accordance with CDC recommendations and OSHA guidelines.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1070	Oral Pathology and Therapeutics	Focuses on the diseases affecting the oral cavity and pharmacology as it relates to dentistry. Topics include: identification and disease process; signs/symptoms of oral diseases and systemic diseases with oral manifestations; developmental abnormalities of oral tissues; basic principle of pharmacology; drugs prescribed by the dental profession; drugs that may contraindicate treatment; and applied pharmacology (regulations, dosage, and applications.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1080	Dental Biology	Focuses on normal head and neck anatomy and the development and functions of oral anatomy. Topics include: dental anatomy; oral histology; oral embryology; osteology of the skull; muscles of mastication and facial expression; temporal mandibular joint; blood lymphatic nerve supply of the head; and salivary glands and related structures.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.

DENA 1090	Dental Assisting National Board Examination Preparation	Reviews information concerning all didactic areas tested by the Dental Assisting National Board (DANB). Topics include: collecting and recording clinical data; dental radiography; chair side dental procedures; prevention of disease transmission; patient education and oral health management; office management procedures; and test taking skills.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1340	Dental Assisting I: General Chair side	Introduces student to ethics and jurisprudence for the dental assistant and to chair side assisting with diagnostic and operative procedures. Topics include: ethics and jurisprudence in the dental office; fourhanded dentistry techniques; clinical data collection techniques; introduction to operative dentistry; and dental material basics.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1350	Dental Assisting II: Dental Specialists and EFDA Skills	Focuses on chair side assisting with dental specialty procedures. Topics include: prosthodontics procedures (fixed and removable); orthodontics; pediatric dentistry; periodontics procedures; oral and maxillofacial surgery procedures; endodontic procedures; management of dental office emergencies; medically compromised patients and expanded functions approved by law for performance by dental assistants in the state of Georgia. Student will pass a comprehensive examination and successfully perform clinical skills to receive EFDA certification.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1390	Dental Radiology	After completion of the course the student will be able to provide radiation safety for patient and self, expose x-rays, process x-rays, and prepare dental films for the dental office. Topics include: fundamentals of radiology and radiation safety; radiographic anatomy and interpretation; intraoral and extra-oral radiographic techniques; and quality assurance techniques.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1400	Dental Practice Management	Emphasizes procedures for office management in dental practices. Topics	UN	Preferred qualifications are a Baccalaureate degree in field or a related	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed

		include: oral and written communication; records management; appointment control; dental insurance form preparation; accounting procedures; supply and inventory control; employability skills and basic computer skills. A computer lab provides basic skills in computer use and utilization of these skills to perform office procedures on a microcomputer.		field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1460	Dental Practicum I	Practicum focuses on infection control in the dental office and assisting with diagnostic and simple operative procedures. Topics include: infection control procedures; clinical diagnostic procedures; and general dentistry procedures.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1470	Dental Practicum II	Practicum focuses on advanced general dentistry procedures and chair side in dental specialties with special emphasis on nonsurgical specialties. Topics include: advanced general dentistry and specialties.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.
DENA 1480	Dental Practicum III	Practicum continues to focus on assisting chair side with advanced general dentistry procedures with emphasis on dental office management, preventive dentistry, and expanded functions. Topics include: advanced general dentistry procedures; preventive dentistry; dental office management; expanded functions; chair side in specialties; and management of dental office emergencies.	UN	Preferred qualifications are a Baccalaureate degree in field or a related field. Must be a Dental Assisting National Board "Certified Dental Assistant," dental hygienist who is a Dental Assisting National Board "Certified Dental Assistant," or must be a state licensed dentist. In addition, must have three years in-field work experience	Instructor must be a Certified Dental Assistant, or Dental Hygienist credentialed by the Dental Assisting National Board (DANB), or must be a state licensed dentist. In addition, must have three years in-field work experience.

# **DFTG: Drafting**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
			(011, 01, 0)		

DFTG 1101	CAD Fundamentals	Establishes safety practices as they relate to a drafting environment. Introduces basic CAD functions while presenting essential principles and practices for line relationships, scale, and geometric construction.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 1103	Technical Drawing I	Technical Drawing I provides multi-view and pictorial sketching, orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 1105	3D Mechanical Modeling	In the 3D Mechanical Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for mechanical drafting. The student will develop the skills necessary to create 3D models and presentation/working drawings.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 1111	Fasteners	This course covers the basics of identifying fastening techniques, interpreting technical data, and creates working drawings. Topics include utilization of technical data, identifying thread types, graphic representation of threaded fasteners, and utilization of other fastening techniques, welding symbol identification, and welding symbol usage in working drawings.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 1113	Assembly Drawings	Assembly Drawings provides knowledge and skills necessary to create working drawings for the manufacture of machine parts. Topics include: detail drawings, orthographic assembly drawings, pictorial assembly drawings, and utilization of technical reference source.		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 1125	Architectural Fundamentals	Introduces architectural fundamental principles and practices associated with architectural styles and drawing. Fundamentals residential and commercial practices will be covered. Topics include: specifications and materials; architectural		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.

		styles, construction drawing practices and procedures, dimensioning and scales.			
DFTG 1127	Architectural 3D Modeling	In the Architectural 3D Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for Architectural drafting. The student will develop the skills necessary to create 3D models and presentation/constructions drawings.		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 2010	Engineering Graphics	Covers the basics of computer terminology, input and output devices, file formatting, file management, for CAD software. Introduces students to the fundamentals of geometric construction, scale reading line relationship and basic history of the drafting concepts. Student will also be introduced to basic and intermediate CAD commands and procedures, and drafting concepts and principals.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 2020	Visualization and Graphics	This course is an introduction to engineering graphics and component visualization. Sketching, line drawing, computer assisted drafting solid modeling including parametric modeling are practiced. Development of working drawings and requirements for drawing in a manufacturing and rapid pro-type environment is emphasized.		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 2110	Print Reading I	Introduces the fundamental principles and practices associated with interpreting technical drawings. Topics include: interpretation of blueprints and sketching.		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.
DFTG 2210	Print Reading II	This course continues the development of blueprint reading as applied to technical drawing. Topics include threads (inch and metric), auxiliary views, geometric tolerancing and weldments.		Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in drafting is required.

## DIET: Diesel Equipment Technology

Course Prefix	Course Title	Course Description	Course Type	Preferred Credential Requirements	Minimum Credential Requirements

			(UN, UT, D)		
DIET 1000	Introduction to Diesel Technology, Tools, and Safety	This course introduces basic knowledge and skills the student must have to succeed in the Diesel Equipment Technology field. Topics include an overview of diesel powered vehicles, diesel technology safety skills, basic tools and equipment, reference materials, measuring instruments, shop operation, mechanical fasteners, welding safety, and basic welding skills. Classroom and lab experiences on safety, precision measuring, and basic shop practices are highly emphasized.	UN	Preferred qualifications are an associate's degree in drafting or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1010	Diesel Electrical and Electronic Systems	This course introduces students to electrical and electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: general electrical system diagnosis, battery diagnosis and repair, starting system diagnosis and repair, charging system diagnosis and repair, lighting system diagnosis and repair, gauges and warning devices, and an introduction and familiarization with electrical and electronic systems.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1011	Diesel Electrical and Electronic Systems I	This course introduces students to diesel electrical and electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: general electrical systems diagnosis; battery diagnosis and repair; starting system diagnosis and repair; and basic lighting diagnosis and repair.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1012	Diesel Electrical and Electronic Systems II	This course continues the study of electrical and electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: advanced lighting diagnosis; charging system diagnosis and repair; gauges and warning devices; and related electrical systems and diagnosis.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.

DIET 1020	Preventive Maintenance	This course introduces preventive maintenance procedures pertaining to medium/heavy duty trucks and heavy equipment. Topics include: engine systems; cab and hood; heating, ventilation and air conditioning (HVAC); electrical and electronics; frame and chassis.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1030	Diesel Engines	This course introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include: general engine diagnosis, cylinder head and valve train, engine block, engine lubrication system, hydraulic pumps, engine cooling, air induction, exhaust, fuel supply systems, electronic fuel management, and engine brakes. Using and interpreting test and measuring equipment is highly emphasized.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1031	Diesel Engine Repair	This course introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include: general engine diagnosis; cylinder head and valve trains; engine block; engine lubrication systems; basic fuel system diagnosis; and engine brakes. Using and interpreting measuring equipment is highly emphasized.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1032	Diesel Engine Support Systems	This course introduces the remaining diesel engine support systems used in medium/heavy duty trucks and heavy equipment. Topics include: engine cooling systems; air induction and exhaust; fuel supply systems; and fuel management systems. Using and interpreting test equipment is highly emphasized.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 1040	Diesel Truck and Heavy Equipment HVAC Systems	This course introduces systems used in medium/heavy duty trucks and heavy equipment. Classroom instruction on HVAC theory and operation along with local, state, and federal regulations are strongly emphasized. Topics include: HVAC safety, HVAC system theory and operation, A/C system component diagnosis and repair, HVAC system diagnosis and repair, HVAC operating systems and related controls, and	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.

		refrigeration recovery, recycling, and handling procedures.			
DIET 2000	Truck Steering and Suspension Systems	This course introduces steering and suspension systems used on medium/heavy trucks. Classroom instruction on Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: hydraulic assist steering systems; suspension systems; wheel alignment diagnosis, adjustment, and repair; wheels and tires; and frame and coupling devices.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2001	Heavy Equipment Hydraulics	This course introduces the student to basic hydraulic fundamentals, components, system servicing, symbols and schematics. The student will learn component operation and service techniques for maintaining a hydraulic system. The student will also learn to identify the ISO symbols used on hydraulic schematics and to trace the hydraulic schematics. Topics include: general system operation; basic hydraulic principles; hydraulic system components; hydraulic control valves; load sensing pressure control systems; pilot operated hydraulic system operation; and hydraulic actuators.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2002	Diesel Power Generation – Basic Power Generation Fundamentals	This course introduces AC voltage concepts, AC synchronous generator components, operation, and application as related to the electrical power generating industry. Topics include: AC fundamentals; magnetism, inductance, and capacitance; basic transformers; AC generator types; AC test equipment; synchronous generator components; generator sizing, construction and connection; stator types and arrangements; rotor types and arrangements; and excitation fundamentals.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2010	Truck Brake Systems	This course introduces air and hydraulic brake systems used on medium/heavy duty trucks. Classroom theory on brake systems	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the

		along Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: introduction to hydraulic systems and safety; air brakes air supply and system service; air brakes mechanical service; parking brakes; hydraulic brake system and service; hydraulic brakes mechanical service; hydraulic brakes power assist units; anti-lock brake systems (ABS) and automatic traction control (ATC); and wheel bearings.			teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2011	Off Road Drivelines	This course introduces power trains used on heavy equipment such as bulldozers, excavators, wheel loaders, back-hoe loaders and skidders. Classroom and lab instruction on components and systems with use and interpreting testing and diagnosing equipment are highly emphasized. Topics include: power train theory and principles, clutches, manual transmissions, drive shafts, differentials, final drives, special drives, final drive failure analysis, torque converters, hydraulically shifted transmissions, electronic transmissions, hydrostatic transmissions, and transmission failure analysis.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2012	Diesel Power Gen. Controls, Switching, and Auxiliary Systems	This course introduces control systems and protection devices utilized for electrical power generators. Topics include: controller system fundamentals, engine protective controls, generator protective controls, and the engine governor. Component systems required to maintain generator system integrity and reliability are also introduced. These include: the battery charger, engine jacket water heater, gaseous fuel, diesel, ventilation, air induction, exhaust, and remote annunciation systems. Classroom instruction and lab demonstrations are highly emphasized.	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in diesel technology is required.
DIET 2020	Truck Drivetrains	This course introduces power train systems used on medium/heavy duty trucks. Topics include: introduction to power trains,	UN	Preferred qualifications are an associate's degree in diesel mechanic or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the

electronic s	I flywheels, powertrain stems, auto-shift mechanical ns, power take-offs, truck drive	teaching discipline. In addition, three years in-field experience in diesel technology is required.
	ntials and final drives, torque	required.
converters,	and automatic transmissions.	

ECCE: Early Childhood Care and Education

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ECCE 1070	Introduction to Child Care and Licensing	Introduces the requirements of child-care licensing in Georgia, Georgia's licensing agency, CORE Rules, nutrition, child abuse recognition and reporting, careers in child care, professionalism, and positive qualities of a child caregiver.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1075	Introduction to Child Development	Introduces the student to brain development research, developmentally appropriate practice, ages and stages of child development from birth to 12 years old, exceptionalities, and community resources.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1080	Introduction to Classroom Management	Introduces the student to quality classroom environments, developmentally appropriate curriculum, classroom management, and communicating with parents.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1101	Introduction to Early Childhood Care and Education	Introduces concepts relating the responsibilities and procedures involved in a variety of early childhood care situations. Topics include historical perspectives; professionalism; guidance; developmentally appropriate practices; learning environment (including all children); cultural diversity; and licensing, accreditation, and credentialing.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1103	Child Growth and Development	Introduces the student to the physical, social, emotional, and cognitive development of the young child (prenatal through 12 years of age). The course provides for competency development in observing, recording, and interpreting growth and development stages in the young child;	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

		advancing physical and intellectual competence; supporting social and emotional development; and examining relationships between child development and positive guidance. Topics include developmental characteristics, prenatal through age 12, developmental guidance applications, observing and recording techniques, ages and stages of development, and introduction to children with special needs.			
ECCE 1105	Health, Safety and Nutrition	Introduces the theory, practices, and requirements for establishing and maintaining a safe, healthy learning environment. Topics include CPR and first aid, health issues, safety issues, child abuse and neglect, and nutritional needs of children.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1112	Curriculum and Assessment	Provides student with an understanding of developmentally effective approaches to teaching, learning, observing, documenting and assessment strategies that promote positive development for young children. The course will enable the student to establish a learning environment appropriate for young children and to identify the goals, benefits, and uses of assessment in the development of curriculum for young children. Topics include observing, documenting, and assessing; learning environments; development of curriculum plans and materials; curriculum approaches; and instructional media.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 1113	Creative Activities for Children	Introduces the concepts related to creativity in art, music, movement and creative drama, and facilitating children's creative expression across the curriculum. Topics include concepts of creativity and expression; theories of young children's creative development; facilitation of children's creative expression, media, methods and materials across the	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

		curriculum; appreciation of children's art processes and products; appreciation of children's creativity in music, movement and dance; appreciation of children's creative expression in play and creative drama; and art and music appreciation.			
ECCE 1121	Early Childhood Care and Education Practicum	Provides the student with the opportunity to gain a supervised experience in a practicum placement site allowing demonstration of techniques obtained from course work.  Practicum topics include promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2115	Language and Literacy	Develops knowledge, skills, and abilities in supporting young children's literacy acquisition and development, birth through age twelve. Topics include developmental continuum of reading and writing, literacy acquisition birth to five years of age, literacy acquisition in kindergarten, literacy acquisition in early grades, and literacy acquisition in children who are culturally and linguistically diverse.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2116	Math and Science	Presents the process of introducing math and science concepts to young children. Includes planning and implementation of developmentally appropriate activities and development of math and science materials, media and methods. Topics include inquiry approach to learning; cognitive stages and developmental processes in developing math and science concepts with children birth to five; cognitive stages and developmental processes in developing math and science concepts with children in kindergarten and primary grades; planning math and science activities; and	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

		development of math and science materials, media and methods.			
ECCE 2201	Exceptionalities	Provides for the development of knowledge and skills that will enable the student to understand individuals with special needs and appropriately guide their development. Special emphasis is placed on acquainting the student with programs and community resources that serve families with children with special needs. Topics include inclusion/least restrictive environment (LRE), physical and motor impairments, gifted/talented, intellectual and cognitive disabilities, emotional and behavioral disorders, communication disorders in speech and language, autism spectrum disorders, visual impairments, deaf and hard of hearing, health impairments, multiple disabilities, and community resources.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2202	Social Issues and Family Involvement	Enables the student to value the complex characteristics of children's families and communities and to develop culturally responsive practices which will support family partnerships. Students use their understanding to build reciprocal relationships which promote children's development and learning. Students are introduced to local programs and agencies that offer services to children and families within the community. Topics include professional responsibilities, family/social issues, community resources, family education and support, teacher-family communication, community partnerships, social diversity and anti-bias concerns, successful transitions, and school-family activities.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2203	Guidance and Classroom Management	Examines effective guidance practices in group settings based upon the application of theoretical models of child development and of developmentally appropriate practices. Focus will be given to individual, family, and cultural diversity. Topics will include	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

		developmentally appropriate child guidance (birth through 12); effective classroom management, including preventive and interventive techniques; understanding challenging behaviors; and implementing guidance plans.		minimum of three years' experience teaching children aged birth to five.	
ECCE 2245	Early Childhood Care and Education Internship	Provides the student with the opportunity to gain a supervised experience in an actual or simulated work site allowing demonstration of techniques obtained from course work. Internship topics include promoting child development and learning; building family and community relations; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum; and becoming a professional.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2246	Early Childhood Care and Education Internship	Provides the student with the opportunity to gain a supervised experience in an actual or simulated work site allowing demonstration of techniques obtained from course work. Internship topics include promoting child development and learning; building family and community relations; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum; and becoming a professional.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2310	Paraprofessional Methods and Materials	Develops the instructional skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary age children. Topics include assessment and curriculum, instructional techniques, and methods for instruction in a learning environment.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2312	Paraprofessional Roles and Practices	Develops skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary aged children. Topics include professional qualifications, professional and ethical	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a

		conduct, professionalism and employment, and paraprofessional roles and responsibilities.		minimum of three years' experience teaching children aged birth to five.	minimum of three years' experience teaching children aged birth to five.
ECCE 2320	Program Administration and Facility Management	Provides training in planning, implementation, and maintenance of an effective early childhood program and facility. Topics include organization, mission, philosophy, goals of a program; types of programs; laws, rules, regulations, accreditation, and program evaluation; needs assessment; administrative roles and board of directors; anti-bias program development; child development and developmentally appropriate practices; marketing, public and community relations, grouping, enrollment and retention; working with families; professionalism and work ethics; space management; money management; and program, equipment, and supplies management.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2322	Personnel Management	Provides training in early childhood personnel management. Topics include staff records; communication; personnel policies; managing payroll; recruitment, interviewing, selection, hiring, motivating, and firing; staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluations; ethical responsibilities to employees; and time and stress management.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2330	Infant/Toddler Development	Introduces the three developmentally meaningful age periods during infancy. Provides knowledge, grounded in brain and attachment research, about how children learn and the skills and attitudes necessary to support optimum social/emotional, cognitive, and physical development for children from birth to three. Principles of brain development and language and communication will be explored in depth. Special emphasis is placed on experiential learning to show caregivers practical ways of meeting the fundamental needs of all infants	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

		in group care settings and of helping them learn the lessons that every infant comes into the world eager to learn. The needs of infants and toddlers with established disabilities as well as those at risk for developmental problems will be examined from the perspective of early intervention and inclusion.			
ECCE 2332	Infant/Toddler Group Care and Curriculum	Provides the knowledge, skills and attitudes necessary to meet the fundamental needs of children from birth to three in group care settings. Establishes a foundation for a responsive, relationship-based curriculum for children birth to three who are in group care settings. Introduces the philosophy behind primary care, continuity of care, and respectful care. Explores ways of creating environments for infant/toddler group care which foster optimum social/emotional, physical and cognitive development, promote cultural sensitivity and encourage positive parent caregiver relations.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2360	Classroom Strategies for Exceptional Children	Prepares child care providers and paraprofessionals with knowledge and skills in the areas of working effectively with children with a disability; working with families as partners; examining the laws and regulations; exploring resources, service providers, and agencies that may assist the child and his/her family; examining the adaptations and modifications to facilities and environments; reviewing the referral process; implementing inclusion; modifying instruction to accommodate the child with special needs; and investigating ways to document and chart observations.	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.
ECCE 2362	Exploring Your Role in the Exceptional Environment	Prepares child care providers and paraprofessionals with knowledge and skills for screening and assessing purposes; and explores resources, service providers, and agencies that may assist the child and families in educational or natural settings. Examines adaptations, accommodations,	UN	Preferred qualifications are a master's degree in early childhood education or child development. Post-secondary teaching experience; must have a minimum of three years' experience teaching children aged birth to five.	Instructor must hold a bachelor's degree in early childhood education or child development. In addition, must have a minimum of three years' experience teaching children aged birth to five.

and modifications to environments; reviews		
the referral process; implements inclusion		
and modifies instruction to accommodate		
the child with special needs.		

ECGT: Electrocardiography Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ECGT 1030	Introduction to Electrocardiography	Provides an introduction to electrocardiography techniques and record keeping. Emphasis is placed on the knowledge and skills needed to perform ECG on all types of patients. Topics include: infection control techniques, basic life support, legalities and ethics, basic cardiovascular anatomy and physiology, ECG techniques and recognition, ECG lead placement, technical aspects of the ECG, ECG rhythm strip interpretation, advanced ECG techniques and a Cardiovascular Credentialing International (CCI) exam review.	UN	Preferred credentials is a bachelors degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years. Possession of Cardiovascular Credentialing. International Certified Cardiographic Technician.	Instructor must possess an associate degree from an accredited institution in nursing or related health science field. In addition, must have three years in-field work experience. Must hold Certified Cardiographic Technician.
ECGT 1050	Electrocardiography Practicum	Provides an introduction to clinical practice in the setting of hospitals, clinics, and medical offices. Students must demonstrate regard for the dignity, rights, and privacy of each patient. They must also abide by the policies and procedures of each clinical setting. Students will be able to learn by doing electrocardiography techniques and record keeping. Emphasis is placed on the application of knowledge and skills gained in the classroom. Students will have the opportunity to display their ability to interact appropriately with patients, family members, and other members of the healthcare team. Students may be required to perform Basic Life Support. Topics include: application of classroom knowledge and skills and functioning in the work environment.	UN	Preferred credentials is a bachelors degree from an accredited institution in nursing or related health science field. Three years of related work experience within the past seven years. Possession of Cardiovascular Credentialing. International Certified Cardiographic Technician.	Instructor must possess an associate degree from an accredited institution in nursing or related health science field. In addition, must have three years in-field work experience. Must hold Certified Cardiographic Technician.

#### **ECON: Economics**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ECON 1101	Principles of Economics	Provides a description and analysis of economic operations in contemporary society. Emphasis is placed on developing an understanding of economic concepts and policies as they apply to everyday life. Topics include basic economic principles; economic forces and indicators; capital and labor; price, competition, and monopoly; money and banking; government expenditures, federal and local; fluctuations in production, employment, and income; and United States economy in perspective.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in economics or a doctorate degree with at least 18 graduate semester hours in economics.	Instructor requires a master's degree in economics or a master's degree with at least 18 graduate semester hours in economics.
ECON 2105	Macroeconomics	Provides a description and analysis of macroeconomic principles and policies. Topics include basic economic principles, macroeconomic concepts, equilibrium in the goods and money markets, macroeconomic equilibrium and the impact of fiscal and monetary policies.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in economics or a doctorate degree with at least 18 graduate semester hours in economics.	Instructor requires a master's degree in economics or a master's degree with at least 18 graduate semester hours in economics.
ECON 2106	Microeconomics	Provides an analysis of the ways in which consumers and business firms interact in a market economy. Topics include basic economic principles, consumer choice, behavior of profit maximizing firms, modeling of perfect competition, monopoly, oligopoly and monopolistic competition.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in economics or a doctorate degree with at least 18 graduate semester hours in economics.	Instructor requires a master's degree in economics or a master's degree with at least 18 graduate semester hours in economics.

#### ELCR: Electronics Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ELCR 1005	Soldering Technology	Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include: safety practices, soldering, desoldering, antistatic grounding, and surface mount techniques.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1010	Direct Current Circuits	This course provides instruction in the theory and practical application of simple and complex direct current circuitry.  Topics include laboratory safety practices and procedures, electrical laws and principles, DC test equipment basic series, parallel and combination circuits, complex series and parallel circuits, and DC theorems.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1020	Alternating Current Circuits	This course introduces the theory and application of varying sine wave voltages and current, and continues the development of AC concepts with emphasis on constructing, verifying, and troubleshooting reactive circuits using RLC theory and practical application. Topics include AC wave generation, frequency and phase relationship, impedance, admittance, and conductance power factors, reactive components simple RLC circuits, AC circuit resonance, passive filters, and non-sinusoidal wave forms.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1030	Solid State Devices	This course provides instruction in the theory and application of solid state devices in the electronics industry. Emphasis is placed on the physical characteristics and uses of solid state devices. Topics include PN diodes, power supplies, voltage regulation, bipolar junction theory and application, field effect transistors, and special applications.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.

ELCR 1040	Digital and Microprocessor Fundamentals	This course is designed to provide sufficient coverage of digital electronics and microprocessor fundamentals. Digital fundamentals will introduce basic topics such as binary topics such as binary arithmetic, logic gates and truth tables, Boolean algebra and minimization techniques, logic families, and digital test equipment. Upon completion of the foundational digital requirements, a more advanced study of digital devices and circuits will include such topics as flip-flops, counters, multiplexers and de-multiplexers, encoding and decoding, displays, and analog to digital and digital to analog conversions. Students will also explore the basic architecture and hardware concepts of the microprocessor.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1060	Linear Integrated Circuits	Provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include: operational amplifers, timers and three terminal voltage regulators.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1280	Introduction to Embedded Systems	This course is designed to provide introduction coverage of Embedded Systems. An embedded system can be defined as a control system or computer system designed to perform a specific task. Emphasis is placed on the physical characteristics and uses of embedded systems. Topics include basic microcontroller, introduction to embedded system software, programming tools, sensors, actuators, basic control system, and embedded systems applications.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1800	Electrical Lineworker Organizational Principles	This course provides a comprehensive summary of lineworker requirements.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

					in-field experience in electronics technology is required.
ELCR 1820	Electrical Lineworker Workplace Skills	This colurse will familiarize the student with the importance of working together and team building.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1840	Electrical Lineworker Automation Skills	This course familiarizes the student with the identification, proper use, basic electrical fundamentals and safety and maintenance of lineworker hand and power tools.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 1860	Electrical Lineworker Occupational Skills	This course provides an introduction to the basic skills necessary for an electrical lineworker	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2110	Process Control	Introduces industrial process control applications with an emphasis on sensors and signal conditioning. Topics include: symbology and drawing standards, control techniques, sensors and signal conditioning, and ISA and other relevant standards.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2120	Motor Controls	Introduces the application of motor controls in the industrial environment. Topics include: AC/DC motors, AC/DC drives, MCC and contractors, NEC and NEMA standards, ladder diagrams, and power sources.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2130	Programmable Controllers	Provides the basic skills and techniques used in industrial application of programmable controls. Topics include: controller hardware, programming, PC applications, and troubleshooting.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

FI 0D 04 40	Markarial Davis		IN	Dufamed and I'G at in a second and in a second	in-field experience in electronics technology is required.
ELCR 2140	Mechanical Devices	Develops knowledge and skills necessary to transmit mechanical power using common industrial linkage types.  Emphasis is placed on use of mechanical devices in combination with electronic controls. Topics include: linkages, motion analysis, gear drives, and preventative maintenance.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2150	Fluid Power	Provides an overview of fluid power operation as applied to industrial electronics. Emphasis is placed on the interfacing of electronic and fluidic systems. Topics include: safety, fluid dynamics, hydraulics, pneumatics, air logic, and electrical interfacing.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2160	Advanced Microprocessors and Robotics	This course continues an earlier study of microprocessor fundamentals and introduces robotic theory and application. Topics include the microprocessor instruction set, programming and debugging applications and troubleshooting, microprocessor applications for embedded systems, basic DSP concepts, robotic terminology and languages, and robotic programming.	U	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2210	Advanced Circuit Analysis	This course provides an in depth study of communication system concepts and emphasis an analysis of amplitude and frequency modulation and detection methods. Topics include AM, FM, and SSB modulation and detection, transmitters and receivers, multiplexing and de-multiplexing, basic telemetry concepts, and noise bandwidth considerations.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2220	Digital Communications	This course continues the study of modulation and detection techniques. Topics include: digital modulation techniques, pulse modulation techniques, and sampling techniques.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

					in-field experience in electronics technology is required.
ELCR 2230	Antenna and Transmission Lines	Provides an understanding of antennas and transmission lines used in communications. Topics include: transmission lines, wave guides, antenna types, antenna applications, and telephone transmission lines.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2240	Microwave Communications and Radar	Provides a basic understanding of microwave communications and radar. Topics include: microwave and radar fundamentals, microwave devices, wave guides, specialized antennas, radar systems, and communications systems.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.
ELCR 2250	Optical Communications Techniques	Surveys the major optical devices used for communications. Topics include: light sources, fiber optic cable, coupling and fusing, light modulation and detection techniques, and system application of light devices.	UN	Preferred qualifications are an associate's degree in electronics or mechatronics or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electronics technology is required.

