

One-Year Certificate Programs

All programs in Career and Technical Education are highly specialized. They are specifically designed to give the necessary training and skills required in various occupations. The college shall assist all students in finding employment upon successful completion of their chosen programs; however, the college cannot promise employment to anyone. The college anticipates the addition of other curricula in career and technical education as conditions warrant.

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| <p>137 Environmental/Occupational Safety and Health Technology</p> <p>137 Fire Science</p> <p>137 Geographic Information Systems Technology</p> <p>137 Green Diesel</p> | <p>138 Information Systems Technology</p> <p>138 Industrial Technician</p> <p>139 Pre-Physical Therapy Assistant</p> <p>139 Surgical Technology</p> |
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Short-Term Certificate Programs

All programs in Career and Technical Education are highly specialized. They are specifically designed to give the necessary training and skills required in various occupations. The college shall assist all students in finding employment upon successful completion of their chosen programs; however, the college cannot promise employment to anyone. The college anticipates the addition of other curricula in career and technical education as conditions warrant.

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| <p>140 Applied Technology</p> <p>Business</p> <p>140 Accounting</p> <p>140 Certified Professional Secretary</p> <p>143 Hospitality and Tourism</p> <p>144 Information Publishing</p> <p>144 IST—Automated Office</p> <p>145 Management and Supervision</p> <p>145 Marketing and Merchandising</p> <p>145 Microcomputer Support Technology</p> <p>145 Medical Billing and Coding</p> <p>146 Sales</p> <p>146 Surveying</p> <p>140 Criminal Justice</p> <p>141 Early Childhood Development</p> <p>141 Emergency Medical Services</p> <p>EMT—Basic</p> <p>EMT—Refresher/Bridge</p> <p>First Responder</p> | <p>142 Environmental/Occupational Safety and Health Technology</p> <p>Environmental Technology</p> <p>Occupational Safety and Health Technology</p> <p>142 Fire Science</p> <p>142 Geographic Information Systems Technology</p> <p>143 Green Diesel Technology</p> <p>143 Industrial Technology</p> <p>Electrical Technician</p> <p>Industrial Technician</p> <p>Quality Control Technician</p> |
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Environmental/Occupational Safety & Health Technology

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Environmental/ Occupational Safety & Health Technology Certificate program prepares students for positions that oversee, administer, monitor, and ensure compliance with federal, state and/or local environmental and occupational safety and health regulatory programs.

CURRICULUM			Hours	✓
EOSH	116	Introduction to Industrial Hygiene	3	
EOSH	205	Safety & Health Regulations	3	
EOSH	206	Environmental Regulations	3	
EOSH	215	Transportation, Storage & Handling of Hazardous Materials	3	
EOSH	216	Waste Management	3	
EOSH	225	Accident Investigation	3	
EOSH	226	Emergency Preparedness and Planning	3	
CIVL	248	Waste and Wastewater Systems	3	
GIS	120	Introduction to Geographic Information Systems	3	
MAFT	229	Introduction to Safety and Health Programs	3	
TOTAL HOURS			30	

Fire Science

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Fire Science certificate program focuses on providing students with skills in fire fighting and emergency medical services and prepares students for entry-level employment and a foundation for future advancement in the fire-fighting field.

CURRICULUM			Hours	✓
FIRE	115 ⁽¹⁾	Firefighter I and II	10	
FIRE	118 ⁽¹⁾	Hazardous Materials Awareness & Operations	3	
EMDS	105	Emergency Medical Services I	8	
FIRE	135	Fire Prevention	3	
FIRE	235	Fire Suppression and Detection	3	
		Career Education Elective	3	
TOTAL HOURS			30	

⁽¹⁾These courses require skills and written examinations by the Missouri Division of Fire Safety to obtain state certification. Students must meet all state requirements prior to taking certification tests.

Geographic Information Systems Technology

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. Program is designed to provide students with the skills and knowledge necessary for entry-level employment in the field. It will also provide opportunities for members of the workforce to upgrade and retrain in this rapidly expanding technological field. Students may combine the certificate with an A.A., A.A.S., or a Bachelor's degree.

