



ACCOUNTING
52.0301.00

Courses

Digital Literacy

Accounting
& Finance

Financial
Management

Adv. Accounting

Career Ready Academic

MOS Certification (3of 3)
ASK—Concepts of Finance

Post Secondary
Education



Associate in
Applied Science
Business
Administration
Accounting Track



ACCOUNTING

What Accountants and Auditors Do:

Accountants and auditors prepare and examine financial records. They ensure that financial records are accurate and that taxes are paid properly and on time. Accountants and auditors assess financial operations and work to help ensure that organizations run efficiently.

Work Environment Most accountants and auditors work full time. In 2016, about 1 in 5 worked more than 40 hours per week. Longer hours are typical at certain times of the year, such as at the end of the budget year or during tax season.

How to Become an Accountant or Auditor Most employers require a candidate to have a bachelor's degree in accounting or a related field. Certification within a specific field of accounting improves job prospects. For example, many accountants be-

come Certified Public Accountants (CPAs).

Pay The median annual wage for accountants and auditors was \$69,350 in May 2017.

Job Outlook Employment of accountants and auditors is projected to grow 10 percent from 2016 to 2026, faster than the average for all occupations. In general, employment growth of accountants and auditors is expected to be closely tied to the health of the overall economy. As the economy grows, more workers should be needed to prepare and examine financial records.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Accountants and Auditors, on the Internet at <https://www.bls.gov/ooh/business-and-financial/accountants-and-auditors.htm>

Accounting Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit†/Optional◊

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science*	FL/FL
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	Accounting & Finance	Financial Accounting	Adv Acct/Prin of Mktg/B Mgmt/Co-op
Health/PE	Choice	Choice	Choice



AGRIBUSINESS
SYSTEM
01.0101.01

Courses
Dual Credit Option[†]

Principles of Ag
Science & Tech

Agriscience

Agriculture
Communications[†]

Agriculture Sales &
Management
OR
Agricultural
Education Co-op

Career Ready Academic

EOP Assessment -
Agribusiness

Post Secondary
Education



Bachelor of Science
in Agriculture

Agribusiness
Economics



AGRIBUSINESS SYSTEMS

What Sales Representatives Do:

Wholesale and manufacturing sales representatives sell goods for wholesalers or manufacturers to businesses, government agencies, and other organizations. They contact customers, explain the features of the products they are selling, negotiate prices, and answer any questions that their customers may have about the products.

Work Environment: Wholesale and manufacturing sales representatives work under pressure because their income and job security depend on the amount of merchandise they sell. Some sales representatives travel frequently.

How to Become a Sales Representative: Educational requirements vary for sales representatives and depend on the type of products sold. If the products are not scientific or technical, a high school diploma is generally sufficient for entry into the occupation. If the products are scientific or technical, sales representatives typically need at

least a bachelor's degree.

Pay: The median annual wage for sales representatives, wholesale and manufacturing, except technical and scientific products was \$60,340 in May 2017.

Job Outlook: Overall employment of wholesale and manufacturing sales representatives is projected to grow 5 percent from 2016 to 2026, about as fast as the average for all occupations. Employment growth for sales representatives is expected to follow employment growth of the economy as a whole. Employment opportunities should be best in independent agencies, which operate on a fee basis and represent several manufacturers, instead of buying and holding the product they are selling.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Wholesale and Manufacturing Sales Representatives, on the Internet at <https://www.bls.gov/ooh/sales/wholesale-and-manufacturing-sales-representatives.htm>

Agribusiness Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Prin of Ag Sc	Agriscience	Agriculture Communication[†]	Agricultural Sales OR Ag Co-op
Health/PE	Digital Literacy [◇]	Choice	Choice



Allied Health
51.0000.01

Courses

Principles of
Health Science

Medical
Terminology I/
Emergency
Procedures

Body Structures &
Functions[†]

Allied Health
Core Skills

Career Ready Academic

NOCTI Healthcare
Core

Post Secondary
Education



Associate in
Applied Science
Health Science
Technology



ALLIED HEALTH

What Medical and Clinical Laboratory Technologists and Technicians

Do: Medical laboratory technologists (commonly known as *medical laboratory scientists*) and medical laboratory technicians collect samples and perform tests to analyze body fluids, tissue, and other substances.

Work Environment: Most medical laboratory technologists and technicians worked in hospitals in 2016. Others worked in medical and diagnostic laboratories or doctors' offices.

How to Become a Medical and Clinical Laboratory Technologists or Technicians: Medical laboratory technologists typically need a bachelor's degree.

Technicians usually need an associate's degree or a postsecondary certificate.

Pay: The median annual wage for medical and clinical laboratory technicians was \$38,950 in May 2016. The median annual wage for medical and clinical laboratory technologists was \$61,070 in May 2016.

Job Outlook: Overall employment of medical laboratory technologists and technicians is projected to grow 13 percent from 2016 to 2026, faster than the average for all occupations.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Medical and Clinical Laboratory Technologists and Technicians, on the Internet at <https://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm>

Allied Health Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Health Science	Body Structures & Functions[†]	Allied Health Core Skills
Health/PE	Emerg Proc/ Med Term	Choice	Choice



Animal Science
Systems
01.0901.00

Courses
Dual Credit Option[†]

Principles of Ag
Science & Tech

Agriscience

Animal Science

Veterinary Science[†]

Career Ready Academic

EOP Assessment -
Animal Science

Post Secondary
Education



Bachelor of Science in
Agriculture

Veterinary
Technology



ANIMAL SCIENCE & SYSTEMS

What Veterinarian Technologist and technicians Do: Veterinary technologists and technicians perform medical tests under the supervision of a licensed veterinarian to assist in diagnosing the injuries and illnesses of animals.

Work Environment: Veterinary technologists and technicians work in private clinics, laboratories, and animal hospitals. Their jobs may be physically or emotionally demanding. Many work evenings, weekends, or holidays.