### ELTR: Electrical Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ELTR 1020	Electrical Systems Basics I	Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1030	Electric Systems Basic II	Introduces electrical theory and principles used in residential, commercial and industrial wiring applications. Emphasis is placed in electron theory, DC and AC circuits, Ohm's Law, test equipment, transformers and electrical power systems. Topics include: electricity production, electrical formulas, test equipment, transformer fundamentals and fundamentals of AC and DC circuits.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1060	Electrical Prints, Schematics, and Symbols	Introduces electrical symbols and their use in construction blueprints, electrical schematics, and diagrams. Topics include: electrical symbols, component identification, print reading and scales and measurement.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1080	Commercial Wiring I	This course introduces commercial wiring practices and procedures. Topics include: industrial safety procedures, the National Electrical Code, commercial load calculations, three-phase power systems, and fundamentals of AC motor control.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1090	Commercial Wiring II	This course is a continuation of the study in commercial wiring practices and procedures. Topics include: transformer connections, an introduction to low voltage systems, conduit design and installation practices, and system design concepts.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.

ELTR 1120	Variable Speed/Low Voltage Controls	Introduces types of electric motor control, reduced voltage starting, and applications. Emphasis will be placed on motor types, controller types, and applications. Includes information on wye and delta motor connections; part wind, autotransformer; adjustable frequency drives and other applications; and oscilloscopes and their operation. Topics include: types of reduced voltage starting, reduced voltage motor connections, and adjustable frequency drive.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1150	Interpreting the National Electrical Code	This course facilitates the reading and interpretation of the National Electrical Code, and is designed for with some experience in electrical wiring and the use of the NEC. Students with an interest in electrical wiring and the NEC will, upon completion of the course be able to find information in the Code needed to do residential, commercial, farm and industrial wiring, and be successful with electrical licensing examinations.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1180	Electrical Controls	Introduces line and low voltage switching circuits, manual and automatic controls and devices, and circuits. Emphasis will be placed on switching circuits, manual and automatic controls and devices, line and low voltage switching circuits, and operation, application and ladder diagrams. Topics include: ladder and wire diagrams, switching circuits, manual controls and devices, automatic controls and devices, and application and operation of controllers and controls.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1205	Residential Wiring I	Introduces residential wiring practices and procedures. Topics include: residential circuits, print reading, National Electrical Code, wiring materials, determining the required number and location of	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years

		lighting/receptacles and small appliance circuits, wiring methods (size and type conductors, box fill calculations and voltage drop), switch control of luminaries, receptacle installation including bonding, GFCI and AFCI circuits, special purposes outlets - ranges, cook tops, ovens, dryers, water heaters, sump pumps, and sizing OCPDs (circuit breakers and fuses).			in-field experience in electrical technology is required.
ELTR 1210	Residential Wiring II	Provides additional instruction on wiring practices in accordance with the National Electrical Code. Topics include: residential single family service calculations, residential two family service calculations, load balancing, sub panels and feeders, residential single family service installation, residential two family service installation, concepts of TV and CATV installation, swimming pool installation, and remote control of lighting and intercom installation.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1220	Industrial PLC's	Introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installations, and start-up procedures. Topics include: PLC hardware and software, PLC functions and terminology, introductory numbering systems, PLC installation and set-up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures.	UN	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1250	Diagnostic Troubleshooting	Introduces diagnostic techniques related to electrical malfunctions.  Special attention is given to use of safety precautions during troubleshooting.  Topics include: problem diagnosis, advanced schematics, and sequential troubleshooting procedures.		Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.

ELTR 1260	Transformers	Provides instruction in the theory and operation of specific types of transformers. Emphasis will be placed on National Electrical Code requirements related to the use of transformers. Topics include: transformer theory, types of transformers, National Electrical Code requirements, and safety precautions.	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1270	Industrial Wiring Concepts	Provides instruction in industrial applications of the National Electrical Code. Topics include: rigid/IMC conduit installation, EMT conduit installation, busways installation, cable tray/wire-way installation, and equipment installation (600 volts or less).	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1520	Grounding and Bonding	Presents the theory and practical applications for grounding and bonding systems. Emphasis will be placed on the use of the requirements of the National Electrical Code. Topics include: branch circuit grounding, equipment grounding/bonding, service grounding/bonding, and earth connections.	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1525	Photovoltaic Systems	This class introduces techniques and method on how to install residential and commercial photovoltaic systems.	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.
ELTR 1530	Conduit Sizing	Provides practice in calculating conduit size. Emphasis is placed on use of the requirement of the National Electrical Code. Topics include: National Electrical Code, conduits types/trade sizes, and percent of fill.	Preferred qualifications are an associate's degree in electrical technology or related field and five years' in-field experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in electrical technology is required.

EMSP: Emergency Medical Services Professions

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
EMSP 1010	Emergency Medical Responder	The Emergency Medical Responder (EMR) course prepares the student to provide initial stabilizing care to the sick or injured prior to the arrival of Emergency Medical Services Professionals (EMS), and to assist EMS personnel in transporting patients for definitive care at an appropriate hospital/facility. Major areas of instruction include Introductory Medical Terminology and Anatomy & Physiology; Responder Safety; Incident Command; Blood borne Pathogen Training; Basic Physical Assessment; and Treatment of Trauma and Medical Emergencies; Cardiopulmonary Resuscitation and the use of Automatic External Defibrillators. The course is a blend of lecture, hands on lab/learning, and practical scenario based learning/testing. The course will include Healthcare Provider CPR/AED Certification from a Nationally Recognized Body (American Heart Association, Red Cross, etc.). If this course is also approved by the Georgia State Office of Emergency Medical Services and Trauma (SOEMST), successful completion will allow the student to be eligible to take the National Registry of Emergency Medical Technicians (NREMT) Emergency Medical Technicians (NREMT) Emergency Medical Responder (EMR) certification. Topics include: Preparatory; Anatomy and Physiology; Medical Terminology; Pathophysiology; Life Span Development; Public Health; Pharmacology; Airway; Management; Respiration and Artificial Ventilation; Assessment; Medicine; Shock and Resuscitation; Trauma; Special Patient	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.

EMSP 1110	Introduction to the EMT Profession	Populations; EMS Operations; and Integration of Patient Assessment and Management.  This course serves as the introductory course to the Emergency Medical Services (EMS) profession. It orients the student to the prehospital care environment, issues related to the provision of patient care in both inhospital and out-of-hospital circumstances. It further provides foundational information upon which subsequent curriculum content is based so that successful completion of this content increases the potential for success in subsequent courses and should allow students to apply the fundamental knowledge, skills, and attitudes gained in order to effectively communicate and function safely, ethically and professionally within the emergency medical services environment. Topics include: Anatomy and Physiology, Medical Terminology, Pathophysiology, CPR for HCP, EMS Systems, Research, Workforce Safety and Wellness, Documentation, EMS System Communication, Therapeutic Communication, Medical/Legal and Ethics, Public Health, Principles of Safely Operating a Ground Ambulance, Incident Management, Multiple Casualty Incidents, Air Medical, Vehicle Extrication, HazMat, MCI due to	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
		Terrorism/Disaster, and Life Span Development.			
EMSP 1120	EMT Assessment/Airway Management and Pharmacology	This course prepares students for initial scene management and assessment of patients as well as management of the airway. Introduction to pharmacology is also covered. Includes application of scene information and patient assessment findings (scene size up,	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate;	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In

		primary and secondary assessment, patient history, and reassessment) to guide emergency management. Topics include: Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; Reassessment; Airway Management; Respiration; Artificial Ventilation; Principles of Pharmacology; Medication Administration; and Emergency Medications.		-Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	addition, must have a minimum three years of experience in field.
EMSP 1130	Medical Emergencies for the EMT	This course integrates pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan of cases involving non-traumatic medical emergencies. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non-Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Medical Assessments.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 1140	Special Patient Populations	This course provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs. Topics include: Obstetrics, Gynecology, Neonatal Care, Pediatrics, Geriatrics, Patients with Special Challenges, and Special Patient Populations - Assessments.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 1150	Shock and Trauma for the EMT	This course is designed to prepare the EMT student to apply pre-hospital emergency care to patients who have sustained injuries resulting from various mechanisms of injury including: Abdominal and Genitourinary trauma;	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate;	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In

		Orthopaedic trauma; Soft Tissue trauma; Head, Facial, Neck, and Spine Trauma and Nervous System trauma. Special considerations in trauma related injuries will be presented including the physiology of shock as well as multisystem trauma and environmental emergencies. Topics include: Shock and Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopaedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; and Multi-System Trauma.		-Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	addition, must have a minimum three years of experience in field.
EMSP 1160	Clinical and Practical Applications for the EMT	This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of an EMT. Topics include: Clinicals and Assessment Based Management.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 1510	Advanced Concepts for the AEMT	This course serves as the introductory course to the advanced level practice of the Advanced Emergency Medical Technician (AEMT). It expands on the information attained at the EMT level. Topics include: EMS Systems; Documentation; EMS System Communication; Therapeutic Communication; Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; Artificial Ventilation; Primary Assessment; and Secondary Assessment.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.

EMSP 1520	Advanced Patient Care for the AEMT	This course provides opportunities to apply fundamental knowledge of basic and selected advanced emergency care and transportation based on assessment findings for the following: an acutely ill patient; a patient in shock, respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management; and an acutely injured patient. In addition it provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. Topics include: Geriatrics; Patients with Special Challenges; Medical Overview; Neurology; Immunology; Infectious Disease; Endocrine Disorders; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Shock and Resuscitation; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopaedic Trauma; Head, Facial, Neck, and Spine Trauma: Nervous System Trauma; and Integration of Medical/Trauma Assessments.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 1530	Clinical Applications for the AEMT	This course provides supervised clinical experience in various clinical settings. Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: -Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 1540	Clinical and Practical Applications for the AEMT	This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:	Instructor must be a Paramedic/EMS Professioal with credentials from the National Registry of Emergency Medical Technicians; current State of Georgia

		based management techniques through competency based evaluations relevant to the practice of an AEMT. Topics include: Clinicals and Assessment Based Management.		-Emergency Medical Technician Certificate; -Current Georgia State Office of Emergency Medical Services and Trauma Level I, or higher, -Instructor licensure; -minimum three years of experience in field.	Department of Public Health: Trauma Level I, or higher, and Instructor licensure. In addition, must have a minimum three years of experience in field.
EMSP 2110	Foundations of Paramedicine	This course introduces the student to the role of the paramedic in today's healthcare system, with a focus on the prehospital setting. This course will also prepare the student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan. Topics include: EMS Systems; Research; Workforce Safety and Wellness; Documentation; EMS System Communication; Therapeutic Communication; Medical/Legal and Ethics; Life Span Development; Public Health; Incident Management; Air Medical; Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; and Reassessment.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services andTrauma Level III Instructor licensure; minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2120	Applications of Pathophysiology for Paramedics	This course expands the concepts of pathophysiology as it correlates to disease processes. This course will enable the student to apply the general concepts of pathophysiology to the assessment and management of patients in the emergency setting. Topics include: Pathophysiology.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services andTrauma Level III Instructor licensure; minimum three years of experience in field.	- Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2130	Advanced Resuscitative Skills for Paramedics	This course will equip the paramedicine student with an expanded knowledge of pharmacology, as well as skills used to	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services

		manage the respiratory system. Students will learn to use these advanced resuscitative skills to mitigate patient care emergencies, and to improve the overall health of the patient. Topics include: Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; and Artificial Ventilation.		Current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure; minimum three years of experience in field.	and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2140	Advanced Cardiovascular Concepts	This course equips the paramedicine student with an expanded knowledge of the anatomy, physiology, and electrophysiology of the cardiovascular system. Students will also examine the epidemiology of cardiovascular disease, and will begin to integrate advanced assessment skills (including ECG interpretation) into the assessment of cardiac patients. Topics include: Anatomy, Physiology, and Electrophysiology of the Cardiovascular System; Epidemiology of Cardiovascular Disease; Assessment of the Cardiac Patient; Electrocardiographic (ECG) interpretation.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services andTrauma Level III Instructor licensure; minimum three years of experience in field.	- Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2310	Therapeutic Modalities of Cardiovascular Care	This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a cardiovascular emergency. Topics include: Cardiovascular Emergencies and Advanced Cardiovascular Life Support (ACLS).	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services andTrauma Level III Instructor licensure; minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2320	Therapeutic Modalities of Medical Care	This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a medical	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services and	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.

		emergency. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non- Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Assessment of Medical Emergencies.		Trauma Level III Instructor licensure; minimum three years of experience in field.	
EMSP 2330	Therapeutic Modalities of Trauma Care	This course will enable the student to integrate a comprehensive knowledge of causes and pathophysiology into the management of traumatic: cardiac arrest and peri-arrest states; shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest. This course will also include integrating assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient. During this course, the student will complete a nationally recognized pre-hospital trauma course (i.e. PHTLS, ITLS, ATT, etc.). Topics include: Shock and Trauma Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Orthopaedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; Multi-System Trauma; and Assessment of Trauma Emergencies.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following: Current Georgia State Office of Emergency Medical Services andTrauma Level III Instructor licensure; minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2340	Therapeutic Modalities for Special Patient Populations	This course will enable the student to integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services. Must also possess a current EMT I/85, EMT I/99, or AEMT licensure. Must be certified Trauma Level III Instructor licensure. In

		treatment/disposition plan for various special patient populations. During this course, the student will also complete a nationally recognized pediatric course (i.e. EPC, PALS, PEPP, etc.). Topics include: Obstetrics; Gynecology; Neonatal Care; Pediatrics; Geriatrics; and Patients with Special Challenges.		-Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	addition, must also have a minimum three years of experience in field.
EMSP 2510	Clinical Applications for the Paramedic I	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2510 Clinical Applications for the Paramedic - I is one in a series of courses that also includes: EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	- Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2520	Clinical Applications for the Paramedic II	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2520 Clinical Applications for the Paramedic - II is one in a series of courses that also includes: EMSP 2510, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2530	Clinical Applications for the Paramedic III	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2530 Clinical Applications for the Paramedic - III is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure;	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.

		result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.		-Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	
EMSP 2540	Clinical Applications for the Paramedic IV	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2540 Clinical Applications for the Paramedic - IV is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2550	Clinical Applications for the Paramedic V	This course provides the paramedicine student with supervised clinical experience in various clinical settings.  EMSP 2550 Clinical Applications for the Paramedic - V is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2560	Clinical Applications for the Paramedic VI	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2560 Clinical Applications for the Paramedic - VI is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.

EMSP 2570	Clinical Applications for the Paramedic VII	This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2570 Clinical Applications for the Paramedic - VII is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2560. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2710	Field Internship for the Paramedic	Provides supervised field internship experience in the prehospital advanced life support setting. Topics include: Field Internship.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.
EMSP 2720	Practical Applications for the Paramedic	Allows opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of a Paramedic. Topics include: Assessment Based Management for Paramedics.	UN	Preferred qualifications are a master's degree in health science or related field and possession of the following:  -Current Georgia State Office of Emergency Medical Services and Trauma Level III, or higher, -Instructor licensure; -Current EMT I/85, EMT I/99, or AEMT licensure; -minimum three years of experience in field.	Instructor must hold a bachelor's degree in related field, as well as a current Georgia State Office of Emergency Medical Services and Trauma Level III Instructor licensure. In addition, must also have a minimum three years of experience in field.

# EMPL: Interpersonal Relations and Professional Development

Course Prefix	Course Title	Course Description	Course Type	Preferred Credential Requirements	Minimum Credential Requirements
			(UN, UT, D)		

EMPL 1000	Interpersonal Relations and Professional Development	Emphasizes human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations skills, job acquisition skills and communication, job retention skills, job advancement skills, and professional image skills.	UN	Instructors meeting preferred qualifications must hold a master's degree and five years' work experience in a professional field.	Instructor must possess bachelor's degree and three years' work experience in a professional field.
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### ENGL: English

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ENGL 0090	ALP (Accelerated Learning Program) English	This course provides writing and grammar instructional support for student success in English 1010 or English 1101. Students take this course concurrently with English 1010 or English 1101. Topics include academic essay writing, critical thinking, and language success. Students receive extensive support in writing analytical college essays including a review of basic grammar, mechanics, and punctuation; the rhetorical analysis of published essays; and the use of various strategies for building logical arguments.	D	Instructors meeting preferred qualifications must hold a master's degree in English, composition and rhetoric, literature, professional writing, or a master's degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.
ENGL 0096	English I	Emphasizes standard English usage. Topics include capitalization, basic punctuation, subject and verb agreement, correct verb forms, spelling, and basic paragraph development.	D	Instructors meeting preferred qualifications must hold a master's degree in English, composition and rhetoric, literature, professional writing, or a master's degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.
ENGL 0097	English II	Emphasizes standard English usage. Topics include capitalization, basic punctuation, subject and verb agreement, correct verb forms, spelling, and basic paragraph development.	D	Instructors meeting preferred qualifications must hold a master's degree in English, composition and rhetoric, literature, professional writing, or a master's degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.
ENGL 0098	English III	Emphasizes the ability to communicate using written methods. Topics include writing, grammar, and revising.	D	Instructors meeting preferred qualifications must hold a master's degree in English, composition and rhetoric, literature, professional writing, or a master's degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.
ENGL 0988	Intermediate Reading and Writing	This course integrates academic reading and writing skills to prepare students to be career and college ready. Topics include reading and writing processes, study strategies, critical thinking strategies, and research skills. Upon successful	D	Instructors meeting preferred qualifications must hold a master's degree in English, composition and rhetoric, literature, professional writing, or a master's degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.

		completion of this course, students will be able to apply these skills toward understanding and composing unified, coherent, and well developed texts at a career and college-ready level. This course fulfills the requirements for the highest level of learning support reading and/or English. Course MUST be taken with an ENGL 1010 or ENGL 1101 course. This course is not designed to be a stand-alone course as its content is determined by the English course it is paired with.			
ENGL 1010	Fundamentals of English I	Emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing, applied grammar and writing skills, editing and proofreading skills, research skills, and oral communication skills.	UN	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a bachelor's degree in English.
ENGL 1101	Composition and Rhetoric	Explores the analysis of literature and articles about issues in the humanities and in society. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library resources lays the foundation for research. Topics include writing analysis and practice, revision, and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a master's degree in English, composition and rhetoric, literature, professional writing or a master's degree with at least 18 graduate hours in English.
ENGL 1102	Literature and Composition	Emphasizes the student's ability to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research; and writing about literature.	<b>ਪ</b> ਾ	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a master's degree in English, composition and rhetoric, literature, professional writing or a master's degree with at least 18 graduate hours in English.

ENGL 1105	Technical Communications	Emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research, device and process description, formal technical report writing, business correspondence, and technical report presentation.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a master's degree in English, composition and rhetoric, literature, professional writing or a master's degree with at least 18 graduate hours in English.
ENGL 2110	World Literature	This course explores the history of the human experience through literature and writing across the cultures of the world. Surveys of important works across multiple genres of fiction and non-fiction as a reflection of cultural values. Explores themes from the ancient through modern era.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a master's degree in English, composition and rhetoric, literature, professional writing or a master's degree with at least 18 graduate hours in English.
ENGL 2130	American Literature	Emphasizes American literature as a reflection of culture and ideas. A survey of important works in American literature. Includes a variety of literary genres: short stories, poetry, drama, nonfiction, and novels. Topics include literature and culture, essential themes and ideas, literature and history, and research skills.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in English, composition and rhetoric, literature, professional writing, or a doctorate degree with at least 18 graduate hours in English.	Instructor must hold a master's degree in English, composition and rhetoric, literature, professional writing or a master's degree with at least 18 graduate hours in English.

### ENGT: Engineering Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ENGT 1000	Introduction to Engineering Technology	Provides a study of engineering technology as a career field and describes the knowledge and skills required for academic and occupational success. Topics include engineering technology career, measurement and standards, mathematical operators, engineering tools, and engineering concepts. Labs reinforce mathematical, mechanical and electrical concepts through practical exercises, such as measurement and calculation of density of objects, relative humidity, use of digital multi-meter, building circuits, use of precision instruments, and team exercises.		Preferred qualifications are a doctorate degree in engineering, or other engineering related fields, or a doctorate degree with at least 18 graduate semester hours in engineering.	Preferred qualifications are a master's degree in engineering, or other engineering related fields, or a master's degree with at least 18 graduate semester hours in engineering.

## **ESCI: ESCI Environmental Technology (Water Quality)**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ESCI 1010	Occupational Safety and Health Regulation	This course to provides an overview of regulatory agencies involved in occupational health and safety and their functions in the enforcement of regulation and/or compliance of safety laws. Specific Georgia/OSHA laws will be discussed. Tools to effectively access the work place environment and strategies to achieve compliance and safety will be emphasized. Introduction of potential hazards and safety concerns will be reviewed.	UN	Preferred qualifications are an associate's degree in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering. In addition, five years in-field experience is required.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering is required.
ESCI 1120	Introduction to Water Treatment Processes	This course provides an introduction to water and wastewater operations and the basic skills and knowledge needed to advance in this industry. The course will provide an overview of water and	UN	Preferred qualifications are an associate's degree in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in water quality/wastewater treatment/wastewater

		wastewater treatment processes and distribution systems, as well as terminology and equipment used in the wastewater and water industries.  Regulations, licensing, and the certification process will be discussed as a part of this course. Laboratory techniques used in the analysis of water in water/wastewater treatment plants will be discussed.		engineering. In addition, five years in-field experience is required.	collection, environmental science/technology, biology, chemistry, or chemical engineering is required.
ESCI 1140	Wastewater Treatment	This course focuses on the operation of industrial wastewater pretreatment facilities and industrial wastewater treatment facilities discharging directly to the environment (with NPDES permits). An introduction to industrial wastewater variables, components, effects and generation is included. Treatment processes, including preliminary treatment (flow equalization, screen, pH adjustment) and physical treatment (air stripping, carbon adsorption), are covered. Topics include basic chemistry and related mathematical analyses involved in the operation of water/wastewater treatment plants; various tests necessary to maintain process control for wastewater treatment plants and to monitor sewage and industrial wastes prior to disposal; and proper methods for collection and handling of samples.	UN	Preferred qualifications are an associate's degree in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering. In addition, five years in-field experience is required.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering is required.
ESCI 1260	Water Supply	This course provides an overview of water resources planning and management including basic principles of hydrology and hydrogeology; the social, economic and policy framework for water resources management; causes and resolutions of water resource conflicts; the application of environment criteria for water supply projects; regional water supply planning issues; and emerging technical and policy issues related to national, state, and local	UN	Preferred qualifications are an associate's degree in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering. In addition, five years in-field experience is required.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in water quality/wastewater treatment/wastewater collection, environmental science/technology, biology, chemistry, or chemical engineering is required.

water resources management. Other topics include erosion, damage, land		
reclamation, and basic chemical		
principles of water and water pollution.		

#### ESTH: Esthetician

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
ESTH 1000	Introduction to Esthetics	Introduces the fundamental theory and practices of the Professional Esthetician. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules and regulations, professional image, history of the skin, care and use of cosmetics, bacteriology, sterilization and sanitation, chemistry for estheticians, ingredients and product analysis, and hazardous duty standards act.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1010	Anatomy and Physiology of the Skin	Introduction to anatomy and physiology; disorders of the skin and nutrition and health of the skin. Topics include: cells/tissues/organs, skeletal system, muscular system, nervous system, circulatory system, endocrine system, excretory system, respiration system, digestive system, structure of the skin, disorders of the skin, and nutrition and health of the skin.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1020	Skin Care Procedures	Introduces the theory, procedures, and products used in the care and treatment of the skin. Topics include: client consultation and preparation, cleansing the skin, techniques for professional massage, facial treatments and body treatments, aromatherapy, body wraps, reflexology, and air borne and blood borne pathogens and OSHA updates.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1030	Electricity and Facial Treatments with Machines	Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: skin analysis	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's	Instructor must possess a diploma in cosmetology. In addition, must have

		equipment, basic skin care products, basic electricity, mens skin care products, post consultation and home care, mechanical versus chemical exfoliations, microdermabrasion, and advanced product types and features.		license, and minimum three years of infield work experience.	current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1040	Advanced Skin Care	Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: intrinsic aging, analysis of sensitive skin, treatment for hyperpigmentation, causes of acne, methods of holistic therapy, joining a medical team, and preoperative and postoperative care.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1050	Color Theory and Makeup	Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: morphology of hair, hair removal, sanitation, eyebrow shaping, waxing, ingrown hair service, color theory, face proportions and shape, choosing and using makeup products, makeup tools, basic makeup application, camouflage therapy, and medical application.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1060	Esthetics Practicum I	Provides laboratory experience necessary for the development of skill levels to be a competent esthetician. The allocation of time to the various phases of esthetics is prescribed by the state board of cosmetology. This course includes a portion of the hours for licensure. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.
ESTH 1070	Esthetics Practicum II	Provides experience for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of conduct and positive attitudes. The requirements for this course will be met in a laboratory setting. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.	UN	Preferred qualifications are a cosmetology associate's degree; current instructor cosmetologist license, esthetician's license, and minimum three years of infield work experience.	Instructor must possess a diploma in cosmetology. In addition, must have current master cosmetologist license and minimum three years of in-field work experience.

