

## College Credit Certificates

A college credit certificate (CCC) may be awarded for programs of less than two years in selected technical areas leading to an associate in applied science degree. The CCC's are designed to prepare the student for entry into a particular field or to upgrade the skills of those already employed in the field.

### ATC • Executive Fire Officer

#### ATC.FIRE.OFR (30 Credit Hours)

The Executive Fire Officer Technical Certificate is designed to develop the student's knowledge in the area of executive management of modern fire and rescue service systems. The curriculum will be centered on upper level management techniques, and current trends affecting the delivery of a fire and rescue service.

#### Admission Requirements

Possess a current Certificate of Compliance/Completion from the Florida State Bureau of Fire Standards. Hold an AS Degree in Fire Science Technology or AS Degree in Emergency Medical Services and have completed courses: FFP 1710, FFP 1810, FFP 2700, FFP 2740, FFP 2811 and FFP 2401.

#### Program Required Courses

FFP	2118	Interpersonal Management in Fire Science .....	3 cr.
FFP	2280	Management for EMS for Fire Science .....	3 cr.
FFP	2590	Management of Fire Prevention Programs .....	3 cr.
FFP	2701	Organization/Command Fire Science Operations .....	3 cr.
FFP	2720	Executive Fire Officer Leadership/ Personnel Management .....	3 cr.
FFP	2741	Fire Service Course Development .....	3 cr.
FFP	2750	Financial Management in Fire Service .....	3 cr.
FFP	2790	Analysis of Fire Department Operations.....	3 cr.
FFP	2801	Incident Command for Disaster Management .....	3 cr.
FFP	2830	Incident Command/Major Fire Department Operations .....	3 cr.

### ATC • Paralegal (Legal Assisting)

#### ATC.PLA (21 Credit Hours)

The Paralegal/Legal Assisting Advanced Technical Certificate is designed to enable students who already hold a bachelor's degree or higher to take paralegal courses at Hillsborough Community College and qualify to take the Certified Legal Assistant exam sponsored by the National Association for Legal Assistants. It further prepares those students for work of a legal nature in law offices, corporations or governmental agencies.

#### Program Required Courses

PLA	1003	Introduction to the Paralegal Profession .....	3 cr.
PLA	1271	Tort Law .....	3 cr.
PLA	1104	Writing and Research I.....	3 cr.
PLA	2114	Writing and Research II .....	3 cr.

#### Select 9 credit hours from the following:

PLA	1203	Litigation Procedures I.....	3 cr.
PLA	1433	Business Organizations .....	3 cr.
PLA	1600	Administration of Wills/Trusts/Probate.....	3 cr.
PLA	1611	Real Estate Law/Property Transactions I .....	3 cr.
PLA	1700	Legal Ethics and Professional Responsibility .....	3 cr.
PLA	2303	Criminal Litigation .....	3 cr.
PLA	2421	Contract Law .....	3 cr.
PLA	2460	Bankruptcy Law .....	3 cr.
PLA	2800	Family Law .....	3 cr.

**NOTE:** A grade of "C" or better must be attained for each course taken for this certificate.

**ATD • Medical Records Transcription****ATD.OSS.MEDT (33 Credit Hours)**

This program teaches students how to transfer a doctor's verbal dictation to written form. The dictation is usually done on cassette tapes or through a digital voice system. The transcriptionist is responsible for producing professional, accurate documents of all medical reports into the requested printed or computer-based format to become part of a patient's medical records and editing the transcription for format, grammar, and proper medical terminology.

**Program Required Courses**

BSC	1085	Human Anatomy and Physiology I and BSC 1085L, Human Anatomy and Physiology I Lab or HIM 1453, Anatomy and Physiology for Medical Coding .....	4 cr.
BSC	1086	Human Anatomy and Physiology II and BSC 1086L, Human Anatomy and Physiology I Lab or HIM 1438, Principles of Disease .....	4 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
HIM	1442	Pharmacology .....	2 cr.
HSC	1531	Medical Terminology .....	3 cr.
HSC	1641	Legal and Ethical Aspects in Health Care .....	1 cr.
OST	1110	Intermediate PC Typing.....	3 cr.
OST	1330	Skills for Transcription.....	3 cr.
OST	1741	Word Processing I.....	1 cr.
OST	2135	Medical Document Production on the PC.....	3 cr.
OST	2611	Medical Transcription I.....	3 cr.
OST	2612	Medical Transcription II.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**ATD • Pest Control Operations****ATD.PCO (24 Credit Hours)**

There is a growing need for available service industries such as pest control operation to satisfy the pest control needs of the general public and agricultural interests. An ATD in pest control operations will provide the training and skills needed to enter this field.

**Program Required Courses**

HOS	1010	Horticultural Science .....	3 cr.
IPM	1011	Plant Pests .....	3 cr.
IPM	1301	Application of Pesticides and Fertilizers.....	3 cr.
IPM	2302	Applied Materials Chemistry and Calculations.....	3 cr.
IPM	2634	Management of Diseases and Weeds.....	3 cr.
IPM	2253	Management of Insects and Nematodes.....	3 cr.
IPM	2551	Regulatory Environment of Pest Management .....	3 cr.
SWS	1102	Soils and Fertilizers.....	3 cr.

**CCC • Accounting Applications****CCC.ACG.APPS (30 Credit Hours)**

This program will prepare students for employment as an accounting clerk, a junior accountant or an accounting assistant.

**Program Required Courses**

ACG	2021	Financial Accounting.....	3 cr.
ACG	2071	Managerial Accounting.....	3 cr.
ACG	2100	Intermediate Accounting I.....	3 cr.
ACG	2110	Intermediate Accounting II .....	3 cr.
ACG	2340	Cost Accounting I.....	3 cr.
ACG	2350	Cost Accounting II .....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
COP	1000	Programming Logic.....	3 cr.
TAX	2000	Federal Tax Accounting I.....	3 cr.
TAX	2010	Federal Tax Accounting II .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AAS degree Accounting Technology program.