CURRICULUM			Hours	✓
GIS	110	Introduction to Mapping Principles	3	
GIS	120	Intro to Geographic Information Systems	3	
GIS	140	Geographic Information Systems II	3	
GIS	210	WEB-Based GIS	3	
GIS	220	Introduction to Remote Sensing	3	
GIS	230	Spatial Analysis in GIS	3	
GIS	240	Applications in GIS	3	
GIS	250	Advanced GIS	3	
IST	125	Visual BASIC Programming	3	
IST	269	Database Applications	3	
TOTAL HOURS			30	

Green Diesel

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. Program focuses on providing students with skills in green diesel technology and prepares students for entry-level employment and a foundation for future advancement in the field.

CURRICULUM			Hours	✓
GRDT	115	Green Diesel Technician	6	
GRDT	215	Green Diesel Technician II	6	
GRDT	225	Green Diesel Technician III	6	
IST GIS	100 120	Computer Literacy -or- Intro to Geographic Information Systems	3	
CIVL MATH	106 ⁽¹⁾ 153 ⁽¹⁾	Technical Math I -or- Intermediate Algebra	3	
ENGL ENGL	105 ⁽¹⁾ 111 ⁽¹⁾	Technical Writing -or- College Writing	3	
EOSH	205	Safety and Health Regulation Standards	3	
EOSH	206	Environmental Regulations	3	
MAFT	229	Introduction to Health and Safety	3	
TOTAL HOURS			36	

⁽¹⁾Course has prerequisite or placement requirements.

Information Systems Technology

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. This flexible program focuses on marketable skills in the area of office assistant. The program is a one-year certificate program, consisting of ten core courses and one elective. Courses will be offered at night over a period of semesters. The certificate will be awarded upon satisfactory completion of the prescribed curriculum.

Office Assistant

Fall Semester			Hours	✓
ENGL	111 ⁽¹⁾	College Writing	3	
BUED	103	Business English	3	
IST	115	Introduction to Information Systems	3	
IST	148	Office Procedures	3	
BUED	122 ⁽²⁾	Document Processing	3	
TOTAL HOURS			15	

Spring Semester			Hours	✓
IST	126 ⁽¹⁾	Word Processing Applications	3	
IST	268 ⁽¹⁾	Spreadsheet Applications	3	
BUED	110 ⁽¹⁾	Business Math	3	
ACCT	110 ⁽¹⁾	Survey of Accounting ⁽⁴⁾	3	
GOVT	121 ⁽¹⁾	National and State Government	3	
		Elective course ⁽³⁾	3	
TOTAL HOURS			18	

Recommended Electives

IST	149	Medical Terminology and Coding (Medical)	3	
MST	118	Networking	3	
MST	119	Web Page Development and Design	3	
IST	119	PC Operating Systems	3	
IST	269 ⁽¹⁾	Database Applications	3	
IST	285 ⁽¹⁾	Desktop Publishing	3	

⁽¹⁾Course has prerequisite or placement requirements.

⁽²⁾Students completing one unit of high school keyboarding (typewriting) with a "C" or pass a skills based test, or complete BUED 100 Contemporary Business Skills with a "C" or better may substitute an elective for this course.

⁽³⁾Students will select an elective from business course offerings approved by instructor.

⁽⁴⁾Students may substitute ACCT 211 Principles of Accounting I for this course.

Industrial Technician

Certificate Type: One Year

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. This program focuses on providing students with skills in using, maintaining, operating and installing different technical systems and components. Completion of the certificate prepares students for entry-level employment and provides a foundation for future advancement in the industrial technology and manufacturing sectors.