#### FILM: Film Production

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
FILM 1100	GFA Intro to On-Set Film Production	This course provides students with a basic set of skills and insights sufficient to be integrated onto the sets of working film productions. The course is offered in collaboration with the Georgia Film Academy.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication. The instructor must have at least three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in film and media. In addition, the instructor must have one year of experience in film or television production.
FILM 1010	Basic Skills of Film and Television Production I	Explores the foundational hierarchy and work environment found in the Film and Television Production Industry. Emphasis is placed on the students' understanding of the fundamental elements, principles and theories of film production, including the classical stage, set and location environments. Exposure to the core production departments, their crafts and responsibilities including expected protocols, etiquette and ethics of the production assistant.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication. The instructor must have at least three years of experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in film and media. In addition, the instructor must have one year of experience in film or television production.
FILM 1020	Basic Skills for Film and Television Production II	Building on the fundamentals gained from the Film 1010, broadens the exploration of the business of Film and Television Production by understanding the scheduling and budgeting 2019-2020 Southern Crescent Technical College Course Catalog 391 process. Stresses the importance of the Pre-Production strategy as the foundation for an effective production model. Students will be introduced to production skills that are intrinsic to the success of any type of production. Includes rigorous exposure to crew responsibilities, locations logistics, and organizational expectations.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication and a minimum of three years of experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in film and media. In addition, the instructor must have one year of experience in film or television production.
FILM 1030	Essentials in Film & Television Post- Production I	Expose students to the final phase of the production cycle. Introduce all facets of the post process and create an understanding of workflow, file protocols, and logging of original materials. Introduce the concept of "nonlinear" editing. Refine organizational skills and teach the "Tricks of the Trade"	UN	Preferred qualifications are a bachelor's degree in film & television with emphasis on production, a minimum of three years of experience in film production with emphasis on postproduction, and certification in Avid, Adobe Premiere or Final Cut system.	Instructor must possess an associate of arts degree in film production or digital media. In addition, the instructor must have one year of experience in film and television postproduction and demonstrate competencies in Adobe Creative Cloud.
FILM 1040	Film and Television Production	Acquaint students with the pre-production process of script breakdown, scene analysis,	UN	Preferred qualifications are a bachelor's degree in film and television with emphasis	Instructor must possess an associate of arts degree in film production. In

	Scheduling/Movie Magic	scheduling strategies. Utilizing the breakdown of elements, student learn the people and equipment needed to produce a film and the costs associated with a film project.		on production, and a minimum of three years of production experience as an assistant director or unit manager.	addition, must have a minimum of one year of production experience as an assistant director or unit manager. The instructor must have knowledge of Movie Magic software.
FILM 1050	Film & Television Production Scheduling and Budgeting	Acquaint students with the pre-production process of script breakdown, scene analysis, scheduling strategies. Utilizing the breakdown of elements, student learn the people and equipment needed to produce a film and the costs associated with a film project.	UN	Preferred qualifications are bachelor's degree in film and television with emphasis on production, and a minimum of three years of production experience as an assistant director or unit manager.	Instructor must possess an associate of arts degree in film production. In addition, the instructor must have a minimum of one year of production experience as an assistant director or unit manager. The instructor must have knowledge of Movie Magic software.
FILM 1060	Introduction to Georgia Film Tax Credits	Introduces the Georgia Film Tax Credit. Understanding of these Laws, Rules and Guidelines is the purpose of this class. Includes copies of all state tax credit paperwork, qualifying tax credit categories and complete filing instructions to obtain the credits.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate of arts degree in film production. In addition, must have a minimum of one year of production experience as an assistant director or unit manager. The instructor must have knowledge of Movie Magic software.
FILM 1070	Film and Television Payroll	Introduce the fundamentals of film and television production accounting. Film hierarchy and appropriate chart of accounts. Introduce AP/AR and Petty Cash reconciliation. Expose students to payroll accounting and rules governing union payroll, overtime, and fringe benefits structures. Introduce use of proprietary accounting software.	UN	Preferred qualifications are a bachelor's degree in accounting, and a minimum of three years of experience in film and television accounting. Must be competent in EP Vista or Media WIN. Minimum of three bona fide film credits as an accountant.	Instructor must possess an associate's degree in accounting. In addition, the instructor must have a minimum of one year of experience with EP Vista or Media WIN software.
FILM 1080	Film and TV Basic Set Construction & Scenic Painting	Introduces set construction techniques, material differences (from traditional construction methods) and safety essentials in relation to the Film and Television Production environment will be the core of this offering. Hands on exposure to building fundamentals for film sets, painting, and texturing, faux finishing are included in this basic overview to create amazing visual effects for the camera lens.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in theater arts. In addition, the instructor must have at least three years' experience in theatrical film or television set production.
FILM 1090	Film and TV Basic Set Construction & Scenic Painting II	Teaches advanced techniques in set construction and scenic painting. Includes fundamentals of set design, crew management, advanced set building techniques, concepts of back-lot sets,	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in theater arts. In addition, mist have at least three years' experience in theatrical film or television set production.

		introduction to working in foam, creating stone, brick, etc and specialized painting techniques for realism and effects.			
FILM 1510	GFA Set Construction and Painting	Designed to equip students with entry-level skills and knowledge of set construction for the film and episodic television industries. Students will participate in class projects that include reading blueprints, set safety, use of power tools, carpentry, scenic paint and sculpting. Additionally, emphasis will be placed on set etiquette including, but not limited to attitude and professionalism. The course is offered in collaboration with the Georgia Film Academy.	UN	Preferred qualifications are a bachelor's degree in theatrical arts or film production, and a minimum of three years of work experience in set building and scenic finishing.	Instructor must possess an associate's degree in theater arts. In addition, mist have at least three years' experience in theatrical film or television set production.
FILM 1110	Makeup, Hair and Wardrobe Special Techniques for Film and TV	This course builds on skills learned as a cosmetologist and teaches variations needed in makeup, hair and wardrobe for Film and TV. Wardrobe and Hairstyles are researched as methods to convey appropriate periods of time and associated styles. Makeup training will also include scars, burns, bruises and other special effect techniques	UN	Preferred qualifications are a state of Georgia cosmetology license, bachelor's degree in film production or theater, and a minimum of three years of experience in film and television makeup and hair.	Instructor must possess a state of Georgia cosmetology license or additional professional credentials relevant to the teaching discipline. In addition, one year of experience in film and television makeup and hair is required.
FILM 1120	Introduction to Special Effects Make- up Techniques for Film and TV	This course builds on skills learned as a cosmetologist and teaches variations needed in makeup, hair and wardrobe for Film and TV. Wardrobe and Hairstyles are researched as methods to convey appropriate periods of time and associated styles. Makeup training will also include scars, burns, bruises and other special effect techniques	UN	Preferred qualifications are a state of Georgia cosmetology license, bachelor's degree in film production or theater, and a minimum of three years of experience in film and television makeup and hair.	Instructor must possess a state of Georgia cosmetology license or additional professional credentials relevant to the teaching discipline. In addition, one year of experience in film and television makeup and hair is required.
FILM 1310	Basic Skills of Electric/Lighting for Film I	Explores the foundational concepts, skills and work environments for an electrician in the Film and Television Production Industry. Emphasis is placed on the students understanding of the fundamental elements, principles and expectations of an electrician, including duties on a classical stage and location environments. Exposure to the basic equipment used in the Electrical / Lighting department, including expected protocols, etiquette and ethics.		Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in film, television or broadcast. In addition, must have one year of experience as a working electrical technician.

FILM 1320	Basic Skills of Electric/Lighting for Film II	Building on the fundamentals gained from the Film 1310. Broaden the exploration of the equipment used in the Electrical / Lighting department, including expected protocols, etiquette and ethics. Stressing the importance of pre-production preparation and organization / inventory procedures of equipment during the production process. Students will be introduced to basic safe handling of electrical instruments and accessories. Advanced rigorous exposure to electrical / lighting crew responsibilities, logistics and organizational skills.		Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in film, television or broadcast. In addition, must have one year of experience as a working electrical technician.
FILM 1350	GFA Electric and Lighting	Introduce students to the structure and functioning of the Lighting Dept. on a film or TV show. Basic duties required of a crew electricianelectrical cable distribution, nomenclature of lighting instruments and exposure to Quartz, HMI, Fluorescent and LED fixtures.	UN	Preferred qualifications are a bachelor's degree in film production, broadcast or digital media, and a minimum of three years of experience working as an electrician in film or television production. Instructor must be proficient in safety, load balances, and distribution of power. Instructor must be OSHA certified.	Instructor must possess an associate's degree in film, television or broadcast. In addition, must have one year of experience as a working electrical technician.
FILM 1410	Basic Skills of Grip/Rigging for Film I	Explores the foundational concepts, skills and work environments for a Grip in the Film and Television Production Industry. Emphasis is placed on the students understanding of the terminologies, fundamental elements, principles and expectations of a grip, including duties on a classical stage and in a location environment. Exposure to the basic equipment used by the Grip / Rigging department.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms. Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, must have one year of experience in film or television as a grip.
FILM 1420	Basic Skills of Grip/Rigging for Film II	Building on the fundamentals gained from the Film 1410. Broaden the exploration of the equipment used in The Grip / Rigging department, including expected protocols, etiquette and ethics. Stressing the importance of pre-production preparation and organization / inventory procedures of equipment during the production process. Students will be introduced to basic safe handling of Grip essential equipment and accessories. Advanced rigorous exposure to grip / rigging crew responsibilities, logistics and organizational skills.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms.  Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, must have one year of experience in film or television as a grip.

FILM 1430	Basics of Dolly and Track Operations	Explores the function, set-up and operations of a Dolly on a film set. Includes use of straight track, curved track and dance-floor. Intro to the many different brands and styles of dollies, including their preferred usage. Basic functions of a dolly, dolly grip and standard/optional accessories. Hands on experience setting up and operating a dolly in a production environment.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip.	Instructor must possess an associate of arts degree in film or theater. In addition, must have one year of experience in film or television as a grip.
FILM 1450	GFA Grip and Rigging	Introduces student to the basic structure and hierarchy of the grip department. Student are taught floor and grid mounted rigging. Camera rigging includes car mounts as well as dolly usage. Student learn to set and level track for moving shots, as well of accessories for the dolly from risers to various heads. Safety in rigging is an essential part of all training.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms. Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, must have one year of experience in film or television as a grip.
FILM 2010	Advanced Skills for Film and TV Production	Reinforcing the foundational knowledge gained in Film 1010 & 1020, reinforce the structure embedded in the hierarchy and work environment found in the Film and Television Production Industry. Emphasis is placed on the students understanding of the fundamental elements, principles and theories of film production, including the classical stage, set and location environments. Hands on instructional exercises reproduces production department environments, responsibilities, protocols, etiquette and ethics used daily by production assistants	UN	Preferred qualifications are a bachelor's degree in film production or broadcast, and a minimum of three years of experience as a production office coordinator, first assistant director or unit production manager. Instructor must have working knowledge of Microsoft Suite and Scenechronize software.	Instructor must possess an associate's degree in film production or broadcast. In addition, the instructor must have one year of experience in theatrical film or television set production.
FILM 2020	Advanced Skills for Film and TV Production II	Building on the fundamentals gained from the course Film 2010, students will broaden the exploration of the business of Film and Television Production by better understanding the scheduling and budgeting process. Stressing the importance of the Pre-Production strategy as the foundation for an effective production model. Students will be introduced to production skills that are intrinsic to the success of any type of production. Advanced rigorous exposure to crew responsibilities, locations logistics and organizational expectations.	UN	Preferred qualifications are a bachelor's degree in film production or broadcast, and a minimum of three years of experience as a production office coordinator, first assistant director or unit production manager. Instructor must have working knowledge of Microsoft Suite and Scenechronize software.	Instructor must possess an associate's degree in film production or broadcast. In addition, the instructor must have one year of experience in theatrical film or television set production.

FILM 2030	Essentials of Film and TV Post-Production II	Building on the fundamentals of the final phase of the production process cycle gained from the Film 1030 course. Continue development of skills used in all facets of post production and creating/maintaining file protocols, advanced workflow, logging of original materials and introduction to nonlinier editing with Adobe Premier. Advanced Problem solving and group projects will further prepare students for a professional work environment.	UN	Preferred qualifications are a bachelor's degree in film production, broadcast or digital media, and a minimum of three years of experience as assistant editor or editor, and demonstrate competencies in Adobe Premiere, Audition, and DaVinci techniques.	Instructor must possess an associate of arts degree in film production or digital media. In addition, the instructor must have one years of experience in film and television postproduction and demonstrate competencies in Adobe Creative Cloud.
FILM 2040	Advanced Film and TV Production Scheduling/Movie Magic	Building on the fundamentals gained from the FILM 1040 and FILM 1050, broadens the exploration of the business of Film and Television Production by a deeper understanding the scheduling and budgeting process using the Entertainment Partners/Movie Magic software. Stressing the importance of detail and thorough Pre-Production strategies for an effective production model. Students will further perfect skills that are intrinsic to the success of any type of production. Advanced rigorous exposure to crew/union requirements, locations logistics, organizational techniques, scheduling conflicts management, custom reporting, globals and working with estimated time. Familiarity with important organizations and resources for industry production personnel, locations, and equipment cost estimating. Software integration with Final Draft and Movie Magic Budgeting.	UN	Preferred qualifications are a bachelor's degree in film production, or fine arts, and a minimum of three years of experience as a first assistant director or unit production manager on television or film. Instructor must be proficient in Movie Magic Software.	Instructor must possess an associate's degree in film production or media. In addition, the instructor must have one year of experience as a first assistant director or unit production manager in television or film. Instructor must be proficient in Movie Magic Software.
FILM 2050	Advanced Film and TV Production Budgeting/Movie Magic	Building on the advanced skills gained from the FILM 2040, students will delve deeper into the budgeting process to examine the intricacies of large scale production planning. Students will be introduced to custom reporting, shortcuts, problem solving, What if scenarios, foreign exchange rates and estimated time. Perfecting skills in the budgeting technique to minimize errors in cost estimations for film and episodic TV production. Advanced proficiency in software	UN	Preferred qualifications are a bachelor's degree in film production or broadcast, and a minimum of three years of experience as a production office coordinator, first assistant director or unit production manager.	Instructor must possess an associate's degree in film production or media. In addition, the instructor must have one year of experience as a first assistant director or unit production manager in television or film.

FILM 2080	Film and TV Advance Set Construction and Scenic Painting I	operation, integration and usage of the Entertainment Partners/Movie Magic products.  Builds on the fundamentals learned in GFA 1510. Taught techniques for arches, stairways, complex window flats. Scenic training on more advanced faux techniques, foam molding and cutting and other paint appliques.	UN	Preferred qualifications are a bachelor's degree in theatrical arts or film production, and a minimum of three years of work experience in set building and scenic finishing.	Instructor must possess an associate's degree in theater arts. In addition, the instructor must have one year of experience in theatrical film or television production.
FILM 2090	Film and TV Advanced Set Construction and Scenic Painting II	Continuing the exploration of the set construction area of film productions, students will design a set, based on script specifications, draw sketches and plans and construct a portion of the set, based on the design requirements. Introduction to advanced structure creation like platforms, multi-story/complex facades including creative uses for shipping containers, will be presented. Students will also be exposed to safety and basic operations and usages of heavy equipment (Scissor-Lifts, Condors, Fork-Lifts / Pallet-Jacks, etc.) used in the construction process and construction shop organization.	UN	Preferred qualifications are a bachelor's degree in film production or broadcast, and a minimum of three years of experience as a production office coordinator, first assistant director or unit production manager.	Instructor must possess an associate's degree in theater arts. In addition, the instructor must have one year of experience in theatrical film or television production.
FILM 2100	GFA Practicum	Through cooperative agreements among the film industry, the Georgia Film Academy, and the student, the practicum provides students opportunities to demonstrate techniques learned in the initial Georgia Film Academy's course through on-set productions.  Emphasizes student opportunities to practice production assistant skills in a hands-on situation under the supervision of a film industry professionalism. Topics include: demonstrating film production functions, applying film knowledge and skills in the workplace, listening and following directions, and modeling professionals.	UN	Preferred qualifications are a master's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess an associate's degree in theater arts. In addition, the instructor must have one year of experience in theatrical film or television production.
FILM 2310	Advanced Electrical and Lighting for Film	Expose students to the operation of lighting instruments, distribution components and lighting accessories. Introduction to basics of lighting and distribution troubleshooting, including skills, processes and protocols used	UN	Preferred qualifications are a bachelor's degree in film production, broadcast or digital media, and a minimum of three years of experience working as an electrician in film or television production. Instructor must	Instructor must possess an associate's degree in film, television or broadcast. In addition, the instructor must have one year of experience as a working electrical technician.

		for searching out and addressing an electrical problem on set. Advanced organizational skills will be refined and tricks of the trade will be explored to better prepare students for a professional work environment.		be proficient in safety, load balances, and distribution of power. Instructor must be OSHA certified.	
FILM 2320	Advanced Skills of Electric/Lighting for Film II	Continue the exploration into the techniques of Film and Television Production by acquainting students to the basics of lighting for Film. Utilizing industry standards, students will become familiar with 3-point lighting techniques, lighting using practical, exterior lighting conditions and ambient lighting techniques. Students will also be exposed to the essential functions of Dimmers, LEDs and Smart-Lighting technologies. Students will be able to demonstrate the essential skills needed to work as an electrician in the film and TV production industry.	UN	Preferred qualifications are a bachelor's degree in film production, broadcast or digital media, and a minimum of three years of experience working as an electrician in film or television production. Instructor must be proficient in safety, load balances, and distribution of power. Instructor must be OSHA certified.	Instructor must possess an associate's degree in film, television or broadcast. In addition, the instructor must have one year of experience as a working electrical technician.
FILM 2410	Advanced Skills of Grip/Rigging for Film I	Expose students to the operation of stands, clamps and hangers, speed-rail, flags/frames and basic grip accessories. Introduction to basics of grip /rigging troubleshooting, including skills, processes and protocols used for addressing a related grip/rigging problem on set. Advanced organizational skills will be refined, and tricks of the trade will be explored to better prepare students for a professional work environment.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms. Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, the instructor must have one year of experience in film and television as a grip.
FILM 2420	Advanced Skills of Grip/Rigging for Film II	Continue the exploration into the grip / rigging department by acquainting students to the basics of exterior rigging techniques for Film. Utilizing industry standard gear, students will become familiar with the terminology and concepts of rigging items from condors, scissor-lifts, scaffolding and buildings. They will also be exposed to the essential functions of these rigs and optional uses. Thru on-set production simulations, students will be able to demonstrate the essential skills needed to work as a grip in the Film and TV production industry.	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms.  Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, the instructor must have one year of experience in film and TV as a grip.

FILM 2430	Basics of Crane, Condor and Heavy Equipment	Explores the function, set-up and operations of cranes, condors (cherry-picker) and other heavy equipment used on a film set. Includes the use of cranes, arms and jibs. Intro to the many different ways to rig and utilize a condor on location or on a sound stage, including their preferred usages. Basic functions of scissor lifts and scaffolding and standard/optional accessories and attachments. Hands on experience setting up and operating a crane, condor and scissor-lift in a production environment	UN	Preferred qualifications are a bachelor's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television grip. Instructor must be proficient in safety, rigging lamps to camera platforms. Instructors must be OSHA certified.	Instructor must possess an associate of arts degree in film or theater. In addition, must have one year of experience in film and television as a grip.
FILM 2500	Film and TV Production Practicum/Internship	Provides additional skills application in a professional production environment through cooperative agreements among the film industry, the Georgia Film Institute and the student to furnish employment within a variety of production opportunities. Emphasizes student opportunities to practice production assistant skills in a hands-on situation under the supervision of a film industry professional. Supplements and compliments the courses taught in the Georgia Film Institute. Topics include: application of production skills, appropriate employability skills, problem solving, adaptability to differing production environments and acceptable job performance for Production Assistants assigned to the grip, electrical, art department, hair and makeup, SPFX, locations, camera, transportation and production departments.	UN	Preferred qualifications are a master's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess a bachelor's degree in film or television production. In addition, the instructor must have one year of film or television production experience.
FILM 2900	Film and TV Production Practicum/Internship	Provides additional skills application in a professional production environment through cooperative agreements among the film industry, the Georgia Film Institute and the student to furnish employment within a variety of production opportunities. Emphasizes student opportunities to practice production assistant skills in a hands-on situation under the supervision of a film industry professional. Supplements and compliments the courses taught in the Georgia Film Institute. Topics include: application of production skills,	UN	Preferred qualifications are a master's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess a bachelor's degree in film or television production. In addition, must show at least two years of film or television production experience.

		appropriate employability skills, problem solving, adaptability to differing production environments and acceptable job performance for Production Assistants assigned to the grip, electrical, art department, hair and makeup, SPFX, locations, camera, transportation and production departments.			
FILM 2550	GFA Film Practicum/Internship	This program is offered in collaboration with the Georgia Film Academy. Through cooperative agreements among the film industry, the GFA, and the student, the practicum provides students the opportunity to work on an actual film or television production and demonstrate production techniques learned in FILM 1100. The four week on-set assignment provides students a real-world environment in which to practice production assistant skills in a hands-on situation. Students work under the supervision of a film industry professional, who monitors their progress, while the students keep a journal of their day to day experiences. Topics include demonstrating film production functions, applying film knowledge and skills in the workplace, listening and following directions, and modeling professional work habits. Students will also complete a two-day course in OSHA safety tailored to motion picture production.	UN	Preferred qualifications are a master's degree in film or media, fine arts, communication, and a minimum of three years of work experience in film or television production and/or technical craft areas.	Instructor must possess a bachelor's degree in film or television production. In addition, the instructor must have one year of film or television production experience.

FOSC: Forensic Science Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
FOSC 1206	Introduction to Forensic Science	This introductory course will provide a broad overview of the areas in forensic science covered in higher level courses. Topics include the recognition, identification, individualization and evaluation of various types of physical evidence, forensic science and the law, and ethics in forensic science. The relationship of forensic science to the natural sciences and the use of the scientific method in forensic science will also be explored.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
FOSC 2010	Crime Scene Investigation I	A study of the methods and techniques of scientific crime scene investigation and analysis using principles from biology, chemistry, and physics to document, recognize, preserve and collect physical evidence. Topics covered include video recording, photography, sketching, and searching of crime scenes along with proper collection and preservation methods.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
FOSC 2011	Crime Scene Investigation II	Designed to follow Crime Scene Investigation I, this course focuses on the specialized scene techniques needed to investigate, analyze, process and reconstruct crime scenes. Topics will include presumptive testing, enhancement reagents, special scene techniques, bloodstain pattern analysis, shooting reconstruction, pattern recognition and crime scene reconstruction.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2012	Forensic Trace Evidence	Trace evidence is often divided into two categories; chemistry and microscopy. This course is an introductory course in trace evidence to include the sub disciplines of hairs, fibers, arson, gunshot residue, explosives, paint, fracture match and fabric impression	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.

		examinations and comparisons using microscopic and instrumental techniques. This course will also give the student who is interested in laboratory or CSI work practical experience in the area of trace evidence and how it relates to forensic science.		five years of professional work experience in a related field is required.	
F0SC 2014	Documentation and Report Preparation	The effectiveness of quality notes, reports and accurate documentation in the investigative process are explained and performed. Preparation of a report, chain of custody documents and other forms with proper content, mechanics, elements and format will also be explained and performed. Topics include field or bench notes, documentation of observations, factual report writing, property and evidence reports, business letters, memorandums, proper grammar, proper sentence structure and characteristics essential to quality report writing and document preparation.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2028	Bloodstain Pattern Analysis	Bloodstain pattern analysis is a tool used in crime scene investigations to reconstruct events and evaluate statements. Lectures on terminology and theory coupled with practical laboratory exercises will provide students with the basic knowledge of bloodstain pattern analysis. The understanding of scientific principles related to bloodstain pattern analysis and its relation to case work will be explored in addition to the identification and documentation of bloodstains and bloodstain patterns.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2033	Death Investigation	This course examines the fundamentals of a medicolegal death investigation, the operation of death investigation system and the role of the death investigator. Procedures required assisting the medical examiner/ coroner in determining the deceased persons cause and manner of death are discussed.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.

		Additional topics include autopsy technique, sudden and unexpected death, natural death, specific wound and injury characteristics, and child death.		five years of professional work experience in a related field is required.	
F0SC 2035	Forensic Photography	The basic principles of photography generation and manipulation. Students will learn the basic camera operations including shutter speed, aperture, and lighting. Topics will include macro and micro photography, depth of field, digital cameras, and scene photography. Emphasis will be placed on the application of basic camera techniques to forensic science photography.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2037	Victimology	While individuals have been crime victims for many years, victimology or the study of crime victims is a relatively recent discipline. The majority of criminological research and discussion has been focused on the offender rather than the victim. This course provides an overview of the principles and concepts of victimology, an analysis of victimization patterns and trends, and the role of victimology in the justice system. In addition the repercussions of victimization, victim reporting patterns and remedies available for victims are also explored.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2039	Computer Forensics	The main goal of this course is to provide students with an understanding of computer forensics and investigation tools and techniques. Students will gain a solid foundation in computer forensics and investigations. Most of the major personal computer operating system architectures and disk structures will be discussed. Students will learn how to set up an investigators office and laboratory, as well as what computer forensic hardware and software tools are available. Students will also learn the importance of digital evidence controls	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.

		and how to process crime and incident scenes. Finally, students will learn the details of data acquisition, computer forensic analysis, e-mail investigations, image file recovery, investigative report writing, and expert witness requirements. The course provides a range of laboratory and hands-on assignments that teaches about theory as well as the practical application of computer forensic investigation.			
F0SC 2040	Forensic Firearms and Toolmark Identification	The course is an introduction to firearms, ammunition and ammunition components, microscopic comparison of questioned bullets, cartridge cases and toolmarks, distance determination, gunpowder and shotgun pattern analysis, serial number restoration, lock picking techniques, the examination of security devices such as padlocks and safes and the examination of firearm related injuries.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2041	Latent Print Examination	This course explains the history, biology, and basic principles of friction ridge analysis. Properly recording, processing, documenting, collecting, and preserving latent print evidence will be discussed. Students will also be introduced to the Automated Fingerprint Identification System (AFIS) and the analysis, comparison, and evaluation of latent prints. Various lab exercises will also be conducted to demonstrate processing methods used in latent print examination.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.
F0SC 2150	Case Preparation and Courtroom Testimony	Examines the case file preparation, admissibility of evidence rulings, the criminal trial process, courtroom demeanor, and direct and cross examination techniques for courtroom testimony. Skills are performed in a mock courtroom setting by the students. Topics include fact and expert witnesses,	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.

		pertinent case law, property and evidence reports, investigative and laboratory reports, preparation of the witness, witness credibility and proper courtroom appearance and demeanor.		five years of professional work experience in a related field is required.	
FOSC 2200	Forensic Firearm Injuries, Distance Determination and Firearm Safety	Firearm related injuries and distance determination, using the analysis of both gunshot residues and shotgun pattern analysis will be the focus of this course. The application of the scientific method, testing protocols, analysis of firearms injuries on victims and the reproduction and comparison of gunpowder and primer residues to determine the muzzle to target distance will also be explained. The functionality, maintenance, and safety testing of firearms will also be demonstrated.	UN	Preferred qualifications are a master's degree of forensic science, criminal justice, master's degree of public safety, master's degree of public administration in justice administration, or Peace Officers Standards and Training (POST) instructor certification. In addition, a minimum of five years of professional work experience in a related field is required.	Instructor must hold a bachelor's degree in forensic science, criminal justice or related field. In addition, must have a minimum of three years in-field work experience.