How to Become a Veterinarian Technologist and technicians: Veterinary technologists and technicians must complete a postsecondary program in veterinary technology. Technologists need a 4-year bachelor's degree, and technicians need a 2-year associate's degree. Typically, both technologists and technicians must take a credentialing exam and must become registered, licensed, or certified, depending on

the requirements of the state in which they work.

Pay: The median annual wage for veterinary technologists and technicians was \$33,400 in May 2017.

Job Outlook: Employment of veterinary technologists and technicians is projected to grow 20 percent from 2016 to 2026, much faster than the average for all occupations. Employment is expected to grow as veterinarians continue to utilize technicians and technologists to do general care and lab work on household pets.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Veterinary Technologists and Technicians, on the Internet at <https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm>

Animal Science Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Prin of Ag Sc	Agriscience	Animal Science	Veterinary Science[†]
Health/PE	Digital Literacy [◇]	Choice	Choice



Automotive
MLR Technician
47.0604.01

Courses

Maintenance &
Light Repair A-D

Light Vehicle
Diesel Engines A/B

Career Ready Academic

ASE Certification
Automotive MLR

Post Secondary
Education



Associate in
Applied Science
Automotive
Technology
Automotive
Technician Track



AUTOMOTIVE

What Automotive Service Technicians and Mechanics Do: Automotive service technicians and mechanics, inspect, maintain, and repair cars and light trucks.

Work Environment: Most automotive service technicians and mechanics work in well-ventilated and well-lit repair shops. Although automotive problems often can be identified and fixed with computers, technicians perform many tasks with greasy parts and tools, sometimes in uncomfortable positions.

How to Become an Automotive Service Technician or Mechanic: A high school diploma or the equivalent is typically the minimum requirement to work as an automotive service technician or mechanic. Because automotive technology is becoming increasingly sophisticated, some employ-

ers prefer automotive service technicians and mechanics who have completed a formal training program in a postsecondary institution. Industry certification usually is required once the person is employed.

Pay: The median annual wage for automotive service technicians and mechanics was \$39,550 in May 2017.

Job Outlook: Employment of automotive service technicians and mechanics is projected to grow 6 percent from 2016 to 2026, about as fast as the average for all occupations. Job opportunities for qualified jobseekers should be very good.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Automotive Service Technicians and Mechanics, on the Internet at <https://www.bls.gov/ooh/installation-maintenance-and-repair/automotive-service-technicians-and-mechanics.htm>

Automotive MLR Tech Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Auto MLR—A	Auto MLR—C	Lt Diesel Engines A
Health/PE	Auto MLR—B	Auto MLR—D	Lt Diesel Engines A



Residential
Carpenter
Assistant
46.0201.02

Courses

Introduction to
Construction
Carpentry

Construction Prints
Industrial Safety

Site Layouts &
Foundations

Exterior & Interior
Finish

Ceiling Roof
Framing

Floor & Wall
Framing

Career Ready Academic

Skills Trade Track

OSHA 10

Post Secondary
Education



Associate in
Applied Science
Construction
Technology



CARPENTRY

What Carpenters Do: Carpenters construct and repair building frameworks and structures—such as stairways, doorframes, partitions, and rafters—made from wood and other materials. They also may install kitchen cabinets, siding, and drywall.

Work Environment: Because carpenters are involved in many types of construction, from building highways and bridges to installing kitchen cabinets, they work both indoors and outdoors. The work is sometimes strenuous, and carpenters have a higher rate of injuries and illnesses than the national average.

How to Become a Carpenter: Although most carpenters learn their trade through an apprenticeship, some learn on the job, starting as a helper.

Pay: The median annual wage for carpenters was \$45,170 in May 2017.

Job Outlook: Employment of carpenters is projected to grow 8 percent from 2016 to 2026, about as fast as the average for all occupations. Increased levels of new homebuilding and remodeling activity will require more carpenters.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Carpenters, on the Internet at <https://www.bls.gov/ooh/construction-and-extraction/carpenters.htm>

Carpentry Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Intro Const/Carp	Site Layout	Floor/Wall Framing
Health/PE	Constr Prints/ IS	Exterior/Interior Finish	Ceiling Roof Framing



Civil
Engineering
14.0801.00

Courses

Intro to
Engineering Design

Principles of
Engineering

Civil Engineering
& Architecture

Engineering
Design &
Development
(Capstone)

Career Ready Academic

NOCTI CAD 1 Certification
& REC Foundation
Pre-Engineering

Post Secondary
Education



Bachelors of Science
Civil
Engineering



CIVIL ENGINEERING

What Civil Engineers Do: Civil engineers conceive, design, build, supervise, operate, construct, and maintain infrastructure projects and systems in the public and private sector, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment.

Work Environment: Civil engineers generally work in a variety of locations and conditions. It is common for them to split their time between working in an office and working outdoors at construction sites so that they can monitor operations or solve problems onsite. Most work full time.

How to Become a Civil Engineer: Civil engineers need a bachelor's degree in civil engineering, in one of its specialties, or in civil engineering technology. They typically need a graduate degree and licensure for promotion to senior positions. Although li-

censure requirements vary by state, civil engineers usually must be licensed if they provide services directly to the public.

Pay: The median annual wage for civil engineers was \$83,540 in May 2016.

Job Outlook: Employment of civil engineers is projected to grow 11 percent from 2016 to 2026, faster than the average for all occupations. As infrastructure continues to age, civil engineers will be needed to manage projects to rebuild, repair, and upgrade bridges, roads, levees, dams, airports, buildings, and structures of all types.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Civil Engineers, on the Internet at <https://www.bls.gov/ooh/architecture-and-engineering/civil-engineers.htm>

Civil Engineering Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Digital Literacy [◇]
Intro to Engineering	Prin of Engineering	Civil Engineering	Engineering Design
Humanities	Health/PE	Choice	Choice



Industrial/Mechanical
Engineering
14.3501.00

Courses

Intro to
Engineering Design

Principles of
Engineering

Robotics Design
Essentials & Systems

Engineering
Design &
Development
(Capstone)

Career Ready Academic

NOCTI CAD 1 Certification
& REC Foundation
Pre-Engineering

Post Secondary
Education



Bachelors of Science
Mechanical
Engineering



MECHANICAL ENGINEERING

What Mechanical Engineers Do: Mechanical engineers design, develop, build, and test mechanical and thermal sensors and devices, including tools, engines, and machines.