**CCC • Aquaculture Technology****CCC.AQUA (26 Credit Hours)**

This program will prepare students for employment in the field of aquaculture technology and transfers into the associate in science degree program titled Aquaculture.

**Program Required Courses**

FAS	1012C	Aquacultural Organisms.....	3 cr.
FAS	1401L	Aquacultural Laboratory Techniques.....	3 cr.
FAS	1404C	Aquacultural Field Techniques.....	3 cr.
FAS	2240C	Aquacultural Nutritional Techniques.....	3 cr.
FAS	2253	Aquaculture Disease Processes.....	3 cr.
FAS	2253L	Aquaculture Disease Processes Laboratory.....	1 cr.
FAS	2263C	Aquacultural Reproductive Techniques.....	3 cr.
FAS	2353C	Aquacultural Management Practices.....	3 cr.
ZOO	1450	Ichthyology.....	3 cr.
ZOO	1450L	Ichthyology Laboratory.....	1 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Aquaculture program.

**CCC • AutoCAD Foundations****CCC.ADCT.CAD (15 Credit Hours)**

This certificate provides students with the AutoCAD skills needed to assist architects and construction engineers in planning, designing and detailing. Computer design techniques are emphasized in the certificate.

**Program Required Courses**

ARC	2461	Materials and Methods I.....	3 cr.
BCN	1250	Introduction to Graphic Technology.....	3 cr.
BCN	2272	Blueprint Reading.....	3 cr.
TAR	2053	Introduction to Computer Aided Design and Drafting.....	3 cr.
TAR	2054	Intermediate Computer Aided Design and Drafting.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Architectural Design and Technology program.

**CCC • Automation****CCC.EST (12 Credit Hours)**

**This certificate prepares students for engineering technology support positions dealing with PLCs, automation, and control systems in high tech production, manufacturing, distribution, and engineering research and development facilities.**

**Program Required Courses**

EST	1535	Automated Process Control.....	3 cr.
EST	1540	Industrial Applications using PLCs and Robotics.....	3 cr.
EST	1542	Introduction to Programmable Logic Controllers.....	3 cr.
ETI	1843	Motors and Controls.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Engineering Technology program.

**CCC • Broadcast Production****CCC.RTV (24 Credit Hours)**

This certificate allows students to obtain basic training for a specific entry-level job in broadcast production.

**Program Required Courses**

RTV	1245	Electronic Field Production.....	3 cr.
RTV	2000	Introduction to Broadcasting.....	3 cr.
RTV	1941	Radio/TV Internship.....	3 cr.
RTV	2201	Broadcasting Techniques.....	3 cr.
RTV	2242	Advanced Television Studio Production.....	3 cr.
RTV	2246	Advanced Electronic Field Production.....	3 cr.
RTV	2270	Radio Production and Programming.....	3 cr.
RTV	2300	Broadcast News.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Television and Media Production program.

**CCC • Business Management****CCC.BUS.MAN (24 Credit Hours)****Program Required Courses**

ACG	2021	Financial Accounting.....	3 cr.
ACG	2071	Managerial Accounting.....	3 cr.
BUL	2241	Business Law I.....	3 cr.
GEB	1011	Introduction to Business .....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
MAR	1011	Principles of Marketing.....	3 cr.
SPC	1608	Public Speaking.....	3 cr.

**Select 3 credit hours from the following:**

BUL	2242	Business Law II.....	3 cr.
ECO	2013	Principles of Macroeconomics.....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
STA	2023	Elementary Statistics.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Business Administration program.

**CCC • Business Operations****CCC.BUS.OPER (18 Credit Hours)****Program Required Courses**

ACG	2021	Financial Accounting.....	3 cr.
BUL	2241	Business Law I.....	3 cr.
GEB	1011	Introduction to Business .....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
MAR	1011	Principles of Marketing.....	3 cr.
SPC	1608	Public Speaking.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Business Administration program.

**CCC • Business Specialist****CCC.BUS.SPEC (12 Credit Hours)****Program Required Courses**

ACG	2021	Financial Accounting.....	3 cr.
GEB	1011	Introduction to Business .....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
SPC	1608	Public Speaking.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Business Administration program.

**CCC • Cable Installation****CCC.CET.CABLE (12 Credit Hours)**

This certificate is designed to prepare students for employment as a cable installer, cable tester, or cable technician.

**Program Required Courses**

CET	1556C	Structured Cabling.....	3 cr.
CTS	1305	Introduction to Networking.....	3 cr.
EET	1036C	Basic AC and DC.....	3 cr.
EET	1083C	Electronics Orientation.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Electronics Engineering Technology program.

**CCC • Cisco CCNA****CCC.NST.CCNA (12 Credit Hours)**

This certificate is designed to prepare students for employment as telecommunications system engineers, telecommunications specialists, network support technicians, network system specialists, and field support engineers as it relates to Cisco-based networks that includes local area and wide area network routers and switches.

**Program Required Courses**

CET	1600	Cisco Network Fundamentals.....	3 cr.
CET	1610	Cisco Router Technology.....	3 cr.
CET	2615	Cisco Advanced Router Technology.....	3 cr.
CET	2620	Cisco Wide-Area Networking Technologies.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Network Administrator program.

**CCC • Computer Programming****CCC.COP.OPT1 (33 Credit Hours)**

This program prepares students for jobs in the field of computer programmer aide, junior programmer, senior programmer, data manager, programmer analyst, and mid-range computer specialist.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology.....	3 cr.
CGS	2301	Management Information Systems.....	3 cr.
CIS	2321	Systems Analysis.....	3 cr.
COP	1000	Programming Logic.....	3 cr.

**Select 21 credit hours from the following:**

COP	1120	COBOL, Beginning.....	3 cr.
COP	1220	Programming in C.....	3 cr.
COP	1820	Visual BASIC, Beginning.....	3 cr.
COP	1821	Visual BASIC, Advanced.....	3 cr.
COP	2121	COBOL, Intermediate.....	3 cr.
COP	2224	Programming in C++.....	3 cr.
COP	2360	Programming in C#.....	3 cr.
COP	2800	JAVA Programming.....	3 cr.
COP	2805	JAVA, Advanced.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Programming program.

