

Career Education

Credit Hour Requirements for Associate in Applied Science Degree

Group	AAS Credit Hours
Group I: Communications	6
Group II: Humanities and Fine Arts, Social and Behavioral Sciences, Physical and Life Sciences	6
Group III: Mathematics	3
Group IV: Career Major Requirements	45-57
Minimum-Maximum Hours	62-72

The Associate in Applied Science General Degree Requirements Worksheet can be viewed at: http://www.jalc.edu/catalog/curriculum_guides/associateinappliedsciencedegree.pdf See your specific AAS degree for Group IV: Career Major Requirements.

Summary of Career Education Programs

These curricula prepare students for employment in occupations related to business, education, health, industry, office technology, or public service. The programs of study are developed with the assistance of advisory committees representing business and industry and on the basis of survey information identifying area manpower needs. Both certificate and degree programs are offered. Most certificate programs require one year of study; degree programs require two. Note: Due to their specialized technical nature, some courses are offered each semester and some are not; students beginning in the spring semester may not be able to carry a full load of courses.

The overall objective of career-oriented education is to contribute to the scientific, technical, industrial, business, and economic welfare of southern Illinois through provision of low-cost, current, college-level technical training geared to the citizens of the College district.

The career curricula are vocational and technological in nature and lie in the post-high school area. They differ in content and purpose from those of the trade school on one hand and from those of the engineering college on the other. All have in common the following purposes and characteristics.

1. The purpose is to acquaint the student with current practices, applications, and techniques, and with various sources of information essential to the intelligent planning and execution of his or her work.
2. There are learning experiences provided for the student whereby he/she is enabled to see a prospective occupation in relationship to management, labor, and the professions.
3. Methods of instruction are relatively direct with strong emphasis on doing, as distinct from research study. Ordinarily, a high proportion of the work is done during the hours of instruction. Individualized instructional materials provide opportunities for home study and independent progress. The curricula are not primarily designed to transfer to baccalaureate degree-granting institutions, although many individual courses are transferable, depending on the institution.

Although career programs are not necessarily designed for transfer to a four-year institution, any student completing a career associate degree may transfer to SIUC using the Capstone Option. This alternative gives the student the opportunity to obtain a B.S. degree using the first two years of the career degree. Advisors and associate deans can furnish complete information.

Career Education Advisory Committees

Training people for employment in career education fields is a task that should be shared by the College and the community. To provide quality programs and competent graduates, the College must understand the needs of area businesses and industries. It is important that a two-way system of communication between the College and the community be maintained to meet the educational and training needs of the College district.

Local advisory committees perform a significant function because they represent industries and businesses that are respected and recognized within the area served by the College. The feedback from advisory committees enables the College to develop or modify programs of career education to reflect current needs of the community. Each committee assists the College in determining industry needs, developing curricula, establishing work experiences, identifying equipment and facility needs, and assessing program objectives and content. College staff carefully consider all committee recommendations as they determine program needs for the next fiscal year and near future. The public can have

confidence in these programs because the experiences and counsel of responsible citizens are solicited and acted upon by the College.

This committee is comprised of community and business representatives plus the chairperson of each program's advisory committee.

Program Advisory Committees

- Accounting
- Automotive
- Computer Information Systems
- Construction Management
- Cosmetology
- Criminal Justice
- Dental Assisting
- Dental Hygiene
- Diagnostic Medical Sonography
- Drafting
- Early Childhood Education
- Electronics
- Graphics Design
- Heating & Air Conditioning
- Interpreter Preparation
- Machinist/Manufacturing
- Marketing
- Medical Assisting
- Nursing
- Office Technology
- Travel Management
- Welding

Departments and Programs

Allied Health and Public Service

Associate Degree Nursing. The Associate Degree Nursing Program at John A. Logan College will enable the student to perform safe nursing care, develop effective communication skills, understand the nursing process, apply scientific principles for clients throughout the life span within the limits set forth by the Illinois Nurse Practice Act. Upon satisfactory completion, students will be eligible, to write the NCLEX-RN exam for licensure.

