

METRO TECH FULL-TIME CATALOG



2018



2019



Metro Technology Centers
Preparing for Life

CAMPUS LOCATIONS



Springlake Campus • Oklahoma City, OK 73111

Business Conference Center (BCC) • 1900 Springlake Drive
Child Care Training Center (CCC) • 3901 Martin Luther King Avenue
Economic Development Center (EDC) • 1700 Springlake Drive
Information Technology Services (ITS) • 1600 Springlake Drive
Health Careers Center (HCC) • 1720 Springlake Drive
Information Technology Center (ITC) • 1800 Springlake Drive
Metro Career Academy (MCA) • 1700 Staton Drive
Metro STEM Academy (STEM) • 1901 Springlake Drive



Aviation Career Campus (ACC)

Will Rogers World Airport
5600 S. MacArthur Boulevard
Oklahoma City, OK 73179



Downtown Business Campus (DBC)

Chase Tower
100 N. Broadway, 3rd Floor
Oklahoma City, OK 73102



South Bryant Campus (SBC)

4901 S. Bryant Avenue
Oklahoma City, OK 73129

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Our Mission

Metro Technology Centers prepares people for successful employment and life in a global society.

Our Vision

Metro Technology Centers will be recognized as a strategic partner in economic development by preparing a high-quality workforce.

Our Commitment

Metro Technology Centers seeks to provide the highest quality programs and services enabling students to succeed in their chosen career field. (Board Policy BP-1007)

Our Core Values

- Customer-focused
- Learning-centered
- Accountable and ethical
- Innovative
- Nurturing, sensitive and supportive
- Dedicated to continuous quality improvement
- Agile and flexible

Our Core Competencies

- Holistic approach to education
- Career and technical training
- High skill/high wage

ENROLLMENT CAREER PROGRAMS

HIGH SCHOOL STUDENTS

High school juniors and seniors from the following schools may attend Metro Tech tuition FREE:

- Oklahoma City Public Schools
- Crooked Oak Public Schools
- Millwood Public Schools
- Private
- Home-schooled
- Alternative
- Charter

Students must have maintained 85% attendance from the previous semester and must have completed core requirements for 9th or 10th grade before enrolling at Metro Tech. Students earn high school credits for completing a full-time career major.

Free bus transportation is provided to and from participating high schools. High school students attend either morning or afternoon sessions.

Tuition waivers are available for students under age 21 who live in Metro Tech's district.

Reciprocity agreements allow students outside of Metro Tech's district to attend when a career major is not available at their local technology center.

STEPS TO ENROLL-HIGH SCHOOL STUDENTS IN-DISTRICT STUDENTS

- Step 1 Attend presentation at your high school
- Step 2 Complete career preference survey
- Step 3 Complete high school application
- Step 4 Return all forms to the Metro Tech recruiter at your high school
- Step 5 Visit with a Metro Tech staff member to complete enrollment process

IN-DISTRICT HOME SCHOOLED AND PRIVATE SCHOOLED STUDENTS, OUT-OF-DISTRICT STUDENTS

- Step 1 Visit Enrollment Services Monday-Friday, 7:30am - 4:30pm.
- Step 2 Complete career preference survey.
- Step 3 Complete high school application.
- Step 4 Home schooled students need to bring a completed and notarized affidavit to the:
Enrollment, Recruitment and Student Services
Business Conference Center
Springlake Campus
1900 Springlake Drive
- Step 5 Turn in all forms to the career advisor.
- Step 6 Student will be assigned a recruiter who will assist in completing the enrollment process.

Board Members

*District 1
Mr. Ron Perry*

*District 2
Ms. Sarah McKinney
Vice President*

*District 3
Ms. Elizabeth A. Richards, J.D.
Clerk*

*District 4
Mr. Matt Latham
President*

*District 5
Dr. Linda Ware Toure*

*District 6
Ms. Miriam Campos*

*District 7
Mr. Jimmy McKinney*

*Board Member Emeritus
Mr. Don Wright (in memoriam)
Ms. E. Elaine Schuster, J.D.*

Executive Team

*Bob Parrish
Superintendent*

*Stephanie Bills
Associate Superintendent,
Instruction/Human Resources*

*Bertha Robinson
Executive Officer,
Grants and Special Projects*

*Brian Ruttman
Executive Officer,
Student & Stakeholder Services*

*Cindy Friedemann
Executive Officer,
District Strategy & Development*

*Matt Campbell
Executive Officer,
Information Technology Services*

Campus Leaders

*Pam Ashley
Dean of Instruction*

*Sara Collins, Director
Information Technology Center*

*Tim Fannin, Director
Aviation Career Campus*

*Deborah Kamphaus, Director
Health Careers Center*

*Derek Lollis, Director
South Bryant Campus*

ADULT STUDENTS

Adults may attend on a full-time or half-time basis. A 600-hour career major takes approximately five months to complete on a full-time basis. Most career programs are self-paced and may require more or less time to complete. Books, supplies and related fees may cost extra.

STEPS TO ENROLL – ADULTS

- Step 1 Complete the application and assessment testing at the Enrollment Center. A photo ID is required.
- Step 2 Meet with a career tech advisor.
- Step 3 Make payment or arrange for financial aid. A \$20 non-refundable deposit is required.
- Step 4 Meet with a site counselor. Additional documentation may be required.

Enrollment Center

Springlake Campus
Business Conference Center
1900 Springlake Drive
Oklahoma City, OK
M-F 7:30 a.m. – 4:30 p.m.

Services available:

Career program enrollment
Short-term enrollment
Assessment testing
Financial aid
Job placement services

For extended hours during peak enrollment, refer to the Metro Tech website:

www.metrotech.edu/majors/howtoenroll.html

Students interested in Aviation Maintenance Technology or any adult health program must attend a scheduled orientation session to begin their application process. For more information call 595-4678.

Payments are to be made to the Office of the Bursar in the Business Conference Center, 1900 Springlake Drive, Oklahoma City, OK 73111. Purchase orders may be sent to bursar@metrotech.edu or FAX to 405-595-7809.

FINANCIAL AID

Financial aid in the form of scholarships, grants, veteran's benefits, loans and tuition waiver programs are available for qualified persons enrolled in full-time career programs. Students may apply for the Federal Pell Grant and Stafford Loan Programs online by completing the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. For more information, call 595-4446 or 595-4436.

GENERAL INFORMATION

Course times may vary by campus.

The following is a guideline:

Morning session: 7:40-10:30 a.m.

Afternoon session: 11:25 a.m.-2:15 p.m.

Lunch: 10:30-11:25 a.m.

Evening session: varies by major (adult only)

COLLEGE CREDIT

Some certifications and/or licenses obtained at Metro Technology Centers may be applicable towards an associate's degree from a community college in Oklahoma. For more information visit www.metrotech.edu.

STUDENTS WITH DISABILITIES

Metro Tech provides reasonable accommodations and support for students with disabilities covered by the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973 and Individuals with Disabilities Education Act (IDEA). If you have concerns or need an accommodation, please call Jade Carter, 405.595.4418, or email jade.carter@metrotech.edu.

ACCREDITATION

Metro Technology Centers is accredited by:

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

PAYMENT SCHEDULE FOR FULL-TIME STUDENTS

FULL-TIME STUDENTS' PAYMENT SCHEDULE FOR TUITION, BOOKS AND SUPPLIES

Metro Tech students are responsible for ensuring that all fees for tuition, books and supplies are paid on time. Payments are to be made in person or by mail to the office of the Bursar in the Business Conference Center, 1900 Springlake Drive, Oklahoma City, OK 73111. Fees for tuition, books and supplies for full-time students are due and payable on the first day of class.

Students may make arrangements with the Bursar to establish a payment plan according to the following schedule:

Full-Time Student Payment Schedule	
For career majors:	Fees for tuition, books and supplies will be collected:
Up to 1,650 hours	In two installments equal to one-half of the total cost of the tuition, books and supplies <ul style="list-style-type: none">• First installment due within first 30 days of career major• Second installment due at beginning of the second half of the career major
1,651 hours and up (AMT, Radiologic Technologist)	In four installments equal to one-fourth of the total cost of the tuition, books and supplies <ul style="list-style-type: none">• First installment due within first 30 days of career major• Second through fourth installments due at beginning of each of those quarters of the career major

A \$20 monthly penalty will be assessed on the unpaid balance of an installment.

A full-time student who does not pay fees for tuition, books, and supplies according to the schedule above will not be allowed to attend classes until all fees are paid or arrangements to establish a payment plan have been made through the Bursar.

Students who must repeat a course due to low scores will be required to pay additional tuition for the course that must be repeated.

Financial aid and/or agency-sponsored students are exempt from tuition penalties. Tuition collection for these students will follow Federal regulations and/or the sponsoring agency's policy.

FULL-TIME STUDENTS' TUITION REFUND POLICY

Full-time students who desire to withdraw from or drop a career major must request a tuition refund in writing and provide proof of withdrawal to the Bursar in the Business Conference Center, 1900 Springlake Drive, Oklahoma City, OK 73111. No tuition refund will be given for completed career majors.

If a student drops a career major before completion, tuition refunds will apply as follows:

- No refunds will be given for books, supplies, fees, or any other non-tuition costs.
- If a full-time student's tuition is paid through financial aid or agency assistance, refunds will be handled according to the rules and policies of the tuition source.
- A full tuition refund will be given to students who withdraw within the first five (5) days of class.
- After the first five (5) days of class, a tuition refund will be given based on the percentage of the scheduled career major hours the student has completed. Absences, infractions, and hours in attendance will be calculated into the completion percentage.
- Non-attendance does not constitute a withdrawal from a career major.

Full-time students will be entitled to the following refunds:

Tuition Refunds

If student has:	Refund will be:
Withdrawn from career major within the first 5 consecutive scheduled class	100%
Completed from 6 days up to 25% of scheduled hours for career major	75%
Completed between 25% and 50% of scheduled hours for career major	50%
Completed between 50% and 75% of scheduled hours for career major	25%
Completed 75% or more of scheduled hours for career major	0%

Accounting and Banking Services

- Accounts Payable/Receivable Clerk
- Financial Clerk
- Financial Services Representative
- Full Charge Bookkeeper
- Payroll Accounting Clerk

Accounts Payable/Receivable Clerk

Career Major Description

Accounts payable/receivable clerks provide the clerical support necessary to pay the financial obligations of a business. In this major students learn basic office skills as well as beginning, advanced and computerized accounting principles. They process payments made to the business, take appropriate action on overdue payments, maintain records and make deposits.

Average Oklahoma Salary

\$13.50/hour

Helpful Attributes and Abilities

- Reading and language skills at the 8th grade level or above
- Math skills at the 10th grade level or above
- Detail oriented
- Good organizational and critical thinking skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Accounts Payable Clerk (ODCTE)
 Accounts Receivable Clerk (ODCTE)
 Certiport IC3
 Microsoft Office Specialist (MOS) Word
 Microsoft Office Specialist (MOS) Excel

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

Hours

Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies.....	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Accounting I.....	120
Accounting II	120
Computerized Accounting	120
• Quickbooks	
Business Financial Management & Accounting Capstone	165
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

765 Hours

Financial Clerk

Career Major Description

Financial clerks record all monies coming into or leaving an organization. Their records are vital to an organization's need to keep track of revenues and expenses. In this major students learn fundamental office skills and accounting principles.

Average Oklahoma Salary

\$13.50/hour

Helpful Attributes and Abilities

- Reading and language skills at the 8th grade level or above
- Math skills at the 10th grade level or above
- Detail oriented
- Good organizational and critical thinking skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3
 Deposits Teller (ODCTE)
 Microsoft Office Specialist (MOS) Word
 Microsoft Office Specialist (MOS) Excel

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Accounting I	120
Business Financial Management & Accounting Capstone	165
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

525 Hours

Financial Services Representative

Career Major Description

In this major students learn basic banking and credit principles along with the use of a variety of office machines used in the banking industry. Students gain interpersonal and telephone skills needed to provide exceptional customer service. Students obtain their own credit report during orientation and must pass OSBI, drug and credit checks prior to beginning their work-based learning experiences.

Average Oklahoma Salary

\$13.50/hour

Helpful Attributes and Abilities

- Reading and language skills at the 8th grade level or above
- Math skills at the 10th grade level or above
- Detail oriented
- Good organizational and critical thinking skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3
Deposits Teller (ODCTE)
Microsoft Office Specialist (MOS) Word
Microsoft Office Specialist (MOS) Excel

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Banking Technologies.....	120
Banking and Financial Services.....	120
Customer Relations.....	120
Capstone.....	120

Career Major Length

600 Hours

Full Charge Bookkeeper

Career Major Description

Learn to solve accounting problems using computerized software and electronic spreadsheets. Develop an in-depth understanding of accounting concepts, theories and procedures and their effects on financial reporting and analysis of business. In this major students learn basic office skills as well as beginning, advanced, computerized and payroll accounting principles. Students will also produce and analyze financial statements.

Average Oklahoma Salary

\$13.50/hour

Helpful Attributes and Abilities

- Reading and language skills at the 8th grade level or above
- Math skills at the 10th grade level or above
- Detail oriented
- Good organizational and critical thinking skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3
Full Charge Bookkeeper (ODCTE)
Microsoft Office Specialist (MOS) Word
Microsoft Office Specialist (MOS) Excel

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Administrative Technologies II.....	120
• Advanced Database & Presentation Software	
• Integration of Software Packages	
Accounting I.....	120
Accounting II	120
Payroll Accounting	120
Computerized Accounting	120
• Quickbooks	
Business Financial Management & Accounting Capstone	165
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

1005 Hours

Payroll Accounting Clerk

Career Major Description

Payroll accounting clerks prepare, process, and maintain a company's payrolls. In this major students learn basic office skills as well as beginning, advanced, computerized and payroll accounting principles.

Average Oklahoma Salary

\$13.50/hour

Helpful Attributes and Abilities

- Reading and language skills at the 8th grade level or above
- Math skills at the 10th grade level or above
- Detail oriented
- Good organizational and critical thinking skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3
 Payroll Accounting Clerk (ODCTE)
 Microsoft Office Specialist (MOS) Word
 Microsoft Office Specialist (MOS) Excel

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

Hours

Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Administrative Technologies II.....	120
• Advanced Database & Presentation Software	
• Integration of Software Packages	
Accounting I.....	120
Payroll Accounting.....	120
Computerized Accounting	120
• Quickbooks	
Business Financial Management & Accounting Capstone	165
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

885 Hours

COURSE DESCRIPTIONS

ACCOUNTING & BANKING SERVICES

Accounting I 120 hrs

This course provides students with a strong foundation in generally accepted accounting principles and techniques needed for success in accounting careers or other business related fields. Prerequisite: Fundamentals of Technology, Fundamentals of Administrative Technologies, Administrative Technologies II

Accounting II 120 hrs

This course provides students with a strong foundation in advanced accounting principles and techniques needed for success in accounting or other business related fields. Prerequisite: Accounting I

Administrative Technologies II 120 hrs

This course builds on skills learned in the Fundamentals of Administrative Technology course and provides students with the ability to utilize, analyze and manipulate data through a database application. The integration of multiple applications builds critical thinking skills as students utilize the appropriate applications needed to complete case projects. Prerequisite: Fundamentals of Technology, Fundamentals of Administrative Technologies

Banking and Financial Services 120 hrs

In this course, students learn the principles and practices of banking and credit in the United States. Students calculate math concepts needed in banking and credit and consider technological advances and their impact on the banking industry. Students engage in critical thinking exercises and “real business” problem solving in the modern practice of finance. They also gain skills needed to be a bank teller. Prerequisite: Fundamentals of Technology, Fundamentals of Administrative Technologies

Banking Technologies 120 hrs

In this course, students build Word and Excel skills along with Outlook. They gain 10-key skills and learn to use a variety of office machines required in the bank industry. Prerequisite: Fundamentals of Technology

Business, Financial Management & Accounting Capstone 165 hrs

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Prerequisite: All other courses in career major

Computerized Accounting 120 hrs

This course is designed to integrate accounting principles using computerized accounting system(s). Prerequisite: Accounting I, Accounting II.

Customer Relations 120 hrs

In this course, students learn the interpersonal and telephone skills needed to provide exceptional customer service in the banking industry. Students also learn the specifics of banking ethics, laws and regulations. Prerequisite: Fundamentals of Technology, Banking Technologies, Banking and Financial Services

Financial Communications 120 hrs

In this course, students prepare letters, memos and reports focused on financial issues. In addition, students gain data base and presentation software skills. Prerequisite: Math of Finance, Personal Finance, Consumer Lending

Financial Services Representative Capstone 120 hrs

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Prerequisite: All other courses in career major

Fundamentals of Administrative Technologies 120 hrs

This course builds on the beginning business skills gained in the Fundamentals of Technology course and provides students with the concepts, principles, and attitudes needed to understand how an office is operated and managed in a rapidly changing global environment. The integration of state-of-the-art personal computing is done throughout the course. Prerequisite: Fundamentals of Technology

Fundamentals of Technology 120 hrs

In this course students learn the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment. This course also provides job readiness skills and soft skills that are critical for success in any workplace setting.

Payroll Accounting 120 hrs

This course provides students with a strong foundation in payroll principles and techniques needed for success in accounting careers or other business-related fields. Prerequisite: Accounting I, Accounting II

Fundamentals of Administrative Technologies 135 hrs

This course builds on the beginning business skills gained in the Fundamentals of Technology course and provides students with the concepts, principles, and attitudes needed to understand how an office is operated and managed in a rapidly changing global environment. The integration of state-of-the-art personal computing is done throughout the course.

Fundamentals of Technology 120 hrs

This course provides students with the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment setting. Students also learn job readiness and soft skills that are critical for success in any workplace setting. Students are introduced to new and emerging technology such as GPS/GIS and podcasting.

Office Administrative & Management 150 hrs

This course builds on the skills gained in the Fundamentals of Administrative Technologies courses and focuses on higher level content and strategies necessary to effectively engage students in technology and managerial skills needed for success in competitive business careers. This course is designed to enhance administrative support and management skills needed in the workplace.

Administrative Assistant

- Administrative Assistant

Administrative Assistant

Career Major Description

This major prepares students for careers in administrative support and office management. Students gain high-level technology and managerial skills needed for success in competitive business careers. Office procedures, telephone etiquette and the integration of computer software packages are also covered in this major. Students gain skills required for the Certiport IC3 certification.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Strong interpersonal skills
- Good oral and written communication skills
- Positive attitude
- Dependability

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	135
• Office Procedures	
• Telephone Etiquette/Customer Service	
• Advanced Word Processing & Spreadsheet Software	
Administrative Technologies II.....	120
• Advanced Database & Presentation Software	
• Integration of Software Packages	
Office Administration & Management.....	150
• Business Communications	
• Desktop Publishing	
Administrative Assistant Capstone	150
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

675 Hours

COURSE DESCRIPTION

ADMINISTRATIVE ASSISTANT

Administrative Assistant Capstone 150 hours

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Prerequisite: All other courses in career major

Administrative Technologies II 120 hours

This course builds on skills learned in the Fundamentals of Administrative Technology course and provides students with the ability to utilize, analyze, and manipulate data through a database application. The integration of multiple applications builds critical thinking skills as students utilize the appropriate applications needed to complete case projects. Prerequisite: Fundamentals of Administrative Technologies

Fundamentals of Administrative Technologies 135 hrs

This course builds on the beginning business skills gained in the Fundamentals of Technology course and provides students with the concepts, principles, and attitudes needed to understand how an office is operated and managed in a rapidly changing global environment. The integration of state-of-the-art personal computing is done throughout the course. Prerequisite: Fundamentals of Technology

Fundamentals of Technology 120 hrs

This course provides students with the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment. Students also learn job readiness and soft skills that are critical for success in any workplace setting. Students are introduced to new and emerging technology such as GPS/GIS and podcasting.

Office Administration & Management 150 hrs

This course builds on the skills gained in the Fundamentals of Administrative Technologies courses and focuses on higher level content and strategies necessary to effectively engage students in technology and managerial skills needed for success in competitive business careers. This course is designed to enhance administrative support and management skills needed in the workplace. Prerequisite: Fundamentals of Technology, Fundamentals of Administrative Technologies, Fundamentals of Administrative Technologies II

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Aircraft Maintenance

- Aerospace Maintenance Foundations
- Airframe Mechanic
- Aviation Maintenance Technician
- Powerplant Mechanic

Aerospace Maintenance Foundations

Career Major Description

The Aerospace Maintenance Foundations program prepares high school students for an exciting career in aircraft and aerospace maintenance. Students take coursework towards Federal Aviation Administration (FAA) Aviation Maintenance Technician (AMT) certification. Students learn to perform maintenance, preventative maintenance and alterations of aircraft and aircraft systems. Additionally, they receive instruction over unmanned aircraft systems (UAS) and will be prepared to take the test to obtain a Part 107 Remote Pilot Certificate.

NOTE: Some courses are offered as electives in June following the first year. In order to obtain an FAA certificate, students must continue taking courses as an adult following graduation.