**CCC • Computer Programming Specialist****CCC.PROG.SPEC (18 Credit Hours)****Program Required Courses**

CGS	1000	Introduction to Computers and Technology.....	3 cr.
CIS	2321	Systems Analysis.....	3 cr.
COP	1000	Programming Logic.....	3 cr.

**Select 9 credit hours from the following:**

COP	1120	COBOL, Beginning.....	3 cr.
COP	1220	Programming in C.....	3 cr.
COP	1820	Visual BASIC, Beginning.....	3 cr.
COP	2360	Programming in C#.....	3 cr.
COP	2800	JAVA Programming.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Programming program.

**CCC • Credit Union Management****CCC.FS.CU.MAN (24 Credit Hours)**

These courses equate with the Certified Credit Union Executive (CCUE) program which is sponsored by the Credit Union National Association, Inc. (CUNA) for dual credit. Graduates may realize employment in financial services occupations such as bookkeeper, accounting clerk, teller, teller supervisor, assistant branch manager, junior consumer loan officer, member's services representative, and financial sales representative.

**Program Required Courses**

ACG	2021	Introduction to Financial Accounting.....	3 cr.
ACG	2071	Managerial Accounting.....	3 cr.
BRC	1301	Introduction to Financial Institutions.....	3 cr.
BRC	1321	Principles of Credit and Collections.....	3 cr.
BUL	2241	Business Law I.....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
MAN	2761	Strategic Business Management and Leadership.....	3 cr.
MAR	1011	Principles of Marketing.....	3 cr.

**CCC • Credit Union Operations****CCC.FS.CU.OPER (18 Credit Hours)**

These courses equate with the Certified Credit Union Executive (CCUE) program which is sponsored by the Credit Union National Association, Inc. (CUNA) for dual credit. Graduates may realize employment in financial services occupations such as bookkeeper, accounting clerk, teller, teller supervisor, assistant branch manager, junior consumer loan officer, member's services representative, and financial sales representative.

**Program Required Courses**

ACG	2021	Introduction to Financial Accounting.....	3 cr.
BRC	1301	Introduction to Financial Institutions.....	3 cr.
BRC	1321	Principles of Credit and Collections.....	3 cr.
BUL	2241	Business Law I.....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
MAR	1011	Principles of Marketing.....	3 cr.

**CCC • Credit Union Specialist****CCC.FS.CU.SPEC (12 Credit Hours)**

These courses equate with the Certified Credit Union Executive (CCUE) program which is sponsored by the Credit Union National Association, Inc. (CUNA) for dual credit. Graduates may realize employment in financial services occupations such as bookkeeper, accounting clerk, teller, teller supervisor, assistant branch manager, junior consumer loan officer, member's services representative, and financial sales representative.

**Program Required Courses**

BRC	1301	Introduction to Financial Institutions.....	3 cr.
BRC	1321	Principles of Credit and Collections.....	3 cr.
MAN	1021	Principles of Management.....	3 cr.
MAR	1011	Principles of Marketing.....	3 cr.

**CCC • Crime Scene****CCC.CS (28 Credit Hours)**

This program is designed to prepare graduates for work in the field of crime scene investigations and forensics. For more information, students can refer to the Criminal Justice Technology website at [www.hccfl.edu/yborcampus/cjt](http://www.hccfl.edu/yborcampus/cjt) for specific details.

**Program Required Courses**

CCJ	1020	Introduction to Criminal Justice.....	3 cr.
CJE	1640	Introduction to Criminalistics.....	3 cr.
CJE	1642C	Introduction to Crime Scene Technology.....	3 cr.
CJE	1643C	Advanced Crime Scene Technology.....	3 cr.
CJE	2600	Criminal Investigation.....	3 cr.
CJE	2671C	Latent Fingerprint Development.....	2 cr.
CJE	2672C	Fingerprint Classification.....	2 cr.
CJE	2770C	Forensic Photography.....	3 cr.
CJL	2130	Criminal Evidence and Procedure.....	3 cr.
CJL	2610	Courtroom Presentation of Scientific Evidence.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/ AAS degree Criminal Justice Technology program.

**CCC • Culinary Arts****(35 Credit Hours)**

The purpose of this program is to prepare students for employment in commercial and institutional positions such as bakers, pantry cooks, prep cooks, and lead cooks in the culinary industry and/or to provide supplemental training for persons previously or currently employed in these occupations.

**Program Required Courses**

FSS	1223	Food Preparation for Managers .....	4 cr.
FSS	1246C	Food Specialties I (Baking) .....	3 cr.
FSS	1248C	Food Specialties II (Garde Manger I) .....	3 cr.
FSS	1249C	Food Specialties III (Garde Manger II).....	3 cr.
FSS	1500	Food and Beverage Control.....	3 cr.
FOS	1201	Safety and Sanitation Management.....	2 cr.
FSS	2110	Food Plans and Menu Preparation.....	3 cr.
FSS	2120	Food Purchase and Storage .....	3 cr.
HFT	2210	Management of Hospitality Personnel .....	3 cr.
HFT	2840	Maitre D' and Dining Room Service .....	3 cr.
HUN	2201	Fundamentals of Human Nutrition .....	3 cr.
		FSS electives.....	2 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Culinary Management program.

**CCC • Database Administrator****CCC.DB.ADMIN (15 Credit Hours)****Program Required Courses**

CGS	2541	Database Design.....	3 cr.
COP	2740	Database Programming – SQL.....	3 cr.
CTS	2441	Database Administration I.....	3 cr.
CTS	2442	Database Administration II .....	3 cr.
CTS	2445	Database Programming – Advanced .....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS Database Technology program.

**CCC • Digital Media/Multimedia Instructional Technology****CCC.MMT.IT (15 Credit Hours)**

This certificate prepares students for initial employment as an instructional developer, instructional media integrator, or instructional media specialist.