#### FRSC: Fire Science

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
FRSC 1020	Basic Firefighter – Emergency Services Fundamentals	This course provides the student with information on the applicable laws, policies, and standards that the Firefighter I course is designed, and how the course will be administered. This course will provide the student basic knowledge of where and how the fire service originated from the colonial periods to present day firefighting operations. The student will learn basic roles and responsibilities of a firefighter, how firefighters have to abide by and work from standard operating procedures and guidelines, and how the chain of command works and their position within it. The student will be provided the knowledge on how to communicate within the fire service; whether it with the fire station or on the fire ground. This course provides the emergency responder with basic principles and functions of the Incident Command System. The course will provide the necessary knowledge and skills to operate within the ICS and their role within the ICS at the fire station, at a non-emergency scene, and at emergency scenes. It will provide also provide the emergency responder with knowledge on how to perform basic skills at emergency scenes that deal with infection control, cardiopulmonary resuscitation, basic first aid measures, and using an AED. Finally, it will provide the emergency responder skills and knowledge on how to recognize the presence of and the potential for a hazardous materials release, and how and who personnel should call. Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

		be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following: 1. Infection Control 2. CPR 3. First Aid 4. ICS-100 5. IS-700 6. NPQ - Hazardous Materials for First Responders Awareness Level This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.			
FRSC 1030	Basic Firefighter - MODULE I	This course provides the firefighter candidate/recruit with basic knowledge and skills to perform various fire ground operations as a firefighter on emergency scenes. The candidate/recruit will learn about safety during all phases of a firefighters career, the personal protective equipment that is required for training and every emergency response, and how to properly don it for use and doff it after use. The candidate/recruit will learn about the dynamics of fire through fire behavior and how to extinguish the different phases of fires with either portable fire extinguishers or through fire suppression attacks and techniques. The candidate/recruit will also learn the three tactical priorities of Life Safety, Incident Stabilization, and Property Conservation that have to be achieved on every fireground. Basic knowledge and skills will be provided to the candidate/recruit so they can achieve the tactical priorities through various fireground operations such as: response & size-up, forcible entry, ladders, search & rescue, ventilation, water supply, fire hose, fire nozzles, fire streams, salvage, and overhaul. Upon completion of this course the student emergency responder candidate/recruit will have the basic	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

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		skills and knowledge to be able to obtain			
		a certificate of completion or become			
		certified through the appropriate			
		governing agency for the following: 1.			
		Module I This course meets the			
		requirements NFPA 1001 Standard for			
		Fire Fighter Professional Qualifications			
		and all other state, local, and provincial			
		occupational health and safety regulatory			
		requirements.			
FRSC 1040	Basic Firefighter -	This course builds from the skills and	UN	Preferred are a master's degree in fire	Instructor must hold an associate's degree
	MODULE II	knowledge in Module I and provides the		science, emergency management, public	in fire science, emergency management,
		knowledge and skills to support the		administration, healthcare management	emergency services or public safety. Must
		fireground techniques learned in the		or closely related field. In addition, must	also provide ProBoard (NPQ) Fire Instructor
		previous courses. The firefighter will learn		possess a Georgia State Office of	II, NFPA 1403 Live fire instructor and
		various uses of ropes & knots and how to		Emergency Medical Services Trauma Level	ProBoard (NPQ) evaluator certification. In
		hoist firefighting tools and equipment. The		Il or III Instructor license. Three years'	addition, minimum of three years in-field
		firefighter will also gain the knowledge		experience in closely related field.	work experience is required.
		and skills of building construction		experience in closely related field.	work experience is required.
		principles that will be used throughout			
		their firefighting career to identify building			
		conditions such as: fire spread and travel,			
		how and where to ventilate, indications of			
		potential building collapse, etc. The			
		firefighter will learn survival techniques			
		that will be used throughout their career			
		to help keep themselves safe and how to			
		rescue themselves or another firefighter.			
		Firefighter rehabilitation will be discussed			
		during this course, so that the firefighter			
		will know how and when to properly rehab			
		themselves before, during, after an			
		emergency response. Knowledge of fire			
		suppression systems will be discussed, so			
		that the firefighter will have a basic			
		understanding of the components of a fire			
		detection, protection, and suppression			
		system. Basic cause determination will be			
		discussed so that firefighters will be			
		aware of observations during various			
		phases of fireground operations. Finally to			
		complete the Firefighter I program the			
		firefighter will participate in the following			

FRSC 1050	Fire and Life Safety Educator, I	live fire scenarios in order to complete the objectives of the program. 1. Exterior Class A Fire 2. Interior Structure Attack Above Grade Level 3. Interior Structure Attack Below Grade Level 4. Vehicle Fire 5. Dumpster Fire Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following: 1. NPQ Fire Fighter I This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.  Most structural fires, fire deaths and fire injuries occur in the home. This course addresses some of the most important responsibilities of the modern fire service; teaching the public to prevent or if needed, escape fires and related emergencies. We have adopted the approach that we must learn from each incident then put the information to work to prevent fires and life safety education. Topics include: general requisite knowledge, administration, planning and development, education and implementation, and evaluation.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 1060	Fire Prevention, Preparedness and Maintenance	This course provides the student with the necessary skills of fire prevention, emergency scene preparedness, and tool and equipment maintenance. Specifically addressed are the following topics: basic principles of building construction; knowledge of water supply systems to include pressurized systems, rural water supplies, and alternative water supplies; perform hydrant flow tests as part of water	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

F	FRSC 1070	Introduction to Technical Rescue	flow assessments for water supplies coming from pressurized hydrants; discuss fire detection, suppression, and suppression systems; consolidate all knowledge to perform a pre-incident plan of a facility; selection of proper tools and techniques of cleaning and proper maintenance of those tools; discuss hose lines, nozzles, and fire streams to perform houseline lays with proper nozzles attached and select the proper fire stream for the class of fire encountered on various types of fire scenes; and service testing of fire hoses. Finally, this course will conclude fire cause determination to gain necessary knowledge and skills to perform a fire investigation to determine the point of origin and the cause of a fire in a structure. To participate in this course the student must also attain national certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141.  This course provides an awareness of the principles of technical rescue through utilization of readings from the text, classroom discussion, practical skills, and practice. This course includes Extricating a victim entrapped in a Motor Vehicle, Assisting a Rescue Team in various technical rescue operations including but not limited to Trench and Excavation, Rope Rescue, Water Rescue, Confined Space Operations, Structural Collapse, Vehicle and Machinery Rescue, and Wilderness Search and Rescue. The student will learn the application of knots, rigging principles, anchor selection criteria, system safety check procedures, rope construction and rope rescue equipment applications and limitations.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
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FRSC 1080	Fireground Operations	2008 Edition Chapter 6 sections 6.4.1, 6.4.2 and NFPA 1006, Standard for Technical Rescuer Professional Qualifications, 2008 Edition Chapter 5 sections 5.2, 5.3, 5.4, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5, 5.5.8, 5.5.9, 5.5.11, 5.5.14 and NFPA 1670, Standard on operations and Training for Technical Search and Rescue Incidents, 2004 Edition sections 5.2.2, 6.2.2, 6.3.47.2.48.2.3, 9.2.3, 10.2.2, 11.2.3. To participate in this course, the student must also have attained national certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141. This course will provide the student basic knowledge of the roles and responsibilities of the Firefighter II; the standard operating procedures and guidelines of firefighters; fire service communications relative to obtaining information from occupants and owners to complete an incident report can be completed accurately; Incident Command principles and their application; practical fireground hydraulics to supply proper nozzle pressures while participating in live fire scenarios. To participate in this course the student must also attain National certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040, FRSC 1141.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
rkoc 1100	Fire Service	and history of Fire Protection, loss of property and life by fire, review of municipal fire defenses and the organization and function of the federal, state, county, city and private fire protection. Includes introduction to: fire technology education and the firefighter selection process; fire protection career opportunities; public fire protection;	UIN	science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

		chemistry and physics of fire; public and private support organizations; fire department resources, fire department administration; support functions; training, fire prevention; codes and ordinances; fire protection systems and equipment; emergency incident management; and emergency operations.			
FRSC 1110	Fire Administration  - Supervision and Leadership	This course provides the necessary knowledge and skills for an emergency responder to become a successful fire officer. The student will learn how to become a responsible leader and supervisor to a crew of firefighters, how to manage a budget for the fire station, understand standard operating procedures, and be able to manage an incident. Also, an understanding of basic fire prevention methods, fire and building codes, and records systems will be covered throughout the course. Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to qualify for a certificate of completion or seek certification through the appropriate governing agency for the following: 1. NFA Leadership I 2. NFA Leadership II 3. NFA Leadership III This course meets the requirements NFPA 1021 Standard for Fire Officer Professional Qualifications and all other state, local, and provincial occupational health and safety regulatory requirements.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 1115	Fire Behavior and Combustion	This course provides an understanding of the basic principles of fire chemistry, the processes of fire/combustion, and fire behavior. It addresses theoretical concepts, explaining their importance, and illustrates how they can be applied in a practical manner when responding to emergency situations. An emphasis is	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

		placed on safety, with each explanation drawing a connection between how a fire behaves and how it affects the safety of the individual firefighters and their team.			
FRSC 1121	Firefighting Strategy and Tactics	This course presents the principles of applying fire department resources to mitigate a fire or related emergency. General topics include: principles of firefighting, size up, engine company operations, hose line selection and placement, water supply, standpipe and sprinkler operations, ladder company operations, forcible entry, ventilation and search and rescue. Specific-fires reviewed will include private dwellings, multiple dwellings, commercial buildings, high-rise structures, buildings under construction, structural collapse, flammable liquid and gas fires and waterfront fires.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 1132	Fire Service Instructor	Students will learn to analyze jobs and information, then prepare and present related training. Emphasis is placed on planning, organizing, presenting, and testing, using methodologies appropriate to the subject. Topics include: orientation to emergency services instruction, communication, planning and analysis, objectives, learning, assessment, methods of instruction, instructor materials, media, training related group dynamics, classroom management, the legal environment, and NPQ Fire Instructor I. Students will have numerous hands-on opportunities to apply what they learn. Successful completers of FRSC 1132 are qualified to test for the National Professional Qualification (NPQ) Fire Instructor I Exam.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 1141	Hazardous Materials Operations	This course provides emergency responder personnel with the information to respond safely, limit possible exposure to all personnel, and to provide information to the proper authorities as	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and

		being a primary goal while reacting in the defensive mode of operation. The first responder operations level responsibilities are recognition and identification of a hazardous material scene, the gathering of information, the notification of the proper authorities, the isolation of the area by setting perimeters/zones, possible evacuation, protection by initiating the incident management system, emergency decontamination, and performing defensive actions only. Even though the first responder is a member of an emergency response service, they are not trained in specialized protective clothing or specialized control equipment. Thus, the first responder is not a member of a hazardous materials response team. This course meets the requirements of NFPA 472 - Professional Competence of First Responders to Haz Mat Incidents at the Operations Level. This course also meets the requirements of OSHA 29 CFR 1910.120, EPA, USDOT, and all other appropriate state, local and provincial occupational health and safety regulatory requirements. Also required as prerequisite: NPQ FF I and NPQ Hazardous Materials Awareness Level		Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 1151	Fire Prevention & Inspection	Emphasis is placed on the shared responsibility of all fire service personnel to prevent fires and fire losses by survey of fire prevention activities, conducting basic fire prevention inspections, practicing life safety codes, review of local and state laws regarding fire inspection, and review of applicable codes and standards. Topics include: code administration, inspection, use and occupancy, building limitations and types of construction, fire resistive construction elements, installation of fire protection systems, mean of egress,	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

		interior finish requirements, general fire			
		safety provisions, maintenance of fire			
		protection systems, means of egress			
		maintenance for occupancies, hazardous			
		materials, flammable liquids and			
		aerosols, detonation and deflagration			
		hazards, hazardous assembly			
		occupancies, other storage and			
		processing occupancies, compressed			
		gases and cryogenic liquids, pesticides			
		and other health hazards, and using			
		referenced standards. Successful			
		completion of FRSC 1151 qualifies			
		individuals to test for the National			
		Professional Qualification (NPQ) Inspector			
		Level-I examination.			
FRSC 1161	Fire Service Safety	This course will provide the necessary	UN	Preferred are a master's degree in fire	Instructor must hold an associate's degree
11100 1101	and Loss Control	knowledge and skills for the emergency	0.1	science, emergency management, public	in fire science, emergency management,
	una 2000 00maon	responder to understand occupational		administration, healthcare management	emergency services or public safety. Must
		safety and health and be able to develop		or closely related field. In addition, must	also provide ProBoard (NPQ) Fire Instructor
		safety programs. The course starts with an		possess a Georgia State Office of	II, NFPA 1403 Live fire instructor and
		introduction to occupational safety and		Emergency Medical Services Trauma Level	ProBoard (NPQ) evaluator certification. In
		health and covers the history, national		Il or III Instructor license. Three years'	addition, minimum of three years in-field
		agencies that produce injury and fatality		experience in closely related field.	work experience is required.
		reports, and efforts that have been made		experience in diesely related notal	work experience is required.
		to address safety and health problems in			
		emergency service occupations. The			
		course will review safety related			
		regulations and standards and discuss			
		how to implement them through risk			
		management processes. There will be			
		lectures and discussions on pre-incident			
		safety, safety at fire emergencies, safety			
		at medical and rescue emergencies,			
		safety at specialized incidents, and post-			
		incident safety management. Personnel			
		roles and responsibilities will be covered,			
		so that knowledge can be gained on the			
		relationship to the overall safety and			
		health program by the different			
		responding and administrative personnel			
		at emergency scenes. Lectures and			
		discussions on how to develop, manage,			

		and evaluate safety programs will be			
		covered to provide general knowledge and			
		basic skills on occupational health and			
		safety programs. Finally information			
		management and various other special			
		topics will be covered to gain knowledge			
		on the legal, ethical, and financial			
		considerations that programs need to be			
		aware of and how to collect the data and			
		report it.			
FRSC 2100	Fire Administration	This course will provide the necessary	UN	Preferred are a master's degree in fire	Instructor must hold an associate's degree
11100 2 100	Management	knowledge and skills for the emergency		science, emergency management, public	in fire science, emergency management,
	Managomone	responder to become a diverse leader and		administration, healthcare management	emergency services or public safety. Must
		manager in their department. The course		or closely related field. In addition, must	also provide ProBoard (NPQ) Fire Instructor
		starts with the history of the fire service		possess a Georgia State Office of	II, NFPA 1403 Live fire instructor and
		which focuses on the historical events that		Emergency Medical Services Trauma Level	ProBoard (NPQ) evaluator certification. In
		have forged the fire service today.		Il or III Instructor license. Three years'	addition, minimum of three years in-field
		Discussions on preparing for the future		experience in closely related field.	work experience is required.
		are designed to provide information to		experience in closely related field.	work experience is required.
		develop a game plan for personal			
		success. Leadership and Management			
		principles will be taught to blend the			
		academics of leadership and			
		management research into what occurs in			
		the fire service organization on a daily			
		basis. Leadership styles will be discussed			
		to help understand how to lead and			
		manage and, as important, why it's done.			
		The course will take an insightful look into			
		how people handle change personally and			
		organizationally. Discussions on ethics			
		will be focused on the elements critical to			
		ethical leadership and management			
		practices. The course will explore the			
		elements of team building and provide a			
		depth of understanding how to blend			
		various styles and personalities to get the			
		most from people. Discussions on			
		managing emergency services will target			
		budgeting and personnel management			
		the support elements that are so vital to			
		every organization. Quality of the fire			
		service will also be looked at for methods			

		of quality improvement and their applications to improve the services delivered to citizens every day. An indepth overview of the changes in disaster planning and response since 9-11, and includes ways to help with community evaluation and preparedness processes. Finally, shaping the future will explore the possibilities of what may occur in the fire service and how you can play an important role in helping to shape the fire service of the future.			
FRSC 2110	Fire Service Hydraulics	This course begins with the history and theories of the use of water for fire extinguishment then moves to practical application of the principles of hydraulics in water systems and on the fire ground. Topics include: water at rest and in motion, velocity and discharge, water distribution systems, fire service pumps, friction loss, engine and nozzle pressures, fire streams, standpipe systems, automatic sprinkler systems, firefighting foams, and the clip board friction loss system.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 2120	Fire Protection Systems	A review of fire detection and protection systems including: automatic sprinkler systems, portable fire extinguishers, restaurant/kitchen systems, special hazard systems, detection systems, and control systems. The applicable laws, codes and standards will be introduced along with regulatory and support agencies. Specific topics include: introduction to fire protection systems, water supply systems for fire protection systems, water-based suppression systems, nonwater-based suppression systems, fire alarm systems, smoke management systems, and portable fire extinguishers.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.

FRSC 2130	Fire Service Building Construction	Presents building construction features from the perspective of the fire service with emphasis placed on the use of building construction information to prevent and reduce fire fighter and civilian deaths and injuries. Topics include: principles of building construction, building construction classification, building construction hazards and tactical considerations, structural loads and stresses, structural building components and functions, fire resistance and flame spread, building codes, structural failure and firefighter safety, and firefighter safety in structural and wild land firefighting.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 2141	Incident Command	The Incident Command course is designed to illustrate the responsibilities to use, deploy, implement, and/or function within an Incident Command System (ICS) as well as functioning within multijurisdictions incident under the Incident Management System (IMS). The course emphasizes the need for incident management systems, an overview of the structure and expandable nature of ICS, an understanding of the command skills needed by departmental officers to use ICS guidelines effectively, and scenario practice on how to apply ICS and IMS. The National Incident Management System (NIMS) will illustrate and provide the consistent nationwide template to enable all government, private-sectors, and nongovernmental organizations to work together during virtual all domestic incidents. These course competencies will cover those objectives entailed in NIMS 100, 200, 700, and 800.	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.
FRSC 2170	Fire and Arson Investigation	Presents an introduction to Fire Investigation. Emphasis is placed upon: fire behavior, combustion properties of various materials, sources of ignition, and	UN	Preferred are a master's degree in fire science, emergency management, public administration, healthcare management or closely related field. In addition, must	Instructor must hold an associate's degree in fire science, emergency management, emergency services or public safety. Must also provide ProBoard (NPQ) Fire Instructor

investigative techniques for - structures, grassland, wild land, automobiles, vehicles, ships and other types of fire investigation, causes of electrical fires, chemical fires, explosive evaluations, laboratory operation, Techniques used in fire deaths and injuries, arson as a crime, other techniques, State and Federal laws, and future trends in fire investigative technology.	possess a Georgia State Office of Emergency Medical Services Trauma Level II or III Instructor license. Three years' experience in closely related field.  II, NFPA 1403 Live fire instructor and ProBoard (NPQ) evaluator certification. In addition, minimum of three years in-field work experience is required.	
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#### HECT: Health Care Technician

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
HECT 1100	Hemodialysis Patient Care	This course will focus on the theoretical and clinical aspects of hemodialysis, including the duties and responsibilities essential to the delivery of patient care in the chronic outpatient setting.	UN	Preferred qualifications are an associate's degree in healthcare science or related field. In addition, possession of The Nephrology Nursing Certification Commission = Certified Clinical Hemodialysis Technologist/Technician (CHT).	Instructor must possess a college certificate from an accredited institution in related health science field. In addition, must have three years in-field work experience.
HECT 1120	Hemodialysis Practicum	This course will focus on the theoretical and clinical aspects of hemodialysis, including the duties and responsibilities essential to the delivery of patient care in the chronic outpatient setting.	UN	Preferred qualifications are an associate's degree in healthcare science or related field. In addition, possession of The Nephrology Nursing Certification Commission = Certified Clinical Hemodialysis Technologist/Technician (CHT).	Instructor must possess a college certificate from an accredited institution in related health science field. In addition, must have three years in-field work experience.

# HIST: History

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
HIST 1111	World History I	Emphasizes the study of intellectual, cultural, scientific, political, and social contributions of the civilizations of the world and the evolution of these civilizations during the period from the prehistoric era to early modern times. Topics include the Prehistoric Era the Ancient Near East, Ancient India, Ancient China, Ancient Rome, Ancient Africa, Islam, the Americas, Japan, Ancient Greece, the Middle Ages, and the Renaissance.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in history or a doctorate degree with at least 18 graduate hours in history.	Instructor must hold a master's degree in history or a master's degree with at least 18 graduate hours in history.
HIST 1112	World History II	Emphasizes the study of the intellectual, cultural, scientific, political, and social contributions of the civilizations of the world and the evolution of these civilizations during the period from early modern times to the present. Topics include transitions to the Modern World, scientific revolution and the Enlightenment, political modernization, economic modernization, imperialism, and the Twentieth Century.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in history or a doctorate degree with at least 18 graduate hours in history.	Instructor must hold a master's degree in history or a master's degree with at least 18 graduate hours in history.
HIST 2111	U.S. History I	Emphasizes the study of U. S. History to 1877 to include the post-Civil War period. The course focuses on the period from the Age of Discovery through the Civil War to include geographical, intellectual, political, economic and cultural development of the American people. It includes the history of Georgia and its constitutional development. Topics include colonization and expansion; the Revolutionary Era; the New Nation; nationalism, sectionalism, and reform; the Era of Expansion; and crisis, Civil War, and reconstruction.	UΤ	Instructors meeting preferred qualifications must hold a doctorate degree in history or a doctorate degree with at least 18 graduate hours in history.	Instructor must hold a master's degree in history or a master's degree with at least 18 graduate hours in history.
HIST 2112	U.S. History II	Emphasizes the study of the social, cultural, and political history of the United States from 1865 to the beginning of the	UT	Instructors meeting preferred qualifications must hold a doctorate	Instructor must hold a master's degree in history or a master's degree with at least 18 graduate hours in history.

	twenty-first century and will equip the	degree in history or a doctorate degree	
	student to better understand the problems	with at least 18 graduate hours in history.	
	and challenges of the contemporary world		
	in relation to events and trends in modern		
	American history. The course also provides		
	an overview of the history of Georgia and		
	the development of its constitution. Topics		
	include the Reconstruction Period; the		
	great West, the new South, and the rise of		
	the debtor; the Gilded Age; the progressive		
	movement; the emergence of the U.S. in		
I I	world affairs; the Roaring Twenties; the		
	Great Depression; World War I; World War		
	II; the Cold War and the 1950's; the Civil		
	Rights Movement; the 1960's and		
	1970's; and America since 1980.		

#### **HORT:** Horticulture

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
HORT 1000	Horticulture Science	Introduces the fundamentals of plant science and horticulture as a career field. Emphasis will be placed on an industry overview; plant morphology; plant physiology; environmental factors affecting horticulture practices; soil physical and chemical properties; fertilizer elements and analysis; and basic propagation techniques.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1010	Woody Ornamental Plant Identification	Provides the basis for a fundamental understanding of the taxonomy, identification, and culture requirements of woody plants. Topics include: introduction to woody plants, classification of woody plants, and woody plant identification and culture requirements.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1020	Herbaceous Plant Identification	Emphasizes the identification, selection, and cultural requirements of herbaceous plants. Topics include: introduction to herbaceous plants, plant classification and nomenclature of herbaceous plants, herbaceous plant identification and culture requirements and seasonal color management.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1030	Greenhouse Management	This course helps to prepare students for a career in the management of commercial greenhouses, conservatories and institutional greenhouses. Emphasis is	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18

		placed on greenhouse construction; operation and management; regulating and controlling the environment; applying cultural practices as they affect plant physiological processes and influence plant growth and development; and management of a greenhouse business.		fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1041	Landscape Construction	This course develops fundamental skills in landscape construction with an emphasis on landscape grading, drainage, retaining walls, and pavements. Topics include workplace safety, site preparation, project layout, construction methods, sequencing, and managerial functions.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1050	Nursery Production and Management	Develops skills necessary to propagate and produce both container and field grown nursery stock. Topics include: industry overview, facility design, propagation techniques and environment, field grown and container production, and managerial functions for nursery production.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1060	Landscape Design	Introduces design principles, drawing skills, and plant selection techniques required to produce landscape plans for residential/commercial clients. Topics include: landscape design principles, sketching and drawing skills, site analysis, plant and material selection, and landscape design process.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.

HORT 1070	Landscape Installation	This course develops skills needed for the proper selection, installation, and establishment of landscape trees, shrubs, groundcovers, turf, and flowers. Topics include workplace safety, interpreting a landscape plan, soil preparation, planting methods, post care and establishment, and managerial functions for landscape installers.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1080	Pest Management	This course provides an introduction to the principles and mechanisms of integrated pest management across a diverse array of pests including insects, weeds, plant pathogens, nematodes and vertebrates. Specifically, the course will provide students with a fundamental and practical understanding of integrated pest management in a landscape setting with emphasis on pest identification and control; pesticide application safety; and legal requirements for state licensure.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1100	Introduction to Sustainable Agriculture	Introduces the fundamentals of small scale agriculture with a sustainable approach. Emphasis will be placed on an industry overview, history and foundation of sustainable practices, management and fertility of soils, pest management, and economic and marketing theory and practices.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1110	Small Scale Food Production	Continues hands-on experience in food- crop production to be sold direct to the consumer, at farmers markets or CSA (Community Sponsored Agriculture). Topics include farm safety, farm design and development, propagation, production, harvesting, packaging, and marketing.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.

				architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1120	Landscape Management	This course introduces cultural techniques required for proper landscape management with emphasis on practical application and managerial techniques. Topics include: landscape management, safe operation and maintenance of landscape equipment, and administrative functions for landscape managers.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1140	Horticulture Business Management	This course presents managerial techniques required for business success in a chosen horticultural field. All aspects of establishing and managing a small business will be addressed. Emphasis will be placed on strategic planning; financial management; marketing strategies; human resource management; and operations and administration.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1150	Environmental Horticulture Internship	This course presents managerial techniques required for business success in a chosen horticultural field. All aspects of establishing and managing a small business will be addressed. Emphasis will be placed on strategic planning; financial management; marketing strategies; human resource management; and operations and administration.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1160	Landscape Contracting	Provides essential knowledge and skills in landscape contracting with emphasis on landscape business practices and	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18

		principles, landscape bidding and estimating and managerial skills for the landscape business environment. Topics include: overview of landscape industry, landscape business principles and practices, landscape bidding and estimating and managerial skills for the landscape business environment.		horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1250	Plant Production and Propagation	This course provides instruction and hands-on experience in crop production with emphasis on the production of seasonal crops for the local areas and managerial skills involved with crop production. The technical principles of plant propagation focusing on hands-on application are introduced. Topics include cultural controls for propagation and production, insects and diseases, production and scheduling, methods of propagation (seed germination, rooting cuttings, layering, grafting, and budding, tissue culture), and propagation facilities construction.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1310	Irrigation and Water Management	Provides students with exposure to the basic principles of hydraulics and fluidics. Special attention is given to watering plant materials in various soil and climatic conditions through the use of irrigation. Topics include: industry overview; fluidics and hydraulics; system design and installation.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1330	Turf grass Management	A study of turf grass used in the southern United States. Topics include: industry overview, soil and soil modification; soil fertility; turf installation; turf maintenance, turf diseases, insects and weeds: and estimating costs on management practices.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.

				architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1410	Soils	This course introduces students to the basic fundamentals of soil science including: soil formation and classification; physical, chemical and biological characteristics; soil fertility and productivity; and soil management and conservation practices.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1500	Small Engine Repair and Maintenance	Provides instruction in basic small engine maintenance. Topics include: engine types; ignition systems; fuel systems; lubrication, filtration, and maintenance; and engine repair.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1680	Woody Plant Identification II	Students will develop a systematic approach to proper classification, nomenclature, identification, culture and use of many different woody plant species suitable for the region. Topics include: principles of plant classification and nomenclature, identification traits of woody plants and identification, culture and use of woody landscape plant species.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1720	Introductory Floral Design	This course introduces the basic concepts and practices of floral design. Topics include: introduction to floral design;	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18

		principles and elements of design used in floral compositions; identification of commonly used floral materials; conditioning and storing cut flowers; mechanics and supplies of flower arranging; construction of basic geometric designs; and corsage construction.		horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 1800	Urban Landscape Issues	This course introduces the concepts and principles of sustainable urban landscapes. By using these concepts the student will be able to create outdoor spaces that are not only functional and maintainable, but environmentally sound, cost effective and aesthetically pleasing. The design process is the first consideration, followed by implementation and maintenance, each with sustainability as a major consideration. The course will cover such topics as green roofs, water wise principles, rain gardens, pervious paving, LEED, erosion and sedimentation control and others.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.
HORT 2500	Specialty Landscape Construction	This course is designed to introduce construction methods, materials, and safety procedures related to the design and installation of specialty landscape features such as water features, lighting, and garden structures.	UN	Instructor must possess a bachelor's degree in horticulture or a bachelor's degree plus 18 semester hours in horticulture and / or closely related fields. In addition, three years in-field experience in horticulture is required. Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.	Instructor must possess an associate's degree in horticulture or a closely related field or an associate's degree plus 18 semester hours in horticulture and / or closely related fields.  Closely related fields of study include landscape design, landscape architecture, agriculture, soil conservation, ecology, entomology, environmental science.