Fall Semester			Hours	✓
IST	100	Computer Literacy	3	
BUED ENGL ENGL	103 105 111 ⁽¹⁾	Business English -OR- Technical Writing -OR- College Writing	3	
CIVL BUED MATH	106 ⁽¹⁾ 110 ⁽¹⁾ 153 ⁽¹⁾	Technical Math -OR- Business Mathematics -OR- Intermediate Algebra or higher	3	
MEDR ENGR	135 110	Blue Print Reading and Gauging -OR- Engineering Graphics	3	
ELEC	115	Applied DC and AC Circuits	3	
ELEC ELEC ELEC ELEC CIVL	117 207 218 216 198	Take 6 hours from: Industrial Electronic Controls (3) Industrial Electronic Applications (3) Electrical Codes and Standards (2) Programmable Logic Controllers (3) Seminar (1)	6	
MAFT	229	Introduction to Health and Safety Programs	3	
MAFT	255	Hydraulics and Pneumatics	3	
MAFT MAFT MAFT MAFT	228 235 258 267	Take 3 hours from: Quality Assurance Manufacturing Processes Engineering Economy Automated Manufacturing Systems	3	
TOTAL HOURS			30	

⁽¹⁾Course has prerequisite or placement requirements.

Pre-Physical Therapy Assistant

Certificate Type: One Year

Division: Health & Human Services

Purpose: Career and Technical Education. Program designed to meet the general education requirements for articulation into Linn State College's physical therapy assistant program.

Spring Semester			Hours	✓
MATH	163	College Algebra	3	
BIOL	231	Anatomy & Physiology I	4	
IST	100	Computer Literacy	3	
GNST	100	Foundations of Student Success	1	
ALHE	125	Medical Terminology	1	
TOTAL HOURS			12	

Summer Semester			Hours	✓
CHEM PHYS	111 101	Introductory Chemistry -or- Physical Science	5	
PSYC PSYC	111 243	General Psychology -or- Human Development Across the Lifespan	3	
LBSC	100	Managing Information Resources	1	
TOTAL HOURS			9	

Fall Semester			Hours	✓
ENGL	111	College Writing	3	
BIOL	232	Anatomy & Physiology II	4	
GOVT	121	National & State Government	3	
SCOM	110	Public Speaking	3	
TOTAL HOURS			13	

TOTAL CREDIT HOURS: 34

Surgical Technology

Certificate Type: One Year

Division: Health & Human Services

Purpose: Career and Technical Education. Surgical Technology is an intense three-semester, 1,000 contact hour curriculum. Subject matter includes anatomy, physiology, microbiology, pharmacology, communication and surgical technology skills that enable the graduate to work in operating rooms. Developed in response to community needs, the program uses local hospitals for clinical experiences.

Admission Criteria

To become an eligible applicant, individuals must:

- Have a completed Surgical Technology program application on file in the Allied Health Office by **June 1** each year the program is offered.
- Be a high school graduate or equivalent.
- Have a satisfactory performance on the Health Occupations Basic Entrance Test (HOBET V).

Admission is contingent upon satisfactory completion of a confidential medical history and physical examination, negative preadmission drug screen and criminal background check.

The Surgical Technology Program is offered as needed by the community. Contact the program director at 573-840-9680 for details.

Fall Semester			Hours	✓
SURG	105	Basic Science for Surgical Technology	11	
SURG	106	Fundamentals of Surgical Technology	8	
TOTAL HOURS			19	

Spring Semester			Hours	✓
SURG	115	Surgical Technology I	12	
SURG	116	Surgical Technology Practicum I	5	
SURG	117	Technical Science for Surgical Technology	3	
TOTAL HOURS			20	

Fall Semester			Hours	✓
SURG	215	Surgical Technology II	1.5	
SURG	216	Surgical Technology Practicum II	4.5	
TOTAL HOURS			6	

TOTAL CREDIT HOURS: 45

Accounting

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: The Certificate of Accounting provides a basic knowledge of accounting principles combined with computer skills necessary for advancement in the field of accounting. The Certificate of Accounting will apply toward the Associate of Applied Science Degree in Accounting Technology. It could also be beneficial for persons with an Associate of Applied Science Degree in Information Systems.

Core Courses			Hours
ACCT	211	Principles of Accounting I	3
ACCT	212	Principles of Accounting II	3
IST	100	Computer Literacy	3
TOTAL HOURS			9

Electives (select nine credit hours from the following list)			Hours
ACCT	122 ⁽¹⁾	Accounting Management Software	3
ACCT	217 ⁽¹⁾	Accounting Information Systems	3
ACCT	225 ⁽¹⁾	Intermediate Accounting I	3
ACCT	226 ⁽¹⁾	Intermediate Accounting II	3
ACCT	237 ⁽¹⁾	Income Tax Accounting	3
ACCT	258 ⁽¹⁾	Cost Accounting	3

⁽¹⁾Course has prerequisite or placement requirements.