**Program Required Courses**

CGS	1577	Presentation Systems.....	3 cr.
CGS	1871	Multimedia Authoring I.....	3 cr.
CGS	2820	Web Authoring – HTML.....	3 cr.
COP	2823	Graphics Design for Multimedia/Internet.....	3 cr.
EME	2040	Introduction to Education Technology.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Digital Media/Multimedia Technology program.

**CCC • Digital Media/Multimedia Production****CCC.MMT.PROD (15 Credit Hours)**

This certificate prepares students for initial employment as a videographers or video editors.

**Program Required Courses**

CGS	1577	Presentation Systems.....	3 cr.
CGS	1871	Multimedia Authoring I.....	3 cr.
COP	2823	Graphics Design for Multimedia/Internet.....	3 cr.
CGS	2876	Digital Audio/Video Design.....	3 cr.
CGS	2877	Digital Animation Design.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Digital Media/Multimedia Technology program.

**CCC • Digital Media/Multimedia Video Production****CCC.MMT.VIDEO (12 Credit Hours)**

This certificate prepares students for initial employment as a videographers or video editors.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	2876	Digital Audio/Video Design.....	3 cr.
CGS	2877	Digital Animation Design.....	3 cr.
COP	2823	Graphics Design for Multimedia/Internet.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Media/Multimedia Technology program.

**CCC • Digital Media/Multimedia Web Production****CCC.MMT.WEB (15 Credit Hours)**

This certificate is designed to prepare the student for initial employment as a web production assistant or web production artist.

**Program Required Courses**

CGS	2820	Web Authoring – HTML.....	3 cr.
CGS	2876	Digital Audio/Video Design.....	3 cr.
CGS	2877	Digital Animation Design.....	3 cr.
COP	2822	Scripting for the Web.....	3 cr.
COP	2823	Graphics Design for Multimedia/Internet.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Media/Multimedia Technology program.

**CCC • Digital Video Production****CCC.DGTL.PROD (12 Credit Hours)**

This certificate allows students to obtain basic training for a specific entry-level job in video production.

**Program Required Courses**

CGS	1871	Multimedia Authoring or GRA 111C, Graphic Design.....	3 cr.
RTV	1245	Electronic Field Production .....	3 cr.
RTV	2246	Advanced Electronic Field Production.....	3 cr.
VIC	1202	Film and TV Graphics .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Television and Media Production program.

**CCC • Drafting****CCC.ADCT.DRAFT (24 Credit Hours)**

This certificate provides the students with the practical skills necessary to accept the challenges of a construction drafting career. Successful certificate holders may find employment as a draftsman in architect's, engineer's, or contractor's offices; governmental agencies, corporate planning departments or other private industries.

**Program Required Courses**

ARC	2461	Materials and Methods I .....	3 cr.
BCN	1210	Construction Materials and Processes .....	3 cr.
BCN	1250	Introduction to Graphic Technology.....	3 cr.
BCN	2272	Blueprint Reading .....	3 cr.
TAR	1120	Architectural Drawing I.....	3 cr.
TAR	2053	Introduction to Computer Aided Design and Drafting .....	3 cr.
TAR	2054	Intermediate Computer Aided Design and Drafting .....	3 cr.
TAR	2055	Advanced Computer Aided Design and Drafting.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Architectural Design and Technology program.

**CCC • Electronics Technician****CCC.EET (31 Credit Hours)**

This program prepares individuals for employment as electrical and electronics technicians, electronic engineering technicians, or in related occupations in electronics. This program includes the Florida core electronics competencies as identified in the electronics industry. Graduates of this program will be able to assemble, install, operate, maintain, troubleshoot and repair electronic equipment used in industry.

**Program Required Courses**

CET	1112C	Basic Digital Systems .....	3 cr.
CET	1172C	Computer Upgrading and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
EET	1036C	Basic AC and DC.....	3 cr.
EET	1037C	Circuit Analysis.....	3 cr.
EET	1083C	Electronics Orientation.....	3 cr.
EET	1141C	Solid State Devices.....	3 cr.
EET	1949	Electronics Internship.....	3 cr.
MTB	1327	Electronics Mathematics .....	4 cr.

**NOTE:** Coursework may be applied to the two-year AS/ AAS degree in Electronics Engineering Technology.

**CCC • Engineering Technology Support Specialist****CCC.ET.SUP.SPEC (18 Credit Hours)**

This certificate prepares students for entry level technical jobs in high tech production, manufacturing, distribution and engineering research and development facilities. [It is aligned with the MSSC (Manufacturing Skill Standards Council) Certified Production Technician (CPT) certification.]

**Program Required Courses**

EET	1083C	Electronics Orientation.....	3 cr.
ETD	1340C	Computer Aided Drafting for Engineers.....	3 cr.
ETI	1420	Manufacturing Processes and Materials.....	3 cr.
ETI	1110	Introduction to Quality .....	3 cr.
ETI	1701	Industrial Safety .....	3 cr.
ETM	1010C	Mechanical Measurement and Instrumentation .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/ AAS degree Engineering Technology program.

**CCC • Event Planning Management****CCC.HFT.EVNT (24 Credit Hours)**

This program prepares students for immediate employment in the hospitality industry with employable skills in the events planning area of hotels, resorts, convention centers, cruise ships and other hospitality-related areas. This technical certificate can help prepare students for the CSEP (Certified Special Events Professional) certification exam.

**Program Required Courses**

ECO	2013	Principles of Macroeconomics <b>OR</b> ECO 2023, Principles of Microeconomics.....	3 cr.
HFT	1000	Hospitality Industry Management.....	3 cr.
HFT	1790	The Event Industry .....	3 cr.
HFT	2210	Supervisory Development.....	3 cr.
HFT	2530	Hospitality Merchandising Techniques.....	3 cr.
HFT	2600	Hospitality Industry Law .....	3 cr.
HFT	2750	Meeting, Convention and Exposition Industry.....	3 cr.
HFT	2840	Maitre D' and Dining Room Service .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS degree in Hospitality and Tourism Management.