Average Oklahoma Salary

\$17/hour

Helpful Attributes and Abilities

- General math, Algebra I, general science or equivalent courses
- Reading and math skills at the 10th grade level or above
- Ability to comprehend and apply basic math and physics concepts
- Ability to demonstrate and understand theory and technical information
- Ability to read and comprehend textbooks and technical publications
- Basic computer literacy/skills
- Average or better mechanical aptitude
- Good manual dexterity and agility
- Ability to withstand physical labor which includes standing, heavy lifting, working in confined spaces, and working above head level

Who Can Enroll

Juniors & Seniors

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Student Organization

SkillsUSA
Professional Aviation Maintenance Association (PAMA)

Industry Accreditations

Federal Aviation Administration (FAA)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

ACC Orientation & Safety	15
Aviation Math	30
Aviation Secondary Hand and Power Tools.....	6
Basic Physics and Aerodynamics.....	45
Ground Handling and Servicing	30
Materials and Processes, NDI, Precision Measuring.....	75
Federal Aviation Regulations, Publications and Records	45
Aircraft Drawings	30
Weight and Balance	37.5
Fluid Lines and Fittings	30
Basic Electricity DC and Batteries	60
Basic Electricity AC.....	45
Solid State Circuits	37.5
Workforce Staging	15
Aircraft Electrical Systems	52.5
Aircraft Wiring.....	45
Human Factors in Aviation	15
Aircraft Cleaning and Corrosion Control	30
Sheet Metal Structural Repair.....	120
Aircraft Welding.....	30
Nonmetallic Structural Repair Fabric and Finish	127.50
Part 107 Unmanned Airspace Systems	18
Instruments & Communication/Navigation Systems.....	37.5
Cabin Atmosphere Control Systems	30
Fuel Systems	30
Ice, Rain & Fire Protection Systems.....	30
Aircraft Structures, Aerodynamics, Assembly & Rigging.....	67.5
Hydraulics & Pneumatics	60
Landing Gear & Position/Warning Systems	75
Airframe Inspections.....	75

Career Major Length

1344 Hours

Airframe Mechanic

Career Major Description

Learn to inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft and aircraft systems. This major is designed for the person who desires to work with airframes and other similar structures performing assembly, repair, rigging and inspections on a variety of control systems. It prepares you for entry employment in aviation maintenance or in a variety of service technician positions throughout the world. The Airframe Mechanic major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and -supervised curriculum

Average Oklahoma Salary

\$21/hour

Helpful Attributes and Abilities

- General math, Algebra I, general science or equivalent courses
- Reading and math skills at the 10th grade level or above
- Ability to comprehend and apply basic math and physics concepts
- Ability to demonstrate and understand theory and technical information
- Ability to read and comprehend textbooks and technical publications
- Basic computer literacy/skills
- Average or better mechanical aptitude
- Good manual dexterity and agility
- Ability to withstand physical labor which includes standing, heavy lifting, working in confined spaces, and working above head level

Who Can Enroll

Adults

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA
Professional Aviation Maintenance Association (PAMA)

Certifications Available

FAA Airframe Mechanic

Industry Accreditations

Federal Aviation Administration (FAA)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Note: *The Aviation Career Campus adult career training programs operate on a four-day 7.5-hour schedule.*

Course Title

Hours

Aviation Math	30
Basic Physics and Aerodynamics.....	45
Ground Handling and Servicing	30
Aircraft Drawings	30
Fluid Lines and Fittings	30
Materials and Processes, NDI, Precision Measuring	75
Aircraft Cleaning and Corrosion Control	30
Weight and Balance	37.5
Federal Aviation Regulations, Publications & Records	45
Basic Electricity DC and Batteries	60
Basic Electricity AC.....	45
Solid State Circuits	37.5
Aircraft Electrical Systems	52.5
Aircraft Wiring Practices	45
Aircraft Structures, Aerodynamics, Assembly and Rigging	67.5
Nonmetallic Structural Repair Fabric and Finish	127.5
Sheet Metal Structural Repair	120
Aircraft Welding.....	30
Hydraulics and Pneumatics.....	60
Landing Gear and Position/Warning Systems	75
Cabin Atmosphere Control Systems	30
Instruments and Communication/ Navigation Systems	37.5
Ice, Rain and Fire Protection Systems	30
Fuel Systems	30
Airframe Inspections.....	75

Career Major Length

1275 Hours

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Aviation Maintenance Technician

Career Major Description

Learn to inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft and aircraft systems. This major prepares the student with the knowledge and skill required to pass both the Airframe Mechanic and the Powerplant Mechanic exams administered by the FAA to gain entry level employment in aviation and other maintenance fields throughout the world. The Aviation Maintenance Technician major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and -supervised curriculum.

Average Oklahoma Salary

\$21/hour

Helpful Attributes and Abilities

- General math, Algebra I, general science or equivalent courses
- Reading and math skills at the 10th grade level or above
- Ability to comprehend and apply basic math and physics concepts
- Ability to demonstrate and understand theory and technical information
- Ability to read and comprehend textbooks and technical publications
- Basic computer literacy/skills
- Average or better mechanical aptitude
- Good manual dexterity and agility
- Ability to withstand physical labor which includes standing, heavy lifting, working in confined spaces, and working above head level

Who Can Enroll

Adults

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA
Professional Aviation Maintenance Association (PAMA)

Certifications Available

FAA Airframe and Powerplant Mechanic

Industry Accreditations

Federal Aviation Administration (FAA)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Note: *The Aviation Career Campus adult career training programs operate on a four-day 7.5-hour schedule.*

Course Title

Hours

Aviation Math	30
Basic Physics and Aerodynamics.....	45
Ground Handling and Servicing	30
Aircraft Drawings	30
Fluid Lines and Fittings	30
Materials and Processes, NDI, Precision Measuring	75
Aircraft Cleaning and Corrosion Control	30
Weight and Balance	37.5
Federal Aviation Regulations, Publications & Records	45
Basic Electricity DC and Batteries	60
Basic Electricity AC.....	45
Solid State Circuits	37.5
Aircraft Electrical Systems	52.5
Aircraft Wiring Practices	45
Aircraft Structures, Aerodynamics, Assembly and Rigging	67.5
Nonmetallic Structural Repair Fabric and Finish	127.5
Sheet Metal Structural Repair	120
Aircraft Welding.....	30
Hydraulics and Pneumatics.....	60
Landing Gear and Position/Warning Systems	75
Cabin Atmosphere Control Systems	30
Instruments and Communication/ Navigation Systems	37.5
Ice, Rain and Fire Protection Systems	30
Fuel Systems	30
Airframe Inspections.....	75
Power Plant Electrical Systems	67.5
Power Plant Wiring Practices.....	30
Fundamentals of Turbine Engines	52.5
Power Plant Instrumentation and Fire Protection	22.5
Turbine Induction, Exhaust, Cool, Lube, Start and Ignition Systems	45
Turbine Fuels and Metering.....	37.5
Turbine Engine Removal, Overhaul and Installation.....	90
Turbine Engine Inspection, Repair, Alteration and Troubleshooting.....	60
Basic Propeller Systems.....	30
Complex Propeller Systems.....	30
Fundamental of Reciprocating Engines	52.5
Reciprocating Induction, Exhaust, Cool, Lube and Start Systems	45
Reciprocating Fuels and Metering.....	37.5
Reciprocating Ignition Systems	45
Reciprocating Engine Removal, Overhaul and Installation.....	90
Reciprocating Engine Inspection, Repair, Alteration & Troubleshooting	45

Career Major Length

2055 Hours

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Powerplant Mechanic

Career Major Description

Learn to inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft systems. This major is designed for the person who desires to work on engines, turbines or other power generating devices and prepares you for entry employment in aviation maintenance or in a variety of service technician positions throughout the world. The Power Plant Mechanic major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and-supervised curriculum.

Average Oklahoma Salary

\$21/hour

Helpful Attributes and Abilities

- General math, Algebra I, general science or equivalent courses
- Reading and math skills at the 10th grade level or above
- Ability to comprehend and apply basic math and physics concepts
- Ability to demonstrate and understand theory and technical information
- Ability to read and comprehend textbooks and technical publications
- Basic computer literacy/skills
- Average or better mechanical aptitude
- Good manual dexterity and agility
- Ability to withstand physical labor which includes standing, heavy lifting, working in confined spaces, and working above head level

Who Can Enroll

Adults

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA
Professional Aviation Maintenance Association (PAMA)

Certifications Available

FAA Powerplant Mechanic

Industry Accreditations

Federal Aviation Administration (FAA)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Note: The Aviation Career Campus adult career training programs operate on a four-day 7.5-hour schedule.

Course Title

	Hours
Aviation Math	30
Basic Physics and Aerodynamics.....	45
Ground Handling and Servicing	30
Aircraft Drawings	30
Fluid Lines and Fittings	30
Materials and Processes, NDI, Precision Measuring	75
Aircraft Cleaning and Corrosion Control	30
Weight and Balance	37.5
Federal Aviation Regulations, Publications & Records	45
Basic Electricity DC and Batteries	60
Basic Electricity AC	45
Solid State Circuits	37.5
Power Plant Electrical Systems	67.5
Power Plant Wiring Practices	30
Fundamentals of Turbine Engines	52.5
Power Plant Instrumentation and Fire Protection	22.5
Turbine Induction, Exhaust, Cool, Lube, Start and Ignition Systems	45
Turbine Fuels and Metering	37.5
Turbine Engine Removal, Overhaul and Installation	90
Turbine Engine Inspection, Repair, Alteration and Troubleshooting..	60
Basic Propeller Systems	30
Complex Propeller Systems	30
Fundamental of Reciprocating Engines	52.5
Reciprocating Induction, Exhaust, Cool, Lube and Start Systems	45
Reciprocating Fuels and Metering	37.5
Reciprocating Ignition Systems	45
Reciprocating Engine Removal, Overhaul and Installation	90
Reciprocating Engine Inspection, Repair, Alteration & Troubleshooting	45

Career Major Length

1275 Hours

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COURSE DESCRIPTION

AIRCRAFT MAINTENANCE

Aircraft Cleaning and Corrosion Control 30 hrs

This course provides instruction in the different types of corrosion and the causes of each. Students will identify and use the proper materials and processes to remove corrosion by products, treat corroded areas and apply the proper type of protection.

Aircraft Drawings 30 hrs

This course provides training in the information presented on typical aircraft blueprints, graphs and charts. The purpose, function and types of aircraft drawings will be covered. Students will extract information from blueprints, schematics and graphs, and make aircraft sketches suitable for use on an FAA Form 337.

Aircraft Electrical Systems 52.5 hrs

This course provides instruction in troubleshooting complex aircraft electrical systems. The student will install electrical system components and check these systems for proper operation. The student will be introduced to modern electronic control devices such as logic circuit components and digital electronics. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Aircraft Structures, Aerodynamics, Assembly and Rigging 67.5 hrs

This course provides instruction in the different types of aircraft structure and their functions. Students will cover high-speed aerodynamics as related to aircraft structural design for transonic and supersonic speeds. Students will rig and check the alignment of fixed-wing aircraft. In addition, hands-on training will be provided in assembling aircraft components, including flight control surfaces and balancing, rigging and inspecting movable primary and secondary flight control systems. Students will cover rotary-wing aerodynamics and will be introduced to the process of rigging rotary-wing aircraft. At the end of the session, comprehensive training will be provided on the proper procedures for jacking an aircraft. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Aircraft Welding 30 hrs

This course provides instruction on the different welding methods used in aircraft repair. Students will be introduced to the procedures for welding magnesium, titanium, aluminum and stainless steel, and the procedures for soldering stainless steel and fabricating tubular structures. In addition, hands-on training will be provided in soldering, brazing, gas-welding and arc-welding steel. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Aircraft Wiring Practices 45 hrs

This course provides instruction in aircraft electrical wiring installations. Students will route and secure wires in bundles or conduit and install the proper termination for given situations. Students will also service and repair wiring installations. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Airframe Inspections 75 hrs

This course provides instruction on the regulations, requirements and procedures for performing aircraft inspections. Students will perform airframe conformity and airworthiness inspections. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director

Aviation Secondary Orientation & Safety 15 hrs

Student will learn proper safety procedures for the aviation campus, including Hangar and Aircraft Safety, and review ACC policies and procedures.

Aviation Secondary Workforce Staging 15 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Aviation Math 30 hrs

This course provides instruction in all of the mathematical computations required in the aviation maintenance curriculum. Students will first be given a basic math review. Students will solve problems involving ratios, proportions, percentages, areas, volumes and conversions. Power and roots and scientific notation will also be used. In addition, instruction in basic algebra operations, geometry and trigonometry will be provided.

Aviation Secondary Hand and Power Tools 36 hrs

This course provides instruction in the use of common hand and power tools used by the Aviation Maintenance Technician.

Aviation Secondary Aviation Career Exploration 36 hrs

In this course, students will learn about a variety of aviation careers. In addition to Aviation Maintenance, career areas could include flight, aircraft manufacturing, accident investigation and safety as well as corresponding military aerospace occupational specialties. In this dynamic, fast-paced course, students will have the opportunity to explore various aerospace organizations throughout Oklahoma.

Basic Electricity AC 45 hrs

This course provides instruction in the theory and principles of alternating current circuits. Students will compute and observe the effects of inductance, capacitance, and impedance in alternating current systems. Students will also construct basic AC electrical circuits, perform circuit analysis using electrical diagrams and measuring instruments, and conduct basic troubleshooting.

Basic Electricity DC and Batteries 60 hrs

Students will receive instruction in the theory and principles of electricity, direct current circuits, and aircraft batteries. Students will use basic electricity laws and formulas in calculating and measuring voltage, current, power and resistance in electrical systems. Students will construct basic DC electrical circuits, perform circuit analysis using electrical diagrams and measuring instruments and conduct basic troubleshooting. Students will also inspect and service a lead-acid battery and a nickel cadmium battery.

Basic Physics and Aerodynamics 45 hrs

This course provides instruction in the scientific principles that apply to the operation of aircraft, engines, and the equipment that the aviation maintenance technician will use on a daily basis. In addition, the makeup of the atmosphere, basic aerodynamics for fixed-wing aircraft, and stability and control will be covered.

Basic Propeller Systems 30 hrs

This course provides instruction in the basic design and operating principle of propellers. Students will balance propellers and repair aluminum alloy propeller blades. In addition they will remove, install, track and perform routine maintenance on fixed-pitch propeller systems. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Cabin Atmosphere Control Systems 30 hrs

This course provides instruction on the components and operation of aircraft cabin atmospheric systems. Students will be introduced to inspecting, checking, troubleshooting, servicing and repairing heating, cooling, air conditioning, pressurization systems and air cycle machines. Hands-on training will be provided in inspecting, checking, troubleshooting, servicing and repairing oxygen systems Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Complex Propeller Systems 30 hrs

This course provides instruction in the design and operating principles of constant speed and feathering propellers and their reciprocating and turbine engine applications. Students will install, track and perform routine maintenance on these complex propeller systems. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Federal Aviation Regulations Publications and Records 45 hrs

This course provides instruction in identifying the permanent records that must be maintained for an aircraft, the scope and details of the items to be inspected during a 100-hour inspection, logbook entry requirements for a 100-hour inspection and the proper record-keeping of aircraft maintenance in general. The Federal Aviation Regulations that govern the construction and maintenance practices of modern aircraft will also be covered as well as aircraft manufacturers' maintenance publications. In addition, students will learn the privileges and limitations of the mechanic certificate and discuss Human Factors/Maintenance Resource Management.

Fluid Lines and Fittings 30 hrs

This course provides training in the identification and installation of fluid line components. Students will fabricate a rigid or flexible fluid line and install it on an aircraft system.

Fuel Systems 30 hrs

This course provides instruction on the components and operation of the aircraft fuel system. Students will be introduced to checking and servicing fuel dump systems; performing fuel management transfer and defueling procedures; and inspecting, checking and repairing pressure refueling systems. Hands-on training will be provided in repairing fuel system components; inspecting and repairing quantity indicating systems; and inspecting, checking, servicing, troubleshooting and repairing the total fuel system. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Fundamentals of Reciprocating Engines 52.5 hours

This course provides instruction in the operating principles of aircraft reciprocating engines. Students will identify the basic components of a reciprocating engine and explain their function. They will be able to describe an engine from its identification number. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Fundamentals of Turbine Engines 52.5 hrs

This course provides instruction in the operating theory of aircraft gas turbine engines. Students will identify the basic components of a turbine engine, differentiate between turbine engine designs, describe the types of turbine engines, trace the airflow through a turbine engine and explain changes in the pressure, velocity and temperature of the air. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Ground Handling and Servicing 30 hrs

This course provides instruction in safe ground handling procedures and aircraft movement, tie-down and storage. Students will also identify aviation fuels and determine the proper fuel for a particular aircraft.

Human Factors in Aviation 15 hrs

This course will provide a fundamental overview of human factors in aviation, which account for the majority of accidents and near mid-air collisions. Students will learn the history behind human factors research, explore the 12 most common precursors to accidents or incidents, and apply the PEAR model to assess and mitigate hazards in the aerospace maintenance environment.

Hydraulics and Pneumatics 60 hrs

This course provides instruction on the components and operation of aircraft hydraulic and pneumatic systems. Hands-on training will be provided in identifying and selecting hydraulic fluids and repairing hydraulic and pneumatic power systems components. Finally the student will inspect, check, service, troubleshoot and repair a complete hydraulic and pneumatic power system. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Ice, Rain and Fire Protection Systems 30 hrs

This course provides instruction on the components and operation of these systems. Students will inspect, check, service, troubleshoot and repair airframe ice and rain control systems. Instruction will be provided for inspecting, checking and servicing smoke and carbon monoxide detection systems. Students will inspect, check, service, troubleshoot and repair aircraft fire detection and extinguishing systems. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/ Assistant Director.

Instruments and Communication/ Navigation Systems 37.5 hrs

This course provides instruction in the components and operation of these two systems. Students will be introduced to inspecting, checking, troubleshooting, servicing and repairing electronic flight instrument systems and both mechanical and electrical heading, speed, altitude, temperature, pressure and position- indicating systems to include the use of built-in test equipment. Hands-on training will be provided in installing instruments and performing a static pressure system leak test. Students will also be introduced to inspecting, checking, troubleshooting, autopilot, servos and approach coupling systems. In addition instruction will include inspecting, checking and servicing electronic communication and navigation systems. This will include VHF passenger address interphones and static discharge devices, VOR, ILS, LORAN, radar beacon transponders, flight management computers and GPWS. Hands-on training will be provided in inspecting and repairing antenna and electronic equipment installations. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Landing Gear and Position/Warning Systems 75 hrs

This course provides instruction on various aircraft landing systems and their operation. Students will inspect, check, service and repair landing gear, retraction systems, shock struts, brakes, wheels, tires and steering systems. Students will also inspect, check and service landing gear position and warning systems, antiskid systems and other indicating and warning systems. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Materials and Processes, NDI, Precision Measuring 75 hrs

This course provides instruction in the relative strengths and advantages of common aircraft materials and the identification systems used for aluminum and steel. Students will become familiarized with the heat treating process. Students will identify and select common nonmetallic materials and learn proper use and handling procedures. Students will learn to identify appropriate NDI methods and perform various types of inspections including dye penetrant, magnetic particle, eddy current, and ultrasonic inspections. They will also receive instruction in the identification, selection and installation of common aircraft hardware. Students will select and install solid shank rivets to airworthy standards. Students will also learn to perform precision measuring.

Nonmetallic Structural Repair Fabric and Finish 127.5 hrs

In this course, students will identify types of wood structures and wood defects and will service and repair wood structures. They will identify various types of fabric; describe methods used in applying fabric; and describe the procedures for inspecting, testing, and repairing fabric and fiberglass. Students will also identify types of composite elements; inspect, test, and repair bonded structures; and install fasteners. In addition, students will describe various methods for working with plastics and will inspect, check, and repair an acrylic window, door, or an interior surface. Students will identify, select, and apply finishing materials and will also identify defects. Student must have completed the General program or have been authorized to attend this course by the Director/Assistant Director.

Part 107, Unmanned Aircraft Systems 18 hrs

Students will be introduced to Unmanned Aircraft Systems (UAS), one of the fastest growing segments of the aviation industry. Covered in this course will be the background and history of UAS, regulatory requirements and applications for agricultural, military, homeland security and commercial use. Students will be prepared to take the test to obtain a Part 107 Remote Pilot Certificate.