Applied Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Applied Technology Certificate program prepares students for entry-level positions in general technology positions in business and industry.

Courses			Hours
ELEC	115	Applied DC & AC Circuits	3
ENGR	110	Engineering Graphics	3
IST	119	PC Operating Systems	3
MAFT	229	Introduction to Health and Safety Programs	3
MAFT	228	Quality Assurance Fundamentals	3
TOTAL HOURS			15

Certified Professional Secretary

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

The Certified Professional Secretary Rating is available for career-oriented secretaries who want to be identified as exceptional. It provides the assurance that comes from having met an accepted professional standard.

Candidates for the CPS Rating must take and pass a one-day, three-part examination administered annually in May and November. The goal is achieved through commitment, preparation, study and work experience.

The examination is based on the premise that a competent secretary should know how to apply the principles of good human relations and have basic knowledge of business law, economics, management principles, business organization, psychology and accounting.

Students who are interested in taking the examination may contact the Information Systems Technology Department.

Up to 15 hours of college credit may be awarded upon application to the Registrar by those individuals holding a current Certified Professional Secretary Certification.

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Criminal Justice

Certificate Type: Short-Term

Division: Health & Human Services

Purpose: Career and Technical Education. The Criminal Justice certificate programs enable students to quickly obtain a post-secondary certificate, while allowing for future personal development at a degree level.

Courses			Hours
ADJU	100	Introduction to Law Enforcement	3
ADJU	113	Criminal Law	3
ADJU	213	Court Procedures	3
CRJU	129	Fundamentals of Search and Seizure	3
CRJU	138	Patrol Procedures	3
CRJU	158	Traffic Laws and Accident Investigation	3
TOTAL HOURS			18

Early Childhood Development

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Early Childhood Development short-term certificate is designed to prepare the student to meet the national CDA requirements.

Note: The Early Childhood Development Program offers the necessary coursework and field experiences for the Child Development Associate (CDA) in the areas of infant/toddler and preschool ages. The CDA prepares students for immediate work in the field. The Council for Professional Recognition requires 120 hours of classroom instruction and 480 hours of work experience in a licensed childcare setting to qualify for the CDA. Students may complete these requirements by taking ECD 126, ECD 202, ECD 245, and ECD 205 or ECD 208. Three Rivers College does not award the CDA. The CDA is awarded by the Council for Professional Recognition. Students must be 18 years old and have a high school diploma or GED to begin ECD 205 or ECD 208 classes. *All students enrolling in ECD 205 or ECD 208 are required to have a current first aid card and a clear criminal background check.* ECD 202 is a prerequisite for ECD 205 or ECD 208.

Courses			Hours
ECD	202	Survey of Early Childhood	3
ECD	126	Child, Health, Safety, and Nutrition	3
ECD	245	Early Childhood Administration (spring only)	3
ECD ECD	205 208	Preschool CDA (spring only) –or– Infant/Toddler CDA (summer only)	3
TOTAL HOURS			18

Emergency Medical Services

Certificate Type: Short-Term

Division: Health & Human Services

Purpose: Career and Technical Education. These courses prepare entry-level First Responders and EMT-Basics for employment in the region. For further information about any of the EMS courses, contact the Program Director at 573-840-9680.

Three Rivers College is a Missouri Department of Health and Senior Services, Bureau of Emergency Medical Services accredited EMS training entity.

NOTE: In addition to college tuition and fees, EMT students will be charged \$61.50 per academic year for student malpractice insurance and \$40 for EMDS course lab fee. First Responder students will be charged \$10 for the course lab fee.