Cosmetology. The purposes of this two-year program are to provide students thorough training in the arts, skills, and sciences that pertain to the care and treatment of the hair, skin, and nails, to prepare students to be creative, employ critical thinking, and to treat clients tactfully and judiciously. Upon graduation, students will be able to explain the Barber, Cosmetology, Esthetics, and Nail Technology Act of 1985 that governs the cosmetology profession to enable them to practice cosmetology safely and lawfully.

Criminal Justice. Graduates of this two-year program will be able to explain the structure, administration, and role of the criminal justice system in American society. The Criminal Justice Program prepares the student for either the work force or for transfer to a university in the field of Criminal Justice or Administration of Justice. Students in this program participate in service learning projects and have the opportunity for internship.

Dental Assisting. The dental assisting student who successfully completes one year of education will meet the professional standards required to be clinically proficient, recognize his-her role as an invaluable member of the dental health team, and be sensitive to the dental needs of various communities. Completion of the program allows the student to sit for the Dental Assistant National Board exam and seek certification.

Dental Hygiene. The Dental Hygiene (DHY) Program educates dental assistants to become hygienists with a high degree of clinical competence and knowledge of the dental practice. Upon completion of the Dental Hygiene Program, students will be awarded an Associate in Applied Science degree. The dental hygienist is an integral member of the dental health care team who works directly with the dentist to maintain optimum oral health for the patient. Duties include cleaning teeth, exposing x-rays, providing dental care instructions to patients, and maintaining patient records. Additional duties may be found within the Illinois Dental Practice Act. Diagnostic Cardiac Medical Sonography: This is an eighteen-month, full-time career program that addresses the growing demand for highly trained, well-educated sonographers. The professional level of this health care service requires highly skilled and competent individuals who function as integral members of the health care team. The sonographer must be able to produce and evaluate ultrasound images and related data that are used by physicians to render a medical diagnosis. Diagnostic sonography serves a diverse population in a variety of settings such as hospitals, clinics, and veterinary offices. The curriculum is an extremely active one in which the student is responsible for maintaining academic requirements on campus, as well as participating in an internship at clinical affiliates. A strong math and physics background is suggested.

Early Childhood Education. Graduates of this two-year Early Childhood Education Program will be trained to provide education and care for children in public and private child care settings. Specifically, graduates will be trained to provide a safe and healthy learning environment, provide experiences to promote physical, intellectual, social-emotional,

and language-literacy development, use positive guidance-discipline strategies, establish positive and productive relationships with families, and operate a program for children that adheres to legal requirements and a professional code of ethics.

Emergency Medical Services. The two-year Emergency Medical Service curriculum is structured to train students as intermediate and advanced paramedics after becoming certified as a basic Emergency Medical Technician (EMT-B). John A. Logan College offers the EMT-B course to provide students with enough contact hours and training to be eligible to apply for the NREMT-B exam and enter the EMS A.A.S. degree program.

Fire Science Services. This program is for students who are already functioning with a fire department and wish to participate in the certification program of the Illinois Office of the State Fire Marshal. Students must be employed by an Illinois fire department (full-time, part-time or volunteer) to be eligible for certification by the Office of the State Fire Marshal and to enroll in certain courses offered in this program. This two-year program provides firefighters with college credit for specialized training at off-campus facilities approved by the Illinois State Fire Marshal's Office. After the completion of general electives, graduates will be eligible to capstone into the Fire Science Service Management Program at Southern Illinois University.

Health Information Technology. The Health Information Program is offered through the Southern Illinois Collegiate Common Market (SICCM). This program provides students training in administrative and technical skills necessary to maintain components of health record systems consistent with the medical, administrative, ethical, legal, accreditation, and regulatory requirements of the health care delivery system.