Powerplant Electrical Systems 67.5 hrs

This course provides instruction in power-plant electrical installations and electrical power generating systems for both reciprocating and turbine engines. Students will install engine electrical wiring, controls, switches, indicators, and protective devices and check for proper operation of generators and alternators. Students will service these systems and repair system components. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Powerplant Instrumentation and Fire Protection 22.5 hrs

This course provides instruction on the types and functions of turbine and reciprocation engine instruments, including pressure measuring, temperature measuring, mechanical measuring, and instrument marking and installation. Students will identify the components and describe the operation of the common methods used for fire detection and extinguishing in both piston and turbine application. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

Powerplant Wiring Procedures 30 hrs

This course provides instruction in powerplant electrical wiring installations for both reciprocating and turbine engines. Students will route and secure wires in bundles or conduit and install the proper termination for given situations. Students will also service and repair wiring installations. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Reciprocating Engine Inspection, Repair, Alteration and Troubleshooting 45 hrs

This course provides instruction in the procedures and troubleshooting methods used during the repair of reciprocating engines. Students will service and repair a reciprocating engine and perform authorized alterations as required. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

Reciprocating Engine Removal, Overhaul and Installation 90 hrs

This course provides instruction in the procedures and troubleshooting methods used during the repair of reciprocating engines. Students will service and repair a reciprocating engine and perform authorized alterations as required. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

Reciprocating Fuels and Metering 37.5 hrs

This course provides instruction in reciprocating engine fuels, fuel controls, fuel pumps, filters and other system components. The student will inspect, check, service, troubleshoot and repair reciprocating engine fuel metering systems and their components. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Reciprocating Ignition Systems 45 hrs

This course provides instruction in reciprocating ignition systems and their components. Students will inspect, service and troubleshoot ignition systems and perform maintenance on ignition system components. Students will also overhaul a magneto and ignition harness. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Reciprocating Induction, Exhaust, Cool, Lube and Start Systems 45 hrs

This course provides instruction in the components and operation of ice and rain control systems as well as intake, exhaust, cooling, lubrication and starting systems commonly found on reciprocating engines. Students will service and repair various components of these systems and service both wet and dry sump lubrication systems. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Sheet Metal Structural Repair 120 hrs

This course provides hands-on training in the forming, laying out, bending and installation of sheet metal. Students will identify structures, stresses and tools associated with sheet metal. Students will select, install and remove special fasteners; install conventional rivets; and inspect and repair sheet metal structures. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Turbine Engine Inspection, Repair, Alteration and Troubleshooting 60 hrs

This course provides instruction in the procedures and troubleshooting methods used during the repair of turbine engine. Students will service and repair a turbine engine and perform authorized alterations as required. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

Turbine Engine Removal, Overhaul and Installation 90 hrs

This course provides instruction in the procedures and inspection methods used during the overhaul of turbine engines and the instrumentation used to monitor engine conditions. Students will remove, overhaul, and reinstall a turbine engine and perform a conformity and airworthiness inspection on the engine. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director / Assistant Director.

Turbine Fuels and Metering 37.5 hrs

This course provides instruction in turbine engine fuels, fuel controls, fuel pumps, filters and other system components. The student will inspect, check, service, trouble-shoot and repair turbine engine fuel metering systems and their system components. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

**Turbine Induction, Exhaust, Cool,
Lube, Start and Ignition**

Systems 45 hrs

This course provides instructions on the components and operation of ice and rain control systems as well as intake, exhaust, cooling, lubrication, ignition and starting systems commonly found on turbine engines. Students will service and repair various components of these systems and service both wet and dry sump lubrication systems. Prerequisite: Student must have completed the general and airframe program or have been authorized to attend this course by the Director/Assistant Director.

Weight and Balance 37.5 hrs

This course provides instruction in the importance of weight and balance, the required calculations for weight and balance checks, equipment changes, extreme loading checks and the addition of ballast. Students will weigh aircraft, complete a weight and balance check, and record data.

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Auto Body Repair

- Combination Collision Repair Technician
- Non-Structural Repair Technician

Combination Collision Repair Technician

Career Major Description

Students in this major will learn how to complete non-structural collision repair and automotive refinishing. The courses that will be covered include non-structural damage analysis and minor dent repair, plastics repair and all aspects painting and refinishing. Students will also learn how to use various tools in repairing damage and to remove and install handles, moldings, trim, and bolted body parts. In addition, the student will learn to MIG weld to industry standard following I-CAR standards. This career major also includes painting preparation, sanding processes, color matching and adjusting color, removing and installing glass, and the process of written estimates. Students will learn about handling, storage and disposal of hazardous materials and selecting proper personal protective equipment and maintenance. The hours completed in this major are aligned with NATEF standards.

Average Oklahoma Salary

\$16/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Good health and physical condition
- Good eye-hand coordination
- Ability to think critically and logically
- Ability to organize one's work
- Sheet metal/welding, wood shop, industrial art and mechanical ability
- Ability to organize movements around and under automobiles
- Ability to mentally plan collision repair

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

National Institute for Automotive Service Excellence (ASE)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
Introduction to Collision Repair Technology.....	45
Auto Collision Trim & Hardware	30
Auto Collision Non-Structural Metal Straightening/Repair	90
Auto Collision MIG (GMAW) Welding	105
Automotive Body Panel Adjustment and Alignment.....	45
Refinish Preparation.....	130
Refinish Application.....	145
Refinish Color Adjustment.....	75
Refinish Blending & Painting Defects.....	60
Auto Collision Plastic Component Repair & Replacement.....	60
Automotive Glass Replacement.....	60
Auto Collision Damage Analysis.....	75
Auto Collision Written Estimating.....	30
Automotive Detailing.....	60
Workforce Staging	30

Career Major Length

1040 Hours

Non-Structural Repair Technician

Career Major Description

Students in this major will learn skills in basic collision repair including damage analysis to determine necessary repair procedure. Students will cover the operation of tools and personal safety equipment maintenance. They will learn how to use metal straightening tools to repair minor dents and dings in sheet metal as well as metal shrinking and stretching techniques. Students will also learn the techniques for mixing and applying body filler, selecting the proper sandpaper and sanding equipment, techniques for properly sanding the cured body filler to original contour, and how to prepare the repair for primer. Also included is the removal and installation of handles, trim, moldings and locks. The hours completed in this major are aligned with NATEF standards.

Course Title

	Hours
Introduction to Collision Repair Technology.....	45
Automotive Detailing.....	60
Auto Collision Written Estimating.....	30
Auto Collision Damage Analysis.....	75
Auto Collision Non-Structural Metal Straightening/Repair	90
Auto Collision MIG (GMAW) Welding	105
Auto Collision Trim & Hardware	30
Auto Collision Plastic Component Repair & Replacement.....	60
Automotive Body Panel Adjustment and Alignment.....	45
Automotive Glass Replacement.....	60
Workforce Staging	30
Career Major Length	630 Hours

Average Oklahoma Salary

\$16/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Good health and physical condition
- Good eye-hand coordination
- Ability to think critically and logically
- Ability to organize one's work
- Sheet metal/welding, wood shop, industrial art and mechanical ability
- Ability to organize movements around and under automobiles
- Ability to mentally plan collision repair

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Industry Accreditations

National Institute for Automotive Service Excellence (ASE)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

AUTO BODY REPAIR

Auto Collision Damage

Analysis 75 hrs

Within this course the students will learn to inspect a damaged vehicle and correctly identify damage. This damage analysis will cover the entire vehicle from minor to major damage with structural misalignment. This course will cover the different types of vehicle construction found on the road today, such as uni-body, full body-over-frame and the hybrid frame/semi-unibody. Students will learn to look for indicators of damage and how collision energy is managed and travels through a vehicle during a collision. Some of the measuring equipment that will be covered is the centerline gauge, tram bar, universal measuring system and computer measuring systems. Measuring of the vehicle structure will be covered with the students learning to set-up and analyze the measurements to determine damage. The students will learn to look at damage in 3-dimension, which are length, width and height.

Auto Collision MIG (GMAW)

Welding 105 hrs

In this course the student will learn about the specific personal safety equipment used when MIG welding, and how to protect the vehicle when welding. The student will cover the MIG welding equipment and how to tune and trouble shoot the welder. Students will learn to join two pieces of metal using the appropriate process and joint selection. The welding joints covered will be: lap/fillet, butt, butt w/backing and plug. Students will learn techniques for welding in the vertical and overhead position using I-Car specific specifications.

Auto Collision Non-Structural Metal

Straightening/Repair 90 hrs

In this course the student will learn the basics of using metal straightening tools, such as dollies and hammers to repair minor dents and dings in sheet metal. Students will cover techniques to repair contours and body-lines in sheet metal. Metal shrinking and stretching will be taught to help students bring the metal back to original contour. Students will learn about the different body fillers. Students will learn techniques to mix and apply body filler. Students will learn to select the proper sandpaper and sanding equipment and learn techniques to sand the cured body filler to original contour then prepare the repair for primer.

Auto Collision Plastic Component

Repair & Replacement 60 hours

In this course the student will learn to identify different types of plastic used in the construction of vehicles. Students will learn to make repair/replace decisions on plastic parts. Students will learn to prepare for both single and two-sided repairs on plastic parts.

The course includes both adhesive type repairs and plastic welding. Sheet Molded Compound (SMC) identification along with one-sided and two-sided repairs will be covered.

Auto Collision Trim &

Hardware 30 hrs

Within this course the student will learn about the different fasteners used in vehicle construction. Students will cover removing and installing trim, locks and trim panels while experiencing different types of hardware or attachment methods.

Auto Collision Written

Estimating 30 hrs

This course will cover how an estimate becomes the communication tool between the repair facility and the insurance company or customer. In this course the student will learn to write an accurate damage report by collecting the pertinent information from the customer and the vehicle while using procedure pages in manual estimating guides. Students will learn to look up parts prices and labor hours as well as how to make repair judgment calls when straightening panels. The student will assemble all of the information into a complete damage estimate.

Automotive Body Panel Adjustment

and Alignment 45 hrs

In this course the students will learn to remove, install and align bolted body parts. Some of the parts covered in this course will be fenders, hoods, doors, decklids, bumpers and bumper covers. This course will also cover wind noise and water leak detection related to panel alignment.

Automotive Detailing

60 hrs

In the detailing course the student will learn to complete the refinishing repair. In doing this the student will learn to sand and polish the refinish material after curing, prepare for delivery by washing and cleaning interior and exterior of the vehicle.

Automotive Glass

Replacement 60 hrs

In this course the student will learn to identify types of automotive glass. Common and specialty tools used to remove and install glass will be covered. Students will learn techniques to remove and install stationary glass and be able to identify the properties and characteristics of primers, adhesives and sealants. Students will also cover movable glass and learn some techniques of trouble shooting the mechanisms and methods to remove and install movable glass components.

Introduction to Collision Repair

Technology 45 hrs

In this course the student will cover tools and equipment, safety, hazardous material handling and storage. The student will be taught to identify safety and hazardous warning information for products used in the collision repair industry and the Right-To-Know Act. Students will also study the collision repair industry and the preparation of the vehicle for entering the repair facility.

Refinish Application 145 hrs

Spray gun operation will be covered in great detail and applied to different products used in refinishing. Students will learn about corrosion protection products and how to mix and apply them, which will include etching primers, primer surfacer and sealing materials. Seam sealers and chip resistant coatings will be covered to demonstrate their role and application process. Students will learn about topcoats, like basecoat/clear coat products and their application techniques. Included in this course is instruction to determine the cause and corrective action for finish failures.

Refinish Blending & Painting

Defects 60 hrs

In this course the students learn masking techniques specific to the blending. Students learn how to apply the refinish material to perform an undetectable repair. Included in this course will be instruction on how to determine the cause and corrective action for refinishing defects and failures.

Refinish Color Adjustment 75 hrs

In this course the students learn to make a spray-out panel and how to evaluate the color match. Techniques and strategies for adjusting the color for an acceptable color match are taught. Students learn techniques to help adjust high metallic/mica colors as well as tri-coat colors.

Refinish Preparation 130 hrs

In this course students learn how to prepare surfaces for the refinishing process. The student covers topics about sandpaper and learn techniques to choose the proper grit and how to operate sanding equipment. This course will provide instruction in masking techniques and products used to mask and protect areas not in the refinish operation. The students learn proper techniques for block and finish sanding prior to topcoat application. Students learn to apply proper substrate cleaning before the application of refinish products.

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Auto Service

- Automotive Maintenance & Light Repair Technician - NATEF Aligned
- Automotive Service Technician - NATEF Compliant

Automotive Maintenance & Light Repair Technician-NATEF Aligned

Career Major Description

Students in this major will cover the skills necessary to enter the automotive industry to perform light repair and maintenance duties. Students will concentrate on courses in introduction, brakes, steering & suspension, electrical/electronics, and engine performance. They will learn how to test and lubricate engines and other major components and replace worn parts before they cause breakdowns. The student will also perform diagnostics to determine whether a component is salvageable or needs to be replaced. The hours completed in this major are aligned with the four required minimum ASE/NATEF standards. ASE certification is recommended and industry recognized.

Course Title

Hours

Fundamentals of Automotive Service (NATEF aligned).....	45
Fundamentals of Automotive Service (NATEF aligned).....	45
Automotive Brakes (NATEF aligned)	105
Automotive Engine Repair (NATEF aligned).....	125
Automotive Electrical/Electronics (NATEF aligned).....	230
Automotive Steering and Suspension (NATEF aligned)	95
Workforce Staging	30

Career Major Length

630 Hours

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading and math skills at the 9th grade level or above
- Basic computer literacy/skills
- Ability to understand theory and technical information
- Ability to read and comprehend textbook and shop manuals
- Ability to complete basic math problems
- Good health, physical condition and manual dexterity
- Ability to lift heavy objects and stand/work on your feet for extended periods of time
- Endurance to work under adverse weather conditions
- Good communication skills

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Pending

Student Organization

SkillsUSA

Industry Accreditations

National Institute for Automotive Service Excellence (ASE)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Automotive Service Technician-NATEF Compliant

Career Major Description

According to the most recent NATEF Automotive Service Technician standards, students in this major will cover the skills necessary to become an entry-level technician. Students will concentrate on courses in introduction, brakes, steering & suspension, electrical / electronics, engine performance, heating & air conditioning, engine repair, automatic transmission, and manual drive train and axles. They will learn how to diagnose and complete brake service, perform vehicle steering and suspension alignment, as well as electrical theory, electrical/ electronic diagnostics. Students will cover engine performance diagnostics and techniques for repair using a variety of diagnostic equipment. This career major includes automotive heating, air conditioning and the student will learn how to evacuate and recharge air-conditioning systems using the proper refrigerant, as well as diagnostics of the heat and A/C system. Students will use advanced diagnostic and repair equipment to troubleshoot complex automotive systems. This career major is intended to provide courses closely aligned with NATEF hours and tasks. ASE certification is recommended and industry recognized.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading and math skills at the 9th grade level or above
- Basic computer literacy/skills
- Ability to understand theory and technical information
- Ability to read and comprehend textbook and shop manuals
- Ability to complete basic math problems
- Good health, physical condition and manual dexterity
- Ability to lift heavy objects and stand/work on your feet for extended periods of time
- Endurance to work under adverse weather conditions
- Good communication skills

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Course Title

	Hours
Fundamentals of Automotive Service (NATEF aligned).....	45
Automotive Brakes (NATEF compliant)	95
Automotive Engine Performance (NATEF compliant).....	160
Automotive Engine Repair (NATEF compliant)	130
Automotive Automatic Transmission (NATEF compliant)	80
Automotive Electrical/Electronics (NATEF compliant).....	210
Automotive Heating and Air-Conditioning (NATEF compliant)	70
Automotive Steering and Suspension (NATEF compliant).....	95
Automotive Manual Drive Train and Axle (NATEF compliant)	80
Workforce Staging	30

Career Major Length

995 Hours

Student Organization

SkillsUSA

Industry Accreditations

National Institute for Automotive Service Excellence (ASE)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

AUTO SERVICE

Automotive Automatic Transmission (NATEF Compliant) 80 hrs

In accordance with the most recent NATEF Automobile Service Technology task list, students in this course will learn about the components of the automatic transmission. They will learn to drain and replace automatic transmission fluid, check and adjust fluid levels on a transmission/transaxle with and without a dipstick. This course covers identifying and interpreting transmission/transaxle concerns and differentiating from an engine performance concern and determine necessary action. Students will perform pressure tests and diagnose pressure concerns using hydraulic principles (Pascal's law). In addition, students will diagnose transmission/transaxle gear reduction/ multiplication concerns using driving, driven and held member (power flow) principles. They will also perform stall test and lock-up converter system tests and determine necessary action. Students will inspect, adjust and replace external manual valve linkage, transmission range sensor/switch as well as inspect for fluid loss and replace external seals, gaskets and bushings. Also covered in this course are off-vehicle transmission/transaxle repairs including removal and re-installation of torque converter, inspect engine core/freezse plugs, rear crankshaft seal, alignment dowels and mating surfaces. Students will inspect, leak test and flush cooler lines and fittings and will describe operational characteristics of continuously variable transmission (CVT) and hybrid vehicle drivetrain.

Automotive Brakes (NATEF Compliant) 95 hrs

This course covers braking system components, checking and adjusting brake fluids, checking wheel cylinders and adjusting parking brakes. Students will learn to check and replace brake pads, as well as to check and replace brake linings. In this course the student will learn to diagnose and repair drum and disc brake systems. Also covered will be diagnosing and repairing the entire hydraulic brake system, which will include, the master cylinder, lines and proportioning valves and stop light operation. Students will learn to diagnose and repair power assist units. Finally this course will cover diagnosis and service of wheel bearings, to include how to replace bearings and races, as well as clean, repack and adjust wheel bearing. This course covers how to diagnose, service and repair the Anti-lock Brake System (ABS). Also covered will be the ABS braking concerns caused by vehicle modifications, such as tire size, curb weight and change of final drive ratios. The student will learn to identify and inspect brake, traction, and stability control components and determine necessary action. Also covered will be the description of a regenerative braking system.

Automotive Engine Performance (NATEF Compliant) 160 hrs

This course will cover the engine system components and the valve train components. Also in this course the student will learn to perform basic engine tune-up operations, such as checking and changing spark plugs, checking emission system, checking and cleaning PVC valve as well as checking and setting ignition timing, remove and replace timing belt and verify correct camshaft timing. The student will learn about the fuel system components, checking and changing the fuel and air filters, checking and setting idle speed and also cover mechanical and electric fuel pumps. In this course the student will learn to perform diagnostic techniques and determine necessary action from cylinder leakage tests, compression test and power balance tests. He/she will also learn to retrieve, record, diagnose and clear diagnostic codes from OBD I and II electronic systems. In ignition systems diagnosis and repair the student will learn about no-start, drivability and emission concerns on vehicles with electronic ignitions (distributorless) and distributor ignition systems. The student will learn to test, inspect and determine repair primary circuit wiring, distributor performance, ignition coils, pick-up sensors and triggering devices and ignition control modules. In this course the student will test fuel pressure regulation systems, service the throttle body, inspect the exhaust system and perform necessary action as well as test the electrical components of the fuel system. In the emission system this course covers positive crankcase ventilation (PCV) system, the exhaust gas recirculation (EGR) system, intake air temperature control system as well as the evaporative emissions control system. This course includes performing diagnosis using a gas analyzer, oscilloscope and engine diagnostic equipment. Students will learn to diagnose the cause of emissions or drivability resulting from failure of computerized engine controls, power control module (PCM) and interrelated systems. This course also covers diagnose and repair action for hot and cold no-start situations, engine misfire, stalling, poor mileage, flooding and hesitation on vehicles with injection type fuel systems. The student will learn to inspect, test and clean fuel injectors as well as test the operation of turbochargers and superchargers and determine necessary action. The course will cover drivability problems resulting from exhaust gas recirculation (EGR) failure, secondary air injection and catalytic converter systems as well as failure of the intake air temperature control system, and the failure of the evaporative control system. The student will learn to check for module communication errors using a scan tool on CAN/BUS systems.

Automotive Electrical/Electronics (NATEF Compliant) 210 hrs

In this course the student will learn battery testing and maintenance. This course will cover electrical theory and Digital Volt Ohm Meter (DVOM) operation. Students will learn basic system checks using a DVOM. Students will learn to soldering techniques for wiring and other connections. In this course the student will study general electrical system diagnosis. Students will learn to check voltage drop on circuits, locate shorts, test grounds, test relays and circuit breakers then determine necessary action. Students will learn to diagnose and repair starting systems, charging systems as well as horn and windshield wiper systems. Students will also learn to diagnose and repair lighting circuits, sockets and controllers. Also covered in this course will be gauges, warning devices, driver information system and sending units for gauges. Also covered in this course will be diagnosing and repairing accessories such as motor driven accessory circuits, cruise controls, electrical heated seats and mirrors and factory installed audio systems. This course will cover the Supplemental Restraint Systems (SRS) service as well as safety procedures to prevent accidental deployment. Students will learn to about module communication, including the Controller Area Network (CAN).