## CCC • Food and Beverage Management

### CCC.FOOD.BEV.MGT (31 Credit Hours)

This certificate provides a program of study designed to prepare students for employment as supervisors and managers in the food and beverage sectors of the hospitality industry.

#### Program Required Courses

ACG	2021	Financial Accounting or APA 1111, Basic Accounting.....	3 cr.
FSS	1223	Food Production for Managers .....	4 cr.
FSS	1500	Food and Beverage Control .....	3 cr.
FSS	2120	Food Purchase and Storage .....	3 cr.
HFT	1000	Introduction to Hospitality Industry Management .....	3 cr.
HFT	1410	Front Desk Procedure.....	3 cr.
HFT	2210	Supervisory Development.....	3 cr.
HFT	2600	Hospitality Industry Law .....	3 cr.
HFT	2750	Meeting, Convention and Exposition Industry .....	3 cr.
HFT	2840	Maitre d' and Dining Room Service.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS degree Hospitality and Tourism Management program.

## CCC • Game Authoring

### CCC.MMT.AUTH (15 Credit Hours)

This certificate is designed to prepare students for initial employment as a digital media/multimedia author.

#### Program Required Courses

CAP	1023	Introduction to Game Development .....	3 cr.
CAP	2042	Game Design and Development.....	3 cr.
CAP	2043	Advanced Game Design and Development.....	3 cr.
COP	2826	Advanced Graphics for Multimedia/Internet.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Media/Multimedia Technology program.

## CCC • Human Resource Management

### CCC.OSS.HRS (27 Credit Hours)

This program teaches students the process of accomplishing administrative support functions for human resources managers in the areas of employee benefits, recruitment and staffing, training and development, salary and compensation, employee relations, and safety and worker's compensation.

Students are prepared for such positions as human resource assistant, employment interviewer, labor relations assistant, and human resource specialist.

#### Program Required Courses

BUL	2241	Business Law .....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
GEB	1011	Introduction to Business .....	3 cr.
MNA	1320	Human Resources Recruitment, Interviewing, and Selection.....	3 cr.
MNA	1325	Human Resources Statistical Analysis, Compensation and Benefits .....	3 cr.
OST	1335	Business Communications.....	3 cr.
OST	2501	Office Administration.....	3 cr.
OST	2357	Electronic Records Management .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Information Technology Analysis****CCC.CIS.ANA (27 Credit Hours)**

This certificate is designed to prepare students for employment as an applications system specialist, information systems specialist, technical support specialist, software tester or user support specialist.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	2301	Management Information Systems .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CGS	1761	Computer Operating Systems.....	3 cr.
CET	1172C	Computer Upgrade and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
CIS	2321	Systems Analysis.....	3 cr.
CTS	1305	Introduction to Networking.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Information Administrator program.

**CCC • Information Technology Management****CCC.CIS.MAN (30 Credit Hours)**

This certificate prepares the student for employment as information technology specialists, data communications analysts, help desk specialists, network technicians, computer security specialists, network specialists, network managers, network systems technicians, network support specialists, microcomputer technicians, or network troubleshooters. The content prepares individuals to plan, install, configure, monitor, troubleshoot and manage computer networks in a LAN/WAN environment.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CGS	2301	Management Information Systems .....	3 cr.
CET	1172C	Computer Upgrade and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CET	1556C	Structured Cabling.....	3 cr.
CTS	1305	Introduction to Networking .....	3 cr.
CTS	1306	Microsoft Windows Implementing and Supporting a Network Infrastructure .....	3 cr.
CTS	1328	Microsoft Windows Server .....	3 cr.

**Select one server course from the following:**

CGS	2825	Web Site Management.....	3 cr.
CTS	1306	Implementing and Supporting MS Exchange Server .....	3 cr.
CTS	2301	Unix Administration I .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Information Administrator program.

**CCC • Information Technology Support Specialist****CCC.CIS.SPEC (18 Credit Hours)**

This certificate prepares students for employment as a microcomputer support specialist, help desk specialist, user support analyst, customer service representative, computer operator, computer repair technician, computer sales person, software tester or user support specialist.

**Program Required Courses**

CET	1172C	Computer Upgrade and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
CTS	1305	Introduction to Networking.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Information Administrator program.

**CCC • Information Technology Technician****CCC.CIS.TECH (21 Credit Hours)**

This certificate prepares students for employment as cabling specialists, information technology specialists, network control operators, data communications analysts, help desk specialists, network technicians, network systems technicians, network support specialists, or microcomputer specialists. The content prepares individuals to plan, install, configure, and monitor computer networks in a LAN/WAN environment.

**Program Required Courses**

CTS	1306	Microsoft Windows Implementing and Supporting a Network Infrastructure .....	3 cr.
CTS	1328	Microsoft Windows Server .....	3 cr.
CET	1172C	Computer Upgrade and Repair .....	3 cr.
CET	1556C	Structured Cabling .....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CTS	1305	Introduction to Networking .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Computer Information Administrator program.

**CCC • Internet Services Technology Web Development Specialist - Designer****CCC.WEB.OPT1 (35 Credit Hours)**

This program prepares students for internet-related jobs such as web designer, site designer or internet architect, and transfers into the associate degree program titled Internet Services Technology-Web Designer.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CGS	1577	Presentations Systems .....	3 cr.
CGS	1871	Multimedia Authoring I.....	3 cr.
CGS	2509	Introduction to Adobe Acrobat.....	1 cr.
CGS	2541	Database Design.....	3 cr.
CGS	2820	Web Authoring - HTML .....	3 cr.
CGS	2822	Web Site Creation.....	3 cr.
CGS	2876	Desktop Audio/Video Design/ Animation .....	3 cr.
COP	2823	Graphics Design for Multimedia/Internet.....	3 cr.
COP	2826	Advanced Graphics Design.....	3 cr.
OST	1142	Keyboarding I.....	1 cr.
OST	1813	Desktop Publishing.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Internet Services Technology program.

**CCC • Internet Services Technology Web Development Specialist - Developer****CCC.WEB.OPT2 (35 Credit Hours)**

This program prepares students for internet-related jobs such as webmaster, web developer, site developer and internet programmer.