Interpreter Preparation. The goal of this program is to prepare students to function as entry-level interpreters with the capability to analyze their own performances and recognize their own abilities and limitations. Graduates of this two-year program will be capable of interpreting between English and ASL and make appropriate cultural adjustments. They will also have an understanding of the interpreting process, the dynamics that occur among minority-majority cultures, professional ethics and protocol, human interaction, and professional team work.

Massage Therapy. This one-year program trains students in therapeutic massage to reduce stress, assist in the injury recovery process, and improve the overall wellness in the clients they serve. Courses cover topics such as human anatomy and

physiology, professional communication, Swedish massage, Tai chi, neuromuscular triggerpoint therapy, sports massage, deep tissue massage, myofascial release, and other massage techniques. Students receive hands-on training thru laboratory experience and community service. John A. Logan College's program provides students with enough contact hours and training to be eligible to apply for the Massage Therapy certification exam through the National Certification Board for Therapeutic Massage and Bodywork.

Medical Assistant. This certificate program trains students to perform administrative office tasks and clinical procedures primarily in medical offices. Graduates are trained broadly to work under the supervision of a physician with varied duties, depending on the specific needs of the practice. Their work may be of a generalist nature, performing many tasks within the practice, or they may specialize in a particular area (e.g. Claims Analysts, EKG Technician, Laboratory Assistant, Medical Records Clerk, Medical Office Assistant, and Phlebotomist). Graduates are eligible to sit for the National Center for Competency Testing exam.

Medical Laboratory Technology. The Medical Laboratory Technology Program is offered through the Southern Illinois Collegiate Common Market (SICCM). Students are trained to possess the technical skills necessary to perform routine testing in the areas of hematology, serology, coagulation, clinical microbiology, clinical chemistry, blood banking, and urinalysis in clinical laboratories of hospitals, clinics, and physician offices under the supervision of a physician and/or medical technologist.

Nursing Assistant. This eight-week course is designed to train students to be competent in skills necessary to function successfully in a hospital, long-term care facility, or health department. The nursing assistant will provide services related to the comfort and welfare of the resident under direct supervision of a licensed nurse or physician. Topics covered include body mechanics, transfer techniques, basic anatomy and physiology, personal care, vital signs, rehabilitation, special procedures, care of the Alzheimer's patient, death, dying, and post-mortem care.

Occupational Therapy Assistant. This two-year program is offered through the Southern Illinois Collegiate Common Market (SICCM). Occupational therapy assistants are trained to be an integral part of a patient's rehabilitation team. Graduates of this program will possess technical skills needed to provide services to individuals of all ages who have physical, psychological, or developmental

disabilities. Occupational therapist assistants serve a diverse population in a variety of settings such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended care facilities, sheltered workshops, schools and camps, private homes, and community agencies.

Practical Nursing. This certificate program is designed to provide an individual with the knowledge and skills to function as a safe and effective member of the health care team in the role of the practical nurse. Classroom theory, laboratory practice, and clinical experience are included in this three-semester certificate program approved by the Illinois Department of Professional Regulation within the limits set forth by the Illinois Nurse Practice Act. Upon satisfactory completion of the program, the student will be eligible to write the NCLEX-PN exam for licensure.

Radiologic Technology (pending ICCB approval). This two-year program was designed to provide students specialized training in radiography through classroom instruction, clinicals, and externship experience. Topics covered include physics, procedures, digital imaging, pathology and image analysis. Graduates of this program will be eligible to sit for the American Registry of Radiologic Technologists accreditation exam.

Surgical Technology. This one-year program is offered through the Southern Illinois Collegiate Common Market (SICCM). Graduates are trained in the theory and application of sterile and aseptic technique. Training combines the knowledge of human anatomy, surgical procedures, and implementation tools and techniques to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

Tourism Management. The one or two-year Tourism Management Program is designed to provide students with the knowledge and skills necessary to be successful in the tourism industry. The curriculum examines a variety of facets of the tourism industry including sales and marketing, financial and business management for non-profit organizations, historic and cultural site interpretation, cultural heritage, destination management, and event planning.