Emergency Medical Technician-Basic

The EMT-Basic course (EMDS 105) is an eight-credit-hour course offered each fall and spring semester. Tuberculin (PPD) skin test and criminal background check are required for clinical experience. Graduates are eligible to take the National Registry EMT-Basic practical and written examinations for licensure in Missouri. There are questions on the licensure application related to the conviction of any crime (traffic violations, drug and/or alcohol, etc.). Affirmative answers may result in the applicant being denied licensure by the Missouri Department of Health and Senior Services, Bureau of EMS.

EMT Refresher/Bridge

The EMT Refresher/Bridge course (EMDS 109) is available each semester as needed for currently licensed EMTs needing relicensure, for currently licensed registered nurses with special work experience who wish to bridge in the EMT field, for EMTs with an expired license, and EMT course graduates who have not taken or have not successfully passed the EMT licensure exams. Proof of licensure status, EMT course completion, or National Registry status will be required prior to enrollment. Students will be required to attend select sections of EMDS 105. Successful completion of the course does not guarantee that the graduate will be eligible to take the National Registry EMT-Basic examinations for Missouri licensure.

First Responder

The First Responder Rescue course (EMDS 103) provides training in emergency care to prevent death or greater harm until an ambulance arrives. This training is particularly useful to law enforcement officers, fire fighters, farmers, child-care workers and many others.

NOTE: Students may not take First Responder and EMT course during the same semester. Students may progress from First Responder to EMT course, but may not regress from EMT course to First Responder course.

Environmental/Occupational Safety and Health Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Environmental/Occupational Safety and Health Technology Certificate program prepares students for positions that oversee, administer, monitor and ensure compliance with federal, state, and/or local environmental and occupational safety and health regulatory programs.

Environmental Technology

Courses			Hours	✓
EOSH	206	Environmental Regulations	3	
EOSH	215	Transportation, Storage & Handling of Hazardous Materials	3	
EOSH	216	Waste Management and RCRA	3	
EOSH	226	Emergency Preparedness and Planning	3	
CIVL	248	Waste and Wastewater Systems	3	
GIS	120	Introduction to Geographic Information Systems	3	
TOTAL HOURS			18	

Occupational Safety & Health Tech

Courses			Hours	✓
BMGT SCOM	215 125	Supervisory Development <i>–or–</i> Communication in the Workplace	3	
EOSH	116	Introduction to Industrial Hygiene	3	
EOSH	205	Safety & Health Regulations	3	
EOSH	225	Accident Investigation	3	
EOSH	226	Emergency Preparedness and Planning	3	
MAFT	229	Introduction to Safety and Health	3	
TOTAL HOURS			18	

Fire Science

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Fire Science certificate program focuses on providing students with skills in fire fighting a emergency medical services and prepares students for entry-level employment and a foundation for future advancement in the fire fighting field.

Courses			Hours	✓
FIRE	115 ⁽¹⁾	Firefighter I and II	10	
FIRE	118 ⁽¹⁾	Hazardous Materials Awareness & Operations	3	
EMDS	105	Emergency Medical Services I	8	
TOTAL HOURS			21	

⁽¹⁾These courses require skills and written examinations by the Missouri Division of Fire Safety to obtain state certification. Students must meet all state requirements prior to taking certification tests.

Geographic Information Systems Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The GIS certificate is designed to provide students with the skills and knowledge necessary for entry-level employment for those interested in geographic information systems (GIS) and mapping technology. It will also provide opportunities for members of the workforce to upgrade and retrain in this rapidly expanding technological field. Students may also combine the certificate with an AA degree, and AAS degree or a Bachelor's degree to provide more flexibility for employment in forestry, agriculture, environmental science, criminal justice, and many other areas of study that incorporate GIS technology.

Courses			Hours	✓
GIS	110	Introduction to Mapping	3	
GIS	120	Introduction to Geographic Information Systems	3	
GIS	140	Geographic Information Systems II	3	
		Choose 3 courses: GIS 210, GIS 220, GIS 230, GIS 240, GIS 250	9	
TOTAL HOURS			18	

Green Diesel Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The program focuses on providing students with skills in green diesel technology and prepares students for entry-level employment and a foundation for future advancement in the field of green diesel technology.