#### **HUMN: Humanities**

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
HUMN 1101	Introduction to Humanities	Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. The humanities provide insight into people and society. Topics include historical and cultural developments, contributions of the humanities, and research.	UT	An instructor meeting preferred credential requirements holds a doctorate degree in humanities or a doctorate degree with at least 18 graduate hours in humanities. Other appropriate credentials include a doctorate degree, a doctorate degree plus 18 graduate semester hours, or a Master of Fine Arts degree in one of the following academic disciplines: art, classics, drama, literature, music, philosophy, rhetoric, or theater.	An instructor meeting minimum credential requirements must hold a master's degree in humanities or a master's degree with at least 18 graduate semester hours in humanities, or a master's degree in art, classics, drama, literature, music, philosophy, rhetoric, or theater or a master's degree with at least 18 graduate semester hours in art, classics, drama, literature, music, philosophy, rhetoric, or theater.

### IDFC: Industrial Fundamental Courses

Course Prefix	Course Title	Course Description	Course Type ( UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
IDFC 1000	Principles of Electricity I	Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDFC 1007	Industrial Safety Procedures	Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience is required.
IDFC 1011	Direct Current I	Introduces direct current (DC) concepts and applications. Topics include: electrical principles and laws; batteries; DC test equipment; series, parallel, and simple combination circuits; and laboratory procedures and safety practices.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience is required.

# IDSY: Industrial Systems Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
IDSY 1020	Print Reading and Problem Solving	This course introduces practical problem solving techniques as practiced in an industrial setting. Topics include: analytical problem solving, troubleshooting techniques, reading blueprints and technical diagrams, schematics and symbols, specifications and tolerances. The course emphasizes how the machine or mechanical system works, reading and engineering specifications and applying a systematic approach to solving the problem.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1101	DC Circuit Analysis	This course introduces direct current (DC) concepts and applications. Topics include, electrical laws, batteries, DC test equipment: Series, Parallel and simple combination circuits, and laboratory procedures and safety practices.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1105	AC Circuit Analysis	This course introduces alternating (AC) current concepts, theory, and application of varying sine wave voltages and current and the physical characteristics and applications of solid state devices. Topics include, but not limited to, electrical laws and principles, magnetism, inductance and capacitance.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1110	Industrial Motor Controls I	This course introduces the fundamental concepts, principles, and devices involved in industrial motor controls, theories and applications of single and three-phase motors, wiring motor control circuits, and magnetic starters and braking. Topics include, but are not limited to, motor theory and operating principles, control devices, symbols and schematic diagrams, NEMA standards, Article 430 NEC and preventative maintenance and troubleshooting.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.

IDSY 1120	Basic Industrial PLC's	This course introduces the operational theory, systems terminology, PLC installation, and programming procedures for Programmable Logic Controllers. Emphasis is placed on PLC programming, connections, installation, and start-up procedures. Other topics include timers and counters, relay logic instructions, and hardware and software applications.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1130	Industrial Wiring	Teaches the fundamental concepts of industrial wiring with an emphasis on installation procedures. Topics include: grounding, raceways, three-phase systems, transformers (three-phase and single-phase), wire sizing, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1161	Fundamentals of Machine Tool and Mechanical Systems	Introduces the fundamental concepts necessary for safe operation of basic machine tools, print reading, and mechanical laws and principles. Topics include: safety, introduction to threads and fasteners, power tool operation, precision measurements, print reading and sketching, geometric dimensioning and tolerancing, mechanical laws and principles, material processing, and layout and assembly.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1170	Industrial Mechanics	This course introduces and emphasizes the basic skill necessary for mechanical maintenance personnel. Instruction is also provided in the basic physics concepts applicable to the mechanics of industrial production equipment, and the application of mechanical principles with additional emphasis on power transmission and specific mechanical components.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1190	Fluid Power Systems	This course provides instruction in the fundamentals of safely operating hydraulic, pneumatic, and pump and piping systems. Theory and practical	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the

		application concepts are discussed. Topics include hydraulic system principles and components, pneumatic system principles and components, and the installation, maintenance, and troubleshooting of pump and piping systems.		instructor must have five years of in-field work experience.	instructor must have three years of infield experience.
IDSY 1195	Pumps and Piping Systems	This course provides instruction in the fundamentals of safely operating hydraulic, pneumatic, and pump and piping systems. Topics include: Pump identifoication, pump operation, installation, maintenance and troubleshooting, piping systems and installation of piping systems.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1210	Industrial Motor Controls II	This course introduces the theory and practical application for two-wire control circuits, advanced motor controls, and variable speed motor controls. Emphasis is placed on circuit sequencing, switching, and installation, maintenance, and troubleshooting techniques.		Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1220	Intermediate Industrial PLC's	This course provides for hands on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated equipment. Topics include data manipulation, math instructions, and introduction to HMI, analog control, and troubleshooting discrete IO devices.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1230	Industrial Instrumentation	Provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: instrument tags; process documentation; basic control theory; sensing pressure, flow, level, and temperature; instrument calibration; and loop tuning.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.
IDSY 1240	Maintenance for Reliability	Applies advanced instrumentation in conjunction with principles of mechanical physics, vibration and particulate analysis, thermography, and advanced reliability	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the

		concepts relative to precision/predictive maintenance of industrial equipment.		instructor must have five years of in-field work experience.	instructor must have three years of infield experience.
IDSY 1260	Machine Tool for Industrial Repairs	Provides Industrial Mechanics the basic machine shop skills to perform common mechanical repairs such as: repair of scored pump shafts, motor shafts, conveyor shafts or valve stems; repair or fabrication of support brackets; fabrication of simple shaped (cylindrical or rectangular) parts; making or repairing keyseats and keys.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of infield experience.

# LOGI: Logistics

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
LOGI 1000	Business Logistics	Provides a general knowledge of current management practices in logistics management. The focuses of the course will be on planning, organizing, and controlling of these activities, key elements for successful management in any organization. The course will also introduce student to Transport, Inventory, and Location strategies, Customer Service Goals and Organization and Control.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.
LOGI 1010	Purchasing	Provides a general knowledge of purchasing for today's Supply Chains. The student will be introduced to Cross-functional teaming, Purchasing and Supply Performance, Supplier Integration into new Product Development, Supplier Development, Strategic Cost Management and Total Ownership Cost (TOC), and many other topics. This course along with other Supply Chain based courses will give the student the foundation needed to make a difference in obtaining low costs, quality products for their organizations.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.
LOGI 1020	Materials Management	This course will introduce students to Materials Management by learning the planning production process, master scheduling, material requirements, and forecasting material demands and inventory levels. This course is designed to build on the student's knowledge of supply chains and how effective material management improves supply chain performance.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.

### MAST: Medical Assisting

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
MAST 1010	Legal and Ethical Concerns in the Medical Office	Introduces the basic concept of medical assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical assistant's role as an agent of the physician. Provides the student with knowledge of medical jurisprudence and the essentials of professional behavior. Topics include: introduction to medical assisting; introduction to medical law; physician/patient/assistant relationship; medical office in litigation; as well as ethics, bioethical issues and HIPAA.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1030	Pharmacology in the Medical Office	Introduces medication therapy with emphasis on safety; classification of medications; their actions; side effects; medication and food interactions and adverse reactions. Also introduces basic methods of arithmetic used in the administration of medications. Topics include: introductory pharmacology; dosage calculation; sources and forms of medications; medication classification; and medication effects on the body systems.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1060	Medical Office Procedures	Emphasizes essential skills required for the medical practice. Topics include: office protocol, time management, appointment scheduling, medical office equipment, medical references, mail services, medical records, and professional communication.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience,

					and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1080	Medical Assisting Skills I	Introduces the skills necessary for assisting the physician with a complete history and physical in all types of medical practices. The course includes skills necessary for sterilizing instruments and equipment and setting up sterile trays. The student also explores the theory and practice of electrocardiography. Topics include: infection control and related OSHA guidelines; prepare patients/assist physician with age and gender-specific examinations and diagnostic procedures; vital signs/mensuration; medical office surgical procedures and electrocardiography.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1090	Medical Assisting Skills II	Furthers student knowledge of the more complex activities in a physician's office. Topics include: collection/examination of specimens and CLIA regulations/risk management; urinalysis; venipuncture; hematology and chemistry evaluations; advanced reagent testing (Strep Test, HcG etc.); administration of medications; medical office emergency procedures and emergency preparedness; respiratory evaluations; principles of IV administration; rehabilitative therapy procedures; principles of radiology safety and maintenance of medication and immunization records.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.

MAST 1100	Medical Insurance Management	Emphasizes essential skills required for the medical practice. Topics include: managed care, reimbursement, and coding.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1110	Administrative Practice Management	Emphasizes essential skills required for the medical practice in the areas of computers and medical transcription. Topics include: medical transcription/electronic health records; application of computer skills; integration of medical terminology; accounting procedures; and application of software.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1120	Human Pathological Conditions in the Medical Office	Provides fundamental information concerning common diseases and disorders of each body system. For each system, the disease or disorder is highlighted including: description, etiology, signs and symptoms, diagnostic procedures, treatment, management, prognosis, and prevention. Topics include: introduction to disease and diseases of body systems.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.

MAST 1170	Medical Assisting Externship	Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical office job setting. This clinical practicum allows the student to become involved in a work setting at a professional level of technical application and requires concentration, practice, and follow-through. Topics include: application of classroom knowledge and skills and functioning in the work environment.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.
MAST 1180	Medical Assisting Seminar	Seminar focuses on job preparation and maintenance skills and review for the certification examination.  Topics include: letters of application, resumes, completing a job application, job interviews, follow-up letter/call, letters of resignation and review of program competencies for employment and certification.	UN	Preferred qualifications are a master's degree in healthcare science or related field. A minimum of three years of work experience in the area of patient care and/or teaching. Possess either a current RMA (AMT) or CMA (AAMA) certification or be eligible for certification.	Must possess a current Registered Medical Assistant (RMA) or Certified Medical Assistant (CMA) credentials OR Medical assisting faculty and/or instructional staff must be current and competent in the MAERB Core Curriculum objectives included in their assigned teaching, as evidenced by education and/or experience, and have instruction in educational theory and techniques. In addition, must have one year(s) in-field experience in a medical facility or office setting.

### MATH: Mathematics

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MATH 0090	Learning Support Mathematics	This course uses the modular approach to emphasize in-depth arithmetic skills, basic and intermediate algebra skills. Topics include number theory, whole numbers, fractions, decimals, percents, ratio/proportion, measurement, geometry, application problems, introduction to real numbers, algebraic expressions, solving linear equations, graphs of linear equations, graphs of linear equations, polynomial operations, polynomial factoring, inequalities, rational expressions and equations, linear graphs, slope, systems of equations, radical expressions and equations, and quadratic equations, and applications involving previously listed topics. Students progress at their own pace to master each module. Course MUST be taken with a MATH 1012, MATH 1101, or MATH 1111. This course is not designed to be a stand-alone course as its content is determined by the Math course it is paired with.	D	Instructors meeting preferred qualifications must hold a master's degree in mathematics or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 0096	Math I	Teaches the student basic arithmetic skills needed for the study of mathematics related to specific occupational programs.  Topics include number theory, whole numbers, fractions, and decimals. Homework assignments reinforce classroom learning.	D	Instructors meeting preferred qualifications must hold a master's degree in mathematics or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 0097	Math II	Emphasizes in-depth arithmetic skills needed for the study of mathematics and for the study of basic algebra. Topics include whole numbers, fractions, decimals,	D	Instructors meeting preferred qualifications must hold a master's degree in mathematics or a master's degree in a field with a heavy	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.

		percents, ratio/proportion, measurement, geometry, and application problems.		concentration in mathematics such as engineering, chemistry, or physics.	
MATH 0098	Elementary Algebra	Emphasizes basic algebra skills. Topics include introduction to real numbers and algebraic expressions, solving linear equations, graphs of linear equations, polynomial operations, and polynomial factoring.	D	Instructors meeting preferred qualifications must hold a master's degree in mathematics or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 0099	Intermediate Algebra	Emphasizes intermediate algebra skills. Topics include factoring, inequalities, rational expressions and equations, linear graphs, slope, and applications, systems of equations, radical expressions and equations, and quadratic equations.	D	Instructors meeting preferred qualifications must hold a master's degree in mathematics or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 1011	Business Math	Emphasizes mathematical concepts found in business situations. Topics include basic mathematical skills, mathematical skills in business-related problem solving, and mathematical information for documents, graphs, and mathematical problems.	UN	Instructors meeting preferred qualifications must hold a master's degree in mathematics, a master's degree with 18 graduate semester hours in mathematics, or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 1012	Foundations of Mathematics	Emphasizes the application of basic mathematical skills used in the solution of occupational and technical problems. Topics include fractions, decimals, percents, ratios and proportions, measurement and conversion, formula manipulation, technical applications, and basic statistics.	UN	Instructors meeting preferred qualifications must hold a master's degree in mathematics, a master's degree with 18 graduate semester hours in mathematics, or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 1013	Algebraic Concepts	Emphasizes concepts and operations which are applied to the study of algebra. Topics include basic mathematical concepts, basic algebraic concepts, and intermediate algebraic concepts.	UN	Instructors meeting preferred qualifications must hold a master's degree in mathematics, a master's degree with 18 graduate semester hours in mathematics, or a master's degree in a field with a heavy concentration in	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.

MATH 1015	Geometry and Trigonometry	Emphasizes basic geometric and trigonometric concepts. Topics include measurement conversion, geometric terminology and measurements, and trigonometric terminology and functions.	UN	mathematics such as engineering, chemistry, or physics.  Instructors meeting preferred qualifications must hold a master's degree in mathematics, a master's degree with 18 graduate semester hours in mathematics, or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 1017	Trigonometry	Emphasizes trigonometric concepts, logarithms, and exponential functions. Topics include trigonometric concepts, logarithms and exponentials.	UN	Instructors meeting preferred qualifications must hold a master's degree in mathematics, a master's degree with 18 graduate semester hours in mathematics, or a master's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.	Instructor must hold a bachelor's degree in mathematics or a bachelor's degree in a field with a heavy concentration in mathematics such as engineering, chemistry, or physics.
MATH 1100	Quantitative Skills and Reasoning	Emphasizes algebra, statistics, and mathematics of finance. Topics include fundamental operations of algebra, sets and logic, probability and statistics, geometry, mathematics of voting and districting, and mathematics of finance.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.
MATH 1101	Mathematical Modeling	Emphasizes functions using real- world applications as models. Topics include fundamental concepts of algebra; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models; systems of equations; and optional topics in algebra.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.
MATH 1103	Quantitative Skills and Reasoning	This course focuses on quantitative skills and reasoning in the context of experiences that students will be likely to encounter. The course emphasizes processing information in context from a variety of	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.

MATH 1111	College Algebra	representations, understanding of both the information and the processing, and understanding which conclusions can be reasonably determined. Students will use appropriate technology to enhance mathematical thinking and understanding. Topics covered in this course include: sets and set operations, logic, basic probability, data analysis, linear models, quadratic models, exponential and logarithmic models, geometry, and financial management.  Emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs,	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.
MATH 1112	College Trigonometry	and systems of equations; optional topics include sequences, series, and probability or analytic geometry.  Emphasizes techniques of problem	UT	in mathematics.  Instructors meeting preferred	Instructor must hold a master's degree in
	,	solving using trigonometric concepts. Topics include trigonometric functions, properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions and graphing of trigonometric functions, logarithmic and exponential functions, and complex numbers.		qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	mathematics or master's degree with at least 18 graduate semester hours in mathematics.
MATH 1113	Precalculus	Prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.
MATH 1127	Introduction to Statistics	Emphasizes the concepts and methods fundamental to utilizing	UT	Instructors meeting preferred qualifications must hold a doctorate	Instructor must hold a master's degree in mathematics or master's degree with at

		and interpreting commonly used statistics. Topics include descriptive statistics, basic probability, discrete and continuous distributions, sampling distributions, hypothesis testing chi square tests, and linear regression.		degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	least 18 graduate semester hours in mathematics.
MATH 1131	Calculus I	Topics include the study of limits and continuity, derivatives, and integrals of functions of one variable. Applications are incorporated from a variety of disciplines. Algebraic, trigonometric, exponential, and logarithmic functions are studied.	UT	Instructors meeting preferred qualifications must hold a doctorate degree in mathematics or a doctorate degree with 18 graduate semester hours in mathematics.	Instructor must hold a master's degree in mathematics or master's degree with at least 18 graduate semester hours in mathematics.

### MCHT: Machine Tool Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MCHT 1011	Introduction to Machine Tool	Introduces the fundamental concepts and procedures necessary for the safe and efficient use of basic machine tools. Topics include: machine shop safety, terminology, use of hand and bench tools, analysis of measurements, part layout, horizontal and vertical band saw setup and operation, drill press setup and operation, and quality control.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1012	Blueprint for Machine Tool	Introduces the fundamental concepts necessary to develop blueprint reading competencies, interpret drawings, and produce sketches for machine tool applications. Topics include interpretation of blueprints, sketching, sectioning, geometric dimensioning and tolerancing, and assembly drawings.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1013	Machine Tool Math	This course develops mathematical competencies as applied to machine tool technology. Emphasis is placed on the use of machining formulas by incorporating algebraic, geometric, and trigonometric functions. Topics include machining algebra and geometry, applied geometry, and applied trigonometry.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1020	Heat Treatment and Surface Grinding	Provides instruction in the setup, operations, maintenance, and assembly operations of surface grinders. Introduces the properties of various metals, production methods, and identification of ferrous and nonferrous metals. Topics include: heat treatment safety, metallurgy principles, heat treatment of metals, surface grinders, surface grinder maintenance, surface grinder setup,	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.

		surface grinder operations, and safety.			
MCHT 1030	Applied Measurement	This course is designed to develop skills necessary for the use and analysis of measurement for Machine Tool Technology and other industrial purposes. Topics include the use of non-precision measuring instruments, use of precision measuring instruments, use of comparison gauges, and analysis of measurements.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1119	Lathe Operations I	Provides opportunities for students to develop skill in the setup and operation of metal cutting lathes. Topics include: safety, lathes parts and controls, lathe tooling and tool bit grinding, lathe calculations, lathe setup and operations.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1120	Mill Operations I	Provides instruction in the setup and use of the milling machine. Topics include: safety, milling machines, milling machine setup, and milling machine operations.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1219	Lathe Operations II	Provides further instruction for students to develop skill in the use of lathes. Topics include: lathes, lathe setup, lathe operations, and safety.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the teaching discipline. Three years of in-field experience is also preferred.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.
MCHT 1220	Mill Operations II	Provides further instruction for students to develop skills in the use of milling machines. Topics include: safety, advanced milling calculation, advanced milling machine setup and operations.	UN	Faculty teaching diploma and certificate courses: minimum of an associate's degree, demonstrated competencies in the teaching discipline, or appropriate licensure, certification, or additional professional credential relevant to the	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field in machine tool technology.

		teaching discipline. Three years of in-field	
		experience is also preferred.	

#### MCTX: Mechatronics

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MCTX 2250	Mechatronics Capstone	This capstone course for the mechatronics specialization track will be used as the final project for the mechatronics students.  Students will integrate and build upon knowledge and skills gained in previous courses to design, assemble, and analyze mechatronic systems using modern methods and tools. Lectures and laboratory experiences will include control theory, dynamic system behavior, communication protocols, pneumatics, embedded programming, and analysis in time-and-frequency domains. The course concludes with an open-ended team-based multi-week design project.		Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.

# MEGT: Mechanical Engineering Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MEGT 1010	Manufacturing Processes	This course introduces industrial manufacturing processes that employ processes for material shaping, joining, machining and assembly to the student.  Topics include casting, shaping and molding of metals, ceramics and polymers; particulate processing of metals and ceramics, metal forming, machining, sheet metal working, joining and assembling, surface treatment, and manufacturing design considerations. Emphasis is provided on raw materials, quality, and costs of finished products. The course includes lab exercises that demonstrate the applications of the topics covered in actual manufacturing processes.		Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.
MEGT 1321	Machining and Welding	An introduction to machining and welding technology. This course will include emphasis of use and operation of selected machinery, various machining operations, selected welding processes and precision measuring instruments to be combined with laboratory projects and safety. Topics will include industrial safety and health practices; welding quality; use of cutting and grinding tools; introduction to welding terms and symbols; shielded metal arc welding (SMAW); gas metal arc welding (GMAW); gas tungsten arc welding (GTAW); basic machining operations; and precision measuring instruments.		Preferred qualifications are a doctorate degree in engineering, or other engineering related fields, or a doctorate degree with at least 18 graduate semester hours in engineering.	Preferred qualifications are a master's degree in engineering, or other engineering related fields, or a master's degree with at least 18 graduate semester hours in engineering.
MEGT 2020	Engineering Materials		UN	Preferred qualifications are a doctorate degree in engineering, or other engineering related fields, or a doctorate degree with at least 18 graduate semester hours in engineering.	Preferred qualifications are a master's degree in engineering, or other engineering related fields, or a master's degree with at least 18 graduate semester hours in engineering.

		treatment, creep and fatigue. The course includes performance lab exercises that demonstrate the applications of the topics covered such as; material testing (i.e. tensile and hardness testing), material treatment (i.e. heat treatment), and inspection (i.e. NDE).			
MEGT 2030	Statics	This course introduces the student to the study of forces acting on objects and their effects on a body at rest or at constant velocity. Static principles are applied in analyzing structural systems. Topics include vectors, resultants, equilibrium of force systems, free body diagrams (FBD), analysis of trusses and frames, distributed loading and geometric properties of areas. Emphasis is placed on bodies at rest in both 2 dimensions and 3 dimensions.		Preferred qualifications are a doctorate degree in engineering, or other engineering related fields, or a doctorate degree with at least 18 graduate semester hours in engineering.	Preferred qualifications are a master's degree in engineering, or other engineering related fields, or a master's degree with at least 18 graduate semester hours in engineering.
MEGT 2080	Strength of Materials	This course studies the behavior of materials when subjected to different loadings and constraints. Topics include: stress, strain, material properties, properties of cross sectional areas, bending and buckling of members, beam and column analysis, torsion and combined loading. Emphasis is provided on predicting material behavior in various mechanical applications and utilizing fundamental analysis techniques to determine stress in solids under tension, compression, torsion and/or shear. The course includes hands on laboratory exercises such as evaluating beam deflection and the thermal expansion of various metals.	UN	Preferred qualifications are a doctorate degree in engineering, or other engineering related fields, or a doctorate degree with at least 18 graduate semester hours in engineering.	Preferred qualifications are a master's degree in engineering, or other engineering related fields, or a master's degree with at least 18 graduate semester hours in engineering.
MEGT 2100	Manufacturing Quality Control	This course introduces statistical quality control and quality assurance techniques in manufacturing processes. Topics include: fundamentals of Six Sigma methodology, creating customer focus, statistical control techniques, control charts, process capability, failure modes and effects analysis (FMEA), teams and teamwork, leadership and strategic planning, optimization and reliability studies, lean manufacturing, and inspection tools and practices. The course is an effective training		Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience.

a	aid for those preparing to take the American		
	Society for Quality (ASQ) Certified Quality		
	nspector (CQI) examination. Students will		
	perform lab exercises applying quality		
	concepts, tools and techniques to realistic		
	ndustry examples.		

### MGMT: Business Management

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MGMT 1100	Principles of Management	Develops skills and behaviors necessary for successful supervision of people and their job responsibilities. Emphasis will be placed on real life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include: Understanding the Managers Job and Work Environment; Building an Effective Organizational Culture; Leading, Directing, and the Application of Authority; Planning, Decision-Making, and Problem-Solving; Human Resource Management, Administrative Management, Organizing, and Controlling.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 1105	Organizational Behavior	Provides a general knowledge of the human relations aspects of the senior-subordinate workplace environment. Topics include employee relations principles, problem solving and decision making, leadership techniques to develop employee morale, human values and attitudes, organizational communications, interpersonal communications, and employee conflict.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.

MGMT 1110	Employment Rules and Regulations	Develops a working knowledge of the laws of employment necessary for managers. Topics include: Employment Law, the Courts, Alternative Dispute Resolution (ADR), Discrimination Law, Selecting Applicants Under the Law, OSHA and Safety, Affirmative Action, At-Will Doctrine, Right to Privacy, Fair Labor Standards Act (FLSA), Family Medical Leave Act (FMLA), Workers Compensation, Unemployment Compensation, and National Labor Relations Act.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 1115	Leadership	This course familiarizes the student with the principles and techniques of sound leadership practices. Topics include: Characteristics of Effective Leadership Styles, History of Leadership, Leadership Models, The Relationship of Power and Leadership, Team Leadership, The Role of Leadership in Effecting Change.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 1120	Introduction to Business	This course is designed to provide the student with an overview of the functions of business in the market system. The student will gain an understanding of the numerous decisions that must be made by managers and owners of businesses. Topics include: the market system, the role of supply and demand, financial management, legal issues in business, employee relations, ethics, and marketing.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 1125	Business Ethics	Provides students with an overview of business ethics and ethical management practices with emphasis on the process of ethical decision-making and working through contemporary ethical	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.