Veterinary Technology. This two-year program is offered through the Southern Illinois Collegiate Common Market (SICCM). Graduates of this program are trained in both administrative and technical skills necessary to assist the veterinarian in all phases of medicine and surgery for small, large, exotic and lab animals. The Veterinary Technician

plays an important role in client education, grief counseling and public relations.

For the most current listing of programs for Allied Health and Public Service, visit the website at <http://www.jalc.edu/departmentpages/healthandpublicservice/index.html>

Applied Technologies

Auto Collision Programs. The Auto Collision Repair Program provides students with instruction on the procedures and practices used in automotive body repair and refinishing and instruction on body shop management.

Auto Services Technology. The Automotive Services Technology Program prepares students for employment as line mechanics, diagnostic technicians, and industrial maintenance personnel, as well as shop managers, company technicians, factory representatives, or teachers. The Auto Services Technology Program is ASE-certified, indicating that it meets stringent industry standards.

Computer-Aided Design (CAD) and Drafting. The Computer-Aided Design and Drafting Program provides a thorough understanding of standard mechanical drafting practices, design, and an understanding of manufacturing processes. The student will become proficient in standard projections, sectioning, auxiliary work, assembly drawings, and tolerancing. Student specialties include: product design, advanced tolerancing, tool design, detail and assembly, and 3D drawings. Upon completion, students are prepared to become a CAD operator, or may transfer to a university to complete a bachelor's degree.

Computer-Aided Machining. The machinist program provides the student with a thorough understanding of the basic skills, operations, procedures, and machine tools used in industry. Graduates will find employment as a tool room machinist, computer numerical control (CNC), machine programmer, CNC machine tool operator, model maker, or maintenance machining.

Construction Management Technology. The Construction Management Technology Program prepares students for employment in the construction industry as a project manager, project coordinator, superintendent, cost engineer, field engineer, estimator, scheduler, office engineer, or a safety inspector. Upon graduation, students may continue their education at SIUC to earn a bachelor's degree with an emphasis in construction management.

Electronics. The Electronics Program provides a thorough understanding of DC-AC fundamentals, solid state electronics, digital electronics, microprocessor operations, and industrial electronics. Completers of the program will be able to assume an entry-level position in the electronics industry. John A. Logan College is a CISCO-certified training academy and offers courses that prepare students for the CISCO Certified Network Technician Exam. Students who wish to continue their education will be eligible for articulated programs with the SIUC College of Engineering and Technology, the College of Applied Science and Arts, and the College of Education, and with some programs at Southeast Missouri State University and Murray State University.

Heating and Air Conditioning. The Heating and Air Conditioning Program assists students to develop entry-level workplace readiness skills as applied in the area of heating and air conditioning services. Students can expect to learn how to meet industry standards for technicians, including sheet metal layout skills, and become proficient in refrigeration cycles and systems, heating theory and systems, and electricity and its uses in industry.

Industrial Maintenance. The Industrial Maintenance Program provides students with an understanding of DC-AC fundamentals, solid state electronics, and industrial electronics applications. Graduates of this program will be qualified for an entry-level position in any industrial setting as an industrial electronics maintenance specialist.

Manufacturing Technology (MFT). The MFT Program provides a thorough understanding of manufacturing, CAD, and programming. Students may choose one of the following four concentration areas:

- Computer-Aided Design and Drafting
- Computer-Aided Machining
- Electronics
- Computer Information Systems

Student specialties include: blueprint reading, advanced manufacturing, industrial electricity, machine tool operation, industrial robots, and programmable logic controllers. Upon completion, students are prepared for a job in one of the concentration areas for work, or may transfer to a university to complete a bachelor's degree.

Welding. Manual welders, especially those with a wide variety of skills, will increasingly be needed for sophisticated fabrication tasks and repair work that does not lend itself to automation. Many of the job openings for welders will result from the need to replace experienced workers. The aging of the

nation's infrastructure, which means more products needing repair or replacement, will also provide opportunities.