Automotive Engine Repair (NATEF Compliant) 130 hrs

In accordance with the most recent NATEF Automobile Service Technology task list, the student will learn common fastener and thread repair to include broken bolt removal, restoration of internal and external threads and proper use of a thread insert. He/she will learn to inspect the engine assembly for fuel, oil, coolant and other leaks and determine necessary action. The student will also verify proper operation of instrument panel and warning lamps as well as identify hybrid vehicle service precautions. Also, in this course are engine oil service and engine accessory drive belt inspection and service as well as inspection of auxiliary coolers and determine necessary action. The student will learn to perform in general engine vacuum tests and general cylinder tests and to determine necessary action. In addition, he/she will learn proper installation procedures of gaskets and seals on pans and covers using correct sealers and gaskets. The student will also learn to perform oil pressure tests, as well as to test and replace thermostats, water pumps, radiators and fan clutches. This course includes inspecting, testing and replacing oil and water sending units and switches. The student will learn to inspect and determine action needed for pushrods, rocker arms, rocker arm pivots and shafts along with valve adjustments. Also covered will be cylinder head and valve train component removal and reinstallation as well

as inspection including casting cracks, gaskets and bolts, lifters and camshafts as well as drive gears and timing belts/chains

Automotive Heating & Air-Conditioning (NATEF Compliant) 70 hrs

This course covers the automotive heating systems, air conditioning systems, parts identification and function, and system operations. Also in this course the students will cover the refrigerants used in air conditioning systems and how to identify them along with Federal Legislation. Temperature control components and systems will also be identified. Students will learn about the cooling system components, identifying coolant type, checking and adjusting coolant levels as well as checking and replacing coolant hoses. Students will also learn to flush and pressure test the coolant system. In this course the student will learn to diagnose air conditioning system failure concerns, such as the protection device interrupt system, temperature control problems, climate control systems, electrical controls for heating and ventilation, load cut-off systems and other climate control malfunctions. Students will also learn to evaluate and perform the necessary action of control panel assemblies, control cables, ducts, doors and outlets.

Automotive Manual Drive Train (NATEF Compliant) 80 hrs

In accordance with the most recent NATEF Automobile Service Technology task list, students in this course will identify and interpret drive train concerns and determine necessary action. The student will check fluid condition, check for leaks, drain and refill manual transmission/transaxle and final drive unit. Also included is diagnosis of clutch noise, binding, slippage, pulsation, chatter and determining proper corrective action. This course includes inspection all shift linkage and clutch control components including pedal linkage, cables, automatic adjusters, brackets and bushings, pivots, springs, and determining necessary action. The student will check fluid level of clutch master cylinder and bleed hydraulic system. He/she will inspect flywheel for wear and cracks, measure flywheel runout and crankshaft endplay and determine necessary action. In addition, the student will explain characteristics of an electronically-controlled manual transmission/transaxle. This course includes diagnosis of CV joint and U-joint noise and vibration concerns as well as determining and performing necessary action. The student will inspect, service and replace front wheel drive (FWD) bearings, hubs seals, shafts, yokes, boots, CV joints as well as check shaft balance, phasing, measure shaft runout, measure and adjust driveline angles. He/she will clean and inspect differential housing and housing vent, check for leaks, drain, refill, and adjust differential housing fluid level. The student will inspect and replace

companion flange, pinion seal and measure companion flange runout. This course also includes inspecting and replacing drive axle wheel studs, drive axle shafts, seals, bearings and retainers as well as measuring axle flange runout and shaft endplay and determining necessary action. The student will inspect, adjust and repair mechanical, electrical and vacuum shifting controls, bushings, mounts, levers and brackets as well as inspect front wheel bearings and locking hubs on a four-wheel/all-wheel drive vehicle. The student will also identify concerns related to variations in tire circumference and/or final drive ratios

Automotive Steering & Suspension (NATEF Compliant) 95 hrs

In accordance with the most recent NATEF Automobile Service Technology task list, the student will learn about the steering and suspension components and quick checks for these components. Student will cover inspection, diagnosis and repair of shocks and struts. Also covered will be mounting and repair of tires and balancing of tire and wheel assembly as well as tire pressure monitoring system (TPMS) diagnosis and service. This course includes various steering system diagnosis and repair or replacement operations, including the power steering pump, tie rod ends, pitman arms, relay rods, steering dampeners, power and manual steering racks and steering gears. This course will also cover electric power-assisted steering systems and inspection thereof. Also covered will be front and rear suspension systems diagnosis and repair, including inspecting and replacement of components. Students will also learn to perform wheel alignments and how to diagnose wheel alignment issues as well as diagnosis and repair steering columns, and how to disable and enable the Supplemental Restraint System (SRS).

Fundamentals of Automotive Service (NATEF Aligned) 45 hrs

This course covers occupational health and safety, tools and equipment identification, usage and operation. The student will receive instruction in the storage, handling and use of Hazardous Materials. The student will learn to write work orders and warranty reports. The students will learn about the history, current state and future of the automotive service industry. This course will cover dealership and independent operations. Students will learn vehicle identification and how to look up service information using several different sources. Students will learn vehicle maintenance, which will include fluid level checks and adjustments, peripheral electrical system checks and tire inspection and air pressure adjustment.

In this course the students will learn basic measuring instruments used in vehicle service and diagnosis, as well as communication skills used throughout the automotive service industry.

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment

Avionics Electronics Technician

- Avionics Technician
- Electronics Technician

Avionics Technician

As the need to maintain our nation's vastly different aircraft continues to become more complex, the Avionics Technician career major assists students in acquiring the knowledge, education and training standards associated with the daily duties, tasks and maintenance of today's aviation electronics. Students will learn basic principles of physics and aerodynamics as well as safe ground handling procedures, aircraft drawings, and blueprints. Through instructor-lead lectures, open discussions, NIDA instructional support software, and extensive hands-on activities, successful students will become fluent in DC circuits, AC circuits, solid-state devices and technologies, digital systems technologies (the future of aviation instrumentation, a.k.a. 'the glass cockpit'), high-reliability soldering techniques, terminal connectivity, and troubleshooting techniques.

Average Oklahoma Wage

\$26/hour

Helpful Attributes and Abilities

- General math, Algebra I, general science or equivalent courses
- Reading and math skills at the 10th grade level or above
- Good manual dexterity and agility
- Average or better mechanical aptitude
- Ability to comprehend and apply basic math and physics concepts
- An ability to work independently and as part of a team

Who Can Enroll

Adults

Recommended Prerequisites

- Successfully passed Algebra

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

International Society of Certified Electronics Technicians (ISCET) Associate Level Certified Electronics Technician

National Center for Aerospace and Transportation Technologies (NCATT) Aircraft/Avionics Electronics Technician

Course Title	Hours
Aviation Math	30
Basic Physics and Aerodynamics.....	45
Ground Handling and Servicing	30
Aircraft Drawings	30
Basic Electricity DC and Batteries	60
Basic Electricity AC.....	45
Solid State Circuits	37.5
Aircraft Electrical Systems	52.5
Aircraft Wiring Practices	45
Instruments and Communication/ Navigation Systems.....	37.5
Electrical Safety for Electronics Technicians	15
Electronic Hand and Power Tools for Electronics Technicians	15
Instruments and Measurements for Electronics Technicians.....	15
DC Circuits for Electronics Technicians	120
AC Circuits for Electronics Technicians.....	180
Electromechanical Devices for Electronics Technicians	45
Semiconductor Circuits for Electronics Technicians.....	150
Semiconductor Devices for Electronics Technicians.....	90
Linear Circuits for Electronics Technicians.....	90
Digital Systems for Electronics Technicians	90
Microprocessor Systems for Electronics Technicians	60
Data Communications for Electronics Technicians	120
Soldering for Electronics Technicians	15
Mechanical Fasteners and Terminals for Electronics Technicians	15
Workforce Staging	30
Career Major Length	1462.5 Hours

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Metro Technology Centers does not discriminate on the basis of race, color, national origin, sex/gender, age, marital or veteran status, religion, pregnancy, or qualified disability in recruitment, hiring, placement, assignment to work tasks, hours of employment, levels of responsibility, and pay. For special accommodations call: 405-595-4418 or e-mail: jade.carter@metrotech.edu

Electronics Technician

Career Major Description

Learn to install, maintain and repair electronic circuits and equipment. Through a series of practical hands-on experiments, students will learn the correct use of safety procedures, tools, test equipment, troubleshooting procedures and soldering techniques, as supported by the theoretical components of electronics training. Students are expected to achieve a level of training sufficient for entry-level employment within the specific electronics area of their choosing, such as general electronics equipment servicing, aircraft electronic instrumentation installation and servicing, bio-medical electronic equipment installation and servicing, audio electronic equipment installation and servicing, communications/navigation equipment installation and servicing, and automotive electronics servicing. (evenings only)

Average Oklahoma Salary

\$15-\$24/hr

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A basic knowledge of general science
- Good manual dexterity
- Average strength and good physical health
- An ability to work independently and as part of a team

Who Can Enroll

Adults

Recommended Prerequisites

- Successfully passed Algebra

Location

Aviation Career Campus
Will Rogers World Airport
5600 S. MacArthur
Oklahoma City, OK 73179

Financial Aid

Available for those who qualify

Student Organization

Skills USA

Certifications Available

International Society of Certified Electronics Technicians (ISCET) Associate Level Certified Electronics Technician

National Center for Aerospace and Transportation Technologies (NCATT) Aircraft/Avionics Electronics Technician

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

North Central Association-Commission on

Accreditation & School Improvement (NCA-CASI)

Course Title

	Hours
Electrical Safety for Electronics Technicians	15
Electronics Hand and Power Tools for Electronics Technicians	15
Instruments and Measurements for Electronics Technicians	15
DC Circuits for Electronics Technicians.....	120
AC Circuits for Electronics Technicians.....	180
Electromechanical Devices for Electronics Technicians	45
Semiconductor Circuits for Electronics Technicians	150
Semiconductor Devices for electronics Technicians	90
Linear Circuits for Electronics Technicians.....	90
Digital Systems for electronics Technicians	90
Microprocessor Systems for Electronics Technicians	60
Data Communications for Electronics Technicians	120
Soldering for Electronics Technicians	15
Mechanical Fasteners and Terminals for Electronics Technicians.....	15
Workforce Staging	30

Career Major Length

1050 Hours

Metro Technology Centers does not discriminate on the basis of race, color, national origin, sex/gender, age, marital or veteran status, religion, pregnancy, or qualified disability in recruitment, hiring, placement, assignment to work tasks, hours of employment, levels of responsibility, and pay. For special accommodations call: 405-595-4418 or e-mail: jade.carter@metrotech.edu

COURSE DESCRIPTION

AVIONICS ELECTRONICS TECHNICIAN

AC Circuits for Electronics Technicians 180 hrs

This course covers alternating current in detail, including the concepts of frequency, amplitude and phase, and the effect alternating current has on passive devices such as resistors, capacitors, inductors and conductors. Calculations will include capacitive and inductive reactance and resonance. Special emphasis will be placed on multi-element filters and troubleshooting AC circuits. Prerequisite: DC Circuits for Electronics Technicians

Aircraft Drawings 30 hrs

This course provides training in the information presented on typical aircraft blueprints, graphs and charts. The purpose, function and types of aircraft drawings will be covered. Students will extract information from blueprints, schematics and graphs, and make aircraft sketches suitable for use on an FAA Form 337.

Aircraft Electrical Systems 52.5 hrs

This course provides instruction in troubleshooting complex aircraft electrical systems. The student will install electrical system components and check these systems for proper operation. The student will be introduced to modern electronic control devices such as logic circuit components and digital electronics. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Aircraft Wiring Practices 45 hrs

This course provides instruction in aircraft electrical wiring installations. Students will route and secure wires in bundles or conduit and install the proper termination for given situations. Students will also service and repair wiring installations. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Basic Electricity AC 45 hrs

This course provides instruction in the theory and principles of alternating current circuits. Students will compute and observe the effects of inductance, capacitance, and impedance in alternating current systems. Students will also construct basic AC electrical circuits, perform circuit analysis using electrical diagrams and measuring instruments, and conduct basic troubleshooting.

Basic Electricity DC and Batteries 60 hrs

Students will receive instruction in the theory and principles of electricity, direct current circuits, and aircraft batteries. Students will use basic electricity laws and formulas in calculating and measuring voltage, current, power and resistance in electrical systems. Students will construct basic DC electrical circuits, perform circuit analysis using electrical diagrams and measuring instruments and conduct basic troubleshooting. Students will also inspect and service a lead-acid battery and a nickel cadmium battery.

Basic Physics and Aerodynamics 45 hrs

This course provides instruction in the scientific principles that apply to the operation of aircraft, engines, and the equipment that the aviation maintenance technician will use on a daily basis. In addition, the makeup of the atmosphere, basic aerodynamics for fixed-wing aircraft, and stability and control will be covered.

Data Communications for Electronics Technicians 120 hrs

This course teaches principles and protocols of data communications techniques, including wired and wireless, cabling installation and troubleshooting, traditional AM and FM analog broadcasting, digital data communication techniques and microwave circuits. Emphasis will be placed on troubleshooting and repair techniques, safety and reliability. Prerequisite: Microprocessor Systems for Electronics Technicians

DC Circuits for Electronics Technicians 120 hrs

This course teaches students the theory and practical principles of electronic devices and circuits. Emphasis will be placed on troubleshooting and repair techniques, safety and reliability. Prerequisite: Instruments and Measurements for Electronics Technicians

Digital Systems for Electronics Technicians 90 hrs

This course teaches students the theory and practical principles of digital electronic devices and circuits. Emphasis will be placed on troubleshooting and repair techniques, safety and reliability. Prerequisite: Semiconductor Circuits for Electronics Technicians

Digital Electronics 120 hrs

This course teaches students about the electronic circuits used to process and control digital signals. Students are exposed to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Students will continually hone their interpersonal skills, creative abilities and understanding of the design process.

Electrical Safety for Electronic Technicians 15 hrs

This course provides instruction in safety rules and regulations for electricians, precautions for electrical and mechanical hazards on the job, tool and equipment safety, first aid, CPR, blood borne pathogens, OSHA and NFPA mandated lockout/tagout, personal protective equipment, right to know and confined space entry procedures.

Electromechanical Devices for Electronics Technicians 45 hrs

This course covers the many devices that convert electricity or electronic signals into other forms of power and those which convert other forms of power into electricity or electronic signals. Emphasis will be placed on troubleshooting, repair, safety and reliability. Prerequisite: Instruments and Measurements for Electronics Technicians

Electronic Hand and Power Tools for Electronics Technicians 15 hrs

This course covers the proper use and maintenance of power and hand tools. Prerequisite: Electrical Safety for Electronics Technicians

Engineering Design and Development 120 hrs

This course is an engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students identify a problem, complete extensive research, apply principles developed in the preceding courses and are guided by a community mentor. Prerequisite: Principles of Engineering

Ground Handling and Servicing 30 hrs

This course provides instruction in safe ground handling procedures and aircraft movement, tie-down and storage. Students will also identify aviation fuels and determine the proper fuel for a particular aircraft.

Instruments and Measurements for Electronics Technicians 15 hrs

This course covers the theory and practical considerations of electronic measurements, including concepts of accuracy and precision. The construction, calibration and maintenance of test equipment and special circuits to facilitate measurement will be covered in detail. The concepts of measurement error, parallax error and circuit loading will be covered. Prerequisite: Electrical Safety for Electronics Technicians

Introduction to Engineering Design 120 hrs

This course teaches students problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

Instruments and Communication/Navigation Systems 37.5 hrs

This course provides instruction in the components and operation of these two systems. Students will be introduced to inspecting, checking, troubleshooting, servicing and repairing electronic flight instrument systems and both mechanical and electrical heading, speed, altitude, temperature, pressure and position- indicating systems to include the use of built-in test equipment. Hands-on training will be provided in installing instruments and performing a static pressure system leak test. Students will also be introduced to inspecting, checking, troubleshooting, autopilot, servos and approach coupling systems. In addition instruction will include inspecting, checking and servicing electronic communication and navigation systems. This will include VHF passenger address interphones and static discharge devices, VOR, ILS, LORAN, radar beacon transponders, flight management computers and GPWS. Hands-on training will be provided in inspecting and repairing antenna and electronic equipment installations. Prerequisite: Students must have completed the General Program or have been authorized to attend this course by the Director/Assistant Director.

Linear Circuits for Electronics Technicians 90 hrs

This course teaches students the theory and practical principles of analog electronic devices and circuits including passive and active linear electronic devices. Emphasis will be placed on troubleshooting and repair techniques, safety and reliability. Prerequisite: Semiconductor Circuits for Electronics Technicians

Materials and Processes, NDI, Precision Measuring 75 hrs

This course provides instruction in the relative strengths and advantages of common aircraft materials and the identification systems used for aluminum and steel. Students will become familiarized with the heat treating process. Students will identify and select common nonmetallic materials and learn proper use and handling procedures. Students will learn to identify appropriate NDI methods and perform various types of inspections including dye penetrant, magnetic particle, eddy current, and ultrasonic inspections. They will also receive instruction in the identification, selection and installation of common aircraft hardware. Students will select and install solid shank rivets to airworthy standards. Students will also learn to perform precision measuring.

Mathematics (Aviation related majors) 30 hrs

This course provides instruction in all of the mathematical computations required in the aviation maintenance curriculum. Students will first be given a basic math review. Students will solve problems involving ratios, proportions, percentages, areas, volumes and conversions. Power and roots and scientific notation will also be used. In addition, instruction in basic algebra operations, geometry and trigonometry will be provided.

Mechanical Fasteners and Terminals for Electronics Technicians 15 hrs

This course covers in depth the many standards and uses of mechanical fasteners and electrical/electronic terminals used in constructing electronic circuits and devices. Special emphasis will be placed on nomenclature and specifications, print and schematic reading and mechanical construction techniques. Prerequisite: Soldering for Electronics Technicians

Microprocessor Systems for Electronics Technicians 60 hrs

This course builds on the digital systems course, introducing microprocessors, memory systems, assembly language programming, and interfacing microprocessors with external circuits to control signal and power flow and sense input conditions. Digital to analog and analog to digital concepts will be taught and special emphasis will be placed on troubleshooting and repair techniques, safety and reliability. Prerequisite: Digital Systems for Electronics Technicians

Semiconductor Circuits for Electronics Technicians 150 hrs

This course covers the many active circuits that use semiconductors to measure, amplify, control, receive and transmit electronic signals. Specialized circuits such as bridges, classes of amplifiers, oscillators, active filters and power control circuitry will be covered. Much of the course will focus on hands-on construction, testing and troubleshooting circuits. Prerequisite: Semiconductor Devices for Electronics Technicians

Semiconductor Devices for Electronics Technicians 90 hrs

This course covers two-, three- and four-layer semiconductor devices commonly used in electronic circuits, including diodes, transistors, bi-polar as well as FET technologies, and specialized devices used in measurement and power control circuits. Much of the course will focus on hands-on construction, testing and troubleshooting circuits for the purpose of examining the operation of semiconductor devices. Prerequisite: AC Circuits for Electronics Technicians

Soldering for Electronics Technicians 15 hrs

This course covers the theory and essentials of preparing surfaces and leads for soldering, preparation and adjustment of soldering equipment, and procedures for through-hole, surface mount, and lead free soldering for reliability. Mil-Spec procedures will be covered briefly. Prerequisite: Electrical Safety for Electronics Technicians

Solid State Circuits 37.5 hrs

This course provides instruction in the theory and principles of electron control devices. Students will compute and observe the effects of inductance, capacitance and impedance in solid-state circuitry. Students will also perform circuit analysis using electrical diagrams and measuring instruments, use various electronic control devices, and conduct basic troubleshooting.

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. The course is designed for the development of leadership, personal development and employability skills attainment.

Biomedical Sciences Academy

- Biomedical Sciences Academy

Biomedical Sciences Academy

Career Major Description

Students in this major will study biomedical science through the exciting Project-Lead-the-Way (PLTW) curriculum that will provide students hand on projects, labs, and experiences. Topics will include bio-informatics, human medicine, and an in depth study of the human body. In addition, students will complete advanced math and science courses. Students who complete this major will have been exposed to a diverse curriculum that will better equip them to choose and be successful in a major at the college/university level. Students will also have the strong math and science foundation needed to be prepared for a college/university program in STEM (Science, Technology, Engineering, & Mathematics) related fields.

NOTE: Students will take the four required PLTW courses. They will then take a combination of math and sciences as determined by course availability to complete the remaining 480 hours for 2-year students, or 960 hours for 3-year students.

Average Oklahoma Salary

Varies

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Ability to take directions from others
- Good eye-hand coordination
- Manual dexterity
- Ability to stand for long periods of time
- Ability to handle high stress situations
- Good physical and mental health
- Attention to detail
- Ability to organize and prioritize
- Ability to be a team player
- Ability to work in a fast-paced environment

Who Can Enroll

Juniors & Seniors

Prerequisites

- Minimum overall GPA of 3.0
- Grade level of B or above in math and science
- Algebra I (with a B or better)
- Biology I (with a B or better) or concurrent enrollment
- Geometry (with a B or better) or concurrent enrollment

Location

Springlake Campus
 Metro STEM Academy
 1901 Springlake Drive
 Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

Hours

Principles of Biomedical Sciences (PLTW).....	120
Biomedical Innovation (PLTW).....	120
Medical Interventions (PLTW)	120
Human Body Systems (PLTW).....	120
Anatomy.....	60
Physiology.....	60
Pre-AP Algebra II.....	120
Pre-AP Geometry.....	120
Pre-AP Trigonometry.....	60
Pre-AP Pre-Calculus	60
Pre-AP Chemistry	120
Pre-AP Physics.....	120
AP Calculus.....	120
AP Statistics	120
AP Biology.....	120
AP Environmental Science	120
AP Physics I.....	120
Computer Science Principles (PLTW).....	120

Career Major Length

960 Hours

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COURSE DESCRIPTION

BIOMEDICAL SCIENCES ACADEMY

Anatomy 60 hours

Anatomy is the study of the structural complexity of the human body. This course is taught as a laboratory science for high school credit. The areas studied will include, but are not limited to: organization of the body, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system, urinary system, and reproductive system. An emphasis will be placed on active-learning exercises to help the student learn the structural organization of each body system.