	T	dilammaa faaad ku businssa			
		dilemmas faced by business			
		organizations, managers and			
		employees. The course is intended			
		to demonstrate to the students how			
		ethics can be integrated into			
		strategic business decisions and			
		can be applied to their own careers.			
		The course uses a case study			
		approach to encourage the student			
		in developing analytical, problem-			
		solving, critical thinking and			
		decision-making skills. Topics			
		include: An overview of business			
		ethics; moral development and			
		moral reasoning; personal values,			
		rights, and responsibilities;			
		frameworks for ethical decision-			
		making in business; justice and			
		economic distribution; corporations			
		and social responsibility; corporate			
		codes of ethics and effective ethics			
		programs; business and society:			
		consumers and the environment;			
		ethical issues in the workplace;			
		business ethics in a global and			
		multicultural environment; business			
		ethics in cyberspace; and business			
		ethics and the rule of law.			
MGMT 2115	Human Resources	This course is designed as an	UN	Preferred qualifications are a master's	Instructor must hold a bachelor's degree in
	Management	overview of the Human Resource		degree in business, business	business, business management, or
		Management (HRM) function and of		management, business administration,	business administration. In addition, must
		the manager and supervisor's role		or a master's degree with at least 18	•
		in managing the career cycle from		graduate semester hours in one of these	have at least three years human resources
		organizational entry to exit. It		areas.	experience.
		acquaints the student with the			
		authority, responsibility, functions,			
		and problems of the human			
		resource manager, with an			
		emphasis on developing familiarity			
		with the real- world applications			
		required of employers and			
		managers who increasingly are in			
		partnership with HRM generalists			
	<u> </u>	paranership with firth generalists	<u> </u>		

MGMT 2120	Labor Management Relations	and specialists in their organizations. Topics include: strategic human resource management, contemporary issues in HRM: ethics, diversity and globalization; the human resource/supervisor partnership; human resource planning and productivity; job description analysis, development, and design: recruiting, interviewing, and selecting employees; performance management and appraisal systems; employee training and development: disciplinary action and employee rights; employee compensation and benefits; labor relations and employment law; and technology applications in HRM.  Provides a student with an overview of the relationship of rank and file employees to management in business organizations. The nature of the workplace, the economic foundations of work organizations, and the history of the relationship between management and labor is examined. The course acquaints the student with the principles of developing positive relationships between management and labor within the context of the legal environment governing labor relations. Topics include: the nature of the American workplace; the economic history of business organizations, the historical roots of labor-management relations; adversarial and cooperative approaches to labor relations; the legal framework of labor relations; employee-employer rights; collective bargaining and union	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
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		organizing processes; union and nonunion grievance procedures; international labor relations; and the future of labor-management relations in a changing economy. Case studies, readings, and roleplays are used to simulate workplace applications in labor relations.			
MGMT 2125	Performance Management	Develops an understanding of how a fostering employer/employee relationship in the work setting improves work performance.  Develops legal counseling and disciplinary techniques to use in various workplace situations.  Topics include: the definitions of coaching, counseling, and discipline; importance of the coaching relationship; implementation of an effective counseling strategy; techniques of effective discipline; and performance evaluation techniques.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2130	Employee Training and Development	Addresses the challenges of improving the performance and career potential of employees, while benefiting the student in their own preparation for success in the workplace. The focus is on both training and career and personal development. Shows the student how to recognize when training and development is needed and how to plan, design, and deliver an effective program of training for employees. Opportunities are provided for the student to develop their own career plans, assess their work-related skills, and practice a variety of skills desired by employers. Topics include:	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.

MGMT 2135	Management Communication Techniques	developing a philosophy of training; having systems approach to training and development; the context of training; conducting a needs analysis; critical success factors for employees: learning principles; designing and implementing training plans; conducting and evaluating training; human resource development and careers; personal career development planning; and applications in interpersonal relationships and communication.  Emphasizes developing the full range of communication strategies required to become a successful manager and prepares managers for the skills required to communicate effectively in business today. Topics include:	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
		business today. Topics include: Organizational/Strategic Communication, Interpersonal Communication, Presentation Techniques, Presentation Technology & Applications, Team/Group Communication, Intercultural Communication, External Stakeholder Communication and Using Spreadsheet Applications for Business Problem Solving.			
MGMT 2140	Retail Management	Develops a working knowledge of managing a retail business from a variety of perspectives with an emphasis on store management.  The emphasis is on contemporary issues in retailing, particularly the process of supervising customer service and dealing with the changing demographics of retailing. An application focus on the use of information technologies, the	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.

MGMT 2145	Business Plan Development	internet, and electronic retailing is intended to give the student hands- on experience in retail management. Topics include: strategic retail management; store, non-store, and nontraditional retailing; retail human resource management; developing a customer-focused service strategy; managing customer service; retail operations and financial management; merchandise management; buying and inventory management; global, cataloging, and electronic retail management, information technology applications in retailing.  Provides students with knowledge and skills necessary for a manager or entrepreneur to develop and implement a business plan. Topics include: business/community compatibility, introduction to cash flow and break even analysis, development of product/service idea, determination of market feasibility, determination of financial feasibility, development of operations outline, and application of financial concepts.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2150	Small Business Management	This course introduces the essentials of starting, managing, and growing a small business.  Topics include: the role of the entrepreneur, pricing, advertising, financing, and layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2155	Quality Management Principles	Familiarizes the student with the principles and methods of Quality	UN	Preferred qualifications are a master's degree in business, business	Instructor must hold a bachelor's degree in business, business management, or

		Management (QM). Topics include: the history of quality control, quality control leaders, quality tools, QM implementation, team building for QM, and future quality trends.		management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	business administration. In addition, must have at least three years managerial experience.
MGMT 2200	Production/Operations Management	This course provides the student with an intensive study of the overall field of production/operations management. Topics include: role of production management/production managers, operational design, capacity planning, aggregate planning, inventory management, project management, and quality control/assurance.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2205	Service Sector Management	This course focuses on supervision in the service sector with special emphasis on team building, quality management, and developing a customer focus. The challenge of providing world-class customer service is addressed through sections on principles of service industry supervision, career development, problem solving, stress management, and conflict resolution. Topics include: principles of service industry supervision, team building, customer service operations, TQM in a service environment, business software applications, communication in the service sector, introduction to information systems, selling principles and sales management, and legal issues in the service sector.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2210	Project Management	Provides a basic understanding of project management functions and processes. Topics include: team	UN	Preferred qualifications are a master's degree in business, business management, business administration,	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must

		selection and management; project planning, definition and scheduling of tasks; resource negotiation, allocation, and leveling; project control, monitoring, and reporting; computer tools for project planning and scheduling; managing complex relationships between project team and other organizations; critical path methodology; and total quality management.		or a master's degree with at least 18 graduate semester hours in one of these areas.	have at least three years managerial experience.
MGMT 2215	Team Project	This course utilizes team methodologies to study the field of management. It encourages students to discuss their perception of management practices which have been studied during the management program. Topics include: current issues and problems in management and supervision and state-of-the-art management and leadership techniques. Students will be put into teams, will work on team projects to demonstrate their understanding of the competencies of this course, and will do peer evaluation. Potential team projects could include authoring a management book covering the competencies, videos, web sites, bulletin boards, and slide presentations amongst others.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.
MGMT 2220	Management Occupation-Bases Instruction	Reinforcement of management, supervision, and employability principles in an actual job placement or through a practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job.	UN	Preferred qualifications are a master's degree in business, business management, business administration, or a master's degree with at least 18 graduate semester hours in one of these areas.	Instructor must hold a bachelor's degree in business, business management, or business administration. In addition, must have at least three years managerial experience.

Topics include: problem solving,		
adaptability to the job setting, use		
of proper interpersonal skills,		
application of management and		
supervisory techniques, and		
professional development. The		
occupation-based instruction is		
implemented through the uses of a		
practicum or internship and all of		
the following: written individualized		
training plans, written performance		
evaluation, and a required weekly		
seminar.		

# MKTG: Marketing Management

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MKTG 1100	Principles of Marketing	This course emphasizes the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include effective communication in a marketing environment, role of marketing, and knowledge of marketing principles, marketing strategy, and marketing career paths.	UN	Preferred credentials are a master's degree in marketing or a master's degree with at least 18 graduate semester hours in marketing.	Instructor must hold a bachelor's degree in marketing. In addition, must have at least three years marketing experience.
MKTG 1130	Business Regulations and Compliance	This course introduces the study of contracts and other legal issues and obligations for businesses. Topics include: creation and evolution of laws, court decision processes, legal business structures, sales contracts, commercial papers, Uniform Commercial Code, and risk-bearing devices.	UN	Preferred credentials are a master's degree in marketing or a master's degree with at least 18 graduate semester hours in marketing.	Instructor must hold a bachelor's degree in marketing. In addition, must have at least three years marketing experience.
MKTG 1190	Promotion and Marketing Comm.	This course introduces the fundamental principles and practices associated with promotion and communication. Topics include: purposes of promotion and IMC, principles of promotion and Integrated Marketing Communication (IMC), budgeting, regulations and controls, media evaluation and target market selection, integrated marketing plans, trends in promotion, and promotion and communication career paths.	UN	Preferred credentials are a master's degree in marketing or a master's degree with at least 18 graduate semester hours in marketing.	Instructor must hold a bachelor's degree in marketing. In addition, must have at least three years marketing experience.
MKTG 2070	Buying and Merchandising	Develops buying and merchandising skills required in retail or e-business. Topics include: principles of merchandising, inventory control, merchandise plan, assortment planning, buying merchandise, and pricing strategies.	UN	Preferred credentials are a master's degree in marketing or a master's degree with at least 18 graduate semester hours in marketing.	Instructor must hold a bachelor's degree in marketing. In addition, must have at least three years marketing experience.

# MUSC: Music Appreciation

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
MUSC 1101	Music Appreciation	Explores the analysis of well-known works of music, their compositions, and the relationship to their periods. An introduction to locating, acquiring, and documenting information resources lays the foundation for research to include the creative and critical process, the themes of music, the formal elements of composition, and the placing of music in the historical context. Topics include historical and cultural development represented in musical arts.	UT	Instructors meeting preferred requirements must hold a doctorate degree in music or music history or a doctorate degree with 18 graduate semester hours in music or music history.	Instructor must hold a master's degree in music or music history or a master's degree with at least 18 graduate semester hours in music or music history.

#### NAST: Nurse Aide

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
NAST 1100	Nurse Aide Fundamentals	Introduces student to the role and responsibilities of the Nurse Aide. Emphasis is placed on understanding and developing critical thinking skills, as well as demonstrating knowledge of the location and function of human body systems and common disease processes; responding to and reporting changes in a residents / patient's condition, nutrition, vital signs; nutrition and diet therapy; disease processes; vital signs; observing, reporting and documenting changes in a residents condition; emergency concerns; ethics and legal issues and governmental agencies that influence the care of the elderly in long term care settings; mental health and psychosocial well-being of the elderly; use and care of mechanical devices and equipment; communication and interpersonal skills and skills competency based on federal guidelines. Specific topics include: roles and responsibilities of the Nurse Aide; communication and interpersonal skills; topography, structure, and function of the body systems; injury prevention and emergency preparedness; residents rights; basic patient care skills; personal care skills; and restorative care.	UN	Preferred qualifications are a master's degree in nursing in addition to being a Registered Nurse or License Practical Nurse with current active Georgia License and in good standing with the Georgia Board of Nursing. Minimum of one year of nursing experience. Train-the-Trainer Workshop attendance certificate from Georgia Health Partnership.	Instructor must be a Registered Nurse (RN) or License Practical Nurse (LPN) with current active Georgia License and in good standing with the Georgia Board of Nursing. In addition, must have minimum of three years of nursing experience. Train-the-Trainer Workshop attendance certificate from Georgia Health Partnership is required.

### ORTT: Orthopedic Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
ORTT 1010	Orthopedic Anatomy and Physiology	This course offers a detailed study of the skeletal-muscular systems with emphasis on soft tissue injuries, fractures, fracture healing, as well as relevant complications. The study of other body systems as they relate to the treatment of orthopedic injuries is also included.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.
ORTT 1020	Orthopedic Techniques I	This course serves as an introduction to the cast room to include different types of supplies, instruments, techniques for the application of basic types of splints and casts. Introduction to traction set-ups. This course will include the application of casts and traction in the laboratory setting.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.
ORTT 1030	Introduction to Orthopedic Surgical Techniques	This course provides an overview of the surgical techniques utilized by the orthopedic technology profession and develops the fundamental concepts and principles necessary to successfully participate on an orthopedic surgical team. Topics include: orientation to orthopedic surgical techniques, asepsis and the surgical environment, basic orthopedic instrumentation and equipment, principles of sterilization process and application.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.
ORTT 1040	Advanced Orthopedic Anatomy and Physiology	This course provides advanced instruction on orthopedic anatomy, physiology, injuries and diseases.  Topics will include the evaluation and treatment of specific orthopedic injuries. Orthopedic diseases will be	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years

		discussed along with pediatric Orthopedics and congenital diseases.		(OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	in field or teaching ORTT experience required.
ORTT 1050	Orthopedic Techniques II	This course will have emphasis on advance casting techniques, assessment and treatment of casting complications, application of specialty casts, advanced traction configurations. The evaluation and treatment of the orthopedic trauma patient will also be covered.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.
ORTT 2010	Orthopedic Technology Clinical I	This course provides the opportunity for students to put into practice, the orthopedic technology procedures through participation in and/or observation of actual orthopedic patients in a hospital setting and/or in an orthopedic physician's office. Topics will include the placing of splints, cast removal, basic casting, dressing changes. Participation and/or observation of fracture manipulations. Setting up overhead frame and trapeze will be included.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.
ORIT 2020	Orthopedic Technology Clinical II	This course provides the opportunity for students to complete all required orthopedic technology procedures through participation in and/or observation in a hospital setting or an orthopedic physician's office. Procedures will include cast cutting, cast applications, splinting, brace applications, setting up traction configurations, surgical procedures. This course will also provide an opportunity for students to participate in the role of the orthopedic technologist in the operating room.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, candidate is credentialed by the National Board for Certification of Orthopedic Technologists as an Orthopedic Technologist – Certified (OTC), or credentialed by the American Society of Orthopedic Professionals as a Registered Orthopedic Technologist (ROT).	Instructors must hold a diploma in Orthopedic technology or healthcare related field. Additionally, instructional personnel must have OTC or ROT credentialing with a minimum of three years in field or teaching ORTT experience required.

PARA: Paralegal Studies

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
PARA 1100	Introduction to Law and Ethics	Emphasizes the American legal system, the role of the lawyer and legal assistant within that system, and the ethical obligations imposed upon attorneys and legal assistants. Topics include: survey of American jurisprudence, code of professional responsibility and ethics overview, and introduction to areas of law and legal vocabulary.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1105	Legal Research and Legal Writing I	Introduces the student to the process of locating statutory, judicial, administrative and secondary sources on both a state and federal level. The student will utilize both print and electronic research resources. Focuses on the application and reinforcement of basic writing skills, familiarizes the student with types of writing typically engaged in by lawyers and legal assistants, and prepares the student for legal writing tasks. The student learns to write business letters as well as advisory documents. Topics include: legal analysis and legal correspondence and composition.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1110	Legal Research and Legal Writing II	Builds on competencies acquired in PARA 1102 and continues the process of locating statutory, judicial, administrative and secondary sources on both a state and federal level. The student will conduct a wider range of research in both print and electronic research resources. Emphasis will be placed on preparation of legal documents. Criminal case documents will be examined, but most of the emphasis will be on civil matters. The student	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.

		will be presented factual scenarios, and utilizing these facts, research and develop a case from intake to trial.			
PARA 1115	Family Law	Introduces the student to the issues which may arise in family law cases and to the role of the paralegal in assisting the attorney in the development and presentation of such cases. Topics include: issues associated with client and witness interviews, marriage validity and dissolution, litigation support in family law matters, issues concerning children, special matters in family law, and attorney and paralegal ethical obligations.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1120	Real Estate Law	Introduces the student to the basic concepts of real property law as they pertain to common types of real estate transactions. Additionally, emphasis will be placed on practical skills such as document preparation and title examination. Topics include: real estate contracts, plat reading and legal descriptions, types and purposes of deeds, title searches, common real estate mortgages and documentation, real estate closing and closing statements, recordation statutes and requirements, and elements of the lease.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1125	Criminal Law and Criminal Procedure	Introduces the student to the basic concepts of substantive criminal law and its procedural aspects with an emphasis on the constitutionally protected rights of the accused in the criminal justice system. Topics include: substantive criminal law and procedure and criminal litigation support.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.

PARA 1130	Civil Litigation	Emphasizes competencies and concepts of civil litigation in both federal and state courts. Topics include: federal and state litigation; trial and pretrial proceedings; litigation ethics; and litigation documents, exhibits, investigations, and interviews.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1135	Wills, Trusts, Probate, and Administration	Provides a general framework of the substantive theory of wills, trusts, and estates. Topics include: wills, trusts, and powers of attorney; probate of wills and administration of estates; document preparation for other probate proceedings; general jurisdiction of the probate court; terminology of wills and estate practice; client interviews; and document preparation.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1140	Tort Law	Introduces the student to the basic concepts of substantive tort law.  Topics include: concepts of intentional torts, negligence and product liability; causation and liability concepts; damages and defenses; and special tort actions and immunities.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1145	Law Office Management	Introduces the student to common forms of law practice. The student will be exposed to methods of billing and time-keeping, automation in the law office, the law office library, the appropriate role of support staff in the law office, and ethical concerns relevant to law office management. Topics include: forms of law practice and insurance needs, support systems, support staff, and ethical responsibilities.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1150	Contract, Commercial law and Business Organizations	Introduces the student to the basic concepts of legal rules commonly applicable in commercial settings, to the basic concepts of substantive	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum

		contract law and to the formulation and operation of sole proprietorships, general partnerships, limited partnerships, and corporations. Additionally, the course explores the basic concepts of agency law. Topics include Constitutional law and its impact on business, the essential elements of a contract and related legal principles and the Uniform Commercial Code, sole proprietorships, partnerships, and professional associations and other business organizations, corporations and tax implications of different organizations.		minimum of three years of experience in a related field.	of three years of experience in a related field.
PARA 1200	Bankruptcy/Debtor- Creditor Relations	Introduces the student to the purpose and application of the Federal Bankruptcy Code and Rules, as well as applicable state law related to bankruptcy and debtorcreditor issues. Topics include: the Bankruptcy Code and Rules, Bankruptcy Court procedures, the preparation of bankruptcy forms and documents, state law workouts and collection, and the role of the paralegal in a bankruptcy practice.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1205	Constitutional Law	Explains the major legal principles and concepts of the U.S. Constitution including governmental powers and structure, and civil liberties. Additionally, this course includes an exploration of the history of the Constitution and case law interpreting it.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 1210	Legal and Policy Issues in Healthcare	Provide an overview of the legal issues involved in the delivery of healthcare and the issues relating to Elder Law. Students will recognize the fundamentals of the healthcare treatment relationship, liability	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.

		issues, patient care decisions and the human condition of sickness. They will explore the complexities of health care financing, health care access, governmental regulations and privacy issues. Topics will also include access to care, informed consent, patient care decisions, the doctor-patient relationship, end-of-life decision making, legal problems of the elderly, law and mental health, AIDS and the law and the privatization of health care facilities.			
PARA 1215	Administrative Law	Introduces the student to the basic concepts of administrative law including the legislative process related to enabling the agency. The Administrative Procedure Act (federal and state) is covered. Topics also include agency discretion, due process, delegation, rulemaking, investigation, information collection, informal proceeding, hearings, and judicial review. Because paralegals are permitted to represent individuals in some agency proceedings (e.g., social security, unemployment, etc.), the students are introduced to the various aspects of such representation.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 2205	Advanced Legal Research and Writing	Continues to develop writing skills developed in PARA 1105 and 1110 focusing on legal memoranda preparation. Additionally, students enhance legal research skill. Course competencies include research methodology, legal memoranda preparation, and substantive law research.	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a master's degree in a related field, and a minimum of three years of experience in a related field.	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum of three years of experience in a related field.
PARA 2210	Paralegal Internship 1	Focuses on the application and reinforcement of paralegal skills in an actual workplace environment, or	UN	Preferred qualifications are a Juris Doctor degree or a master's degree in justice administration, law, political science or a	Instructor must possess a bachelor's degree in law, political science or a bachelor's degree in related field, minimum

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		at the discretion of the instructor, in		master's degree in a related field, and a	of three years of experience in a related
		a school practicum with simulated		minimum of three years of experience in a	field.
		work experiences. Students are		related field.	
		acquainted with occupational			
		responsibilities through realistic			
		work situations and are provided			
		with insights into paralegal			
		applications on the job. Topics			
		include: problem solving,			
		adaptability to the job setting, use			
		of proper interpersonal skills,			
		application of paralegal skills in a			
		workplace setting, and professional			
		development.			
PARA 2215	Paralegal Internship II	This course continues the focus on	UN	Preferred qualifications are a Juris Doctor	Instructor must possess a bachelor's
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		the application and reinforcement of		degree or a master's degree in justice administration, law, political science or a	degree in law, political science or a
		paralegal skills in an actual		l i i i i i i i i i i i i i i i i i i i	bachelor's degree in related field, minimum
		workplace environment, or at the		master's degree in a related field, and a	of three years of experience in a related
		discretion of the instructor, in a		minimum of three years of experience in a	field.
		school practicum with simulated		related field.	
		work experiences. Realistic work			
		situations are used to provide			
		students with insights into paralegal			
		applications on the job. Topics			
		include: problem solving,			
		adaptability to the job setting, use			
		of proper interpersonal skills,			
		application of paralegal skills in a			
		workplace setting, and professional			
		development.			

### PHAR: Pharmacy Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
PHAR 1000	Pharmaceutical Calculations	This course develops knowledge and skills in pharmaceutical calculations procedures. Topics include: systems of measurement, medication dispensing calculations, pharmacy mathematical procedures, and calculation tools and techniques.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy.	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 1010	Pharmacy Technology Fundamentals	Provides an overview of the pharmacy technology field and develops the fundamental concepts and principles necessary for successful participation in the pharmacy field. Topics include: safety, orientation to the pharmacy technology field, Fundamental principles of chemistry, basic laws of chemistry, ethics and laws, definitions and terms, and reference sources.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 1020	Principles of Dispensing Medications	This course introduces the student to principles of receiving, storing, and dispensing medications. Topics include: purchasing, packaging, and labeling drugs; pharmacy policies and procedures; documentation; inventory and filing systems; compounding; storage and control; pharmacy equipment; and health care organizational structure. This course provides laboratory and clinical practice.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 1030	Principles of Sterile Medication Preparation	Continues the development of student knowledge and skills in preparing medication, processing glassware, and maintaining an aseptic environment. Topics include: aseptic and sterile techniques, parenteral admixtures, hyperalimentation, chemotherapy, filtering, disinfecting, contamination,	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three

		ophthalmic preparations, infection control, and quality control.			years of in-field experience in pharmacy practice is required.
PHAR 1040	Pharmacology	The course introduces the students to principles and knowledge about all classifications of medication. Topics include: disease states and treatment modalities, pharmaceutical side effects and drug interactions, control substances, specific drugs, and drug addiction and abuse.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 1050	Pharmacy Technology Practicum	Orients students to the clinical environment and provides experiences with the basic skills necessary for the pharmacy technician. Topics include: storage and control, documentation, inventory and billing, community practice, institutional practice, and communication.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 2060	Advanced Pharmacy Technology Principles	This course presents the advanced concepts and principles needed in the pharmacy technology field. Topics include: physician orders, patient profiles, pharmacy data systems, job readiness, legal requirements, inventory and billing, pharmaceutical calculations review and pharmacology review.	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.
PHAR 2070	Advanced Pharmacy Technology Practicum	Continues the development of student knowledge and skills applicable to pharmacy technology practice. Topics include: dispensing responsibilities, physician orders, controlled substances, hyperalimentation, chemotherapy, patient profiles, pharmacy data systems, ophthalmic preparations, and	UN	Preferred qualifications are a master's degree in healthcare science or related field; in addition to certification by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT). Three years of experience in pharmacy practice. Registration with the State of Georgia Board of Pharmacy	Instructional faculty require an associate's degree in a related healthcare field. Instructors must be Certificated by The Pharmacy Technician Certification Board (PTCB) as a Certified Pharmacy Technician (CPhT) or licensed by the State Board of Pharmacy. In addition, three years of in-field experience in pharmacy practice is required.

hospital/retail/home health pharmacy	
techniques.	

#### PHLT: Phlebotomy Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
PHLT 1030	Introduction to Venipuncture	Provides an introduction to blood collecting techniques and processing specimens. Emphasis is placed on the knowledge and skills needed to collect all types of blood samples from hospitalized patients. Topics include: venipuncture procedure, safety and quality assurance; isolation techniques, venipuncture problems, and definitions; lab test profiles and patient care areas; other specimen collections and specimen processing; test combinations, skin punctures and POCT; professional ethics and malpractice; and certification and licensure.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, will possess a Phlebotomy Technician Certification issued by The American Society for Clinical Pathology (ASCP).	Instructors are required to possess current credentials as a Phlebotomy Technician as a (CPT) Certified Phlebotomy Technician or a (RPT) Registered Phlebotomy Technician.
PHLT 1050	Clinical Practice	Provides work experiences in a clinical setting. Emphasis is placed on enhancing skills in venipuncture techniques. Topics include: introduction to clinical policies and procedures and work ethics; routine collections: adult, pediatric, and newborn; and special procedures.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, will possess a Phlebotomy Technician Certification issued by The American Society for Clinical Pathology (ASCP).	Instructors are required to possess current credentials as a Phlebotomy Technician as a (CPT) Certified Phlebotomy Technician or a (RPT) Registered Phlebotomy Technician.

### PHYS: Physics

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
PHYS 1110	Conceptual Physics	Introduces some of the basic laws of physics. Topics include systems of units and conversion of units, vector algebra, Newtonian mechanics, fluids and thermodynamics, heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.	UN	Instructors meeting the preferred credentials requirements hold a doctorate degree in physics or a doctorate degree with 18 graduate semester hours in physics.	Instructor must hold a master's degree in physics or a master's degree with at least 18 graduate semester hours in physics.
PHYS 1110/L	Conceptual Physics Lab	Selected laboratory exercises paralleling the topics in PHYS 1110. The laboratory exercises for this course include systems of units and systems of measurement, vector algebra, Newtonian mechanics, fluids and thermodynamics, heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.	UN	Instructors meeting the preferred credentials requirements hold a doctorate degree in physics or a doctorate degree with 18 graduate semester hours in physics.	Instructor must hold a master's degree in physics or a master's degree with at least 18 graduate semester hours in physics.
PHYS 1111	Introductory Physics I	The first course of two algebra and trigonometry based courses in the physics sequence. Topics include material from mechanics (kinematics, dynamics, work and energy, momentum and collisions, rotational motion, static equilibrium, elasticity theory, and simple harmonic motion), mechanical waves, theory of heat and heat transfer, and thermodynamics.	UT	Instructors meeting the preferred credentials requirements hold a doctorate degree in physics or a doctorate degree with 18 graduate semester hours in physics.	Instructor must hold a master's degree in physics or a master's degree with at least 18 graduate semester hours in physics.
PHYS 1111/L	Introductory Physics Lab I	Selected laboratory exercises paralleling the topics in PHYS 1111. The laboratory exercises for this course include units of measurement, Newton's laws, work energy and power, momentum and collisions, one- and two-dimensional motion, circular motion and law of gravity, rotational dynamics and static equilibrium, elasticity theory, harmonic motion, theory of heat and heat transfer, thermodynamics, wave motion, and sound.	UT	Instructors meeting the preferred credentials requirements hold a doctorate degree in physics or a doctorate degree with 18 graduate semester hours in physics.	Instructor must hold a master's degree in physics or a master's degree with at least 18 graduate semester hours in physics.