Work Environment: Mechanical engineers generally work in offices. They may occasionally visit worksites where a problem or piece of equipment needs their personal attention. Mechanical engineers work mostly in engineering services, research and development, and manufacturing.

How to Become a Mechanical Engineer: Mechanical engineers typically need a bachelor's degree in mechanical engineering or mechanical engineering technology. All states and the Dis-

trict of Columbia require mechanical engineers who sell services to the public to be licensed.

Pay: The median annual wage for mechanical engineers was \$84,190 in May 2016.

Job Outlook: Employment of mechanical engineers is projected to grow 9 percent from 2016 to 2026, as fast as the average for all occupations. Job prospects may be best for those who stay abreast of the most recent advances in technology.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Mechanical Engineers, on the Internet at <https://www.bls.gov/ooh/architecture-and-engineering/mechanical-engineers.htm>

Mechanical Engineering Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Digital Literacy [◇]
Intro to Engineering	Prin of Engineering	Robotics Design	Engineering Design
Humanities	Health/PE	Choice	Choice



IT/Computer
Programming
11.0201.01

Courses

Digital Literacy

Computational
Thinking[†]

Introduction to
Programming[†]

Project-Based
Programming

Career Ready Academic

CompTIA IT Fundamentals
MTA Software Development
MTA Database Development
MTA HTML5 App Development
Oracle CA Java SE7 Programmer
Certipoint Digital Literacy IC3
EOP Assessment -
Computer Programming

**Post Secondary
Education**



Associate in
Applied Science
Computer and
Information Technologies
Programming



COMPUTER PROGRAMMING

What Computer Programmer Do:

Computer programmers write and test code that allows computer applications and software programs to function properly. They turn the program designs created by software developers and engineers into instructions that a computer can follow.

Work Environment: Programmers usually work in offices, most commonly in the computer systems design and related services industry. Most programmers work standard 40-hour weeks, and telecommuting is becoming more common.

How to Become a Computer

Programmer : Most computer programmers have a bachelor's degree; however, some employers hire workers with an associate's degree. Most programmers spe-

cialize in a few programming languages.

Pay: The median annual wage for computer programmers was \$82,240 in May 2017.

Job Outlook: Employment of computer programmers is projected to decline 7 percent from 2016 to 2026. Computer programming can be done from anywhere in the world, so companies sometimes hire programmers in countries where wages are lower.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Computer Programmers, on the Internet at <https://www.bls.gov/ooh/computer-and-information-technology/computer-programmers.htm>

Computer Programming Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	Computational Thinking[†]	Introduction to Programming[†]	Project-Based Programming
Health/PE	Choice	Choice	Choice



Computerized
Manufacturing
Machinist Operator
48.0503.02

Courses

Blueprint Reading
for Machinists
BRX112 - 4 hrs[†]

Fundamentals of
Machine Tool A/B
CMM 120 - 6 hrs[†]

Applied Machining I
CMM 120 - 3 hrs[†]

Manual Programming
CAD/CAM/CNC
CMM 134 - 6 hrs[†]

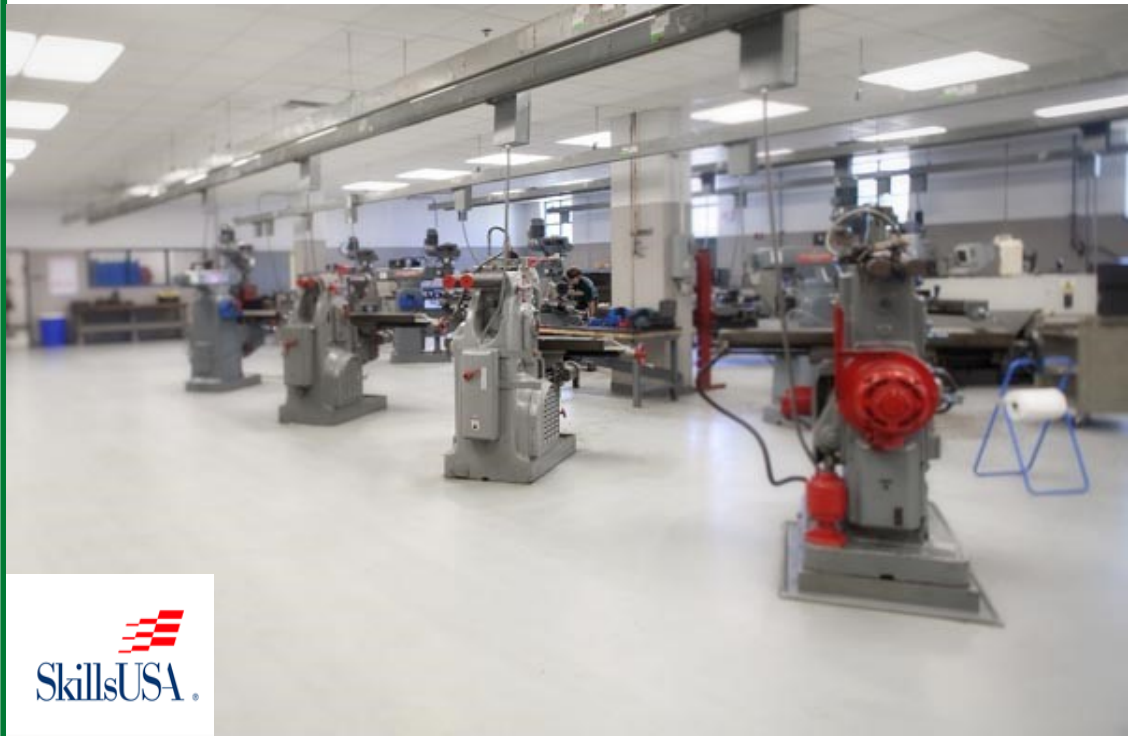
Career Ready Academic

NIMS - Machine Tool
Certification (Level 1)

Post Secondary Education



Associate in
Applied Science
Computerized
Manufacturing and
Machining
19 hours[†]



COMPUTERIZED MANUFACTURING & MACHINING

What Machinists and Tool and Die

Makers Do: Machinists and tool and die makers set up and operate a variety of computer-controlled and mechanically controlled machine tools to produce precision metal parts, instruments, and tools.