Prerequisites: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment)

AP Biology 120 hours

AP Biology is designed to be the equivalent of a first year Biology post-secondary course. The range and depth of knowledge of the content area, type of labs, and time expenditure is elevated and extensive. Students will develop a conceptual framework for biology and an appreciation of science as a process. The course follows Collegeboard's outline and covers eight major themes. They are: Science as a Process, Evolution, Energy Transfer, Continuity and Change, Relationship of Structure to Function, Regulation, Interdependence in Nature, Science, Technology, and Society. Labs play an integral part of this course and there are twelve lab topics that will be covered. They will provide the student with an opportunity to learn a variety of skills and facts, principles, and concepts of biology. Lab investigations will encourage higher-order thinking, generating ideas, and formulating hypotheses. All students are expected to take the AP Exam upon completion of this course. Prerequisite: Biology I and Geometry

AP Calculus 120 hours

This course is primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. Prerequisite: Pre-AP Trigonometry/Pre-Calculus

AP Chemistry 120 hours

Chemistry is the study of the properties of materials and the changes that materials undergo. A student will see how chemical principles operate in all aspects of our lives, from everyday activities to far-reaching matters like the development of drugs to cure cancer. Students will learn through laboratory and lecture methods using group and individual activities, cooperative learning, presentations, and technology to enhance the learning environment. Students will learn how to design and conduct experiments

using a variety of laboratory techniques and technology to investigate a chemical concept. They will apply stoichiometric concepts to chemical reactions and analyze how atomic structure relates to periodicity. The student will analyze how atomic structures relate to chemical bonding and apply chemical concepts to reactions in aqueous solutions. They will learn about gas laws as well as study electrochemistry. Prerequisite: Chemistry I or Pre-AP Chemistry and Algebra I

AP Environmental Science 120 hrs

AP Environmental Science is a course that will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. Yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science.

Prerequisite: Biology I and Geometry

AP Physics I 120 hours

Through inquiry-based learning students will develop critical thinking and reasoning skills. This course covers classical mechanics/Newtonian physics at a rigorous level along with simple harmonic motion including sound, light and optics. Successful students will possess excellent geometry and algebra skills along with mastery of basic trigonometry functions.

AP Statistics 120 hours

AP Statistics is a course that introduces students to the main concepts in statistics and enables them to collect, analyze, and draw a conclusion from data. The four main concepts are: Exploring Data, Sampling and Experimentation, Anticipating Patterns, and Statistical Inference. Students are expected to take the AP Statistics Exam upon completion of the course and could receive college credit with an acceptable score. AP Statistics follows AP Central's recommended course content. Prerequisite: Pre-AP Trigonometry/Pre-Calculus

Biomedical Innovation 120 hours

This capstone course gives student teams the opportunity to work with a mentor, identify a science research topic, conduct research, write a scientific paper, and defend team conclusions and recommendations to a panel of outside reviewers. Each team will have one or more mentors from the scientific and/or medical community guiding their scientific research. Prerequisite: Medical Interventions

Human Body Systems 120 hours

The human body is a complex system requiring care and maintenance. This course will engage students in the study of basic human physiology, especially in relationship to human health. Students will use a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use LabView® software to design and build systems to monitor body functions. Prerequisite: Principles of Biomedical Science

Medical Interventions 120 hours

Medical practice includes interventions to support humans in treating disease and maintaining health. Student projects will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will study the design and development of various medical interventions including vascular stents, cochlear implants, and prosthetic limbs. They will review the history of organ transplants and gene therapy, and read current scientific literature to be aware of cutting edge developments.

Physiology 60 hours

Physiology is the study of the intricate functional mechanisms of the human body. This course is taught as a laboratory science for high school credit. Students will conduct scientific investigations and fieldwork using scientific knowledge and methodology that will enable them to make educated conclusions based on higher-level critical thinking and problem solving skills. The areas studied will be an integration of biology and chemistry and will include, but are not limited to: chemical basis for life, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system & metabolism, urinary system, and reproductive system. Active-learning exercises will be included along with laboratory experiences. Prerequisites: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment)

Pre-AP Algebra II 120 hours

This course will enhance and expand the mathematical foundations of Algebra I and Geometry. The course will stress the fundamental extension of previous mathematics and the preparation for future higher-level mathematics courses. It will involve operations with real and complex numbers as well as matrices. The problem solving processes will use functions and relations. Within the course applications of math, and while satisfying predictions based on a set of data, the use of data analysis, and statistics will be justified. Students who master Pre-AP Algebra II will gain experience with quadratic functions, conic sections, logarithmic and exponential functions, linear functions, solution methods for systems of linear functions, and

Pre-AP Chemistry 120 hours

Pre-AP Chemistry is designed to prepare students for the complex thinking that will be expected in future science courses. This course will focus on the development of the student as a scientist through the study of chemistry. Being a scientist requires a broad set of tools, including theory, problem solving, written and oral communication, interpreting data and laboratory skills. Areas covered are: Matter, atoms & periodic table, molecules & compounds, chemical reactions & stoichiometry, Aqueous solutions & reactions, Gases, Energy & Chemical Reactions, Atomic & Molecular Structure. Prerequisite: Algebra I and Biology I

Pre-AP Geometry 120 hours

This course will allow students the chance to relate mathematics to real-life situations and careers. It will build logical reasoning capabilities as well as give students an opportunity to justify conclusions in a structured manner. Students will analyze characteristics and properties of two- and three-dimensional geometric shapes. They will use visualization, spatial reasoning, and geometric modeling to solve problems. Throughout the course students connect the algebra skills previously developed to the geometric concepts. Pre-AP Geometry is a rigorous course that prepares students for higher-level mathematics. Prerequisite: Algebra I

Pre-AP Physics 120 hours

This course covers the basics of kinematics (motion) in one and two dimensions, as well as forces and vectors. Students study work, energy and power that lead into the study of momentum and the conservation of energy. Circular and projectile motion and gravitation, translational and rotational equilibrium, fluid mechanics and thermal physics will be covered. Students study electricity and magnetism then look at waves and optics. A final subject area will be atomic and nuclear physics. Good algebra skills are critical to success in this course, as well as knowledge of right angle trigonometry.

Pre-AP Trigonometry 60 hours

This course includes a study of six basic functions of trigonometry, solutions of right and oblique triangles, identities, and complex numbers. A graphing calculator is recommended and will be used as an aide to computations.

Prerequisites: Algebra II or Pre-AP Algebra II

Pre-AP Pre-Calculus 60 hours

This course is designed to be in preparation for Calculus or AP Calculus. The course gives a review study of straight lines, conic sections, simplification of equations, algebraic curves, transcendental curves, a completed study of straight lines, polar coordinates, and an introduction to limits and derivatives. A graphing calculator is recommended and will be used as an aide to computations.

Prerequisites: Algebra II or Pre-AP Algebra II

Principles of Biomedical Science 120 hours

This course provides an introduction to biomedical sciences through exciting "hands-on" projects and problems. Student work involves the study of human medicine, research processes and an introduction to bio-informatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life. Key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease are embedded in the curriculum. Engineering principles including: the design process, feedback loops, fluid dynamics, and the relationship of structure to function are incorporated in the curriculum where appropriate. The course is designed to provide an overview of all the courses in Biomedical Sciences and to lay the scientific foundation necessary for student success in the subsequent courses. Prerequisite: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment)

Climate & Energy Control Technologies

- Commercial Refrigeration Technician
- HVACR Technician
- Residential HVAC Installer

Commercial Refrigeration Technician

Career Major Description

This career major will introduce students to commercial refrigeration, exploring career opportunities in the refrigeration industry, personal safety and work practices, personal protective equipment, handling pressurized fluids, handling hazardous substances, hand and power tools, and equipment used to test and service various types of refrigeration equipment. Upon completion of this major and two years of verifiable experience in the refrigeration industry, applicants may apply to take the Oklahoma Mechanical Journeyman Refrigeration test.

Average Oklahoma Salary

\$16/hour

Helpful Attributes and Abilities

- Math skills at the 10th grade level or above
- An ability to read and write at a 10th grade level
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general and physical science
- Ability to climb ladders and work at heights

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

EPA Section 608 Technician Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Introduction to HVAC/R: Safety, Tools & Equipment.....	50
Principles of Thermodynamics & Heat Transfer	45
Piping & Piping Practices	60
Refrigerants & Lubricants.....	20
Refrigerant Recovery	65
Refrigerant Retrofits.....	32
Refrigerant System Components	125
Electricity for HVAC/R.....	48
HVAC/R Controls	144
HVAC/R Solid State Electronics.....	16
Commercial Systems & Applications	60
Multiplexed Evaporator Systems.....	60
Dispensing Freezers	20
Transportation Refrigeration Systems	15
Troubleshooting Refrigeration Systems.....	60
Load Calculations	20
HVAC/R Preventive Maintenance	10
HVAC/R Codes, Regulations & Standards	5
Professional Services	45
Working in the Green Environment	20
Workforce Staging	10

Career Major Length

930 Hours

HVACR Technician

Career Major Description

Learn to install, troubleshoot, adjust, and repair residential and some light commercial heating and air conditioning (HVAC) systems. This major covers the essential knowledge and skills necessary for troubleshooting and installation of various heating and air conditioning systems and includes hands-on labs for various heating, air conditioning, and refrigeration systems along with electricity, solder and brazing, piping and heat fusion processes. Specialized training for EPA certification in refrigerants is also included. After completing the major with 1,065 hours, applicants with at least one year on the job experience may apply to take the Oklahoma Mechanical Journeyman HVAC test.

Average Oklahoma Salary

\$16/hour

Helpful Attributes and Abilities

- Math skills at the 10th grade level or above
- An ability to read and write at a 10th grade level
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general and physical science
- Ability to climb ladders and work at heights

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

EPA Section 608 Technician Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Introduction to HVAC/R: Safety, Tools & Equipment.....	50
Principles of Thermodynamics & Heat Transfer	45
Piping & Piping Practices	60
Refrigerants & Lubricants.....	20
Refrigerant Recovery	65
Refrigerant Retrofits.....	32
Refrigerant System Components	125
Electricity for HVAC/R.....	48
HVAC/R Controls	144
HVAC/R Solid State Electronics.....	16
Heating Systems.....	100
Air Conditioning Systems.....	72
Air Handling	50
HVAC/R System Servicing & Troubleshooting-Residential	48
Load Calculations	20
HVAC/R System Installation & Start-up-Residential	103
Heat Pumps	40
HVAC/R Preventive Maintenance	10
Indoor Air Quality.....	20
HVAC/R Codes, Regulations & Standards	5
Professional Services	45
Working in the Green Environment	20
Workforce Staging	10

Career Major Length

1148 Hours

Residential HVAC Installer

Career Major Description

Learn to install, start up, and adjust residential heating and air conditioning (HVAC) systems using manufacturer’s literature. You will get hands-on labs for installation and start-up of common residential HVAC/R equipment. Piping and heat fusion processes and specialized training for EPA certification in refrigerants is also included. After completing the major and two years of verifiable work experience in the HVACR industry, applicants may apply to take the Oklahoma Journeyman HVAC test.

Average Oklahoma Salary

\$16/hour

Helpful Attributes and Abilities

- Math skills at the 10th grade level or above
- An ability to read and write at a 10th grade level
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general and physical science
- Ability to climb ladders and work at heights

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Certifications Available

EPA Section 608 Technician Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Introduction to HVAC/R: Safety, Tools & Equipment.....	50
Principles of Thermodynamics & Heat Transfer	45
Piping & Piping Practices	60
Refrigerants & Lubricants.....	20
Refrigerant Recovery	65
Refrigerant Retrofits.....	32
Air Handling	50
Load Calculations	20
HVAC/R System Installation & Start-up-Residential.....	83
HVAC/R Preventive Maintenance	10
Indoor Air Quality.....	20
HVAC/R Codes, Regulations & Standards.....	5
Professional Services	45
Workforce Staging	10

Career Major Length

515 Hours

COURSE DESCRIPTION

CLIMATE & ENERGY CONTROL TECHNOLOGIES

Air Conditioning Systems 120 hrs

This course is an introduction to unitary cooling, central station systems, service and problem analysis, absorption refrigeration, desiccant cooling and dehumidification. Prerequisite: Refrigerant System Components

Air Handling 45 hrs

This course covers the essential knowledge and skills necessary to understand airflow principles and duct design; install, and repair duct systems; measure and balance air flow; and troubleshoot and repair air flow problems. Student will be prepared to identify appropriate filtration for an air system, i.e. mechanical and electronic, and install, troubleshoot, and maintain filtrations systems. Extensive coverage will be given to the different types of fans and blowers, testing for blower motor loading, correct rotation, and adjustment to change the volume of air moved. Prerequisite: Intro to HVAC/R: Safety, Tools and Equipment; Principles of Thermodynamics and Heat Transfer

Heat Pumps 30 hrs

This course covers the essential knowledge necessary to install, service, troubleshoot, and repair heat pumps. Emphasis will be placed on air-to-air systems, but ground source systems will be introduced and briefly examined. Topics will include a review of the refrigeration cycle, reversing valves, the defrost cycle, defrost timers including electromechanical as well as solid state devices, balance point, and backup heat systems. Prerequisite: Refrigerants & Lubricants; Refrigerant Recovery; Electricity for HVAC/R; HVAC/R Controls; HVAC/R Solid State Electronics; Air Conditioning Systems

Heating Systems 120 hrs

This course covers the essential knowledge and skills of installing, maintaining, servicing, troubleshooting, and repairing various heating systems, including forced air, convection, hydronic, and radiant. Gas LP, natural gas, and electrical systems will be examined. Emphasis will be placed on gas and electric forced air systems, but heat pumps (air to air and ground source) will be introduced. Hands-on labs will be an extensive part of the course. Prerequisite: HVAC/R Solid State Electronics

HVAC/R Codes, Regulations & Standards 30 hrs

This course covers the essential knowledge and skills necessary to adhere to the codes and standards pertaining to the HVAC/R industry, regulations affecting ozone depletion, state and local codes, OSHA, and government licensing requirements.

HVAC/R Controls 45 hrs

This course is an introduction to controls, gas valves, fuel controls, residential control systems-heating/cooling, commercial control systems, heat pump controls, direct digital controls (DDC), and energy management systems (EMS). Students will also be introduced to psychrometrics, heating loads, and refrigeration load calculations. Prerequisite: Electricity for HVAC/R

HVAC/R Preventive Maintenance 15 hrs

This course covers the essential knowledge and skills necessary to use the manufacturer's literature to properly service common residential HVAC/R equipment. Emphasis will be placed on confirming proper operation for safety, efficiency, and reliability. Minor troubleshooting and repair skills will be covered along with generating proper documentation for preventive maintenance. Prerequisite: Intro to HVAC/R: Safety, Tools and Equipment; Refrigerants & Lubricants; Refrigerant Recovery; Air Handling; Refrigerant System Components

HVAC/R Solid State Electronics 30 hrs

This course prepares students to recognize, troubleshoot, and replace solid state components in common heating, air conditioning, heat pumps, and refrigeration systems. Prerequisite: HVAC/R Controls

HVAC/R System Installation1 20 hrs

This course covers the essential knowledge and skills necessary to use the manufacturer's literature to properly install common residential HVAC/R equipment. Special attention will be given to a thorough understanding of the refrigeration cycle and equipment, heating systems, air flow and balancing systems, air quality issues, and building codes that regulate the HVAC/R industry in residential applications. Emphasis will be placed on confirming proper operation for safety, efficiency and reliability. Minor troubleshooting and repair skills will be covered.

HVAC/R System Installation & Start-up—Residential 83 hrs

This course covers the essential knowledge and skills necessary to use the manufacturer's literature to properly install and start-up common residential HVAC/R equipment. Special attention will be given to a thorough understanding of the refrigeration cycle and equipment, heating systems, air flow and balancing systems, air quality issues, and building codes that regulate the HVAC/R industry in residential applications. Emphasis will be placed on confirming proper operation for safety, efficiency, and reliability. Minor troubleshooting and repair skills will be covered. Prerequisite: Refrigerants & Lubricants; Refrigerant Recovery; Air Handling; Refrigerant System Components; Heating Systems

HVAC/R System Servicing & Troubleshooting—Residential 90 hrs

This course covers the essential knowledge and skills necessary to perform routine residential central HVAC systems servicing to promote efficient operation and long life. Extensive attention will be given to troubleshooting techniques used in solving mechanical, electrical, heating, refrigerant, and air flow problems common to small tonnage HVAC systems commonly found in residences and small commercial applications. Prerequisite: Refrigerants & Lubricants; Refrigerant Recovery; Air Handling; Refrigerant System Components; HVAC/R Controls; HVAC/R Solid State Electronics; Heating Systems;

Indoor Air Quality 15 hrs

This course is an introduction to indoor air quality (IAQ) requirements, maintaining indoor air quality, air quality issues including filtration, humidification/dehumidification, and building related illness ("Sick Building Syndrome") and will cover factors that make up acceptable indoor air quality. Prerequisite: Principles of Thermodynamics and Heat Transfer

Load Calculations 15 hrs

This course introduces students to psychrometrics, heating and cooling load calculations, and refrigeration load calculations. Prerequisite: Principles of Thermodynamics and Heat Transfer

Multiplexed Evaporator Systems 90 hrs

This course covers the theory and applications of multiplexed evaporator systems. It includes applications of evaporator and crankcase pressure regulators. Emphasis will be placed on servicing, troubleshooting, and repairing these systems. Prerequisite: Refrigerants & Lubricants; Refrigerant Recovery; Refrigerant System Components;

Introduction to HVAC/R: Safety, Tools and Equipment 30 hrs

This course is an introduction to air-conditioning and refrigeration, exploring career opportunities in the HVAC/R industry, personal safety and work practices, personal protective equipment, handling pressurized fluids, handling hazardous substances, hand and power tools, and equipment used to test and service heating, air conditioning, and refrigeration equipment, including those used to measure air flow.

Introduction to HVAC/R: Safety, Tools and Equipment 30 hrs

This course is an introduction to air-conditioning and refrigeration, exploring career opportunities in the HVAC/R industry, personal safety and work practices, personal protective equipment, handling pressurized fluids, handling hazardous substances, hand and power tools, and equipment used to test and service heating, air conditioning, and refrigeration equipment, including those used to measure air flow.

Piping & Piping Practices 45 hrs

This course is an introduction to piping material and fabrication, pipe sizing and troubleshooting, sheet metal, airflow principles/duct design, mechanical and electronic filtration and fans/blowers.

Principles of Thermodynamics and Heat Transfer 60 hrs

This course is an introduction to matter and heat behavior, fluids and pressures, refrigeration cycle/diagrams and measurement systems.

Professional Services 15 hrs

This course covers the essential knowledge and skills necessary to provide quality customer service, build character and customer relations, and participate in professional development.

Refrigerant Recovery 15 hrs

This is an introduction to refrigerant safety, and recovery, recycling, and reclamation equipment and methods. Students are prepared to seek EPA certification.

Prerequisite: Refrigerants & Lubricants

Refrigerant Retrofits 32 hrs

This course covers appropriate procedures in retrofitting an air conditioning or refrigeration system to run efficiently on a different refrigerant than originally equipped. Compatibility issues of refrigerants with various compressors, evaporators, condensers, expansion devices, and lubricants will be covered in depth. Proper refrigerant/lubricant recovery techniques will be reviewed and practiced.

Prerequisite: Refrigerants & Lubricants;
Refrigerant Recovery

Refrigerant System Components 90 hours

This course covers the refrigeration cycle and teaches students to recognize the components of refrigeration systems including metering devices, evaporators, compressors, condensers, accessories, and access valves.

Prerequisite: Piping & Piping Practices

Refrigerants & Lubricants 15 hrs

This course covers the properties and applications of the many refrigerants used in refrigeration and air conditioning applications. Refrigeration lubricants, their properties and applications, including compatibility issues with various refrigerants, principles of safe handling for refrigerants and lubricants will be important components of this course.

Prerequisite: Principles of Thermodynamics and Heat Transfer

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Working in the Green Environment 15 hrs

This course introduces the student to the concepts, materials and uses of environmentally safe materials and construction techniques used in the "green build" approach to construction. Students learn why going green is a smarter and more efficient process to construction and how it will impact the environment and the world we live in.