#### PLBG: Plumbing

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
PLBG 1005	Plumbing Fundamentals I	This course provides an introduction to the basic elements of the plumbing trade. Topics include introduction to the trade, plumbing safety, and tools of the trade, plumbing math and plumbing drawings.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1015	Plumbing Fundamentals II	This course continues the introduction of basic plumbing concepts and practices. Topics include: plastic pipe, copper tube, cast iron and steel pipe and fittings, plumbing fixtures, DWV systems and water distribution systems.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1025	Intermediate Plumbing I	This course introduces the student to a more in-depth discussion of the components, tools, and procedures of the plumbing trade. Topics include more in-depth plumbing math, reading commercial drawings, structural penetrations, installing and testing TWV systems and roof, floor and area drains.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1035	Intermediate Plumbing II	This course introduces the student to more advanced plumbing applications and techniques. Topics include water supply piping, valves, fixtures, water heaters, basic electrical principles, fuel gas, and fuel oil.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1045	Advanced Plumbing Concepts I	This course builds upon the basic and intermediate plumbing courses. Topics include applied math, sizing water supply piping, potable water treatment, backflow preventers and types of venting.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1055	Advanced Plumbing Concepts II	This course builds upon all preceding plumbing courses, but adds in business practices. Topics	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing,	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the

		include sizing DWV and storm systems, sewage and sump pumps, corrosive-resistant waste pipe, compressed air, water pressure, plumbing codes, business principles and crew leader skills.		or a related field. In addition, the instructor must have five years of in-field work experience.	teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1065	Specialty Plumbing Applications	This course discusses specialty plumbing applications and systems. Topics include indirect and special waste, hydronic and solar heating systems, servicing piping systems, fixtures and appliances, private water supply well systems, private waste disposal systems, swimming pools, hot tubs and plumbing for mobile homes and travel trailers.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1068	Specialty Plumbing Applications II	This course discusses specialty plumbing applications and systems. Topics include private water supply well systems, private waste disposal systems, swimming pools and hot tubs, plumbing for mobile homes and travel trailers, and medical gas and vacuum systems.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.
PLBG 1330	Plumbing Codes	This course provides an introduction to the plumbing codes for local, national, and international applications. Topics include the history, purpose, and construction of codes, model and international codes, local codes and amendments, and code applications.	UN	Preferred qualifications are an associate's degree in industrial systems, mechatronics, automated manufacturing, or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, three years in-field experience in plumbing is required.

### PNSG: Practical Nursing

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
PNSG 2010	Introduction to Pharmacology and Clinical Calculations	Applies fundamental mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, fundamental pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2030	Nursing Fundamentals	An introduction to the nursing process. Topics include: nursing as a profession; ethics and law; client care which is defined as using the nursing process, using critical thinking, and providing client education and includes principles and skills of nursing practice, documentation, and an introduction to physical assessment; customer/client relationships; standard precautions; basic life support; infection control/blood-borne/airborne pathogens; and basic emergency care/first aid and triage.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2035	Nursing Fundamentals Clinicals	An introduction to nursing practice in the clinical setting. Topics include but are not limited to: history taking; physical assessment; nursing process; critical thinking; activities of daily living; documentation; client education; standard precautions; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; and perioperative care.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2210	Medical-Surgical Nursing I	Focuses on client care including using the nursing process, performing assessments, using critical thinking,	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have

		engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the cardiovascular, respiratory, and hematological and immunological systems.		professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2220	Medical-Surgical Nursing II	This second course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the endocrine, gastrointestinal, and urinary system.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2230	Medical-Surgical Nursing III	This third course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.

		individual as a whole; mental health; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the neurological, sensory, and musculoskeletal systems.			
PNSG 2240	Medical-Surgical Nursing IV	This fourth course in a series of four courses focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole, oncology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the integumentary and reproductive systems.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2250	Maternity Nursing	Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and nonpathological concerns in obstetric clients and the newborn; client care,	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.

		treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.			
PNSG 2255	Maternity Nursing Clinical	Focuses on clinical health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and nonpathological concerns in obstetric clients and the newborn; client care, treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2310	Medical-Surgical Nursing Clinical I	This first clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.

PNSG 2320	Medical-Surgical Nursing Clinical II	maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.  This second clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
		clinical experience including 300 hours of comprehensive medical- surgical, 37.5 pediatric and 37.5			
		care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological			

			I		
		diseases, disorders and deviations			
		from the normal state of health, client			
		care, treatment, pharmacology,			
		nutrition and standard precautions			
		with regard to cardiovascular,			
		hematological, immunological,			
		respiratory, neurological, sensory,			
		musculoskeletal, endocrine,			
		gastrointestinal, urinary,			
		integumentary and reproductive			
		systems.			
PNSG 2330	Medical-Surgical	This third clinical course, in a series of	UN	Preferred qualifications are a master's	Associate degree or higher degree from a
	Nursing Clinical III	four medical-surgical clinical courses,		degree in nursing. In addition, must	nationally or regionally accredited college
		focuses on clinical client care		possess current, unencumbered registered	or university in Nursing required. Must have
		including using the nursing process,		professional nurse licensure in the State of	current, unencumbered registered
		performing assessments, applying		Georgia. Three years of full-time, in field	professional nurse licensure in the State of
		critical thinking, engaging in client		work/teaching experience in education,	Georgia. Three years of full-time, in field
		education and displaying cultural		business, industry, or military	work/teaching experience in education,
		competence across the life span and		environments within the past seven years	business, industry, or military environments
		with attention to special populations.		is required.	within the past seven years is required.
		At the completion of the four part			
		sequence of these medical-surgical			
		clinical courses students will have			
		completed a minimum of 375 hours of			
		clinical experience including 300			
		hours of comprehensive medical-			
		surgical, 37.5 pediatric and 37.5			
		mental health experiences. Topics			
		include: health management and			
		maintenance; prevention of illness;			
		care of the individual as a whole;			
		hygiene and personal care; mobility			
		and biomechanics; fluid and			
		electrolytes; oxygen care; perioperative			
		care; immunology; mental health; and			
		oncology. In addition pathological			
		diseases, disorders and deviations			
		from the normal state of health, client			
		care, treatment, pharmacology,			
		nutrition and standard precautions			
		with regard to cardiovascular,			
		hematological, immunological,			
		respiratory, neurological, sensory,			

		musculoskeletal, endocrine,			
		gastrointestinal, urinary,			
		integumentary and reproductive			
		systems.			
PNSG 2340	Medical-Surgical Nursing Clinical IV	This fourth clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four part sequence of these medical-surgical clinical courses students will have completed a minimum of 375 hours of clinical experience including 300 hours of comprehensive medical-surgical, 37.5 pediatric and 37.5 mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine,	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
		gastrointestinal, urinary, integumentary and reproductive			
		systems.			
PNSG 2410	Nursing Leadership	Builds on the concepts presented in	UN	Preferred qualifications are a master's	Associate degree or higher degree from a
		prior nursing courses and develops the		degree in nursing. In addition, must	nationally or regionally accredited college
		skills necessary for successful		possess current, unencumbered registered	or university in Nursing required. Must have

		performance in the job market. Topics include: application of the nursing process, supervisory skills, client education methods, group dynamics and conflict resolution.		professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.
PNSG 2415	Nursing Leadership Clinical	Builds on the concepts presented in prior nursing courses and develops the clinical skills necessary for successful performance in the job market, focusing on practical applications.  Topics include: application of the nursing process, critical thinking, supervisory skills, client education methods, and group dynamics.	UN	Preferred qualifications are a master's degree in nursing. In addition, must possess current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.	Associate degree or higher degree from a nationally or regionally accredited college or university in Nursing required. Must have current, unencumbered registered professional nurse licensure in the State of Georgia. Three years of full-time, in field work/teaching experience in education, business, industry, or military environments within the past seven years is required.

#### POLS: Political Science

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
POLS 1101	American Government	Emphasizes study of government and politics in the United States. The focus of the course will provide an overview of the Constitutional foundations of the American political processes with a focus on government institutions and political procedures. The course will examine the constitutional framework, federalism, civil liberties and civil rights, public opinion, the media, special interest groups, political parties, and the election process along with the three branches of government. In addition, this course will examine the processes of Georgia state government. Topics include foundations of government, political behavior, and governing institutions.	UT	Instructors meeting the preferred credentials requirement hold a doctorate degree in political science, government, public administration, law (Juris Doctor), or a doctorate with 18 semester credit hours in political science.	Instructor must hold a master's degree in government, public administration, law, political science or a master's degree with at least 18 graduate semester hours in political science.

### PPFT: Pipefitting

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
PPFT 1010	Introduction to Industrial Pipefitting	Provides an introduction into pipefitting with an emphasis on basic pipefitting tools and equipment.  Topics include an overall orientation of the industrial pipefitting trade, proper use of hand and power tools, use of Oxyfuel cutting, types of ladders and safe usage and identifying motorized equipment. Labs reinforce safety, appropriate use of hand tools, power tools, Oxyfuel cutting equipment, proper inspection and setup of ladders, and motorized equipment to include prestart checks of operation.	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in pipefitting.
PPFT 1020	Pipe Systems Installation and Assembly	Provides instruction of various pipe systems, interpret pipe layout diagrams, mathematical specifications for connections. Topics include: various pipe systems and materials; components and specifications for installation; blueprint drawings and detail sheets of specifications; valve installation and operations; mathematical precision for measurement and problem solving, and assembly requirements for threaded pipe fabrication. Labs will demonstrate proficient interpretation of blueprints, installation and assembly of pipe systems to include valve installation and threaded pipe fabrication while choosing appropriate materials for installation.	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in pipefitting.
PPFT 1030	Socket and Butt Weld Pipe Fabrication	Provides instruction on socket and butt weld pipe fabrication and instruction on excavations and underground pipe installation. Topics	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the

	include: types of sockets, weld and butt weld materials, pipe length determination between socket weld and butt weld fittings, prep and assembly requirements, selection and installation of backing rings, alignment			instructor must have three years of in-field experience in pipefitting.
	procedures, OSHA standards for shoring materials, shoring systems, hydraulic vertical shore installation, determination of sewer line fall, trenching grade and elevation, backfilling procedures, identification of underground piping materials,			
	classification and installation procedures, and horizontal directional drilling. Labs will demonstrate ability to fabricate socket and butt weld fittings to pipe, proper installation of backing rings, vertical shoring, proper trenching techniques grade elevation of sewer line and backfilling, and use of various types of material for underground			
quipment-Slings and rane Riggings	piping.  Provides instruction on types of rigging equipment, slings and sling angles, use of rigging equipment, rigging crane practices including hazard and safety procedures, load charts and load balancing rigging and lift plan for pipes, standards and codes, conversion tables and right angle trigonometry, application and safety requirements for drain cleaners, man lifts, and cable lifts, and introduction to aboveground pipe installation including components, pipe sleeve installation and floor penetrations.  Labs will demonstrate ability to perform safety inspections on rigging equipment and slings, proficient use of rigging equipment including	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in pipefitting.

		setup, inspection and knot tying, crane operations including hand signaling and proper rigging for pipe lifts, proficient use of equivalents table, right angle trigonometry and ability to calculate take outs using trigonometry, inspect scissor-type and telescoping boom man lifts, and proper storage of pipe and materials, fabrication of gaskets, flange bolt hole pipe installation and proficiency in floor penetrations and pipe sleeve installation.			
PPFT 1050	Testing Procedures	Provides instruction on field run specifications, erection equipment specifications, support needs, explanation on how to identify, select, and install pipe hangers and supports, spring can supports, and testing of pipes systems. Topics include: pretest, service flow test, head pressure test, hydrostatic test, and steam blow tests. Labs will focus on proficiency in the procedures for testing of pipe systems including setting up a secure work area, fabrication, erection of vessel trim, installation of concrete fasteners, angle iron bracket fabrication, use of spring can supports, and successful demonstration of pretest requirements, flow test, head pressure test and hydrostatic test.	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in pipefitting.
PPFT 1060	Advanced Pipe Fabrication	Provides instruction on advanced blueprint reading and advanced pipe fabrication. Topics include symbols and abbreviation on pipe and instrumentation drawings (P&IDs), piping arrangement drawings, ISOs, and spooling sheets, isometric drawings in plain view. Labs focus on proficiency in advanced pipe fabrication using	UN	Preferred qualifications are an associate's degree in pipefitting or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in pipefitting.

		table of ordinates or calculator to			
		create mitered bends, laterals,			
		wyes, ninety-degree intersections and			
		specialty bends and intersections.			
		Labs will also demonstrate ability to			
		draw isometric drawings.			
PPFT 1070	Special Piping	Provides instruction related to	UN	Preferred qualifications are an associate's	Instructor must possess appropriate
		alignment, steam traps, in-line		degree in pipefitting or a related field. In	licensure, certification, or additional
		devices, special piping, hot taps, valve		addition, the instructor must have five	professional credentials relevant to the
		maintenance, and supervisory roles.		years of in-field work experience.	teaching discipline. In addition, the
		Topics include various terms, thermal			instructor must have three years of in-field
		expansion, anchors and cold			experience in pipefitting.
		springing, procedures for stress-relief,			
		grouting, types of misalignments,			
		types of steam traps, various types of			
		in-line specialty devices, purpose and			
		function, assembling pipes made			
		from different materials, methods of			
		assembly, brazing, soldering,			
		use of compression and flared fittings			
		and use of grooved and compression			
		formed methods, hot tap safety and			
		hazards, types of hot taps, valve			
		maintenance, packing and O-rings,			
		troubleshooting, and supervisory roles			
		including cultural differences, gender-			
		based social behavior, legal and			
		ethical situations. Labs will			
		demonstrate proficient flange			
		alignment, proper troubleshooting of			
		steam traps, assembly of copper and			
		plastic tubing, solder and braze joint			
		techniques using copper tubing, use of			
		glass-lined pipe, install grooved pipe			
		coupling, removal and installation of			
		threaded and flanged valves,			
		replacement of O-rings and bonnet			
		gaskets, and proper repacking of a			
		valve.			

## PSYC: Psychology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
PSYC 1010	Basic Psychology	Presents basic concepts within the field of psychology and their application to everyday human behavior, thinking, and emotion. Emphasis is placed on students understanding basic psychological principles and their application within the context of family, work and social interactions. Topics include an overview of psychology as a science, the nervous and sensory systems, learning and memory, motivation and emotion, intelligence, lifespan development, personality, psychological disorders and their treatment, stress and health, and social relations.	UN	Instructors meeting preferred credential requirements hold a master's degree in psychology or educational psychology.	Instructors meeting minimum credential requirements must hold a bachelor's degree in psychology or educational psychology.
PSYC 1101	Introductory Psychology	Introduces the major fields of contemporary psychology. Emphasis is on fundamental principles of psychology as a science. Topics include research design, the organization and operation of the nervous system, sensation and perception, learning and memory, motivation and emotion, thinking and intelligence, lifespan development, personality, psychopathology and interventions, stress and health, and social psychology.	UΤ	Instructors meeting preferred credential requirements must hold a doctorate degree in psychology or educational psychology or a doctorate degree with at least 18 graduate semester hours in psychology.	Instructors meeting minimum credential requirements must hold a master's degree in psychology, educational psychology or a master's degree with at least 18 graduate semester hours in psychology.
PSYC 2103	Human Development	Emphasizes changes that occur during the human life cycle beginning with conception and continuing through late adulthood and death and emphasizes the scientific basis of our knowledge of human growth and development and the interactive forces of nature and nurture. Topics include but are not limited to theoretical perspectives and research methods, prenatal development and childbirth, stages of development from infancy through late adulthood, and death and dying.	UΤ	Instructors meeting preferred credential requirements must hold a doctorate degree in psychology or educational psychology or a doctorate degree with at least 18 graduate semester hours in psychology.	Instructors meeting minimum credential requirements must hold a master's degree in psychology, educational psychology or a master's degree with at least 18 graduate semester hours in psychology.

## RADT: Radiologic Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
RADT 1010	Introduction to Radiology	Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Provides the student with an overview of radiography and patient care. Students will be oriented to the radiographic profession as a whole. Emphasis will be placed on patient care with consideration of both physical and psychological conditions. Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: ethics, medical and legal considerations, Right to Know Law, professionalism, basic principles of radiation protection, basic principles of exposure, equipment introduction, health care delivery systems, hospital and departmental organization, hospital and technical college affiliation, medical emergencies, pharmacology/contrast agents, media, OR and mobile procedures patient preparation, death and dying, body mechanics/transportation, basic life support/CPR, and patient care in radiologic sciences.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1030	Radiographic Procedures I	Introduces the knowledge required to perform radiologic procedures applicable to the human anatomy. Emphasis will be placed on the production of quality radiographs, and laboratory experience will demonstrate the application of theoretical principles and concepts.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition,	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at

		Topics include: introduction to radiographic procedures; positioning terminology; positioning considerations; procedures, anatomy, and topographical anatomy related to body cavities, bony thorax, upper extremities, shoulder girdle; and lower extremities.		must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	least 3 years in-field experience in radiography.
RADT 1060	Radiographic Procedures II	Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the pelvic girdle; anatomy and routine projections of the spine, gastrointestinal (GI) procedures; genitourinary (GU) procedures; biliary system procedures; and minor procedures.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1065	Radiologic Science	Content of this course is designed to establish a basic knowledge of atomic structure and terminology. Other topics include the nature and characteristics of x-radiation; ionizing and non-ionizing radiation; x-ray production; the properties of x-rays, and the fundamentals of x-ray photon interaction with matter.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1070	Principles of Imaging I	Content is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Factors that govern the image production process, film imaging with related accessories, and a basis for analyzing radiographic images. Included are the importance of minimum imaging	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.

RADT 1075	Radiographic Imaging	standards, discussion of a problem- solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.  Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: orientation to hospital areas and procedures; orientation to mobile/surgery; orientation to radiography and fluoroscopy; participation in and/or observation of procedures related to body cavities, the shoulder girdle, and upper extremities. Activities of students are under direct supervision.		Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1085	Radiologic Equipment	Content establishes a knowledge base in radiographic, fluoroscopic and mobile equipment requirements and design. The content also provides a basic knowledge of Automatic Exposure Control (AEC) devices, beam restriction, filtration, quality control, and quality management principles of analog and digital systems. Laboratory experiences will demonstrate applications of theoretical principles and concepts.		Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1200	Principles of Radiation Biology and Protection	Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy, radiation/cell interaction; and effects of radiation.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.

RADT 1320	Clinical Radiography I	Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: orientation to hospital areas and procedures; orientation to mobile/surgery; orientation to radiography and fluoroscopy; participation in and/or observation of procedures related to body cavities, the shoulder girdle, and upper extremities. Activities of students are under direct supervision.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 1330	Clinical Radiography II	Continues introductory student learning experiences in the hospital setting. Topics include: equipment utilization; exposure techniques; attend to and/or observation of routine projections of the lower extremities, pelvic girdle, and spine; attend to and/or observation of procedures related to the gastrointestinal (GI), genitourinary (GU), and biliary systems; and attend to and/or observation of procedure related to minor radiologic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2090	Radiographic Procedures III	Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the cranium; anatomy and routine projections of the facial bones; anatomy and routine projections of the sinuses; sectional anatomy of the head, neck, thorax and abdomen.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2210	Computed Tomography Physics & Instrumentation	Introduces the concepts of basic physics and instrumentation for computed tomography. Topics include: computer concepts, system operation and	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists

		components, image processing and display, instrumentation, single slice and volume scanning, 3-D volume rendering, image quality and artifacts, radiation protection and quality control.		Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography, with specialization in CT.
RADT 2220	Computed Tomography Procedures	Provides knowledge CT procedures of the head, chest, abdomen, and pelvis. Topics include: anatomy, pathology, scanning procedures, scanning protocol, contrast administration, and contraindications for computed tomography.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography, with specialization in CT.
RADT 2190	Radiographic Pathology	Content is designed to introduce the student to concepts related to disease and etiological considerations. Pathology and disease as they relate to various radiographic procedures are discussed with emphasis on radiographic appearance of disease and impact on exposure factor selection. Topics include: fundamentals of pathology, trauma/physical injury, and systematic classification of disease.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2230	Computed Tomography Procedures II	Provides knowledge of anatomy, pathology, scanning protocols, contrast administration, and contraindications for computed tomography of the neck, spine, musculoskeletal system, and special procedures. Post-processing and quality assurance criteria are addressed. Topics include: anatomy, pathology, scanning protocol, contrast administration and contraindications, post processing and quality assurance.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.

RADT 2250	Computed Tomography Clinical I	Introduces students to the computed tomography department and provides an opportunity for participation in and observation of CT procedures. Students will progress toward completion of clinical competency evaluations. Topic include: exam preparation, patient care, equipment utilization, exposure techniques, evaluation of CT procedures, and incorporation of contrast media.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2260	Radiologic Technology Review	Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for radiographers. Topics include: image production and evaluation; radiographic procedures; anatomy, physiology, pathology, and terminology; equipment operation and quality control; radiation protection; and patient care and education.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2265	Computed Tomography Clinical II	Provides students with continued computed tomography work experience. Students demonstrate increased proficiency levels in skills introduced in Computed Tomography Procedures and practiced in the previous clinical course. Students complete clinical competency evaluations. Topics include: exam preparation, patient care, equipment utilization, exposure techniques, evaluation of CT procedures, and incorporation of contrast media.		Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.
RADT 2340	Clinical Radiography III	Provides students with continued hospital setting work experience. Students continue to develop proficiency in executing procedures introduced in Radiographic Procedures. Topics include: patient care; behavioral and social competencies; performance and/or observation of minor special procedures,	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at

		special equipment use, and participation in and/or observation of cranial and facial radiography. Execution of radiographic procedures will be conducted under direct and indirect supervision.		In addition, will hold American Registry of Radiologic Technologists certification (AART).	least 3 years in-field experience in radiography.
RADT 2360	Clinical Radiography V	Provides students with continued hospital setting work experience. Students demonstrate increased proficiency levels in skills introduced in all of the radiographic procedures courses and practiced in previous clinical radiography courses. Topics include: patient care; behavioral and social competency; advanced radiographic anatomy; equipment utilization; exposure techniques; sterile techniques; integration of procedures and/or observation of angiographic, interventional, minor special procedures; integration of procedures and/or observation of special equipment use; integration of procedures and/or observation of routine and special radiographic procedures; and final completion of clinical competencies. Execution of radiographic procedures will be conducted under direct and indirect supervision.	UN	Preferred qualifications are a master's degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography. In addition, will hold American Registry of Radiologic Technologists certification (AART).	Instructor must hold a baccalaureate degree in radiography technology or related healthcare discipline. Must have American Registry of Radiologic Technologists certification and registration in radiography or equivalent. In addition, must have at least 3 years in-field experience in radiography.

## **READ:** Reading

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
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READ 0096	Reading I	Emphasizes the strengthening of fundamental reading competencies. Topics include vocabulary skills, comprehension skills, and study skills.	D	Bachelor's degree in Reading or Bachelor's degree in related field with Reading credentials.	Instructor must hold a bachelor's degree in reading or bachelor's degree in related field with reading credentials.
READ 0097	Reading II	Emphasizes vocabulary, comprehension, and critical reading skills development. Topics include vocabulary skills, comprehension skills, critical reading skills, study skills, and content area reading skills.	D	Bachelor's degree in Reading or Bachelor's degree in related field with Reading credentials.	Instructor must hold a bachelor's degree in reading or bachelor's degree in related field with reading credentials.
READ 0098	Reading III	Provides instruction in vocabulary and comprehension skills with emphasis on critical reading skills. Topics include vocabulary skills, comprehension skills, critical reading skills, study skills, and content area reading skills.	D	Bachelor's degree in Reading or Bachelor's degree in related field with Reading credentials.	Instructor must hold a bachelor's degree in reading or bachelor's degree in related field with reading credentials.

## RESP: Respiratory Care

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
RESP 1110	Pharmacology	Introduces the physiologic and pharmacological basis of pulmonary and cardiac medications. Focuses on the preparation and calculation of dosages and mixtures and general principles of pharmacology as they relate to the body systems. Topics include: drug preparation, dosage calculation, mixture preparation, pharmacology principles, delivery systems, respiratory drugs, and cardiopulmonary system related drugs.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 1120	Introduction to Respiratory Therapy	Provides students with an introduction and comprehensive survey of the respiratory care profession. Emphasizes the application of physics and chemistry as the foundation for specific modes of respiratory care principles employed in patient care, including indications, hazards, contraindications, evaluation of therapy, and patient assessment. Topics include: respiratory therapy chemistry and physics principles, patient assessment, medical gas therapy, humidity and aerosol therapy, hyperinflation therapy, bronchopulmonary hygiene, infection control practices, and hospital safety.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 1130	Respiratory Therapy Lab I	Provides students with the opportunity to gain hands-on experience with basic respiratory therapy equipment and simulated practice of basic respiratory care modalities. Topics include: patient assessment, medical gas therapy, humidity and aerosol therapy, hyperinflation therapy, airway clearance techniques, infection control procedures, and medical ethics.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 1193	Cardiopulmonary Anatomy and Physiology	Provides an in-depth study of cardiac and pulmonary anatomy and physiology, and the diagnostic procedures commonly used in the hospital to evaluate these systems.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing

		Emphasizes the heart-lung relationship and clinical applications of these phenomena in the cardiopulmonary system. Topics include: respiratory function; ventilatory mechanisms; gas transport; laboratory analysis; natural and chemical regulation of breathing; circulation, blood flow and pressure, and cardiac function; renal physiology and related topics.		(RRT) and hold such Professional License or Certificate as is required by the state.	organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 1340	Clinic I	Introduces students to the clinical setting in a sleep laboratory or sleep center. Consists of departmental orientation, policies and procedures, individual mechanics and client transfers. Emphasis on monitoring and working with polysomnographic equipment and monitoring sleep study clients and equipment. Topics include: patient assessment and recording montages.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 1350	Clinic II	Provides student with clinical practice related to scoring and interpreting polysomnograms of adult and pediatric clients. Emphasis on CPAP/BIPAP titration artifact recognition and troubleshooting of sleep montage results, maintenance of Polysomnography equipment and ancillary equipment. Topics include: recording test, CPAP/BiPAP and laboratory management.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2090	Clinical Practice I	Introduces students to clinical practice in basic respiratory care procedures. Topics include: introduction to clinical affiliate, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, inspiratory and expiratory PIP/PEP devices, patient assessment, and basic life support (BLS).	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2100	Clinical Practice II	Continues to develop skills used in the clinical practice. Topics include: medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, and patient assessment.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA).