Work Environment: Machinists and tool and die makers work in machine shops, tool rooms, and factories. Although many work full time during regular business hours, overtime may be common, as is evening and weekend work.

How to Become a Machinist: Machinists train in apprenticeship programs, vocational schools, community and technical colleges, or on the job. Tool and die makers receive several years of technical instruction and on-the-job training. A high school diploma is necessary.

Pay: The median annual wage for machinists and tool and die makers was between \$42,600 and \$52,480 in May 2017. This amount continues to increase due to high demand for qualified persons to fill positions.

Job Outlook: Employment of machinists and tool and die makers is projected to remain steady from 2016 to 2026. Workers familiar with computer software applications and who can perform multiple tasks in a machine shop will have the best job opportunities. Many companies have a shortage due to the lack of trained replacements for workers that are leaving the field due to retirement.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Machinists and Tool and Die Makers, on the Internet at <https://www.bls.gov/ooh/production/machinists-and-tool-and-die-makers.htm>

Computerized Manufacturing Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Health/PE	Blueprint Reading[†]	Fund Machine Tool B[†]	CAD/CAM/CNC[†]
Digital Literacy [◇]	Fund Machine Tool A[†]	Applied Machining I[†]	Manual Programming[†]



Consumer & Family Management
19.0403.00

Core

FACS Essentials

Foods & Nutrition

Parenting

Relationships

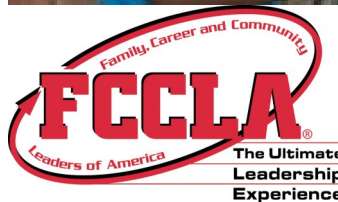
Career Ready Academic

EOP Assessment -
Consumer & Family
Management

Post Secondary
Education



Associate in
Applied Science
Human Services



CONSUMER & FAMILY MANAGEMENT

What Social and Community Service Managers Do: Social and community service managers coordinate and supervise social service programs and community organizations. They manage workers who provide social services to the public.

Work Environment: Social and community service managers work for non-profit organizations, private for-profit social service companies, and government agencies. The majority work full time.

How to Become a Social and Community Service Manager: Social and community service managers typically need at least a bachelor's degree and work experience.

Pay: The median annual wage for social and community service managers was \$64,100 in May 2017.

Job Outlook: Employment of social and community service managers is projected to grow 18 percent from 2016 to 2026, much faster than the average for all occupations. Employment growth will be driven by increases in the elderly population and increases in demand for substance abuse treatment and mental health and health-related services.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Social and Community Service Managers, on the Internet at <https://www.bls.gov/ooh/management/social-and-community-service-managers.htm>

Consumer Family Mgmt Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
FACS Essentials	Foods & Nutrition	Parenting	Relationships
Health/PE	Digital Literacy [◇]	Choice	Choice



Culinary & Food Services
12.0500.00

Courses

FACS Essentials

Foods & Nutrition

Culinary Arts I

Culinary Arts II

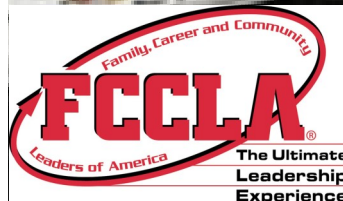
Career Ready Academic

ServSafe Food Managers & ServSafe Food Handler

Post Secondary Education



Associate in Applied Science Degrees in Culinary Arts



CULINARY ARTS

What Chefs and Head Cooks Do:

Chefs and head cooks oversee the daily food preparation at restaurants and other places where food is served. They direct kitchen staff and handle any food-related concerns.

Work Environment: Chefs and head cooks work in restaurants, private households, and other establishments where food is served. They often work early mornings, late evenings, weekends, and holidays. The work can be hectic and fast-paced. Most chefs and head cooks work full time.

How to Become a Chef or Head Cook:

Most chefs and head cooks learn their skills through work experience. Others receive training at a community college, technical school, culinary arts

school, or 4-year college. Some learn through apprenticeship programs.

Pay: The median annual wage for chefs and head cooks was \$45,950 in May 2017.

Job Outlook: Employment of chefs and head cooks is projected to grow 10 percent from 2016 to 2026, faster than the average for all occupations. Most job opportunities for chefs and head cooks are expected to be in food services, including restaurants. Job opportunities will result from the need to replace workers who leave the occupation.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Chefs and Head Cooks, on the Internet at <https://www.bls.gov/ooh/food-preparation-and-serving/chefs-and-head-cooks.htm>

Culinary Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
FACS Essentials	Foods & Nutrition	Culinary I	Culinary II
Health/PE	Digital Literacy [◇]	Choice	Choice



Early Childhood
Education
13.1210

Courses

FACS Essentials

Parenting

Child Development
Services I

Relationships
OR
Early Childhood
Education Co-op

Career Ready Academic

Kentucky Early Care
& Education Orientation
Commonwealth
Child Care Credential
Pediatric Abusive Head Trauma
EOP Assessment -
Early Childhood

Post Secondary
Education



Associate in
Applied Science
Interdisciplinary Early
Childhood Education



EARLY CHILDHOOD EDUCATION

What Preschool Teachers Do:

Preschool teachers educate and care for children younger than age 5 who have not yet entered kindergarten. They teach language, motor, and social skills to young children.