Computer Repair & Networking

- Desktop Support Technician
- Network PC Support Specialist
- Network Systems Technician (Security Emphasis)
- PC Support Technician

Desktop Support Technician

Career Major Description

Learn to service, troubleshoot, and repair personal computers; install and configure operating systems and application software; and support customer needs. Students also learn to install, configure and support an organization's local area network (LAN), as well as to analyze situations and data requirements and to assist and manage moves and installation of existing and new equipment. Desktop support technicians utilize one-on-one consultancy to assist end users by diagnosing and resolving unique problems.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Good eyesight, including eye-hand coordination and color perception
- Good manual dexterity
- Good organizational and critical thinking skills
- Good abstract reasoning skills
- Detail oriented
- Commitment to a continual learning process

Who Can Enroll

Juniors, Seniors & Adults

Prerequisite

Successful completion of PC Support Technician Career Major

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Pending

Student Organization

BPA-Business Professionals of America

Certifications Available

Internet Core and Computing IC³
Test Out PC Pro Certification
CompTIA IT Fundamentals
CompTIA Network+ 220-901
CompTIA Network+ 220-902
Microsoft Technology Specialist 70-680
Microsoft Technical Associate #349
Microsoft Technology Specialist 70-698
MCITP 70-685

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Fundamentals of Technology	180
Computer Repair and Troubleshooting I.....	180
Computer Repair and Troubleshooting II	180
Client Operating Systems	120
Installing and Maintaining Desktop Applications.....	120
Information Support and Services Capstone.....	150

Career Major Length

930 Hours

Network PC Support Specialist

Career Major Description

Learn to repair, service and troubleshoot personal computers; install and configure operating systems and application software; and support customer needs. Students also learn to install, configure and support an organization's local area network (LAN). Students in this major gain the technical skills required for CompTIA Network+ (N10-005) certifications.

Course Title

Fundamentals of Technology	180
Computer Repair and Troubleshooting I.....	180
Computer Repair and Troubleshooting II	180
Network and Routing Fundamentals	180
Information Support and Services Capstone.....	150

Hours

Career Major Length

870 Hours

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Good eyesight, including eye-hand coordination and color perception
- Good manual dexterity
- Good organizational and critical thinking skills
- Good abstract reasoning skills
- Detail oriented
- Commitment to a continual learning process

Who Can Enroll

Juniors, Seniors & Adults

Prerequisite

Successful completion of PC Support Technician Career Major

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Certifications Available

Internet Core and Computing IC³
Test Out PC Pro Certification
CompTIA Network+ 220-901
CompTIA Network+ 220-902
CompTIA Network+
Microsoft Technical Associate #366

Student Organization

BPA-Business Professionals of America

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Network Systems Technician (Security Emphasis)

Career Major Description

Learn to install, configure and support an organization's local area network (LAN) as well as to analyze situations and data requirements and to assist and manage moves and installation of existing and new equipment. Students learn to install, configure, maintain and manage a Windows 2008 Server Active Directory and Network Infrastructure environment. Students in this major gain the technical skills required for the CompTIA Network+ (N10-005), CompTIA Security+ (SY0-301), and work towards the server-based certifications: Microsoft Technology Specialist (MCTS) which includes Active Directory Configuration (70-640), Server 2008 Network Infrastructure Configuration (70-642), and Windows Server 2008 Administrator (70-646); and Microsoft Certified IT Professional (MCITP).

Average Oklahoma Salary

\$18/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Good eyesight, including eye-hand coordination and color perception
- Good manual dexterity
- Good organizational and critical thinking skills
- Good abstract reasoning skills
- Detail oriented
- Commitment to a continual learning process

Who Can Enroll

Juniors, Seniors & Adults

Prerequisite

Successful completion of PC Support Technician Career Major

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

CompTIA Network+
CompTIA Security+
Microsoft Technical Associate #365
Microsoft IT Professional 70-646
Microsoft Technology Specialist 70-642
Internet Core and Computing IC³
Microsoft Technical Associate #366
Microsoft Technology Specialist 70-680
Microsoft Technical Associate #349
Microsoft Technical Associate #367
Microsoft Technology Specialist 70-640

Course Title

	Hours
Fundamentals of Technology	180
Network and Routing Fundamentals	180
Client Operating Systems	120
Server Operating Systems.....	120
Network Management I	120
Network Management II	120
Network Security Awareness	120
Network Systems Capstone	150

Career Major Length

1170 Hours

Certifications Available (cont.)

Microsoft Technology Specialist 70-680
Microsoft Technical Associate #349
Microsoft Technical Associate #367
Microsoft Technology Specialist 70-640
Internet Core and Computing IC
MCP 70-410
MCP 70-411
MCSA 70-412
MCITP 70-646

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

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PC Support Technician

Career Major Description

Learn to service, troubleshoot, and repair, personal computers; install and configure operating systems and application software; support customer needs; and understand the basic principles of networking. Students in this major gain the technical skills required for CompTIA A+ (220-801 & 220-802) certification.

Course Title

	Hours
Fundamentals of Technology	180
Computer Repair and Troubleshooting I.....	180
Computer Repair and Troubleshooting II	180
Information Support and Services Capstone.....	150

Career Major Length

690 Hours

Average Oklahoma Salary

\$13/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Good eyesight, including eye-hand coordination and color perception
- Good manual dexterity
- Good organizational and critical thinking skills
- Good abstract reasoning skills
- Detail oriented
- Commitment to a continual learning process

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Internet Core and Computing IC³
Test Out PC Pro Certification
CompTIA Network+ 220-901
CompTIA Network+ 220-902

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

COMPUTER REPAIR & NETWORKING

Client Operating Systems 120 hrs

Students perform desktop client administration and maintenance and provide support for users in various work environments, including professional offices, small businesses, work groups and call centers. Prerequisite: Network and routing fundamentals

Computer Repair and Troubleshooting I 180 hrs

This course prepares students for the CompTIA A+ 2015 certifications. Students prepare for positions related to the maintenance of computers and computer-related equipment through hands-on simulations project-based learning, and Internet research. This course focuses on computer hardware, troubleshooting, repair and maintenance, operating systems and software, networking and security. The course also includes the communication skills and professionalism required of entry-level IT professionals in a desktop support position. Prerequisite: Fundamentals of Technology

Computer Repair and Troubleshooting II 180 hrs

This course prepares students for the CompTIA A+ 2015 A+ certification exams. Students prepare for positions related to the maintenance of computers and computer-related equipment through hands-on and project-based learning, textbook assignments, and Internet research. The focus of this course is on advanced concepts of personal computer components, operating systems, networking and security. Prerequisite: Computer Repair and Troubleshooting I.

Fundamentals of Technology 180 hrs

In this course students learn the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment. This course also provides job readiness skills and soft skills that are critical for success in any workplace setting.

Information Support and Services Capstone 150 hrs

Work-based learning experiences, project-based instruction and additional industry certifications are utilized in this course to reinforce skills obtained within any Information Technology Career Major. Students make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Prerequisite: All required courses in major

Installing and Maintaining Desktop Applications 120 hrs

Students perform network administration duties and provide support for network users in various work environments, including professional offices, small businesses, work groups, departments, and/or corporate information services (IS). Prerequisite: Client Operating Systems

Network and Routing Fundamentals 180 hrs

Students prepare for positions related to the installation, configuration, and troubleshooting of network hardware peripherals and protocols. Students learn the basics of networking by exploring the OSI model, network topologies, cabling techniques, network communications protocols, and hardware.

Prerequisite: Fundamentals of Technology, Computer Repair and Troubleshooting I and II

Network Management I 120 hrs

Students perform a variety of network support skills necessary to keep a company's network running efficiently - with less downtime. Students solve advanced company-wide support problems and high-level network problems. Additionally, students perform planning, installation, configuration, troubleshooting and upgrade services for networks.

Prerequisite: Server Operating Systems

Network Management II 120 hrs

Students prepare for the Windows Server 2008 Administration certification exam. Students learn to configure and troubleshoot Windows Server 2008 Network Infrastructures. It covers planning, securing and managing Windows 2008 Servers, including deployments, services, network security and infrastructures. The course covers the most common network technologies including DNS, DHCP, IPv6 network addressing, fault tolerance, RDC, RAID, SAN and VPNs.

Prerequisite: Network Management I

Network Security Awareness 180 hrs

In this course students demonstrate knowledge and competency in PC, server and internet security. Students utilize these skills in preparation for positions related to the cybersecurity on individual computers and networks. Prerequisite: Computer Repair and Networking, Network Management, Client Operating Systems

Network Systems Capstone 150 hrs

Work-based learning experiences, project-based instruction and teamwork will be utilized to reinforce network administration skills. Students will make final preparations for industry certifications as they master competencies. Students will select from various project options to finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Prerequisite: All required courses in major

Server Operating Systems 120 hrs

This course prepares students for the Microsoft Technology Specialist 70-640 certification. Students prepare for positions in server administration and cybersecurity fields. Students will learn to setup the Active Directory during the server installation. Configuration, maintenance and administration duties are required to provide support for Configuring a Microsoft Windows Server 2008 Active Directory. Prerequisite: Client Operating Systems

Construction Trades

- Finish Carpenter
- Frame Carpenter
- Residential Carpentry

Finish Carpenter

Career Major Description

Students in this major will develop skills required for the installation of trim, mantels, shelving, molding and ornamental wood. Students also plan, design, construct and learn to install cabinets and countertops.

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to communicate well and work with others
- Ability to understand theories and technical information
- Ability to work on ladders and scaffolds
- Good eye-hand coordination
- Good health and physical condition
- Positive attitude and dependability

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Pending

Student Organization

SkillsUSA

Certifications Available

National Center for Construction Education and Research (NCCER)

Industry Accreditations

National Center for Construction Education and Research (NCCER)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Construction Core	120
Commercial Drawings	25
Exterior Finishing	60
Thermal & Moisture Protection	15
Roofing Applications	40
Drywall Installation & Finishing	90
Interior Trim & Finish.....	85
Doors & Door Hardware.....	15
Cabinet Fabrication & Installation.....	120
Workforce Staging	30
Career Major Length	600 Hours

Frame Carpenter

Career Major Description

Students in this career major are introduced to the basic skills of a carpenter, safety practices, basic residential framing, and carpentry tools and equipment uses and operations. Basic residential framing is included.

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to communicate well and work with others
- Ability to understand theories and technical information
- Ability to work on ladders and scaffolds
- Good eye-hand coordination
- Good health and physical condition
- Positive attitude and dependability

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

National Center for Construction Education and Research (NCCER)

Industry Accreditations

National Center for Construction Education and Research (NCCER)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Construction Core	120
Orientation to the Trade	30
Materials, Fasteners & Adhesives.....	15
Hand & Power Tools.....	15
Intro to Construction Drawings, Specs & Layout.....	30
Floor Systems.....	45
Wall Systems.....	75
Ceiling Joist & Roof Framing.....	180
Intro to Building Envelope Systems	20
Stair Framing	45
Workforce Staging	30
Career Major Length	605 Hours

Residential Carpentry

Career Major Description

The Residential Carpenter career major is a combination of the Frame and Finish Carpenter career majors. Students will learn basic carpentry skills, safety practices, basic residential framing, tools and safe use and operation of construction equipment. Students will apply finishing techniques required to install trim, mantels, shelving, molding and ornamental wood. Students will also plan, design, construct and learn to install cabinets and countertops.

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to communicate well and work with others
- Ability to organize one's work
- Ability to understand theories and technical information
- Ability to work on ladders and scaffolds
- Good eye-hand coordination
- Good health and physical condition
- Positive attitude and dependability

Who Can Enroll

Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

National Center for Construction Education and Research (NCCER)

Industry Accreditations

National Center for Construction Education and Research (NCCER)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

Course Title	Hours
Construction Core	120
General Construction Safety	25
Orientation to the Trade	30
Materials, Fasteners & Adhesives	15
Hand & Power Tools.....	15
Intro to Construction Drawings, Specs & Layout.....	30
Floor Systems.....	45
Wall Systems.....	75
Ceiling Joist & Roof Framing	180
Intro to Building Envelope Systems	20
Stair Framing	45
Commercial Drawings	25
Exterior Finishing	60
Thermal & Moisture Protection	15
Roofing Applications	40
Drywall Installation & Finishing	90
Interior Trim & Finish.....	85
Doors & Door Hardware.....	15
Cabinet Fabrication & Installation.....	120
Workforce Staging	30
Career Major Length	1080 Hours

COURSE DESCRIPTION

CONSTRUCTION TRADES

Cabinet Fabrication & Installation 30 hrs

This course provides detailed instructions for the selection and installation of base and wall cabinets and countertops.

Ceiling Joist & Roof Framing 180 hrs

This course describes types of roofs and provides instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Covers stick-built and truss-built roofs and includes basics of roof sheathing installation

Commercial Drawings 25 hrs

Students will learn how to read and interpret a set of commercial drawings and specifications.

Construction Core 120 hrs

This course introduces the student to basic safety, construction math, tools, blueprints and rigging. Communications and employability skills are also stressed.

Doors and Door Hardware 5 hrs

Covers the installation of metal doors and related hardware in steel-framed, wood-framed, and masonry walls. A discussion on the installation of wood doors, folding door, and pocket doors is also presented.

Drywall Installation & Finishing 60 hrs

This course describes the various types of gypsum drywall, their uses, and the tools, fastening devices and methods used to install, finish, and patch them.

Exterior Finishing 60 hrs

This course covers the various types of exterior finish materials and their installation procedures, including wood, metal, vinyl and fiber-cement siding..

Floor Systems 45 hrs

Floor systems covers framing basics and the procedures for laying out and constructing a wood floor using common lumbar, as well as engineered building materials.

General Construction Safety 25 hrs

This course provides training on the recognition, avoidance and prevention of safety and health hazards in the construction industry.

Hand and Power Tools 15 hrs

Provides descriptions of hand and power tools used by carpenters, their safe and proper operation, as well as how to care for and maintain them.

Interior Trim & Finish 85 hrs

Describes the different types of trim used in finish work and focuses on the proper methods for selecting, cutting, and fastening trim to provide a professional finished appearance.

Introduction to Building Envelope Systems 20 hrs

This course introduces the concept of the building envelope and explains its components. It describes types of windows, skylights and exterior doors, and provides instructions for installation.

Introduction to Construction Drawings, Specs & Layout 30 hrs

Covers techniques for reading and using construction drawings and specifications with an emphasis on drawings and information relevant to the carpentry trade; also introduces quantity take-offs.

Materials, Fasteners and Adhesives 15 hrs

This course introduces the student to construction building materials such as lumber, sheet materials, engineered wood products, structural concrete and structural steel.

Orientation to the Trade 45 hrs

Orientation to the Trade reviews the history of the trade, describes the apprentice program, and identifies career opportunities for carpentry and construction workers. It lists the skills, responsibilities and characteristics a worker should possess and emphasizes the important of safety in the construction industry.

Roofing Applications 40 hrs

In this course, students will learn how to properly prepare the roof deck and install roofing for residential and commercial buildings.

Stair Framing 45 hrs

Introduces types of stairs and common building code requirements related to stairs, techniques for measuring and calculating rise, run and stairwell openings, laying out stringers, and fabricating basic stairways.

Thermal and Moisture Protection 15 hrs

This course introduces the student to the procedures in determining the appropriate thermal and moisture protection required to complete the project/job.

Wall Systems 75 hrs

This course describes procedures for laying out and framing walls, including roughing-in door and window openings, construction corners, partition Ts and bracing walls. Also includes procedures for estimating materials required to frame walls.

Windows and Exterior Doors 30 hrs

In this course students are introduced to the special terms associated with window and door installation. Students learn about the various kinds of windows and exterior doors and the important installation practices related to them.

Workforce Staging 30 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

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Cosmetology

- Cosmetologist-Evening
- Cosmetologist-High School
- Cosmetology Facialist Instructor
- Cosmetology Master Instructor
- Cosmetology Nail Technician Instructor
- Esthetician-Evening
- Esthetician-High School
- Nail Technician-Evening
- Nail Technician-High School

Cosmetologist - Evening

Career Major Description

This major prepares students to become licensed cosmetologists who provide nail, skin, scalp, and hair care to customers to help them enhance their personal appearance. Students receive classroom instruction and hands-on training in hair styling, cutting, coloring and chemical restructuring. Included are manicures/pedicures, facials, lash and brow tinting and arching, and scalp treatments along with customer service and shop management. To obtain state licensing, students must complete 1500 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams.

Course Title

	Hours
Introduction to Cosmetology	150
Hairstyling.....	300
Haircutting	180
Manicure/Pedicure/Artificial Nail.....	90
Hair Texture Chemical Restructuring	240
Hair Coloring	170
Make-up/Facials.....	160
Scalp Treatments & Shampooing/Conditioning	30
Salon Development.....	180
Career Major Length	1500 Hours

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- An artistic touch and a high degree of manual dexterity
- Ability to get along with others
- Ability to endure sitting (manicurist) or standing (hairdresser) for long periods of time

Who Can Enroll

Adults

Prerequisites

- Minimum of an 8th grade education and 16 years of age with documentation of student's date of birth
- English proficiency test for those who speak English as a second language
- Oklahoma State Board of Cosmetology registration; \$5.00 fee required

Location

South Bryant Campus (evening)
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Cosmetologist-High School

Career Major Description

This major prepares students to become licensed cosmetologists who provide nail, skin, scalp and hair care to customers to help them enhance their personal appearance. Students receive classroom instruction and hands-on training in hair styling, cutting, coloring and chemical restructuring. Included are manicures/pedicures, facials, lash and brow tinting and arching, and scalp treatments along with customer service and shop management. To obtain state licensing, students must complete 1500 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams with 500 hours waived for high school students if high school core courses are successfully completed.

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- An artistic touch and a high degree of manual dexterity
- Ability to get along with others
- Ability to endure sitting (manicurist) or standing (hairstylist) for long periods of time

Who Can Enroll

Juniors, Seniors

Prerequisites

- Must be at least a junior in high school and be 16 years of age by November 1
- Must be registered by State Board of Cosmetology; requires a \$5 fee (money order/cashier's check), documentation of student's date of birth prior to attending class and social security number

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Introduction to Cosmetology-Public.....	150
Hairstyling-Public.....	180
Haircutting-Public.....	120
Manicure/Pedicure/Artificial Nails-Public.....	60
Hair Texture/Chemical Restructuring-Public.....	180
Hair Coloring-Public.....	120
Make-up/Facials -Public.....	60
Scalp Treatments & Shampooing/Conditioning - Public.....	30
Salon Development - Public.....	100
Career Major Length	1000 Hours
High School Core Classes Successfully Completed	500

Cosmetology Facialist Instructor

Career Major Description

This major prepares students to become licensed as qualified teachers of the art and science of skin care theory and practice in industry as well as in public or private institutions. Students receive training in teaching methods, course outlining and development, and appropriate evaluation techniques. Included are law, beauty school management, and record keeping as well as a practice teaching component in the classroom and clinic. To obtain state licensing, students must complete 1000 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams.

Average Oklahoma Salary

\$31/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to get along with others
- Leadership skills
- Teamwork skills
- Knowledge in subject matter area
- Problem-solving skills
- Self-discipline

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- Oklahoma Cosmetology License for Esthetician
- Letter from Oklahoma State Board of Cosmetology to confirm the 500-hour instructor career major eligibility
- English proficiency test for those who speak English as a second language
- Oklahoma State Board of Cosmetology registration; \$5.00 fee is required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

Course Title

Hours

Orientation & Review of Cosmetology Curriculum.....	60
Introduction to Teaching.....	120
Course Outline & Development.....	330
Law, Beauty School Management & Recordkeeping.....	90
Teaching & Assisting in the Classroom & Clinic.....	150
Practice Teaching in the Classroom & Clinic.....	250

Career Major Length

500-1000 Hours

(500 hours with 2 years industry experience)

Cosmetology Master Instructor

Career Major Description

This major prepares students to become licensed as qualified teachers of cosmetology theory and practice in industry as well as in public or private institutions. Students receive training in teaching methods, course outlining and development, and appropriate evaluation techniques. Included are law, beauty school management, and record keeping. To obtain state licensing, students must complete 1000 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams.

Average Oklahoma Salary

\$31/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to get along with others
- Leadership skills
- Teamwork skills
- Knowledge in subject matter area
- Problem-solving skills
- Self-discipline

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- Oklahoma Cosmetology License
- Letter from Oklahoma State Board of Cosmetology to confirm the 500-hour instructor career major eligibility
- English proficiency test for those who speak English as a second language
- Oklahoma State Board of Cosmetology registration; \$5.00 fee is required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Orientation & Review of Cosmetology Curriculum.....	60
Introduction to Teaching	120
Course Outline & Development.....	330
Law, Beauty School Management & Recordkeeping	90
Teaching & Assisting in the Classroom & Clinic	150
Practice Teaching in the Classroom & Clinic	250

Career Major Length

500-1000 Hours

(500 hours with 2 years industry experience)

Cosmetology Nail Technician Instructor

Career Major Description

The Cosmetology Nail Technician Instructor major at Metro Tech sets the standard for teaching excellence. This major prepares students to become licensed as qualified teachers in the art and science of nail technology theory and practice in industry as well as in public or private institutions. Students receive training in teaching methods, course outlining and development, and appropriate evaluation techniques. Included are law, beauty school management, and record keeping as well as a practice teaching component in the classroom and clinic. To obtain state licensing, students must complete 1000 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams.