**Program Required Courses**

CGS	1000	Introduction to Computers and Technology .....	3 cr.
CGS	1555	Introduction to the Internet .....	3 cr.
CTS	1106	Introduction to Unix .....	3 cr.
CGS	1936	Perl and CGI .....	3 cr.
CGS	2509	Introduction to Adobe Acrobat.....	1 cr.
CGS	2541	Database Design.....	3 cr.
CGS	2545	Introduction to Web Databases.....	3 cr.
CGS	2820	Web Authoring - HTML .....	3 cr.
CGS	2822	Web Site Creation.....	3 cr.
COP	1000	Programming Logic.....	3 cr.
COP	2800	JAVA Programming .....	3 cr.
COP	2822	Scripting for the Web.....	3 cr.
OST	1142	Keyboarding I.....	1 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Internet Services Technology program.

**CCC • Irrigation Technology****CCC.IRRIGATION (30 Credit Hours)**

This certificate will prepare students for employment in positions such as irrigation technicians, irrigation installers, landscaping and grounds keeping personnel, lawn maintenance personnel, and sales and service personnel.

**Program Required Courses**

HOS	1010	Horticultural Science .....	3 cr.
LDE	1310	Irrigation/Water Management .....	3 cr.
ORH	1002	Water Resources and Land Use .....	3 cr.
ORH	1302	Irrigation System Installation .....	3 cr.
ORH	1304	Low Volume Irrigation Systems .....	3 cr.
ORH	1306	Computer Software for Irrigation Systems .....	3 cr.
ORH	1309	Irrigation Troubleshooting and Repair .....	3 cr.
ORH	1312	Residential Irrigation Design .....	3 cr.
ORH	1314	Commercial Irrigation Design.....	3 cr.
ORH	1936	Irrigation Seminar .....	3 cr.

**CCC • Landscape and Horticulture Professional****CCC.ORH.PROF (18 Credit Hours)**

This certificate is primarily for individuals who are presently in the workforce in this field and those who want to prepare for the Florida Nurserymen and Growers Association certification for Landscape and Horticulture Professional. It is also applicable to those individuals not working in the field, but who need hands-on experience for employment in this area.

**Program Required Courses**

BOT	1000	Plant Physiology and Growth.....	3 cr.
IPM	1011	Plant Pests .....	3 cr.
ORH	1005C	Horticulture Field Skills.....	3 cr.
ORH	1510	Plant Identification.....	3 cr.
ORH	2251	Florida Horticulture Professional Preparation .....	3 cr.
SWS	1102	Soils and Fertilizers.....	3 cr.

**CCC • Landscape and Horticulture Specialist****CCC.ORH.SPEC (12 Credit Hours)**

This certificate is for individuals presently working in the field who want to expand their knowledge, improve their skills or who want to change careers or become employed in the field.

**Program Required Courses**

BOT	1000	Plant Physiology and Growth.....	3 cr.
ORH	1510	Plant Identification.....	3 cr.
ORH	2251	Florida Horticulture Professional Preparation .....	3 cr.
SWS	1102	Soils and Fertilizers.....	3 cr.

**CCC • Landscape and Horticulture Technician****CCC.ORH.TECH (30 Credit Hours)**

This certificate is to prepare individuals presently working in the field for employment in this area.

**Program Required Courses**

BOT	1000	Plant Physiology and Growth.....	3 cr.
GCO	2230	Pumping and Irrigation Systems.....	3 cr.
IPM	1011	Plant Pests .....	3 cr.
ORH	1005C	Horticulture Field Skills.....	3 cr.
ORH	1016	Environmental Issues in Horticulture.....	3 cr.
ORH	1220	Turf and Landscape Maintenance .....	3 cr.
ORH	1510	Plant Identification.....	3 cr.
ORH	1830	Landscape Design .....	3 cr.
ORH	2251	Florida Horticulture Professional Preparation .....	3 cr.
SWS	1102	Soils and Fertilizers.....	3 cr.

**CCC • Lean Manufacturing****CCC.LEAN.ETM (12 Credit Hours)**

This certificate prepares students for engineering technology support positions dealing with quality systems and their implementation in high tech production, manufacturing, distribution, and engineering research and development facilities.

**Program Required Courses**

ETI	1110	Introduction to Quality .....	3 cr.
ETI	1622	Concepts of Lean and Six Sigma.....	3 cr.
ETI	1644	Production and Inventory Control.....	3 cr.
ETM	1010C	Mechanical Measurement and Instrumentation .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Engineering Technology program.

**CCC • Medical Information Coder/Biller: Medical Biller****CCC.OSS.MEDB (34 Credit Hours)**

This program teaches students how to process insurance forms, assign basic medical codes, and operate databases and medical billing computer software. Course work focuses on medical terminology and anatomy, and the use of ICD-9, Basic CPT codes, Medicare, and other government, private, self-insurance, and managed care plans. Students are prepared to work in hospitals, physicians' offices, health care facilities, and billing departments of medical facilities, or to set up a private billing service.

**Program Required Courses**

APA	1111	Basic Accounting.....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
HIM	2220	Basic ICD-9-CM Coding.....	1 cr.
HIM	2253	Basic CPT Coding.....	1 cr.
HIM	2275C	Medical Billing and Insurance I.....	3 cr.
HIM	2272C	Medical Billing and Insurance II.....	3 cr.
HIM	2273	Billing Software .....	2 cr.
HIM	2940	Clinical Billing Practicum .....	2 cr.
HSC	1531	Medical Terminology .....	3 cr.
HSC	1641	Legal and Ethical Aspects in Health Care .....	1 cr.
OST	1100	Beginning PC Typing or OST 1110 Intermediate PC Typing .....	3 cr.
OST	1335	Business Communications.....	3 cr.
OST	2145	Data Entry .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Medical Information Coder/Biller: Medical Coder****CCC.OSS.HIM (34 Credit Hours)**

This program prepares students to be members of a health information service team. Coursework focuses on using a classification system to assign code numbers and letters to each symptom, diagnosis, disease, procedure, and operation on a patient's chart. A high degree of accuracy, critical thinking skills, a working knowledge of medical terminology, and skill development in coding and computer software are required. Career opportunities include hospital inpatient/outpatient coding specialist, reimbursement specialist, coding abstracting or insurance claim analyst, managed-care coding specialist, procedural coding specialist, and physician's office or clinical coding specialist.