For the most current listing of programs for Applied Technologies, visit the website at <http://www.jalc.edu/departments/appliedtechnologies/index.html>

Business Education

The Business Department provides students with knowledge and skills to compete for entry-level jobs in the business world. The program also prepares business students for job promotions, career advancements, and lifelong learning experiences in the business working environment and prepares students in business for transfer to four-year institutions.

Accounting. The Accounting degree and the Bookkeeper/Clerical certificate can prepare students for immediate entry into a small business environment or the accounting department of a larger company. Students will learn the accounting process, the payroll process, and become proficient with accounting information on the computer.

Business Administration and Accounting. This degree provides the first two years of any four-year degree in business:

- Accounting
- Business Administration
- Economics
- Finance
- Marketing
- Management

Computer Information Systems. The Computer Information Systems programs give students a thorough understanding of how computers work and provide students with the skills that are in demand in today's business world. Students have the opportunity to specialize in several areas including:

- Computer Applications
- Office Environment Applications
- Web Page Development
- Network Design and Administration
- Computer Hardware Troubleshooting

Program Options:

- Computer Information and E-Commerce (AAS)
- Computer Information Systems (Certificate)
- Computer Information Systems (AAS)
- Computer Applications Specialist (AAS)
- Computer Support and Networking (AAS)
- Data Entry Assistant (Short-Term Certificate)
- Information Systems and Accounting (AAS)

The Business Department participates in the Tech Prep program with district high schools. College credit may be granted for coursework completed in high school. Contact Department Chair for Business Shayne Crawshaw for more information.

After completing the following AAS degrees, students may transfer to SIUC to complete a bachelor's degree in Information Systems Technology, Health Care Management, or Technical Resource Management:

1. Information Systems Technology
 - Computer Information Systems (AAS)
 - Computer Applications Specialist (AAS)
 - Computer Support and Networking (AAS)
2. Health Care Management
 - Computer Information Systems (AAS)
3. Technical Resource Management
 - Computer Information Systems
 - Computer Application Specialist
 - Computer Support and Networking

The Capstone option allows students to earn a bachelor's degree with an additional 60 hours from SIUC. See your advisor for more information about program options that should be taken if you wish to pursue a bachelor's degree through Capstone.

Finance. These classes are designed to help students make better financial decisions for investments and for retirement. Special emphasis is placed on learning the basics of the stock market and of the securities industries. Students will be introduced to different trading-investment strategies to lead to enhanced financial opportunities.

Management. Courses available to students considering a career in management include:

- MGT 112 Principles of Management and
- MGT 240 Office Management

The Principles of Management course is designed to explore the key management functions of planning, organizing, leading, and controlling in a business environment. Additionally, the topic of staffing and human resource management is covered.

The Office Management course emphasizes the role of the office in business management, office organization, physical facilities and layout of the office, and procedures for supervision and control within the office environment.

Marketing. Courses available to students considering a career in marketing include:

- MKT 113 Principles of Marketing I
- MKT 130 Sales 1
- MKT 224 Advertising
- MKT 251 Purchasing
- MKT 295 Internet Marketing

Marketers provide the link between businesses that have goods and services to sell and customers who want to purchase them. The marketing process involves a variety of activities, including research, strategic planning, product development, and sales management. Students in this program will participate in active learning and demonstrate an understanding of basic business principles using case studies; use computer technology and demonstrate communication skills in preparing spreadsheets, writing reports, analyzing business problems, and preparing professional presentations; develop and demonstrate ethical values, while also using human relations skills through individual and team activities in class and in business situations. This degree offers a solid background in the concepts of marketing and business. A marketing degree can lead to a career in such areas as marketing management, personal selling and sales management, and retail merchandising and management.

After completing the Marketing AAS degree, students may transfer to SIUC to complete a bachelors degree in Health Care Management or Technical Resource Management.

A Retailing Certificate is also available in the Marketing area.

Office Technology. The Office Technology programs at John A. Logan College prepare graduates to work in professional office environments.