Course Title

Hours

Orientation & Review of Cosmetology Curriculum.....	60
Introduction to Teaching	120
Course Outline & Development.....	330
Law, Beauty School Management & Recordkeeping	90
Teaching & Assisting in the Classroom & Clinic	150
Practice Teaching in the Classroom & Clinic	250

Career Major Length

500-1000 Hours

(500 hours with 2 years industry experience)

Average Oklahoma Salary

\$31/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Ability to get along with others
- Leadership skills
- Teamwork skills
- Knowledge in subject matter area
- Problem-solving skills
- Self-discipline

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- Oklahoma Cosmetology License for Nail Technician
- Letter from Oklahoma State Board of Cosmetology to confirm the 500-hour instructor career major eligibility
- English proficiency test for those who speak English as a second language
- Oklahoma State Board of Cosmetology registration; \$5.00 fee is required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)

Oklahoma State Board of Education (OSBE)

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Esthetician - Evening

Career Major Description

This major prepares students to become licensed estheticians who provide skin care, make-up and non-permanent hair removal services to customers. Students receive classroom instruction on functions of the skin and skin structures, disorders, and diseases along with hands-on training in cleansing and massage, makeup application, and facial treatments. Included are cosmetology laws, rules and regulations, and salon development. To obtain state licensing, students must complete 600 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams. High school students may spend additional hours in training beyond the school year to meet state licensing requirements and for major completion within one year.

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- A positive attitude
- Good communication skills
- Good eye-hand coordination
- Ability to relate to people in a caring empathetic manner
- Ability to endure standing or sitting for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Prerequisites

- Minimum of an 8th grade education and 16 years of age with documentation of student's date of birth
- English proficiency test for those who speak English as a second language (Adult)
- Oklahoma State Board of Cosmetology registration; \$5.00 fee required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Introduction to Esthetician Technology	80
Facial Sciences: Histology, Dermatology & Physiology of the Skin ..	180
Non-Permanent Hair Removal.....	40
Facials	200
Cosmetology Laws, Rules & Regulations	40
Salon Development-Esthetician.....	60

Career Major Length

600 Hours

Esthetician - High School

Career Major Description

This major prepares students to become licensed estheticians who provide skin care, make-up and non-permanent hair removal services to customers. Students receive classroom instruction on functions of the skin and skin structures, disorders, and diseases along with hands-on training in cleansing and massage, makeup application, and facial treatments. Included are cosmetology laws, rules and regulations, and salon development. To obtain state licensing, students must complete 600 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams. High school students may spend additional hours in training beyond the school year to meet state licensing requirements and for major completion within one year.

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- A positive attitude
- Good communication skills
- Good eye-hand coordination
- Ability to relate to people in a caring empathetic manner
- Ability to endure standing or sitting for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Prerequisites

- Minimum of an 8th grade education and 16 years of age with documentation of student's date of birth
- English proficiency test for those who speak English as a second language (Adult)
- Oklahoma State Board of Cosmetology registration; \$5.00 fee required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Introduction to Esthetician Technology	80
Facial Sciences: Histology, Dermatology & Physiology of the Skin ..	180
Non-Permanent Hair Removal.....	40
Facials	200
Cosmetology Laws, Rules & Regulations	40
Salon Development-Esthetician.....	60

Career Major Length

600 Hours

Nail Technician - Evening

Career Major Description

This major prepares students to become licensed nail technicians who provide manicures, pedicures, nail coloring, and nail extensions to customers. Students receive classroom instruction on composition, disorders and diseases of the nails and skin as well as hands-on training in the basic fundamentals of manicures and pedicures, artificial nails, and nail art. Salon development and cosmetology laws, rules, and regulations are also included content. To obtain state licensing, students must complete 600 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams. High school students may spend additional hours in training beyond the school year to meet state licensing requirements and for major completion within one year.

Course Title	Hours
Introduction to Nail Technology	40
Nail Structure: Composition, Disorders & Diseases.....	60
Manicures.....	80
Artificial Nails.....	160
Nail Art.....	60
Pedicures	80
Salon Development.....	80
Cosmetology Laws, Rules & Regulations	40
Career Major Length	600 Hours

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- A positive attitude
- Good communication skills
- Good eye-hand coordination
- Ability to relate to people in a caring, empathetic manner
- Ability to endure sitting position for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Prerequisites

- Minimum of an 8th grade education and 16 years of age with documentation of student's date of birth
- English proficiency test for those who speak English as a second language (Adult)
- Oklahoma State Board of Cosmetology registration; \$5.00 fee required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

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Nail Technician - High School

Career Major Description

This major prepares students to become licensed nail technicians who provide manicures, pedicures, nail coloring, and nail extensions to customers. Students receive classroom instruction on composition, disorders and diseases of the nails and skin as well as hands-on training in the basic fundamentals of manicures and pedicures, artificial nails, and nail art. Salon development and cosmetology laws, rules, and regulations are also included content. To obtain state licensing, students must complete 600 hours of instruction and pass the Oklahoma State Board of Cosmetology written and practical exams. High school students may spend additional hours in training beyond the school year to meet state licensing requirements and for major completion within one year.

Course Title

	Hours
Introduction to Nail Technology	40
Nail Structure: Composition, Disorders & Diseases.....	60
Manicures.....	80
Artificial Nails.....	160
Nail Art.....	60
Pedicures	80
Salon Development.....	80
Cosmetology Laws, Rules & Regulations	40

Career Major Length

600 Hours

Average Oklahoma Salary

\$10/hour plus gratuity

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- A positive attitude
- Good communication skills
- Good eye-hand coordination
- Ability to relate to people in a caring, empathetic manner
- Ability to endure sitting position for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Prerequisites

- Minimum of an 8th grade education and 16 years of age with documentation of student's date of birth
- English proficiency test for those who speak English as a second language (Adult)
- Oklahoma State Board of Cosmetology registration; \$5.00 fee required

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Industry Accreditations

Oklahoma State Board of Cosmetology

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

COSMETOLOGY

Artificial Nails 160 hrs

This course teaches students techniques in applying artificial tips, nail wraps, and extensions. This will involve application of fiberglass, acrylic, sculptured and gel nails. Students will learn techniques in applying gems, foils, striping tape, appliques, freehand paint application, and airbrushing.

Child Guidance, Behavior & Classroom Management 50 hrs

This course will allow students to gain knowledge in guidance theories, positive strategies that will enhance their understanding of the child guidance process by utilizing different care giving styles, specific positive discipline strategies and managing the physical environment effectively.

Cognitive/Social Skills 100 hrs

This course will give opportunities for students to learn cognitive and social needs of children birth to 8 years while focusing on appropriate experiences while creating a positive learning environment.

Cosmetology Laws, Rules & Regulations 40 hrs

This course allows students to develop an understanding of the Oklahoma State Board Laws, Rules and Regulations. Students will focus on professional ethics, contamination control methods and licensure requirements as well as sanitation and safety standards.

Course Outline & Development 330 hrs

This course provides introduction to lesson planning, development of lesson plans, and four-step teaching plan as well as teaching techniques, teaching aids, and developing, administering, and grading examinations. Prerequisite: Cosmetologist or Nail Technician or Esthetician

Creative Arts 80 hrs

This course is designed for students to focus on creativity, play and motor development while designing appropriate experiences for children birth to 8 years.

Facials-Esthetician 200 hrs

This course teaches students how to cleanse, tone, exfoliate, and massage the skin as well as apply makeup. Students will learn facials with and without facial equipment. Students will also learn skin structure as it relates to the cosmetology field. The course will also address the skin and its disorders

Facial Sciences: Histology, Dermatology & Physiology of the Skin 180 hrs

This course addresses skin and its disorders, as well as the human anatomy. Students will learn massage manipulations and how to correctly use electricity and electrical equipment used in providing facials. Students will also focus on the importance of nutrition and its effect on the skin as well as facial product ingredients used on skin.

Hair Coloring 120 hrs

This course reviews lifting natural hair color pigment and adding color to the hair. The course will also address how to correct hair color problems with preventative and corrective methods.

Hair Coloring-Public 90 hrs

This course reviews lifting natural hair color pigment and adding color to the hair. The course will also address how to correct hair color problems with preventative and corrective methods.

Hair Texture Chemical Restructuring 240 hrs

The basic hair re-structuring principles are addressed in the course. Students will learn to straighten, permanent wave and soft curl perm.

Hair Texture Chemical Restructuring-Public 180 hrs

The basic hair re-structuring principles are addressed in the course. Students will learn to straighten, permanent wave and soft curl perm.

Haircutting 180 hrs

This course reviews identification and use of hair cutting implements, sectioning the hair, and applying various cutting and shaping techniques. The course teaches students to use a razor and scissors. Students apply the haircutting/shaping techniques.

Haircutting-Public 120 hrs

This course reviews identification and use of hair cutting implements, sectioning the hair, and applying various cutting and shaping techniques. The course teaches students to use a razor and scissors. Students apply the haircutting/shaping techniques.

Hairstyling 390 hrs

This course reviews and applies the basic principles of hair styling and parting techniques. Students will also learn to shape, style and set artificial hair.

Hairstyling Public 180 hrs

This course reviews and applies the basic principles of hair styling and parting techniques. Students will also learn to shape, style and set artificial hair.

Introduction to Cosmetology 150 hrs

This course provides an overview of the field of cosmetology - bacteriology, sterilization, sanitation, and safety. Students learn the skills needed to operate a safe salon as well as learn ways to prevent the spread of bacteria. Students focus on the basics of bacteriology, sterilization and sanitation as they learn to identify bacteria, infections, and the appropriate prevention. Students in cosmetology will also learn how to shampoo as well as develop an understanding of scalp treatments.

Introduction to Cosmetology-Public 150 hrs

This course provides an overview of the field of cosmetology-bacteriology, sterilization, sanitation, and safety. Students learn the skills needed to operate a safe salon as well as learn ways to prevent the spread of bacteria. Students focus on the basics of bacteriology, sterilization and sanitation as they learn to identify bacteria, infections, and the appropriate prevention. Students in cosmetology will also learn how to shampoo as well as develop an understanding of scalp treatments.

Introduction to Esthetician Technology 80 hrs

This course provides an overview of the field of cosmetology-bacteriology, sterilization, sanitation, and safety. Students will learn the skills needed to operate a safe salon as well as learn ways to prevent the spread of bacteria. Students focus on the basics of bacteriology, sterilization and sanitation as they learn to identify bacteria, infections, and the appropriate prevention.

Introduction to Nail Technology 40 hrs

This course provides an overview of the field of cosmetology-bacteriology, sterilization, sanitation, and safety. Students will learn the skills needed to operate a safe salon as well as learn ways to prevent the spread of bacteria. Students will focus on the basics of bacteriology, sterilization and sanitation as they learn to identify bacteria, infections, and the appropriate prevention.

Introduction to Teaching 120 hrs

This course defines the function of a teacher and teacher maturity. Prerequisite: Cosmetologist or Nail Technician or Esthetician

Lash & Brow Tinting & Arching Cosmetologist 30 hrs

This course addresses how to perform hair removal as well as shape brows. The course will also provide students experience in waxing.

**Law, Beauty School Management,
and Record Keeping 90 hrs**

This course teaches the fundamentals of inventory, ordering supplies, and keeping attendance. Prerequisite: Cosmetologist or Nail Technician or Esthetician

**Make-up/Facials-
Cosmetologist 30 hrs**

This course teaches students how to cleanse, tone, exfoliate, and massage the skin as well as apply makeup. Students will learn facials with and without facial equipment. Students will also learn skin structure as it relates to the cosmetology field. The course will also address the skin and its disorders

Manicures-Nail 80 hrs

Students learn the basic fundamentals of performing manicuring services. This includes terms, supplies, equipment, setting up for manicure, filing nails, trimming cuticles, massaging and polishing nails as well as the learning the proper use of emery boards, cuticle pushers and cuticle nippers.

**Manicure/Pedicure/Artificial Nails-
Cosmetologist 90 hrs**

In this course, students review proper selection and use of equipment, implements, cosmetics and materials in giving a plain manicure and pedicure. Students will apply various manicuring and pedicuring techniques. Students learn techniques in applying artificial tips, nail wraps, and extensions. This will involve application of fiberglass, acrylic, sculptured and gel nails

**Manicure/Pedicure/Artificial Nails-
Cosmetologist-Public 60 hrs**

In this course, students review proper selection and use of equipment, implements, cosmetics and materials in giving a plain manicure and pedicure. Students will apply various manicuring and pedicuring techniques. Students learn techniques in applying artificial tips, nail wraps, and extensions. This will involve application of fiberglass, acrylic, sculptured and gel nails.

Nail Art 60 hrs

This course teaches students techniques in applying gems, foils, striping tape, appliques, freehand pain application and airbrushing.

**Nail Structure: Composition,
Disorders, Diseases 60 hrs**

This course teaches students skin and nail composition, as well as the disorders, and diseases of the nails and skin. Students will learn the functions of cells, tissues, organs and systems of the body, parts of the nail and how to identify nail diseases. This course will also address what students can work on and what to refer to a physician.

**Non-Permanent Hair
Removal-Esthetician 40 hrs**

This course addresses how to perform hair removal as well as shape brows. The course will also provide students experience in waxing. Students will also learn skin structure as it relates to the cosmetology field. The course will also address the skin and its disorders.

**Orientation & Review of
Cosmetology Curriculum 60 hrs**

This course includes licensure prerequisite, an introduction to the fundamentals of instruction of students, and a general review of curriculum. Prerequisite: Cosmetologist or Nail Technician or Esthetician

Pedicures-Nail 80 hrs

Students learn the basic fundamentals of performing a pedicuring service. This includes terms, supplies, equipment, setting up for pedicure, filing toe nails, trimming cuticles, massaging, reflexology, and polishing toe nails.

**Practice Teaching in the
Classroom & Clinic 250 hrs**

The student will complete practice teaching (classroom and clinic). Prerequisite: Cosmetologist or Nail Technician or Esthetician

**Salon Development-
Cosmetologist 180 hrs**

This course will allow students the opportunity to design a salon, plus implement customer service skills that they have learned.

**Salon Development
Cosmetologist-Public 100 hrs**

This course will allow students the opportunity to design a salon, plus implement customer service skills that they have learned.

**Salon Development-
Esthetician 60 hrs**

This course will allow students the opportunity to design a salon, plus implement customer service skills that they have learned.

**Salon Development-Nail
Technician 80 hrs**

This course will allow students the opportunity to design a salon, plus implement customer service skills that they have learned.

Scalp Treatments 30 hrs

This course includes preparation of the patron, analyzing scalp and hair conditions, proper brushing techniques, selection of shampoos, rinses and scalp treatments, and application of basic scalp care and manipulation techniques.

Scalp Treatments-Public 30 hrs

This course includes preparation of the patron, analyzing scalp and hair conditions, proper brushing techniques, selection of shampoos, rinses and scalp treatments, and application of basic scalp care and manipulation techniques.

**Shampoo/Conditioning/
Rinses 60 hrs**

This course teaches students to analyze and cleanse the hair and scalp. Students will also gain skills in draping clients as well as selecting shampoo products. Students will also focus on how to give a scalp massage and shampoo.

**Shampoo/Conditioning/
Rinses-Public 30 hrs**

This course teaches students to analyze and cleanse the hair and scalp. Students will also gain skills in draping clients as well as selecting shampoo products. Students will also focus on how to give a scalp massage and shampoo.

**Teaching & Assisting in the
Classroom & Clinic 150 hrs**

This course teaches the laws of learning, understanding the classroom atmosphere and student learning. Prerequisite: Cosmetologist or Nail Technician or Esthetician

Culinary Arts

- Culinarian
- Culinary Arts Assistant

Culinarian

Career Major Description

This major builds upon the skills learned in Culinary Arts Assistant by providing students with instruction in advanced culinary skills such as garde manger, bakeshop principles, nutrition, and international cuisine. Students will learn advanced dining room management principles and gain hands-on restaurant experience in our student-run restaurant.

Course Title

	Hours
Introduction to Garde Manger	60
Culinary Intermediate Skills	120
Advanced Cookery.....	125
Dining Room Management Skill Enhancement	120
Culinarian Skills Enhancement I	90
Culinarian Skills Enhancement II	90

Career Major Length

605 Hours

Average Oklahoma Salary

\$8-\$15/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Good physical & mental health
- Passion for the arts, creativity & imagination
- Good eye-hand coordination & finger dexterity
- Good communication skills and teamwork
- Ability to get along with others and have a positive attitude
- Ability to stand for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Prerequisite

Culinary Arts Assistant

Location

Springlake Campus	South Bryant Campus
Springlake Drive	3901 S. Bryant Ave.
Oklahoma City, OK 73111	Oklahoma City, OK 73129

Financial Aid

Pending

Student Organization

FCCLA-Family, Career and Community Leaders of America
SkillsUSA

Certifications Available

ServSafe

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Culinary Arts Assistant

Career Major Description

This major prepares students for a variety of food preparation skills required for a career in food services and/or food preparation. Instruction incorporates kitchen fundamentals such as safety, sanitation, and kitchen equipment with more advanced training in quantity preparation and presentation of entrees and desserts. Also covered are dining room management principles and specific subject areas such as stocks, soups and sauces. Students will have opportunities to apply the skills they learn in an external internship.

Average Oklahoma Salary

\$8/hour

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Good physical & mental health
- Passion for the arts, creativity & imagination
- Good eye-hand coordination & finger dexterity
- Good communication skills and teamwork
- Ability to get along with others and have a positive attitude
- Ability to stand for long periods of time

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus	South Bryant Campus
Springlake Drive.	3901 S. Bryant Ave.
Oklahoma City, OK 73111	Oklahoma City, OK 73129

Financial Aid

Pending

Student Organization

FCCLA-Family, Career and Community Leaders of America
SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Hours

Introduction to Culinary Arts	60
Culinary Safety & Sanitation	120
Culinary Basic Skills.....	120
Dining Room Management.....	120
Culinary Arts Skills Enhancement I.....	90
Culinary Arts Skills Enhancement II	90

Career Major Length

600 Hours

COURSE DESCRIPTION

CULINARY ARTS

Advanced Cookery 125 hrs

Students will also define and demonstrate North American, Central American, and South American cuisine, their flavor profiles, and cultural influence. Cost control and quality standards in cooking will be introduced, as well as basic nutrition and healthy food techniques.

Culinarian Skills Enhancement I 90 hrs

This course provides students with hands-on experience in a student-run kitchen/restaurant.

Culinarian Skills Enhancement II 90 hrs

This course provides hands-on experience in a student-run kitchen/restaurant. Students will practice marketing seasonal menu items and specials.

Culinary Arts Skills Enhancement I 90 hrs

Students will demonstrate preparation and cooking of fruits and vegetables as well as potatoes and grains while gaining practical lab experience in a student-run kitchen/restaurant.

Culinary Arts Skills Enhancement II 90 hrs

Students will gain practical lab experience in a student-run kitchen/restaurant in the areas of breakfast cookery. Students will also experience various levels of management and customer service skills.

Culinary Basic Skills 120 hrs

Students will learn how to use standardized recipes and measuring systems, convert recipes, identify costing methods for food costs, identify food service equipment and prepare various foods.

Culinary Intermediate Skills 120 hrs

This course will introduce the students to the identification and preparation of meat, poultry and seafood. It also introduces bakeshop principles and measurements, and dessert/plate presentation.

Culinary Safety & Sanitation 120 hrs

The ServSafe® Manager's Certification is the industry's leading food safety and training certification program and is a key ingredient to help food service operations keep their customers and employees safe.

Dining Room Management 120 hrs

This course will help students learn and apply the service skills and techniques essential to the front of the house operations. Students will learn the importance of internal/external communication skills that include handling special situations and customer needs as well as menu design.

Dining Room Management Skills Enhancement 120 hrs

Students will learn and demonstrate skills needed for effective front of the house operations in the student run restaurant.

Introduction to Culinary Arts 60 hrs

This course is designed as an overview of the culinary industry. Areas of study include the many facets of the culinary industry to include food service, lodging, travel, tourism, recreation and attractions. Instruction includes guest speakers within the classroom and tours to various culinary facilities.

Introduction to Garde Manager 60 hrs

This course will introduce students to the art and craft of the cold kitchen. Students will learn the different ways to creatively express their talents through food and presentations. This course includes an end of instruction completion test.

Dental Assisting

- Dental Assistant

Dental Assistant

Career Major Description

Students in this major will learn how to perform patient care, front office and laboratory duties for the dental office. They will practice infection control, use dental materials, perform dental charting and chairside functions. The major includes clinical training at the University of Oklahoma College of Dentistry and various private dental practices in the metropolitan area.