**Program Required Courses**

BSC	1085	Human Anatomy and Physiology I and BSC 1085L, Human Anatomy and Physiology I Lab or HIM 1453, Anatomy and Physiology for Medical Coding .....	4 cr.
BSC	1086	Human Anatomy and Physiology II and BSC 1086L, Human Anatomy and Physiology II Lab or HIM 1438, Principles of Disease.....	4 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
HIM	1000	Medical Record Content .....	1 cr.
HIM	1442	Pharmacology.....	2 cr.
HIM	2220	Basic ICD-9-CM Coding.....	1 cr.
HIM	2232	Intermediate ICD-9-CM Coding.....	3 cr.
HIM	2253	Basic CPT Coding.....	1 cr.
HIM	2254	Intermediate CPT Coding.....	3 cr.
HIM	2275C	Medical Billing and Insurance I.....	3 cr.
HIM	2283	Advanced Coding.....	3 cr.
HIM	2941	Clinical Coder Practicum.....	2 cr.
HSC	1531	Medical Terminology .....	3 cr.
HSC	1641	Legal and Ethical Aspects in Health Care .....	1 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Medical Office Management****CCC.MED.MAN (34 Credit Hours)**

Prepares individuals to support management by expediting and facilitating the maintenance and production of correspondence and records; to transcribe recordings, telecommunicate, maintain office budget, prepare correspondence and resolutions; to file and maintain documents; and to assist in the administration of policy.

**Program Required Courses**

APA	1111	Basic Accounting.....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
HIM	2275C	Medical Billing and Insurance I.....	3 cr.
HIM	2272C	Medical Billing and Insurance II.....	3 cr.
HSC	1531	Medical Terminology .....	3 cr.
HSC	1641	Legal and Ethical Aspects in Health Care .....	1 cr.
OST	1110	Intermediate PC Typing.....	3 cr.
OST	1330	Skills for Transcription.....	3 cr.
OST	2357	Electronic Records Management .....	3 cr.
OST	2135	Medical Document Production on the PC.....	3 cr.
OST	2402	Office Procedures.....	3 cr.
OST	1335	Business Communications.....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Medical Office Specialist****CCC.OA.SPEC.MED (18 Credit Hours)****Program Required Courses**

CIS	1931	Microcomputer Concepts .....	3 cr.
HSC	1531	Medical Terminology .....	3 cr.
OST	1100	Beginning PC Typing or OST 1110 Intermediate PC Typing.....	3 cr.
OST	2145	Data Entry .....	3 cr.
OST	2402	Office Procedures.....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Microcomputer Repairer/Installer****CCC.CET.REPAIR (15 Credit Hours)**

This certificate is designed to prepare students for employment as computer engineering technicians in electronics/information technology.

**Program Required Courses**

CET	1112C	Basic Digital Systems.....	3 cr.
CET	1172C	Computer Upgrade and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CTS	1305	Introduction to Networking.....	3 cr.
EET	1083C	Electronics Orientation.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Electronics Engineering Technology program.

**CCC • Network Communication – LAN****CCC.NST.LAN (18 Credit Hours)****Program Required Courses**

CET	1172C	Computer Upgrading and Repair .....	3 cr.
CET	1174C	Advanced Computer Repair .....	3 cr.
CET	1556C	Structured Cabling.....	3 cr.
CGS	1000	Introduction to Computers and Technology .....	3 cr.
CNT	1401	Introduction to Network Security .....	3 cr.
CTS	1305	Introduction to Networking or CET 1600 Cisco Network Fundamentals.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Network Administrator program.

**CCC • Office Management****CCC.OA.OFM (27 Credit Hours)****Program Required Courses**

APA	1111	Basic Accounting.....	3 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1110	Intermediate PC Typing.....	3 cr.
OST	1330	Skills for Transcription .....	3 cr.
OST	1335	Business Communications.....	3 cr.
OST	1741	Word Processing I.....	1 cr.
OST	2357	Electronic Records Management .....	3 cr.
OST	2402	Office Procedures .....	3 cr.
OST	2742	Word Processing II.....	1 cr.
OST	2743	Word Processing III .....	1 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Office Software Applications Specialist****CCC.OA.SPEC.SAS (18 Credit Hours)****Program Required Courses**

CAP	2816	Database Management II .....	1 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
CGS	1577	Presentation Systems.....	3 cr.
CGS	2511	Spreadsheet Applications II.....	1 cr.
OST	1143	Keyboarding II.....	1 cr.
OST	1813	Desktop Publishing.....	3 cr.
OST	1831	Introduction to Windows I.....	1 cr.
OST	2742	Word Processing II.....	1 cr.
OST	2743	Word Processing III .....	1 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Office Software Applications Support****CCC.OA.OS.SAS (12 Credit Hours)****Program Required Courses**

CAP	2816	Database Management II .....	1 cr.
CGS	2511	Spreadsheet Applications II.....	1 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1143	Keyboarding II.....	1 cr.
OST	1831	Introduction to Windows I.....	1 cr.
OST	2742	Word Processing II.....	1 cr.
OST	2743	Word Processing III .....	1 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Office Specialist****CCC.OA.SPEC (18 Credit Hours)****Program Required Courses**

CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1100	Beginning PC Typing or OST 1110 Intermediate PC Typing .....	3 cr.
OST	1355	Records Information .....	3 cr.
OST	2145	Data Entry .....	3 cr.
OST	2402	Office Procedures .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Office Support****CCC.OA.OS (12 Credit Hours)****Program Required Courses**

CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1100	Beginning PC Typing or OST 1110 Intermediate PC Typing.....	3 cr.
OST	2402	Office Procedures .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Pneumatics, Hydraulics and Motors for Manufacturing****CCC.MFG.PHM (13 Credit Hours)**

This certificate prepares students for engineering technology support positions dealing with facilities operations and maintenance in high tech production, manufacturing, distribution, and engineering research and development facilities.