					Must have at least three years' experience in-field.
RESP 2110	Pulmonary Disease	Provides students with information concerning assessment of etiology, pathophysiology, treatment, and prognosis of common cardiopulmonary, cardiovascular, and pulmonary diseases and conditions. Topics include: infectious diseases and conditions, respiratory diseases and conditions, neuromuscular diseases and conditions, cardiovascular diseases and conditions, sleep apnea, patient assessment, laboratory tests, chest radiographs, and trauma.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2120	Critical Respiratory Care	Provides students with knowledge on all phases of adult critical care and continuous mechanical ventilation. Topics include: mechanical ventilation history, principles of mechanical ventilation, continuous mechanical ventilation, ventilator implementation, ventilator monitoring, ventilator weaning, ventilator discontinuance and special techniques.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2130	Mechanical Ventilation and Airway Management	Provides instruction in the theory, set-up, operation, and maintenance of mechanical ventilators and equipment used to establish and maintain both adult and pediatric airways and emergency airway disorders. Topics include: ventilator operation, ventilator maintenance, emergency airway disorders, adult airway establishment and maintenance, pediatric airway establishment and maintenance, fiberoptic bronchoscopy, thoracentesis, chest tube maintenance, arterial blood gas sampling, and noninvasive positive pressure ventilation.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2140	Advanced Critical Care Monitoring	Provides a study of advanced critical care techniques for hemodynamic and non-invasive monitoring. Topics include: arterial pressure monitoring, central venous catheters, pulmonary artery	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA).

		catheters, cardiac output measurement, and non-invasive monitoring techniques.			Must have at least three years' experience in-field.
RESP 2150	Pulmonary Function Testing	Provides knowledge regarding normal and abnormal pulmonary functions. Emphasizes performance, interpretation, and evaluation of various pulmonary function studies. Topics include: pulmonary function testing, pulmonary function interpretation, pulmonary function evaluation, blood gas analysis, and polysomnography.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2160	Neonatal Pediatric Respiratory Care	Provides concepts on the processes of growth and development related to respiratory care from the fetus to the adolescent. Relates physiologic function to respiratory care assessment. Topics include: fetal growth and development, neonatal growth and development, fetal assessment, neonatal assessment, neonatal respiratory care, neonatal pathology, pediatric pathology, pediatric respiratory care, adolescent assessment, and adolescent respiratory care	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2170	Advanced Respiratory Care Seminar	Review of respiratory therapy as it pertains to the national credential examinations administered by the NBRC. Emphasizes decision making and problem solving as they relate to clinical respiratory care. Topics include: medical ethics, basic computer literacy, CRTT exam preparation, and RRT exam preparation.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2180	Clinical Practice III	Continues development of proficiency levels in skills introduced in Clinical Practices I and II. In addition, intermittent positive pressure breathing, chest physiotherapy, and airway care are introduced. Case presentations are required to integrate clinical and classroom theory. Topics include: intermittent positive pressure breathing, chest physiotherapy, airway care, medical gas therapy, oxygen therapy, aerosol	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.

		therapy, incentive spirometry, and patient assessment.			
RESP 2190	Clinical Practice IV	Continues development of proficiency levels in skills introduced in Clinical Practices I, II, and III. In addition, the student is introduced to critical respiratory care. Case presentations are required to integrate clinical and classroom theory. Topics include: intermittent positive pressure breathing, chest physiotherapy, airway care, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, patient assessment, and respiratory care of the critical care patient.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2200	Clinical Practice V	Continues development of skills required in the intensive care of the respiratory patient. Case presentations are required to integrate clinical and classroom theory. Topics include: basic respiratory care of critical care patients, airway management, ventilator monitoring, arterial blood collection, blood gas analysis, and EKG.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree.  Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2220	Clinical Practice VI	Provides students with an opportunity for in-depth application and reinforcement of adult intensive care. In addition, students are provided an opportunity for application and reinforcement of pediatric and neonatal intensive care, advanced diagnostics, and rehabilitation/home care. Topics include: mechanical ventilation initiation, patient stabilization, critical care monitoring, hemodynamic measurement, hemodynamic evaluation, bronchial hygiene, weaning mechanics, extubation, arterial line sampling, advanced diagnostics, pediatric/neonatal respiratory care, and rehabilitation/home care.	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist (RRT) and hold such Professional License or Certificate as is required by the state.	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
RESP 2270	Rehabilitation and Home Care	Provides an overview of the concepts, procedures, and equipment used in rehabilitation and in the delivery of long-term care to persons with chronic pulmonary disorders. Topics include:	UN	Preferred qualifications are a master's degree in respiratory therapy or health related field. In addition, candidate will be a Registered Respiratory Therapist	Instructor must hold a bachelor's degree. Additionally, must be credentialed in Respiratory Therapy by a credentialing organization accredited by the National

cardiopulmonary rehabilitation/home care concepts, cardiopulmonary rehabilitation/home care procedures, and cardiopulmonary rehabilitation/home care equipment.	(RRT) and hold such Professional License or Certificate as is required by the state.	Commission for Certifying Agencies (NCCA). Must have at least three years' experience in-field.
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## RNSG: Registered Nursing

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
RNSG 1025	Electronic Medical Records	This course focuses on the principles of medical documentation. The course will also include a review of common medical and surgical terms, diagnoses, and procedures. Electronic medical record systems are introduced and medical record case studies analyzed. Legal aspects of medical records will be explored such as privacy, confidentiality, and security of information in electronic environments. Students will also examine the potential utility of a variety of social networking tools in communicating health-related information.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.
RNSG 1026	Fundamentals	This course introduces the basic concepts and principles fundamental to nursing practice which include the role of the registered nurse and the nursing process. The nursing student will be introduced to the basic concepts of physiological integrity, psychological integrity, and caring for self. Safe and effective environment will be introduced as the foundation of knowledge used throughout the nursing curriculum. The basic skills training in simulated settings will introduce the use of the skills in a variety of clinical settings. The roles of the nurse as a provider of care, manager of care and member within the discipline serve as the organizing framework for expected student behaviors.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.

RNSG 1027	Nursing Pharmacology	This course focuses on the information required to safely administer drugs and monitor the effects of drug therapy.  Emphasis will be on dosage calculations and principles of pharmacology including drug actions, interactions, and nursing implications for broad classifications of medications. Students will be expected to apply the nursing process and critical thinking in the administration of prescribed medications, taking of medication history, and in teaching patients about medications in a simulated setting.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.
RNSG 1028	Nursing Concepts I	This course introduces the nursing student to nursing concepts and skills related to the care of multicultural individuals with simple acute health problems. Students will reinforce nursing theory and skills taught in the foundational course focusing on the care of individuals with simple acute health problems. Students will reinforce nursing theory and skills taught in the foundational course focusing on the care of individuals/families with common physiological and psychological and psychosocial alterations health. The course further prepares the nursing student to provide safe compassionate, effective, evidence-based nursing care for adult clients in a variety of health care and simulated settings. Concepts of medical and surgical nursing will be applied through the nursing process to the care of the adult client experiencing simple acute to more complex chronic health problems incorporating essential nursing science, biophysical, psychosocial spiritual, and cultural principles. Pharmacological concepts are strengthened throughout the course.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.
RNSG 2025	Family Nursing	This course focuses on the safe,	UN	Preferred qualifications are a doctoral	Instructor must hold a master's degree in
		compassionate, evidenced-based care of		degree in nursing practice or nursing	Nursing. Must possess a current Georgia

		women during their reproductive years and of children from birth through adolescence. The promotion of wellness, restoration, and maintenance to the changing needs related to these populations are emphasized. The nursing process will be utilized, incorporating critical-thinking skills in the management of care and education for these patients and their families. Pharmacologic principles as they relate to the obstetrical and pediatric patient will be utilized. Essential nursing science, biophysical, psychosocial, spiritual and culturally sensitive principles will be incorporated. Supervised clinical rotations in inpatient and outpatient facilities as well as obstetric and pediatric simulations, will provide the student with opportunities to meet course competency outcomes.		education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Registered Nurse License. A minimum of three years of professional nursing experience is required.
RNSG 2026	Mental Health Concepts	This course focuses on the safe, compassionate, evidenced-based care of women during their reproductive years and of children from birth through adolescence. The promotion of wellness, restoration, and maintenance to the changing needs related to these populations are emphasized. The nursing process will be utilized, incorporating critical-thinking skills in the management of care and education for these patients and their families. Pharmacologic principles as they relate to the obstetrical and pediatric patient will be utilized. Essential nursing science, biophysical, psychosocial, spiritual and culturally sensitive principles will be incorporated. Supervised clinical rotations in inpatient and outpatient facilities as well as obstetric and pediatric simulations, will provide the student with opportunities to meet course competency outcomes.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.

RNSG 2027	Nursing Concepts II	This course presents sound nursing theory, therapeutic modalities, and clinical application across the treatment continuum of the mental health client. It provides a foundation for understanding contemporary psychiatric mental health problems and prepares the nursing student for planning and providing safe, compassionate, evidence-based nursing care to clients with mental and neurobehavioral disorders. Emphasis is placed on health promotion, restoration, and maintenance of the client in outpatient and inpatient mental health facilities, as well as adult day care settings. Concepts of mental health nursing will be applied through the nursing process in the care and collaboration of care of the adult client with acute and/or chronic mental health problems. Teaching and learning principles will be incorporated to all aspects of care, including the biophysical, psychosocial, spiritual and cultural aspects. Super vised clinical simulations, inpatient/outpatient hospital rotations, and adult day care interactions will provide the student opportunities to meet course competency outcomes.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.
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RNSG 2028	Nursing Leadership	This course builds on previous courses, integrating program concepts to provide care for groups of individuals/families exhibiting complex multisystem disorders in healthcare and community settings.  Concepts of advanced medical-surgical nursing will be applied to the care of the client with complex problems incorporating essential nursing science, biophysical, psychosocial, spiritual, and cultural principles. This course is also designed to prepare the student for transition to the role of the professional nurse. The focus is on leadership in nursing care delivery, management techniques and strategies in the care for groups of clients, employment procurement and opportunities and health care policy issues.	UN	Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.
RNSG 2035	Capstone Nursing	This course provides associate degree nursing students with an opportunity to enhance their abilities in the areas of nursing concepts to be more successful on the NCLEX-RN examination. This course also thoroughly prepares the nursing students to take the NCLEX-RN licensure exam by integrating an online NCLEX-RN review course. The topics addressed include but are not limited to the following: health assessment, theoretical and technical foundations of nursing, nursing principles of pharmacy, as well as the promotion of mental health, obstetrics, pediatrics, and medical surgical care.		Preferred qualifications are a doctoral degree in nursing practice or nursing education. Must possess a current, unencumbered Georgia Registered Nurse License. A minimum of three years of professional nursing experience within the last seven years, preferred post-secondary teaching experience in an accredited nursing program.	Instructor must hold a master's degree in Nursing. Must possess a current Georgia Registered Nurse License. A minimum of three years of professional nursing experience is required.

# SCMA: Supply Chain Management

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
SCMA 1000	Supply Chain Management	Provides a general knowledge of Supply Chain Management (SCM) and the associated functions necessary for delivering goods and services to customers. The course will focus on what employees and managers must do to ensure an effective Supply Chain exists in their organization. Topics include: Introduction to SCM, E-Commerce, Material Management, Information Technology, Measuring SCM performance, Purchasing and Distribution, and Research and Case Studies.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.
SCMA 1003	Introduction to Transportation and Logistics Management	Businesses today cannot be competitive without a good transportation and logistics network. This course introduces the five basic forms of transportation and provides an understanding of the economic fundamentals underlying each mode. Students then discuss ways in which today's supply chain manager can use these transportation modes to achieve efficiencies and cost effectiveness necessary for a company to survive in today's global markets.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.
SCMA 1015	E-Commerce in Supply Chain Management	Provides a general knowledge of E-Commerce (EC) and how it is being conducted and managed as well as assessing its major opportunities, limitations, issues, and risks. The course will focus on the impact EC has on a significant portion of the world, affecting businesses, supply chains, professions, and people. EC is more than just buying and selling, and students will learn it is also about electronically communicating, collaborating, sharing of information by businesses, and discovering information.	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.

SCMA 2103	Supply Chain Management Concepts  Key Issues in the Global Integrated Supply Chain	Logistics and Supply Chain Management today represents a great challenge as well as a tremendous opportunity for most firms. This course will view the supply chain from the point of view of a front-line supervisor. Logistics and Supply Chain Management is all about managing handoffs in a supply chain, hand-offs of either information or product. Phrases like logistics management, supply chain management and demand chain management will be used interchangeably in order to provide an understanding on how logistical decisions impact the performance of the firm as well as the entire supply chain.  This course examines the issues and challenges a corporation faces in designing and implementing a globally integrated supply chain. Topics include social responsibility in the supply chain, geo-political impacts, outsourcing and off	UN	Preferred qualifications are a master's degree with at least 18 graduate semester hours in logistics or supply chain management.  Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics or supply chain management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.  Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply chain management.
SCMA 2200	Capstone/Case Studies in Logistics	shoring of supply chain functions, and how companies manage risk in their supply chains.  Capstone course that prepares students for entry level positions in the field of logistics and supply chain management	UN	Preferred qualifications are a master's degree in logistics, or a master's degree with at least 18 graduate semester hours in logistics are unable being management.	Instructor must hold a bachelor's degree in related field with at least three years of industry experience in logistics or supply
	Management	through case studies, project management, and presentations.		in logistics or supply chain management.	chain management.

## SOCI: Sociology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
SOCI 1101	Introduction to Sociology	Explores the sociological analysis of society, its culture, and structure.  Sociology is presented as a science with emphasis placed on its methodology and theoretical foundations. Topics include basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, social change, and marriage and family.	UT	Instructors meeting preferred credential requirements hold a doctorate degree in sociology or a doctorate with 18 graduate semester hours in sociology.	Instructors meeting minimum credential requirements must hold a master's degree in sociology or a master's degree plus 18 graduate semester hours in sociology.

## SPCH: Speech

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
SPCH 1101	Public Speaking	Introduces the student to the fundamentals of oral communication. Topics include selection and organization of materials, preparation and delivery of individual and group presentations, analysis of ideas presented by others, and professionalism.	UT	Instructors meeting preferred credential requirements hold a doctorate degree in communication, public speaking, speech, or a doctorate degree with at least 18 graduate semester hours in communication or speech.	Instructor must hold a master's degree in communication, public speaking, speech, or a master's degree with at least 18 graduate semester hours in communication or speech.

## SURG: Surgical Technology

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credentials Required
SURG 1010	Introduction to Surgical Technology	Provides an overview of the surgical technology profession and develops the fundamental concepts and principles necessary to successfully participate on a surgical team. Topics include: orientation to surgical technology; biomedical principles; asepsis and the surgical environment; basic instrumentation and equipment; principles of the sterilization process; application of sterilization principles; and minimally invasive surgery. (There are surgical procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.
SURG 1020	Principles of Surgical Technology	Provides continued study of surgical team participation by wound management and technological sciences for the operating room. Topics include: biophysical diversities and needs; pre-operative routine; intra-operative routine; wound management; post-operative patient care; and outpatient surgical procedures. (There are surgical procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.
SURG 1080	Surgical Microbiology	Introduces the fundamentals of surgical microbiology. Topics include: historical development of microbiology;	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through	Instructor must hold a diploma in surgical technology or health related field.

SURG 1100	Surgical Pharmacology	microscopes; cell structure and theory; microbial function and classification; human and pathogen relationships, infectious processes and terminology; defense mechanisms; infection control and principles of microbial control and destruction.  Introduces the fundamentals of intraoperative pharmacology, and emphasizes concepts of anesthesia administration. Topics include: weights and measurements, drug conversions, interpretation of drug orders, legal aspects of drug administration, intraoperative	UN	a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).  Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room	Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.  Instructor must hold a diploma in surgical technology or health related field.  Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA).
SURG 2030	Surgical Procedures I	pharmacologic agents, and anesthesia fundamentals.  Introduces the core general procedures, including the following: incisions; wound closure; operative pathology; and common complications as applied to general and specialty surgery. Topics include: introduction to surgical procedures; general surgery and special techniques; obstetrical and gynecological surgery; gastrointestinal surgery; genitourinary surgery; otorhinolaryngologic surgery; and orthopedic surgery. (There are surgical procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)	UN	experience. Certified Surgical Technologist (CST).  Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Must have at least 3 years' experience infield.  Instructor must hold a diploma in surgical technology or health related field.  Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.
SURG 2040	Surgical Procedures II	Continues development of student knowledge and skills applicable to specialty surgery areas. Topics include: ophthalmic surgery; thoracic surgery; vascular surgery; cardiovascular surgery; neurosurgery; and plastic and reconstructive surgery. (There are surgical	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA).

		procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)	experience. Certified Surgical Technologist (CST).	Must have at least 3 years' experience infield.
SURG 2110	Surgical Technology Clinical I	Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Topics include: general surgery (to include gastrointestinal), cardiothoracic surgery, otorhinolaryngologic surgery (ENT), ophthalmic surgery (Eye), genitourinary surgery, neurological surgery, obstetrical and gynecological surgery, oral and maxillofacial surgery, Orthopedic surgery, peripheral vascular surgery, plastic and reconstructive surgery, and procurement/transplant surgery. The total number of cases the student must complete is 120. Students are required to complete 30 cases in the General Surgery specialty. Twenty of the cases must be in the First Scrub Role. Students are required to complete 90 cases in various surgical specialties. Sixty of the cases must be in the First Scrub Role and evenly distributed between a minimum of 5 surgical specialties. However, 15 is the maximum	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Instructor must hold a diploma in surgical technology or health related field.  Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.

SURG 2120	Surgical Technology Clinical III	number of cases that can be counted in any one surgical specialty. Diagnostic endoscopy cases and vaginal delivery cases are not mandatory, but up to 10 diagnostic endoscopic cases and 5 vaginal delivery cases can be counted toward the maximum number of Second Scrub Role cases. Cases that are in the Observation role must be documented but do not count toward the minimum of 120 total cases.  Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation/participation in routine procedures and procedures for core and specialty surgery. Topics include: general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary surgery, otorhinolaryngologic surgery, plastic and reconstructive surgery, orthopedic surgery, ophthalmic surgery, oral and maxillofacial surgery, cardiothoracic surgery, peripheral vascular surgery, and neurosurgical procedures. Utilization of minutes allotted to specialty areas are at the discretion of the program.	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience infield.
SURG 2130	Surgical Technology Clinical IV	Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA).

SURG 2140	Surgical Technology Clinical V	a sterile field; and environmental sanitation. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation/participation in routine procedures and procedures for core and specialty surgery. Topics include: general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary surgery, otorhinolaryngologic surgery, plastic and reconstructive surgery, orthopedic surgery, ophthalmic surgery, oral and maxillofacial surgery, cardiothoracic surgery, peripheral vascular surgery, and neurosurgical procedures. Utilization of minutes allotted to specialty areas are at the discretion of the program.  Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; and environmental	UN	experience. Certified Surgical Technologist (CST).  Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical	Instructor must hold a diploma in surgical technology or health related field.  Additionally, must be credentialed in Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA). Must have at least 3 years' experience in-
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SURG 2240	Seminar in Surgical Technology	Prepares students for entry into careers as surgical technologists and enables them to effectively prepare for the national certification examination. Topics include:	UN	Preferred qualifications are a master's degree in healthcare science or related field. In addition, must be certified through a national credentialing organization that	Instructor must hold a diploma in surgical technology or health related field. Additionally, must be credentialed in
		professional credentialing, certification review, and test-taking skills.		is accredited by the National Commission on Certifying Agencies (NCCA). Minimum of year of current operating room experience. Certified Surgical Technologist (CST).	Surgical Technology by a credentialing organization accredited by the National commission for Certifying Agencies (NCCA).  Must have at least 3 years' experience infield.

### THEA: Theatre

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
THEA 1100	Theatre Appreciation	Explores history, aesthetics, and craft of the theatrical experience on stage, emphasizing the role of the audience as well as that of the artist. Critical views of theatrical performances are examined alongside scripts. Emphasis is placed on the students' understanding of foundational elements, principles, and theories of dramatic art, including classical and contemporary varieties. The performance component of this course enables students to appreciate the process by which theatre is realized and the creative and cultural significance of theatre as a basic human endeavor.	UN	Instructors meeting preferred credential requirements hold a doctorate degree in theatre, or a doctorate degree with at least 18 graduate semester hours in theatre, performance, public speaking, drama or a related field.	Instructors meeting minimum credential requirements must hold a master's degree in theatre or a master's degree with at least 18 graduate semester hours in theatre, performance, public speaking, drama or a related field.

### **WELD:** Welding

Course Prefix	Course Title	Course Description	Course Type (UN, UT, D)	Preferred Credential Requirements	Minimum Credential Requirements
WELD 1000	Introduction to Welding Technology	Provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1005	Welding and Cutting Fundamentals	This course introduces the student to basic welding and cutting techniques. Topics include welding safety, Oxyfuel cutting, plasma Arc cutting, air carbon arc cutting and gouging, base metal preparation and welding quality requirements. This course aligns with select modules found in NCCER Levels 1 and 2 welding curricula.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1007	Welding Technology Fundamentals	This course introduces the student to basic welding and cutting techniques. Topics include welding safety, Oxyfuel cutting, plasma arc cutting, air carbon arc cutting and gouging, base metal preparation and weld quality requirements	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1010	Oxyfuel Cutting	Introduces fundamental principles, safety practices, equipment, and techniques necessary for metal heating and Oxyfuel cutting. Topics include: metal heating and cutting principles, safety procedures, use of cutting torches and apparatus, metal heating techniques, metal cutting techniques, manual and automatic Oxyfuel cutting techniques, and Oxyfuel pipe cutting. Practice in the laboratory is provided.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.

WELD 1015	Shielded Metal Arc Welding I	This course is the first of two courses dedicated to Shielded Metal Arc Welding procedures. Topics include SMAW equipment and setup, electrodes and beads and fillet welds. This course aligns with modules found in NCCER Level I welding curriculum.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1020	Oxyacetylene Welding	Introduces the fundamental theory, safety practices, equipment, and techniques necessary to perform basic oxyacetylene welding operations.  Topics include: welding theory; oxyacetylene welding safety; use of gas cylinders and regulators; use of torches, tips, and apparatus; welding without filler rods; running beads with filler rods; butt, open butt, and lap joints; and brazing and soldering.  Practice in the laboratory is provided.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1025	Shielded Metal Arc Welding II	This course is the second in a series of Basic Shielded Metal Arc welding practices. Topics include joining fit-up and alignment, groove welds with backing and open V-groove welds. This course aligns with select modules found in NCCER Level I welding curriculum.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1030	Blueprint Reading for Welding Technology	This course introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. An emphasis is placed on identifying types of welds, and the associated abbreviations and symbols.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1035	Gas Metal and Flux Core Arc Welding	This course covers the fundamentals of Gas Metal Arc Welding (GMAW) and Flux Core Arc Welding (FCAW). Topics include equipment and filler metals and plate welding. This course aligns with select modules found in NCCER Level II curricula.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1037	GMAW and FCAW Welding	This course covers the fundamentals of Gas Metal Arc Welding (GMAW) and	UN	Preferred qualifications are an associate's degree in welding and joining or a related	Instructor must possess appropriate licensure, certification, or additional

		Flux Core Arc Welding (FCAW). Topics include welding symbols and print reading, metal characteristics, preheating and post heating of metals, equipment and filler metals and plate welding		field. In addition, the instructor must have five years of in-field work experience.	professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1040	Flat Shielded Metal Arc Welding	This course introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in flat positions. Qualification tests, flat position, are used in the evaluation of student progress toward making industrial welds.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1045	Gas Tungsten Arc Welding I	This course provides an overview of gas tungsten arc welding (GTAW).  Topics include welding safety, power sources, electrodes, equipment, GTAW torches, filler metals, equipment setup and plate welding. This course aligns with NCCER Level II welding curricula.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1050	Horizontal Shielded Metal Arc Welding	Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the horizontal position. Qualification tests, horizontal position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: horizontal SMAW safety and health practices, selection and applications of electrodes, selection and applications for horizontal SMAW, horizontal SMAW joints, and horizontal SMAW to specification.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1055	Shielded Metal Arc Welding Pipe Welds	This course explains how to set up shielded metal arc (SMAW) equipment for open-Oroot V-groove welds on carbon steel pipe. This course aligns with select modules in NCCER Level III welding curricula.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1060	Vertical Shielded Metal Arc Welding	Introduces the major theory, safety practices, and techniques required for	UN	Preferred qualifications are an associate's degree in welding and joining or a related	Instructor must possess appropriate licensure, certification, or additional

		shielded metal arc welding (SMAW) in the vertical position. Qualification tests, vertical position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: vertical SMAW safety and health practices, selection and applications of electrodes for vertical SMAW, vertical SMAW joints, and vertical SMAW to specification.		field. In addition, the instructor must have five years of in-field work experience.	professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1065	GMAW and FCAW Pipe Welds	This course explains how to set up gas metal arc welding (GMAW) and flux core arc welding (FCAW) equipment for open-root V-groove welds. It includes procedures for open-root V-groove welds with GMAWE and FCAW equipment on pipe in a variety of positions. This course aligns with selected modules found in NCCER Level III welding curricula.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1070	Overhead Shielded Metal Arc Welding	Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the overhead position. Qualification tests, overhead position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: overhead SMAW safety and health practices, selection and applications of electrodes for overhead SMAW, overhead SMAW joints, and overhead SMAW to specification.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1075	Gas Tungsten Arc Welding Pipe Welding	This course explains how to prepare GTAW equipment for open-root V-Groove welds on carbon steel and stainless steel pipe in all positions.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1085	SMAW Stainless Steel Groove Welds	This course explains how to make SMAW open-root V-groove welds on stainless steel plate and pipe in all positions. This course aligns with	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the

		select modules in NCCER Level III welding curricula.			instructor must have three years of in-field experience in welding and joining.
WELD 1090	Gas Metal Arc Welding	Provides knowledge of theory, safety practices, equipment and techniques required for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds. Topics include: GMAW safety and health practices; GMAW theory, machines, and set up; transfer modes; wire selection; shielded gas selection; and GMAW joints in all positions.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1110	Gas Tungsten Arc Welding	Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful gas tungsten arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and set up; selection of filler rods; GTAW weld positions; and production of GTAW beads, bead patterns, and joints.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1120	Preparation for Industrial Qualification	Introduces industrial qualification methods, procedures, and requirements. Students are prepared to meet the qualification criteria of selected national welding codes and standards. Topics include: test methods and procedures, national industrial codes and standards, fillet and groove weld specimens, and preparation for qualifications and job entry	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1125	GMAW and GTAW Aluminum Plate Welds	This course introduces the student to aluminum plate welding techniques using Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW)	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the

		equipment. Topics include aluminum metallurgy, equipment set up and use, aluminum wire, shielding gas and fillet and V-groove welds.			instructor must have three years of in-field experience in welding and joining.
WELD 1150	Advanced Gas Tungsten Arc Welding	Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful advanced gas tungsten arc welding (GTAW). Qualification tests, all positions, are used in the evaluation of student progress toward making advanced level industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and equipment set up; selection of filler rods; GTAW weld positions; and advanced production of GTAW beads, bead patterns, and joints.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1151	Fabrication Processes	Presents practices common in the welding and metal fabrication industry. Topics include: metal fabrication safety and health practices and metal fabrication procedures.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1152	Pipe Welding	Provides the opportunity to apply skills to pipe welding operations. Topics include: pipe welding safety and health practices, pipe welding nomenclature, pipe layout and preparation, pipe joint assembly, horizontal welds on pipe (2G), vertical welds on pipe (5G), and welds on 45 degree angle pipe (6G).	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1153	Flux Cored Arc Welding	Provides knowledge of theory, safety practices, equipment, and techniques required for successful flux cored arc welding (FCAW). Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standards welds. Topics include: FCAW safety and health	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.

WELD 1154	Plasma Cutting	practices, FCAW theory, machine set up and operation, shielded gas selection, and FCAW joints in all positions.  Provides knowledge of theory, safety practices, equipment, and techniques required for plasma cutting. Topics	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the
		include: safety practices; plasma torch and theory; plasma machine set up and operation; and plasma cutting techniques.		five years of in-field work experience.	teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1156	Ornamental Iron Works	Provides an introduction to ornamental ironworks with emphasis on safety practices, equipment and ornamental ironwork techniques.  Topics include: introduction to ornamental ironworks and safety practices; use of scroll machine, and use of bar twister.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1330	Metal Welding and Cutting Techniques	This course provides instruction in the fundamentals of metal welding and cutting techniques. Instruction is provided in safety and health practices, metal fabrication preparation, and metal fabrication procedures.	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.
WELD 1500	Welding and Joining Technology Practicum/Internship	Provides additional skills application in an industrial setting through a cooperative agreement among industry, the Welding Joining Technology program, and the student to furnish employment in a variety of welding occupations. Emphasizes student opportunities to practice welding skills in a hand on situation and to work in an industrial environment under the supervision of a master welding technician.  Supplements and complements the courses taught in the Welding and Joining Technology program. Topics include: application of welding and joining skills, appropriate	UN	Preferred qualifications are an associate's degree in welding and joining or a related field. In addition, the instructor must have five years of in-field work experience.	Instructor must possess appropriate licensure, certification, or additional professional credentials relevant to the teaching discipline. In addition, the instructor must have three years of in-field experience in welding and joining.

	employability skills, problem solving,		
	and adaptability to job equipment and		
	technology, progressive productivity,		
	and acceptable job performance.		