Work Environment: Preschool teachers typically work in public and private schools or childcare centers. Many work the traditional 10-month school year, but some work year-round.

How to Become a Preschool Teacher: Education and training requirements vary based on settings and state regulations. Preschool teachers typically need at least an associate's degree.

Pay: The median annual wage for preschool teachers was \$28,990 in May 2017.

Job Outlook: Employment of preschool teachers is projected to grow 10 percent from 2016 to 2026, faster than the average for all occupations. Growth is expected due to a continued focus on the importance of early childhood education.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Preschool Teachers, on the Internet at <https://www.bls.gov/ooh/education-training-and-library/preschool-teachers.htm>

Early Childhood Ed Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit†/Optional◇

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL
Social Studies*	Social Studies*	Social Studies*	Humanities
FACS Essentials	Parenting	Child Development Services I	Relationships OR ECE Co-op
Health/PE	Digital Literacy◇	Choice	Choice



Teaching and Learning
13.0101.00

Courses

The Learning Community

The Learner-Centered Classroom

The Professional Educator

Collaborative Clinical Experience
EDU 250 – 3 hrs[†]

OR

AP or Dual Credit in intended teaching discipline

Career Ready Academic

AAFCS or Praxis I

Post Secondary Education



[Bachelors of Science Elementary, Middle Level or Secondary Education](#)



EDUCATION AND TRAINING

What Kindergarten and Elementary Teachers Do: Kindergarten and elementary school teachers instruct young students in basic subjects, such as math and reading, in order to prepare them for future schooling.

Work Environment: Kindergarten and elementary school teachers work in public and private schools. They generally work school hours when students are present and use nights and weekends to prepare lessons and grade papers. Most kindergarten and elementary school teachers do not work during the summer.

How to Become a Kindergarten or Elementary Teacher: Kindergarten and elementary school teachers must have at least a bachelor's degree. In addition, public school teachers must have a state-issued certification or license.

Pay: The median annual wage for elementary school teachers, except special education was \$55,800 in May 2016.

Job Outlook: Overall employment of kindergarten and elementary school teachers is projected to grow 7 percent from 2016 to 2026, about as fast as the average for all occupations. Rising student enrollment should increase demand for kindergarten and elementary teachers, but employment growth will vary by region.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Kindergarten and Elementary School Teachers, on the Internet at <https://www.bls.gov/ooh/education-training-and-library/kindergarten-and-elementary-school-teachers.htm>
NOTE: Middle/High Information can be found on this site.

Teaching & Learning Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	The Learning Community	The Professional Educator	Clinical Experience OR AP/DC Course
Health/PE	The Learning Centered Classroom	Choice	Choice



E-Commerce
52.0208.02

Courses

Digital Literacy

Multimedia
Publishing

Web Page Design

Adv Multimedia
Publishing

OR

Principles of Entrepreneurship

OR

Principals of Marketing

OR

Advertising & Promotions

Career Ready Academic

ASK-Fund of Mkt
MOS (3of4)

Post Secondary
Education



Associate of
Applied Science
in
Graphic Design



E-COMMERCE

What Graphic Designers Do: Graphic designers create visual concepts, using computer software or by hand, to communicate ideas that inspire, inform, and captivate consumers. They develop the overall layout and production design for various applications such as advertisements, brochures, magazines, and corporate reports.

Work Environment: Many of these workers are employed in specialized design services, publishing, or advertising, public relations, and related services industries. In 2014, about 1 in 5 graphic designers were self-employed.

How to Become a Graphic Designer: Graphic designers usually need a bachelor's degree in graphic design or a related field. Candidates for graphic design positions should demonstrate their creativity and originality through a professional portfolio that features their best designs.

ality through a professional portfolio that features their best designs.

Pay: The median annual wage for graphic designers was \$48,700 in May 2017.

Job Outlook: Employment of graphic designers is projected to grow 5 percent from 2016 to 2026, about as fast as the average for all occupations. Graphic designers are expected to face strong competition for available positions.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Graphic Designers, on the Internet at <https://www.bls.gov/ooh/arts-and-design/graphic-designers.htm>

E-Commerce Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	MMP/Web Page	Adv MMP OR Other Elective	Choice
Health/PE	Choice	Choice	Choice



Financial Services
52.1908.00

Courses

Accounting
& Finance

Financial Service I

Financial Service II

Financial
Management
OR
Principles of
Marketing
OR
Business Ed Co-op

Career Ready Academic

ASK for Business –
Concepts of Finance

Post Secondary
Education



Associate in
Applied Science
Business
Administration
Management Track



FINANCIAL SERVICES

What Financial Managers Do: Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization.

Work Environment: Financial managers work in many industries, including banks and insurance companies. Most financial managers work full time, and about 1 in 3 worked more than 40 hours per week in 2016.

How to Become a Financial Manager: Financial managers typically have a bachelor's degree and 5 years or more of experience in another business or financial occupation, such as loan officer, account-

ant, auditor, securities sales agent, or financial analyst.

Pay: The median annual wage for financial managers was \$121,750 in May 2016.

Job Outlook: Employment of financial managers is projected to grow 19 percent from 2016 to 2026, much faster than the average for all occupations. Several core functions of financial managers, including risk management and cash management, are expected to be in high demand over the next decade.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Financial Managers, on the Internet at <https://www.bls.gov/ooh/management/financial-managers.htm>

Financial Services Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL
Social Studies*	Social Studies*	Social Studies	Humanities
Accounting & Finance	Fin Serv I	Fin Serv II	Fin Mang. OR Other Elective
Health/PE	Choice	Choice	Choice



Horticulture &
Plant Science
01.1101.00

Courses

Principles of Ag
Science & Tech

Agriscience

Greenhouse
Technology

Agriculture Sales &
Management

Career Ready Academic

EOP Assessment -
Horticulture

Industry Certifications



Bachelor of Science in
Agriculture

Horticulture



HORTICULTURE & PLANT SCIENCE

What Agricultural and Food

Scientists Do: Agricultural and food scientists research ways to improve the efficiency and safety of agricultural establishments and products.