The two-year Associate in Applied Science degree is available for the following programs:

- Administrative Assistant. Designed to provide training necessary to fill administrative assistant positions in legal, medical, and other professional offices.
- Medical Administrative Assistant. Offers content in administrative assistant courses in addition to courses focusing specifically on a medical environment including medical office procedures, medical terminology, CPR, and experience in using The Medical Manager software.

- Office Supervision and Management. Designed to provide specialized training for the office support person who aspires to be eligible for a management position in the office environment. Articulation agreements with Southern Illinois University are available for Information Systems Technology and Health Care Management.

Certificates are also available in the Office Technology area including:

- Bookkeeper-Clerical Studies
- Information Processing
- Legal Office Specialist
- Medical Transcription

Occupational Certificates (requiring only 17-18 hours) are offered in the following areas:

- Data Entry Assistant
- General Business
- Medical Clerk
- Office Assistant

Review courses are also offered for the:

- CAP (Certified Administrative Professional)
- CPS (Certified Professional Secretary)
- CMT (Certified Medical Transcriptionist)
- RMT (Registered Medical Transcriptionist)

Students in the Office Technology program may also achieve certification through the Office Proficiency and Assessment Certification (OPAC).

Realtime Captioning Technology. The Realtime Captioning Technology program is designed as an integrated curriculum that prepares graduates at the certificate and Associate in Applied Science degree levels. The program allows graduates to translate their machine shorthand stenographic notes instantly into English text by using a specialized software package and captioning technology. The program certificate and AAS options prepare graduates for careers in editing transcripts as a scopist, and providing verbatim records as a judicial reporter also known as a court reporter. Graduates are also prepared to test for the National Court Reporters Association certification.

Computer Certifications

Acquiring certification indicates an individual has the knowledge and expertise to perform at a specified level. Every technology professional can benefit from pursuing certification offered by a recognized industry organization. Several courses are offered to help prepare students to take a wide variety of certification exams.

CompTIA A+ Certification. This certification confirms a technician's ability to perform tasks such as installation, configuration, diagnosing, preventive maintenance, and basic networking. The exam also covers domains such as security, safety and environmental issues and communication and professionalism. After successful completion of the classes below, the student should be prepared to take the A+ exam:

- ELT 210 A+ Preparation-Hardware Core
- ELT 214 A+ Preparation-Operating Systems Core

CompTIA Net+. This certificate is vendor neutral and recognizes a technician's ability to describe the features and functions of networking components and to install, configure and troubleshoot basic networking hardware, protocols and services. After successful completion of the classes below, the student should be prepared to take the CompTIA Net+ exam:

- CIS 200 Networking Essentials
- CIS 250 Wireless Networks
- ELT 218 Introduction to Network Technologies

CompTIA Security+. This certification validates knowledge of communication security, infrastructure security, cryptography, operational security, and general security concepts. After successful completion of the classes below, the student should have covered most topics on the CompTIA Security+ certification exam:

- CIS 208 Security Awareness
- CIS 250 Wireless Networks

Microsoft Application Specialist Certifications.

These are certifications that can be obtained by mastering the various Microsoft software applications. John A. Logan College offers the courses below. After successful completion of the classes below, the student should be prepared to take the appropriate Microsoft exams:

- CIS 110 Introduction to Word Processing
- CIS 120 Database Management
- CIS 225 Advanced Database Management
- CIS 104 Spreadsheet Design
- CIS 220 Advanced Spreadsheet Design
- CIS 210 Presentation Graphics

Windows Networking Certification. This certification will give the student the skills needed to administer a network using Microsoft networking software. After successful completion of the classes below, the student should have covered the topics on the Windows Networking certification exam:

- CIS 200 Networking Essentials
- CIS 206 Managing Network Environments I
- ELT 218 Introduction to Network Technologies

For the most current listing of Business Education programs and Computer Certifications, visit the website at <http://www.jalc.edu/departmentpages/businesseducation/index.html>