Courses			Hours
GRDT	115	Green Diesel Technician	6
GRDT	215 ⁽¹⁾	Green Diesel Technician II	6
GRDT	225 ⁽¹⁾	Green Diesel Technician III	6
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Hospitality & Tourism

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Hospitality and Tourism certificate program prepares students for employment in the travel and hospitality industry. The courses include instruction in the different aspects of travel and theories and principles concerning the operation of hotels and resorts.

Courses			Hours	✓
BUED	110 ⁽¹⁾	Business Mathematics	3	
BMGT	108	Human Resource Management	3	
MKTG	115	Principles of Marketing	3	
BLAW	221	Legal Environment of Business	3	
MKTG	118	Retail Merchandising	3	
BMGT	107	Hospitality and Tourism	3	
TOTAL HOURS			18	

⁽¹⁾Course has prerequisite or placement requirements.

Industrial Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The program focuses on providing students with skills in using, maintaining, operating and installing different electrical systems and components. Completion of the certificate prepares students for entry-level employment and provides a foundation for future advancement in the industrial technology and manufacturing sectors.

Electrical Technician

Courses			Hours
ELEC	115	Applied DC & AC Circuits	3
ELEC	117	Industrial Electronic Controls	3
ELEC	216	Programmable Controller Systems	3
ELEC	218	Electrical Codes & Standards	2
MAFT	267	Automated Manufacturing Systems	3
MEDR ENGR	135 110	Blueprint Reading and Gauging -OR- Engineering Graphics	3
TOTAL HOURS			17

Industrial Technician

Courses			Hours
ELEC	115	Applied DC & AC Circuits	3
MEDR ENGR	135 110	Blueprint Reading and Gauging -OR- Engineering Graphics	3
MAFT	235	Manufacturing Processes	3
MAFT	229	Introduction to Safety & Health	3
ELEC ELEC	117 207	Industrial Electronic Controls -OR- Industrial Electronics Applications	3
MAFT	255	Hydraulics & Pneumatics	3
TOTAL HOURS			18

Quality Control Technician

Courses			Hours
MAFT	228	Quality Assurance	3
MAFT EOSH	229 205	Introduction to Safety & Health -OR- Safety & Health Regulations and Standards	3
MAFT	235	Manufacturing Processes	3
IST	100	Computer Literacy	3
CIVL MATH	106 ⁽¹⁾ 153 ⁽¹⁾	Technical Math I -OR- Intermediate Algebra (or higher)	3
MEDR ENGR	135 110	Blueprint Reading and Gauging -OR- Engineering Graphics	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Information Publishing

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. This 18-hour program is designed to meet the need for individuals skilled in producing both quality designed printed information and Web-based distributed information.

Courses			Hours
BUED	122 ⁽²⁾	Document Processing	3
IST	100	Computer Literacy	3
BUED ENGL	103 111 ⁽¹⁾	Business English -OR- College Writing ⁽²⁾	3
IST	126 ⁽¹⁾	Word Processing Applications	3
IST	285 ⁽¹⁾	Desktop Publishing	3
MST	119	Web Page Development and Design	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

⁽²⁾Students completing one unit of high school keyboarding (typewriting) with a "C" or pass a skills based test, or complete BUED 100 Contemporary Business Skills with a "C" or better may substitute an elective for this course.

Information Systems Technology

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. This flexible program focuses on marketable skills in the area of office automation. The program is a six-course, 18-hour certificate program, consisting of five core courses and one elective. Courses will be offered at night over a period of semesters. The certificate will be awarded upon satisfactory completion of the prescribed curriculum.

Automated Office

Core Curriculum			Hours
BUED ENGL	103 111 ⁽¹⁾	Business English -OR- College Writing	3
IST	100	Computer Literacy	3
IST	126 ⁽¹⁾	Word Processing Applications	3
IST	148	Office Procedures	3
BUED	122 ⁽²⁾	Document Processing	3
TOTAL HOURS			15

Electives (select one course from the following list)			Hours
IST	119	PC Operating Systems	3
IST	268 ⁽¹⁾	Spreadsheet Applications	3
IST	269 ⁽¹⁾	Database Applications	3
IST	285 ⁽¹⁾	Desktop Publishing	3
MST	118	Networking	3
MST	119	Web Page Development and Design	3

⁽¹⁾Course has prerequisite or placement requirements.