Work Environment: Most agricultural and food scientist's work in research universities, private industry, or the federal government. They work in offices, laboratories, and may sometimes work in food production facilities. Most agricultural and food scientists work full time.

How to Become an Agricultural or Food Scientist: Agricultural and food scientists need at least a bachelor's degree from an accredited postsecondary institution, although many get advanced degrees.

Pay: The median annual wage for agricultural and food scientists was \$62,910 in May 2017.

Job Outlook: Overall employment of agricultural and food scientists is projected to grow 7 percent from 2016 to 2026, about as fast as the average for all occupations. Employment of agricultural and food scientists is projected to grow as research into agricultural production methods and techniques continues.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Agricultural and Food Scientists, on the Internet at <https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-scientists.htm>

Horticulture Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit†/Optional◇

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL ◇
Social Studies*	Social Studies*	Social Studies*	Humanities
Principles of Ag	Agriscience	Greenhouse	Agricultural Sales
Health/PE	Digital Literacy ◇	Choice	Choice



Environmental
Control Systems
Technician
47.0201.05

Courses

HVAC Electricity

Electrical Components
for Cooling Systems

Refrigeration
Fundamentals

Cooling &
Dehumidification

Heat Pump Applications

Heating & Humidification

Career Ready Academic

EPA Section 608
Certification
OSHA 10

Post Secondary
Education



Associate in
Applied Science
Air Conditioning
Technology



HVAC & REFRIGERATION

What Heating, Air Conditioning, and Refrigeration Mechanics and Installers Do:

They install, service and maintain heating, air conditioning, and refrigeration systems —often called *heating, ventilation, air conditioning, and refrigeration (HVACR)*. They work on heating, ventilation, cooling, and refrigeration systems that control the temperature and air quality in buildings.

Work Environment: HVACR technicians work mostly in homes, schools, hospitals, office buildings, or factories. Their worksites may be very hot or cold because the heating and cooling systems they must repair may not be working properly and because some parts of these systems are located outdoors. Working in cramped spaces and during irregular hours is common.

How to Become a Heating, Air Conditioning, and Refrigeration Mechanics and Installers:

Because HVACR systems have become increasingly complex, employers generally prefer applicants with postsecondary education or those

who have completed an apprenticeship. Some states and localities require technicians to be licensed.

Pay: The median annual wage for heating, air conditioning, and refrigeration mechanics and installers was \$47,080 in May 2017.

Job Outlook: Employment of heating, air conditioning, and refrigeration mechanics and installers is projected to grow 15 percent from 2016 to 2026, much faster than the average for all occupations. Candidates familiar with computers and electronics and those with good troubleshooting skills will have the best job opportunities as employers continue to have difficulty finding qualified technicians to install, maintain, and repair complex new systems.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Heating, Air Conditioning, and Refrigeration Mechanics and Installers, on the Internet at <https://www.bls.gov/ooh/installation-maintenance-and-repair/heating-air-conditioning-and-refrigeration-mechanics-and-installers.htm>

HVAC & Refrigeration Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit†/Optional◇

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL◇
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy◇	HVAC Electricity	Refrig Fundamentals	Heat Pump App
Health/PE	Electrical Components	Cooling/Dehumid	Heating/ Humidification



Electrical
Technician
47.0303.02

Courses

Electrical Principles
EET 119 - 5 hrs[†]

Maintaining Industrial
Equipment

Electrical
Motor Controls I
EET 270/271—4 hrs[†]

Programming Logic
Controllers
EET 276/277—4 hrs[†]

IM Robotics
IMT 200 —4 hrs[†]

Fluid Power
FPS 100/101—5 hrs[†]

Career Ready Academic

NCCER or MSSC

Post Secondary
Education



Associate in
Applied Science
Electrical Technology
22 hours[†]



INDUSTRIAL AUTOMATION/ROBOTICS INDUSTRIAL MAINTENANCE

What Industrial Machinery Mechanics Do: Industrial machinery mechanics maintain and repair factory equipment and other industrial machinery, such as conveying systems, production machinery, and packaging equipment.

Work Environment: Workers in this occupation must follow safety precautions and use protective equipment, such as hardhats, safety glasses, and hearing protectors. Most work full time in factories, refineries, food-processing facilities, or power plants, or at construction sites. However, they may be on call and work night or weekend shifts. Overtime is common.

How to Become an Industrial Machinery Mechanic: Industrial machinery mechanics need a year or more of training

either on the job or through a technical school.

Pay: The median annual wage for industrial machinery mechanics was \$49,100 in May 2016.

Job Outlook: Employment of industrial machinery mechanics is projected to grow 7 percent from 2016 to 2026, about as fast as the average for all occupations. The need to keep increasingly sophisticated machinery functioning and efficient will drive demand for these workers. Job prospects for qualified applicants should be good.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Industrial Machinery Mechanics, Machinery Maintenance Workers, and Millwrights, on the Internet at <https://www.bls.gov/ooh/installation-maintenance-and-repair/industrial-machinery-mechanics-and-maintenance-workers-and->

Electrical Technician Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Electrical Principles[†]	IM Elec MC I[†]	IM Robotics[†]
Heath/PE	Industrial Equipment[†]	IM PLC[†]	Fluid Power[†]



IT/Information Support & Services
47.0104.01

Courses

Digital Literacy

Computer Hardware and Software Maintenance[†]