**Program Required Courses**

EET	1083C	Electronics Orientation.....	3 cr.
ETI	1420	Manufacturing Processes and Materials.....	3 cr.
ETI	1843	Motors and Controls.....	3 cr.
ETM	2315	Hydraulic and Pneumatic Systems .....	3 cr.
ETM	2315L	Hydraulic and Pneumatic Laboratory .....	1 cr.

NOTE: Coursework may be applied to the two-year AS/AAS degree Engineering Technology program.

**CCC • Records Management****CCC.RECS (27 Credit Hours)****Program Required Courses**

CAP	2816	Database Management II .....	1 cr.
CGS	1510	Spreadsheets I.....	1 cr.
CGS	1540	Database Management I.....	1 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1142	Keyboarding I or OST 1143, Keyboarding II.....	1 cr.
OST	1335	Business Communications.....	3 cr.
OST	1345	Forms Design and Management.....	2 cr.
OST	1355	Records Information.....	3 cr.
OST	1382	International Office Protocol.....	1 cr.
OST	1741	Word Processing I or OST 2742, Word Processing II.....	1 cr.
OST	2357	Electronic Records Management .....	3 cr.
OST	2402	Office Procedures .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.
		Specified Elective* .....	1 cr.

\*Select specified elective from the AAS degree Office Management Specialization select list.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Records Management Specialist****CCC.OA.SPEC.RMS (18 Credit Hours)****Program Required Courses**

CGS	1554	Internet Basics.....	1 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1355	Records Information.....	3 cr.
OST	1345	Forms Design and Management.....	2 cr.
OST	2357	Electronics Records Management.....	3 cr.
OST	2402	Office Procedures .....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Records Management Support****CCC.OA.OS.RMS (12 Credit Hours)****Program Required Courses**

CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1142	Keyboarding I B or OST 1143 Keyboarding II.....	1 cr.
OST	1345	Forms Design and Management.....	2 cr.
OST	1355	Records Information.....	3 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Software Applications Management****CCC.OA.SAM (27 Credit Hours)****Program Required Courses**

CAP	2816	Database Management II .....	1 cr.
CGS	1510	Spreadsheet Applications I.....	1 cr.
CGS	1520	Business Graphics I.....	1 cr.
CGS	1540	Database Management I.....	1 cr.
CGS	2511	Spreadsheet Applications II.....	1 cr.
CIS	1931	Microcomputer Concepts .....	3 cr.
OST	1110	Intermediate PC Typing.....	3 cr.
OST	1345	Forms Design and Management.....	2 cr.
OST	1382	International Office Protocol .....	1 cr.
OST	1741	Word Processing I.....	1 cr.
OST	1813	Desktop Publishing.....	3 cr.
OST	1831	Introduction to Windows I.....	1 cr.
OST	2722	Advanced Word Processing .....	3 cr.
OST	2742	Word Processing II.....	1 cr.
OST	2743	Word Processing III .....	1 cr.
SLS	1261	Personal Skills for Business .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Office Administration program.

**CCC • Television Production****CCC.TV.PROD (12 Credit Hours)**

The purpose of this program is to provide basic training for a specific entry-level job in TV production.

**Program Required Courses**

RTV	1245	Electronic Field Production .....	3 cr.
RTV	2201	Broadcasting Techniques .....	3 cr.
RTV	2242	Advanced TV Studio Production .....	3 cr.
RTV	2246	Advanced Electronic Field Production.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Television and Media Production.

**CCC • Unix/Linux System Administration****CCC.NST.UNIXLINUX (18 Credit Hours)**

The purpose of this program is to prepare students for employment as a Unix or Linux system administrator or to provide supplemental training for persons previously or currently employed in these occupations. The content prepares individuals to install information technology equipment, troubleshoot information technology equipment, and support information technology users.

**Program Required Courses**

COP	2344	Shell Scripting.....	3 cr.
CTS	1106	Introduction to Unix.....	3 cr.
CTS	2301	Unix/Linux Administration I .....	3 cr.
CTS	2311	Unix/Linux Security.....	3 cr.
CTS	2322	Unix/Linux Administration II .....	3 cr.
CTS	2333	Unix/Linux Networking .....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Network Administrator program.

**CCC • Video Editing and Post Production****CCC.VIDEO.PROD (24 Credit Hours)**

This certificate is designed to prepare students for employment in an entry-level position in video editing and post production.

**Program Required Courses**

CGS	1871	Multimedia Authoring or GRA 2111C Graphic Design.....	3 cr.
RTV	1941	Radio/TV Internship.....	3 cr.
RTV	2000	Introduction to Broadcasting.....	3 cr.
RTV	1245	Electronic Field Production.....	3 cr.
RTV	2201	Broadcasting Techniques.....	3 cr.
RTV	2242	Advanced Television Studio Production.....	3 cr.
RTV	2246	Advanced Electronic Field Production.....	3 cr.
VIC	1202	Film and TV Graphics.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Digital Television and Media Production.

**CCC • Wireless Communications****CCC.NST.WIRE (18 Credit Hours)**

This certificate is designed to prepare students for employment as a wireless installer, wireless technician, wireless field service technician, or to provide supplemental training to persons previously or currently employed in these occupations.

**Program Required Courses**

CET	1556C	Structured Cabling.....	3 cr.
CGS	1000	Introduction to Computers and Technology.....	3 cr.
CGS	1761	Computer Operating Systems.....	3 cr.
CNT	1401	Introduction to Network Security.....	3 cr.
CNT	2510	Wireless Networking.....	3 cr.
CTS	1305	Introduction to Networking.....	3 cr.

**NOTE:** Coursework may be applied to the two-year AS/AAS degree Network Administrator program.