⁽²⁾Students completing one unit of high school keyboarding (typewriting) with a "C" or pass a skills based test, or complete BUED 100 Contemporary Business Skills with a "C" or better may substitute an elective for this course.

Management & Supervision

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Management and Supervision Certificate program provides the knowledge and skills necessary for effective supervisory performance. It is designed so currently employed persons can further their education and development of leadership qualities. Persons seeking the certificate to obtain entry-level position will have a functional academic background that will fit many areas of business. Persons interested in this program should enjoy working with people and accomplishing organizational objectives.

Courses			Hours
BUED	110 ⁽¹⁾	Business Mathematics	3
BMGT	108	Human Resource Management	3
MKTG	115	Principles of Marketing	3
BLAW	221	Legal Environment of Business	3
BMGT	215	Supervisory Development	3
BMGT	228	Financial Management	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Marketing & Merchandising

Certificate Type: Short-Term

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Marketing & Merchandising Certificate program provides the knowledge and skills necessary to prepare individuals to plan and satisfy long-term organizational objectives, such as profitability. This will be accomplished by coordinating and focusing all activities on identifying and satisfying customer needs and wants.

Courses			Hours
BUED	110 ⁽¹⁾	Business Mathematics	3
BMGT	108	Human Resource Management	3
MKTG	115	Principles of Marketing	3
BLAW	221	Legal Environment of Business	3
MKTG	118	Retail Merchandising	3
MKTG	119	Advertising	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Microcomputer Support Technology

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Microcomputer Support Certificate program prepares students for entry-level positions installing, maintaining, upgrading, troubleshooting and microcomputer network support.

Courses			Hours
IST	119	PC Operating Systems	3
MST	116	Microcomputer Hardware	3
MST	118	Networking	3
ELEC	115	Applied DC & AC Circuits	3
MST	218 ⁽¹⁾	Network Administration	3
MST	217 ⁽¹⁾	Network Security	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Medical Billing and Coding

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Medical Billing and Coding Certificate program prepares students for entry-level positions in the medical claims billing field.

Courses			Hours
IST	126 ⁽¹⁾	Word Processing Applications -or-	3
IST	119	PC Operating Systems	
IST	149 ⁽¹⁾	Medical Terminology and Coding	3
IST	225 ⁽¹⁾	Medical Billing and Coding	5
IST	275 ⁽¹⁾	Advanced Medical Billing and Coding	7
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Sales

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. The Sales Certificate program prepares students for sales positions in organizations that market industrial, technical and consumer goods and services. Students learn to apply practical techniques of selling in a range of situations, act as intermediaries between the customers and suppliers, and comprehend the complex interrelationship between the salesperson and the other components of a business. Persons interested in entering the sales field and those currently employed in sales will benefit from the knowledge and skills received in the course work provided in this certificate program.

Courses			Hours
BUED	110 ⁽¹⁾	Business Mathematics	3
BMGT	108	Human Resource Management	3
MKTG	115	Principles of Marketing	3
BLAW	221	Legal Environment of Business	3
MKTG	128	Professional Selling	3
MKTG	119	Advertising	3
TOTAL HOURS			18

⁽¹⁾Course has prerequisite or placement requirements.

Surveying

Division: Business, Education, Math, Science & Technology

Purpose: Career and Technical Education. This program focuses on basic marketable skills in the surveying field. It prepares students for entry-level positions in the civil and construction technology field. Completion of the certificate satisfies the educational requirements portion of the Land Surveyors In Training (LSIT) program as set forth by the State of Missouri. All of the courses will apply toward an Associate in Applied Science degree in Industrial Technology—Civil and Construction Technology option.

Courses			Hours
CIVL	106 ⁽¹⁾	Technical Math I	3
CIVL	107	Technical Math II	3
CIVL	116	Surveying I	3
CIVL	216	Surveying II	3
CIVL	226	Legal Principles of Surveying	3
CIVL	236	Computers in Surveying	4
TOTAL HOURS			19

⁽¹⁾Course has prerequisite or placement requirements.