Help Desk Operations

Management of Support Services
OR
Information Technology Co-op or Internship

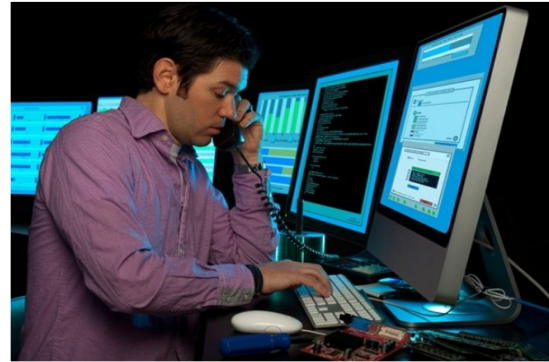
Career Ready Academic

CompTIA IT Fundamentals
MTA Exam MDF
TextOut PC Pro
EOP Assessment
Information Support & Services

Post Secondary Education



Associate in Applied Science
Computer and Information Technologies
Internet Technologies



INFORMATION SUPPORT & SERVICES

What Computer Support Specialists Do:

Computer support specialists provide help and advice to people and organizations using computer software or equipment. Some support information technology (IT) employees within their organization. Others assist non-IT users who are having computer problems.

Work Environment: Most computer support specialists have full-time work schedules; however, many do not work typical 9-to-5 jobs. Because computer support is important for businesses, many support specialists must be available 24 hours a day. As a result, many support specialists must work nights or weekends.

How to Become a Computer Support Specialist: Because of the wide range of skills used in different computer support jobs, there are many paths into the occupa-

tion. A bachelor's degree is required for some computer support specialist positions, but an associate's degree or postsecondary classes may be enough for others.

Pay: The median annual wage for computer user support specialists was \$62,340 in May 2017.

Job Outlook: Employment of computer support specialists is projected to grow 11 percent from 2016 to 2026, faster than the average for all occupations. More support services will be needed as organizations upgrade their computer equipment and software.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Computer Support Specialists, on the Internet at <https://www.bls.gov/ooh/computer-and-information-technology/computer-support-specialists.htm>

Information Support Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	Computer Hardware Software Maintenance[†]	Help Desk Operations	Mangt Supt Serv OR Co-op/Internship
Health/PE	Choice	Choice	Choice



Management and Entrepreneurship
52.0701.00

Courses

Digital Literacy

Accounting & Finance

Entrepreneurship

Business Management

Career Ready Academic

ASK for Business – Entrepreneurship/ Management

ASK–Fundamental Business Concepts
MOS

EOP–Business Management

Post Secondary Education



Associate in Applied Science
Business Administration
Human Resource or Real Estate
Management Track



MANAGEMENT AND ENTREPRENEURSHIP

What Administrative Services

Managers Do: Administrative services managers plan, direct, and coordinate supportive services of an organization. Their specific responsibilities vary, but administrative service managers typically maintain facilities and supervise activities that include recordkeeping, mail distribution, and office upkeep.

Work Environment: Most administrative services managers worked full time in 2016. About 1 in 4 worked more than 40 hours per week.

How to Become an Administrative Services Manager: Although educational requirements for administrative services managers vary by the type of organization and the work they do, they usually have a bachelor's degree and must have related work experience.

Pay: The median annual wage for administrative services managers was \$94,020 in May 2017.

Job Outlook: Employment of administrative services managers is projected to grow 10 percent from 2016 to 2026, faster than the average for all occupations. Tasks such as managing facilities and being prepared for emergencies will remain important in a wide range of industries.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Administrative Services Managers, on the Internet at <https://www.bls.gov/ooh/management/administrative-services-managers.htm>

Management/Entrepreneurship Career Pathway 4 Yr Course of Studies

Advanced Placement Options*/Dual Credit†/Optional^o

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL*
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	Accounting & Finance	Entrepreneurship	Intro to Business/ Business Management
Health/PE	Choice	Choice	Choice



Marketing
52.1401.01

Courses

Digital Literacy

Principles of Marketing

Retail Marketing

Advertising & Promotions

Career Ready Academic

ASK Exam

Post Secondary Education



Associate of Science
in
Marketing & Sales Management

MARKETING

What Public Relations Specialists

Do: Public relations specialists create and maintain a favorable public image for the organization they represent. They design media releases to shape public perception of their organization and to increase awareness of its work and goals.

Work Environment: Public relations specialists usually work in offices. Some attend community activities. Long workdays are common, as is overtime.

How to Become a Public Relations Specialist: Public relations specialists typically need a bachelor's degree in public relations, journalism, communications, English, or business.

Pay: The median annual wage for public relations specialists was \$59,300 in May 2017.

Job Outlook: Employment of public relations specialists is projected to grow 9 percent from 2016 to 2026 about as fast as the average for all occupations. The need for organizations to maintain their public image will continue to drive employment growth. Candidates can expect strong competition for jobs at advertising and public relations firms and organizations with large media exposure.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Public Relations Specialists, on the Internet at <https://www.bls.gov/ooh/media-and-communication/public-relations-specialists.htm>

Marketing Career Pathway 4 Year Course of Studies			
Advanced Placement Options*/Dual Credit†/Optional◇			
Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science*	FL/FL◇
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy	Principles of Marketing	Retail Marketing	Advertising & Promotions
Health/PE	Choice	Choice	Choice



Retail Services
52.1803.00

Courses

Principles of Marketing

Retail Marketing

Advertising & Promotions

Advanced Marketing
OR
Entrepreneurship
OR
Accounting & Finance
OR
Marketing Co-op

Career Ready Academic

ASK Exam

Post Secondary Education



Associate of Science
in
Marketing & Sales Management

RETAIL SERVICES

What Sales Managers Do: Sales managers direct organizations' sales teams. They set sales goals, analyze data, and develop training programs for organizations' sales representatives.

Work Environment: Sales managers often are required to travel. Most sales managers work full time, and they often have to work additional hours on evenings and weekends.

How to Become a Sales Manager: Most sales managers have a bachelor's degree and work experience as a sales representative.

Pay: The median annual wage for sales managers was \$121,060 in May 2017.

Job Outlook: Employment of sales managers is projected to grow 7 percent from 2016 to 2026, about as fast as the average for all occupations. Employment growth of these managers will depend primarily on growth or contraction in the industries that employ them.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Sales Managers, on the Internet at <https://www.bls.gov/ooh/management/sales-managers.htm>

Retail Services Career Pathway 4 Year Course of Studies			
Advanced Placement Options*/Dual Credit†/Optional◇			
Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science*	FL/FL◇
Social Studies*	Social Studies*	Social Studies*	Humanities
Principles of Marketing	Retail Marketing	Advertising & Promotions	Adv Marketing OR Other Elective
Health/PE	Digital Literacy◇	Choice	Choice



Pharmacy
Technician
51.0805.01

Courses

Principles of
Health Science

Medical
Terminology I/
Emergency
Procedures

Body Structures &
Functions[†]

Pharmacy
Technician

Career Ready Academic

NOCTI Healthcare Core
Certified Pharmacy Technician

Post Secondary
Education



Pharmacy Technician
Associate of Science
Degree



PHARMACY TECHNICIAN

What Pharmacy Technicians Do:

Pharmacy technicians help pharmacists dispense prescription medication to customers or health professionals.

Work Environment: Pharmacy technicians work in pharmacies, including those found in grocery and drug stores, and in hospitals. Most work full time, but many work part time.

How to Become a Pharmacy Technician:

Becoming a pharmacy technician usually requires earning a high school diploma or the equivalent. Pharmacy technicians typically learn through on-the-job training, or they may complete a postsecondary education program. Most states regulate pharmacy technicians, which is a process that may require passing an exam or completing

a formal education or training program.

Pay: The median annual wage for pharmacy technicians was \$30,892 in May 2017.

Job Outlook: Employment of pharmacy technicians is projected to grow 12 percent from 2016 to 2026, faster than the average for all occupations. Increased demand for prescription medications will lead to more demand for pharmaceutical services.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Pharmacy Technicians, on the Internet at <https://www.bls.gov/ooh/healthcare/pharmacy-technicians.htm>

Pharmacy Technician Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Health Science	Body Structures & Functions[†]	Pharmacy Tech
Health/PE	Emerg Proc/ Med Term	Choice	Choice



PRE-NURSING
51.2699.01

Courses

Principles of Health Science

Medical Terminology I/
Emergency Procedures

Body Structures & Functions[†]

Practicum

Medicaid Nurse Aide[†]

Career Ready Academic

NOCTI Healthcare Core State Registered Nursing Assistant (SRNA)/Medicaid Nurse Aide (MNA)

Post Secondary Education



Associate in Applied Science Nursing
Practical Nursing Diploma



PRE-NURSING

What Registered Nurses Do: Registered nurses (RNs) provide and coordinate patient care, educate patients and the public about various health conditions, and provide advice and emotional support to patients and their family members.

Work Environment: Registered nurses work in hospitals, physicians' offices, home healthcare services, and nursing care facilities. Others work in outpatient clinics and schools, or serve in the military.

How to Become a Registered Nurse : Registered nurses usually take one of three education paths: a Bachelor of Science degree in nursing (BSN), an associate's degree in nursing (ADN), or a diploma from an approved nursing program. Registered nurses must be licensed.

Pay: The median annual wage for registered nurses was \$70,000 in May 2017.

Job Outlook: Employment of registered nurses is projected to grow 15 percent from 2016 to 2026, much faster than the average for all occupations. Growth will occur for a number of reasons, including an increased emphasis on preventive care; growing rates of chronic conditions, such as diabetes and obesity; and demand for healthcare services from the baby-boom population, as they live longer and more active lives.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Registered Nurses, on the Internet at <https://www.bls.gov/ooh/healthcare/registered-nurses.htm>

Pre-Nursing Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	Health Science	Body Structures & Functions[†]	MNA[†]
Health/PE	Emerg Proc/ Med Term	Practicum	Choice



Welder—
Entry Level
48.0508.01

Courses

Shielded Metal Arc
Welding (SMAW)

Cutting Process

SMAW Open
Groove Lab

Shielded Metal Arc
Welding Pipe Lab

Blueprint Reading
for Welding

Gas Tungsten Arc
Welding (GTAW)

Career Ready Academic

Kentucky DOT 3-G
AWS Certifications

Post Secondary
Education



Associate in
Applied Science
Degree in Welding
Science



WELDING

What Welders and Cutters Do: Welders and cutters use hand-held or remotely controlled equipment to join or cut metal parts. They also fill holes, indentations, or seams of metal products.

Work Environment: Welders and cutters may work outdoors, often in inclement weather, or indoors, sometimes in a confined area. They may work on a scaffold, high off the ground, and they occasionally must lift heavy objects and work in awkward positions. Although most work full time, overtime is common.

How to Become a Welder or Cutter: A high school diploma or equivalent combined with technical and on-the-job training is typically required to become a welder or cutter.

Pay: The median annual wage for welders, and cutters was \$40,240 in May 2017.

Job Outlook: Employment of welders and cutters is projected to grow 6 percent from 2016 to 2026, about as fast as the average for all occupations. The nation's aging infrastructure will require the expertise of welders, cutters, solderers and brazers to help rebuild bridges, highways and buildings. Skilled welders with up-to-date training should have good job opportunities.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Welders, Cutters, Solderers, and Brazers, on the Internet at <https://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm>

Welder—Entry Level Career Pathway 4 Year Course of Studies

Advanced Placement Options*/Dual Credit[†]/Optional[◇]

Freshman	Sophomore	Junior	Senior
English	English	English*	English*
Math	Math	Math*	Math*
Science	Science	Science *	FL/FL [◇]
Social Studies*	Social Studies*	Social Studies*	Humanities
Digital Literacy [◇]	SMAW	SMAW Open Groove Lab	Blueprint Reading for Welding
Health/PE	Cutting Process	SMAW Pipe Lab	GTAW