Average Oklahoma Salary

\$13/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- The ability to get along with others
- The ability to stand for long periods of time
- Mental alertness
- Flexibility
- Good eye-hand coordination
- Manual/finger dexterity
- Dependability
- The ability to think quickly

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- 18 years old
- CPR for Health Care Providers (American Heart Association Course)

Location

Springlake Campus
Metro STEM Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America
American Dental Assistants Association <http://www.dentalassistant.org/>

Certifications Available

Certified Dental Assistant –by passing the Dental Assisting National Board
(DANB <http://www.danb.org/>) exams
Coronal Polishing and Application of Topical Fluoride by Oklahoma Board of Dentistry
Application of Pit and Fissure Sealant by the Oklahoma Board of Dentistry
Radiation Health and Safety Permit by the Oklahoma Board of Dentistry
Assisting with the Administration of Nitrous Oxide by the Oklahoma Board of Dentistry

Course Title

	Hours
Academic Life Skills.....	15
Foundations of Dental Assisting	55
Biomedical Sciences for the Dental Assistant	75
Clinical Sciences for the Dental Assistant	377
• Infection Control (70 hours)	
• Patient Information and Assessment (36 hours)	
• Clinical Dental Assisting (70 hours)	
• Practice Management (36 hours)	
• Clinical Sciences (165 hours)	
Dental Radiography	60
Dental Sciences for the Dental Assistant	195
• Head and Neck Anatomy (30 hours)	
• Embryology, Histology and Tooth Morphology (48 hours)	
• Dental Materials I (70 hours)	
• Dental Materials II (47 hours)	
Clinical Practice for the Dental Assistant	336
Advanced Chairside Functions	37
Career Major Length	1150 Hours

Industry Accreditations

American Dental Association Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Ave., Chicago, IL 60611-2678

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810, fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln, Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

Metro Technology Centers does not discriminate on the basis of race, color, national origin, sex/gender, age, marital or veteran status, religion, pregnancy, or qualified disability in recruitment, hiring, placement, assignment to work tasks, hours of employment, levels of responsibility, and pay. For special accommodations call: 405-595-4418 or e-mail: jade.carter@metrotech.edu

COURSE DESCRIPTION

DENTAL ASSISTING

Academic Life Skills 15 hrs

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Advanced Chairside Functions 37 hrs

In this course students will prepare for expanded functions of the dental assistant in Coronal Polishing/Topical Fluoride and Pit and Fisher Sealants. Students will learn the legal and ethical roles as dental assistants for these expanded functions and how to perform these expanded functions. This course follows the guidelines for each advanced function as outlined in the rules and regulations set forth by the Board of Dentistry including clinical time. Prerequisite: Acceptance to the Dental Assistant Major

Biomedical Sciences for the Dental Assistant 75 hrs

The biomedical sciences course is designed to provide a basic understanding of body function and structure, concepts of diseases and dietary considerations for the student as well as the patient. Included areas of study are general anatomy and physiology, microbiology with the focus on dental worker and patient safety through the study of bloodborne pathogens and hazardous communications. Prerequisite: Acceptance to the Dental Assistant Major

Clinical Practice for the Dental Assistant 336 hrs

This course provides the student opportunity to practice dental skills learned in the classroom and laboratory setting in a professional dental clinic. Prerequisite: Acceptance to the Dental Assistant major

Clinical Sciences for the Dental Assistant 377 hrs

The content of this course prepares the student to participate in laboratory and clinical experiences necessary to develop the skills to become a dental assistant. The course provides classroom and laboratory instruction. This course is broken into three smaller courses: Practice Management (36 hours); Clinical Sciences I (162 hours); and Clinical Sciences II (162 hours). Prerequisite: Acceptance to the Dental Assistant major

Dental Radiography 60 hrs

Upon completion of this course, students have the skills necessary to successfully take, process and mount dental radiographs. The course emphasizes the safety precautions needed in radiography. Students will identify diagnostically acceptable radiographs.

Dental Sciences for the Dental Assistant 195 hrs

This course provided the dental assisting student with in-depth knowledge regarding dental materials, oral anatomy; a familiarity of oral histology, oral embryology, pathology, pharmacology and head and neck anatomy. This course is broken into four smaller courses: Head and Neck Anatomy (30 hours); Embryology, Histology and Tooth Morphology (48 hours); Dental Materials I (70 hours); Dental Materials II (47 hours). Prerequisite: Acceptance to the Dental Assistant major

Foundations of Dental Assisting 30 hrs

This course includes an overview of dental specialties including all the dental team members and a review of educational requirements, responsibilities, and job duties. Prerequisite: Acceptance to the Dental Assistant major

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Digital Cinema & Web Development

- Digital Cinema and Web Specialist

Digital Cinema and Web Specialist

Career Major Description

This major prepares students for emerging careers using digital video, web development and film studies. Students learn storytelling, video, audio, film production and editing, and finalizing content for various digital distribution. Students experience video production both in studio and in the field and develop digital portfolios to demonstrate their creative and technical skills.

Average Oklahoma Salary

\$22/hour

Helpful Attributes and Abilities

- Reading and language skills at the 10th grade level or above; math skills at the 9th grade level or above
- Art background, training or natural ability
- Attention to detail
- Basic typing and computer literacy skills
- Good eye-hand coordination
- Good interpersonal skills
- Ability to self-motivate and perform under pressure

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

Adobe Certified Associate

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
Safety	15
Professional and Personal Development.....	15
Video/Camera	165
Video Production Techniques I	120
Video Systems Post Production	45
Web Authoring/Animation	90
Web Site Production.....	90
Professionalism and Ethics	30
Independent Studies in Video/Web Production.....	120
Digital Image Manipulation	60
Advanced Web Animation Design	120
Post Production Digital Video Special Effects	90
Workforce Staging	30
Video/Web Project Planning	45

Career Major Length

1035 Hours

COURSE DESCRIPTION

VIDEO & WEB DESIGN

Advanced Web Animation Design 120 hours

In this course, students will use flash software to produce advanced web animation documents.

Digital Image Manipulation 60 hours

Students use digital image manipulation software to create, modify and prepare a variety of images

Independent Studies in Video Production 120 hours

Students at this level develop a higher level of video production skills. Activities include exploration in advanced editing projects, and individuals pursue an area of interest in video production under the direction of the instructor. Students develop digital portfolios of advanced work.

Post Production Digital Video Special Effects 90 hours

Students will create, generate, and integrate 3D special effects using computer graphics and renderings. Students will use software-generated special effects as well as 3D software to design motion graphics and visual effects that deliver the desired results.

Professional and Personal Development 15 hours

Students gain human relations skills for successful employment. Time management, self-motivation, problem solving, communication and leadership techniques are stressed. Student organization activities are included.

Professionalism and Ethics 30 hours

This course teaches professionalism and ethics as they relate to the workplace. Students also cover legal and ethical issues related to television.

Safety 15 hours

Students learn proper safety procedures to follow in the classroom and lab.

Video Production Techniques I 120 hours

Students are introduced to the basic concepts of script writing and on-camera communication skills and production techniques. The student gains practical experience in a variety of studio lab and field projects.

Video Systems - Post-Production 45 hours

The course covers post-production video techniques.

Video/Camera 165 hours

This course covers the commercial uses of the camera for effect. It covers all aspects of camera work including color, background, lighting and styles.

Web Authoring/Animation 90 hours

This course covers basic and advanced HTML, including CSS and SML.

Web Site Production 90 hours

Students use Dreamweaver software, to plan, structure, design, and edit web sites.

Workforce Staging 30 hours

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Drafting Technician

- Architectural Computer-Aided Drafting & Design Technician
- Civil Computer-Aided Drafting & Design Technician
- Manufacturing Computer-Aided Drafting & Design Technician

Architectural Computer-Aided Drafting & Design Technician

Career Major Description

Learn to convert the ideas and specifications of the civil engineer into working drawings by utilizing both manual sketching and parametric solid modeling methods that meet ANSI (American National Standards Institute) and/or AIA (American Institute of Architecture) drafting standards. Students will be trained with some of the most challenging and expanding equipment in the CAD industry. This major prepares the student for an exciting career in a CAD field or for advancing to a college or university to complete a higher degree.

Average Oklahoma Salary

\$18/hour

Helpful Attributes and Abilities

- Ability to read at the 10th grade level
- General understanding of Geometry and Algebra
- Basic to moderate typing and computer literacy skills
- Ability to think critically and logically

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

Autodesk AutoCAD Certified User
American Design Drafting Association (ADDA)
Apprentice Drafter Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
Fundamentals of Computer-Aided Drafting & Design.....	124
Support Documentation	55
Principles of CAD.....	185
Building Information Modeling.....	150
Architecture Computer Aided Drafting & Design	120
CAD Architectural Level 1	105
CAD Architectural Level 2	105
CAD Architectural Level 3	105
Professional Development	65

Career Major Length

1030 Hours

Civil Computer-Aided Drafting & Design Technician

Career Major Description

Learn to convert the ideas and specifications of the engineer architect into working drawings by utilizing both manual sketching and parametric solid modeling methods that meet ANSI (American National Standards Institute) and/or AIA (American Institute of Architecture) drafting standards. Students will be trained with some of the most challenging and expanding equipment in the CAD industry. This major prepares the student for an exciting career in a CAD field or for advancing to a college or university to complete a higher degree.

Average Oklahoma Salary

\$18/hour

Helpful Attributes and Abilities

- Ability to read at the 10th grade level
- General understanding of Geometry and Algebra
- Basic to moderate typing and computer literacy skills
- Ability to think critically and logically

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

Autodesk AutoCAD Certified User
Autodesk Revit Certified User
American Design Drafting Association (ADDA)
Apprentice Drafter Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Computer-Aided Drafting & Design.....	140
Support Documentation	55
Principles of CAD.....	180
3D Infrastructure.....	120
Intro to Civil.....	90
CAD Civil Level 1	90
CAD Civil Level 2	90
CAD Civil Level 3	90
Professional Development	65

Career Major Length

920 Hours

Manufacturing Computer-Aided Drafting & Design Technician

Career Major Description

Learn to convert the ideas and specifications of the mechanical engineer into working drawings by utilizing both manual sketching and parametric solid modeling methods that meet ANSI (American National Standards Institute) and/or AIA (American Institute of Architecture) drafting standards. Students will be trained with some of the most challenging and expanding equipment in the CAD industry. This major prepares the student for an exciting career in a CAD field or for advancing to a college or university to complete a higher degree.

Course Title

	Hours
Fundamentals of Computer-Aided Drafting & Design.....	140
Support Documentation	55
Principles of CAD.....	180
3D/Parametric Modeling.....	170
Manufacturing Computer-Aided Drafting & Design.....	120
CAD Mechanical Level 1	100
CAD Mechanical Level 2	100
CAD Mechanical Level 3	100
Professional Development	65

Career Major Length

1030 Hours

Average Oklahoma Salary

\$19/hour

Helpful Attributes and Abilities

- Ability to read at the 10th grade level
- General understanding of Geometry and Algebra
- Basic to moderate typing and computer literacy skills
- Ability to think critically and logically

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

Autodesk AutoCAD Certified User
Autodesk Inventor Certified User
Solidworks Associate Certification
American Design Drafting Association (ADDA)
Apprentice Drafter Certification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

DRAFTING TECHNICIAN

3D Building Information

Modeling 150 hrs

Building upon skills acquired in the "introduction to CAD for Construction and Architecture" course, this course presents advanced topics in architectural CAD/BIM software and its uses in design and construction. Centered on problem-based tasks, topics such as 3-dimensional modeling, design for fabrication, parametric building design, building information modeling (BIM), material takeoff, energy-efficient planning and model analysis, rendering and presentation and others will be explored.

3D Infrastructure 120 hrs

Use the tools in the Architecture, Engineering and Construction Collection to connect vertical and horizontal BIM processes across the project life cycle. Deliver more scalable, sustainable and resilient civil infrastructure.

3D Parametric Modeling 170 hrs

This is an advanced level course in which students use commands and techniques related to 3-D modeling and analysis and parametric drafting using several parametric modeling software packages to create parts, assemblies and drawings to industry standards. Related lab projects are included.

Architecture Computer-Aided Drafting & Design 120 hrs

This course is a basic Architectural Drafting course utilizing Computer-Aided Drafting and Design (CADD) software that develops computer skills and electronic skills and applications within the field of architectural drafting. Topics covered are advanced computer operations, introduction to residential architecture drafting, CADD application software, site conditions/plot plans, lettering and tools, residential design/room layout, structural systems and building materials, working drawings/floor plans and details, dimensioning, foundations, electrical/mechanical/plumbing, presentation drawings, interior and exterior elevations, roof plans, commercial architectural drafting, structural steel framing plans, pre-cast concrete, framing plans, foundations and walls and structural wood.

CAD Architectural Level 1 105 hrs

This course is project-based, utilizing knowledge and skills learned early in the drafting coursework and at the fundamental level. This course is for the area of Architectural, with some related areas introduced. This is a project-based course and requires lab work.

CAD Architectural Level 2 105 hrs

This course is project-based, utilizing knowledge and skills learned in drafting at the fundamental second level building on the projects in Level 1. This is for the Architectural Drafting majors and may include areas related. This is a project-based course and requires lab work. Prerequisite: CAD Architectural Level 1

CAD Architectural Level 3 105 hrs

This course is project-based utilizing knowledge and skills learned in drafting at the intermediate third level, building on the projects in Level 2. This is for the area of Architectural Drafting; other related areas may be included. This is a project-based course and requires lab work. Prerequisite: CAD Architectural Level 2

CAD Civil Introduction 90 hrs

This course will introduce students to the skills required in CAD Civil. The majority of this course will be projects based and requires lab work to practice these skills.

CAD Civil Level 1 90 hrs

This course is project based, utilizing knowledge and skills learned early in drafting coursework at the fundamental level. This is for the area of Civil Drafting. This course requires lab work.

CAD Civil Level 2 90 hrs

This course is project-based utilizing knowledge and skills learned in the drafting at the fundamental second level, building on the projects in Level 1. This is for the Civil-Drafting majors and may include areas related. This course requires lab work. Prerequisite: CAD Civil Level 1

CAD Civil Level 3 90 hrs

This course is project-based utilizing knowledge and skills learned in drafting at the intermediate third level building on the projects in Level 2. This is for the area of Civil Drafting and other related areas may be included. This is a project-based course that requires lab work. Prerequisite: CAD Civil Level 2

CAD Mechanical Level 1 100 hrs

This course is project based utilizing knowledge and skills learned early in the drafting coursework and at the fundamental level. This course is for the Mechanical area with some information related to Pipe & Electronics drafting. This course requires lab work. Prerequisite: Manufacturing Computer-Aided Drafting & Design

CAD Mechanical Level 2 100 hrs

This course is project based utilizing knowledge and skills learned in the drafting at the fundamental second level building on the projects in level 1. This is for the Mechanical drafting majors and it may include related areas. This course requires lab work. Prerequisite: CAD Mechanical Level 1

CAD Mechanical Level 3 100 hrs

This course is project based utilizing knowledge and skills learned in the drafting at the intermediate third level building on the projects in level 2. This is for the area of Mechanical Drafting; other related areas may be included. This course requires lab work. Prerequisite: CAD Mechanical Level 2

Support Documentation 55 hrs

This course is for the development of skills for file management and use of technology to support effective organizational skills within occupational workflow and processes.

Fundamentals of Computer-Aided Drafting and Design 140 hrs

This course is the basic CAD software course. Topics covered are safety, tools, equipment, media and reproduction, sketching, scale usage, drawing formats, alphabet of lines, lettering and geometric construction, computer literacy through CAD, operating systems and file utilities, software functions, office functions, hardware applications, coordinates, drawing environment, plotting, printing, multi-view drawing environment, geometry modifications and dimensioning, symbol library development, introduction to parametric and software, introduction to multiple CAD software used to manipulate text and graphics, and basic CAD applications.

Manufacturing Computer Aided Drafting & Design 120 hrs

This course applies principles of robotics and automation and builds on computer solid modeling skills developed in introduction to Engineering Design. Students use CNC equipment to produce actual models of their 3D designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

Principles of CAD 165 hrs

This course is the basic CAD software course. Topics covered are safety, tools, equipment, media CAD reproduction, sketching, scale usage, drawing formats, alphabet of lines, lettering and geometric construction, computer literacy through CAD, operating systems and file utilities, software functions, office functions, hardware applications, coordinates, drawing environment, plotting, printing, multi-view drawing environment, geometry modifications and dimensioning, symbol library development, introduction to parametric and software, introduction to multiple CAD software used to manipulate text and graphics, and basic CAD applications.

Professional Development 55 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Early Childhood Development

- Early Care and Education Director
- Early Care and Education Master Teacher
- Early Care and Education Teacher Assistant
- Paraprofessional Teacher Assistant/Child - Development Associate

Early Care and Education Director

Career Major Description

This major prepares students to be directors in early care and education facilities and provides a stepping-stone for students seeking degrees in education, counseling, and child development. Instruction includes general supervision, development, and education of children along with supervisory and management opportunities in the classroom and laboratory, as well as in as a supervised practicum experience. Successful completion of Director and having a high school diploma or GED meets the Oklahoma Registry requirements for bronze level through the Oklahoma Center for Early Childhood Professional Development.

Course Title

Course Title	Hours
Professional Development I.....	50
Intro to Nutrition, Health & Safety	85
Intro to Guidance of Young Children.....	80
Intro to Child Development	75
Infant & Toddler Care	140
Parent, Community & Program Planning I.....	65
Professional Development II.....	45
Child Guidance, Behavior & Classroom Management.....	60
Creative Arts	45
Cognitive/Social Skills.....	75
Parent, Community & Program Planning II	60
Observation & Training	100
Early Care & Education Director.....	250
Project Based Learning	170

Career Major Length

1300 Hours

Average Oklahoma Salary

\$17/hour

Helpful Attributes and Abilities

- Good physical and mental health
- Patience and enthusiasm for working with children
- Good human relations skills
- Planning and organizational skills
- Creative thinking skills
- Reading and math skills at the 8th grade level or above

Who Can Enroll

Seniors & Adults

Prerequisites

- Must have a clean OSBI background check

Location

Springlake Campus
Child Care Training Center
3901 Martin Luther King Ave.
Oklahoma City, OK 73105

Financial Aid

Available for those who qualify

Student Organization

FCCLA-Family, Career and Community Leaders
of America

Certifications

ODCTE Director

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)

Early Care and Education Master Teacher

Career Major Description

This major prepares students to be licensed teachers in early care and education facilities responsible for the general supervision, development, and education of children. In addition to learning how to attend to children's basic needs, students learn to organize activities that stimulate a child's physical, emotional, intellectual, social and creative growth. Instruction occurs in the classroom and laboratory as well as in a supervised practicum experience. Successful completion of Master Teacher curriculum with three months full-time experience meets the Licensing and Stars Criteria of Oklahoma for Master Teacher.

Average Oklahoma Salary

\$11/hour

Helpful Attributes and Abilities

- Good physical and mental health
- Patience and enthusiasm for working with children
- Good human relations skills
- Planning and organizational skills
- Creative thinking skills
- Reading and math skills at the 8th grade level or above

Who Can Enroll

Seniors & Adults

Prerequisites

- Must have a clean OSBI background check

Location

Springlake Campus
Child Care Training Center
3901 Martin Luther King Ave.
Oklahoma City, OK 73105

Financial Aid

Available for those who qualify

Student Organization

FCCLA-Family, Career and Community Leaders
of America

Certifications

ODCTE Master Teacher

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Professional Development I.....	50
Intro to Nutrition, Health & Safety.....	85
Intro to Guidance of Young Children.....	80
Intro to Child Development.....	75
Infant & Toddler Care.....	140
Parent, Community & Program Planning I.....	65
Professional Development II.....	45
Child Guidance, Behavior & Classroom Management.....	45
Creative Arts.....	75
Cognitive/Social Skills.....	75
Parent, Community & Program Planning II.....	60
Observation & Training.....	100
Project Based Learning.....	170

Career Major Length

1050 Hours

Early Care and Education Teacher Assistant

Career Major Description

This major prepares students to provide instructional assistance to children under the direction of a licensed teacher in early care and education facilities. Students are taught health and safety, guidance, curriculum, and nutrition in a classroom/laboratory setting as well as in a supervised practicum experience. Upon successful completion of Teacher Assistant, the student is also recognized as having met the Entry Level Child Care Training (ELCCT) requirements

Course Title

	Hours
Professional Development I.....	50
Intro to Nutrition, Health & Safety	85
Intro to Guidance of Young Children.....	80
Intro to Child Development	75
Parent, Community & Program Planning I.....	65
Project Based Learning	170

Career Major Length

525 Hours

Average Oklahoma Salary

\$10/hour

Helpful Attributes and Abilities

- Good physical and mental health
- Patience and enthusiasm for working with children
- Good human relations skills
- Planning and organizational skills
- Creative thinking skills
- Reading and math skills at the 8th grade level or above

Who Can Enroll

Juniors, Seniors & Adults

Prerequisites

- Must have a clean OSBI background check

Location

Springlake Campus
Child Care Training Center
3901 Martin Luther King Ave.
Oklahoma City, OK 73105

Student Organization

FCCLA-Family, Career and Community Leaders
of America

Certifications

ODCTE Teacher Assistant

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)

Paraprofessional Teacher Assistant/Child Development Associate

Career Major Description

This major offers opportunities for students to train as paraprofessionals or teacher assistants as well as meet the academic requirements for receiving the CDA certification. Students receive an overview of early care supervision including professional development, communication skills, safety and regulations, and ethical principles. Curriculum covers special needs, curriculum development, classroom management, and discipline techniques in a classroom/laboratory setting as well as in a work-based learning experience.

Course Title

	Hours
Introduction to Computers & Applications.....	75
ELCCT.....	20
School Based or Child Care Center Practicum.....	100
Special Needs Paraprofessional Training.....	25
Child Development Associate I.....	190
Child Development Associate II.....	190

Career Major Length

600 Hours

Average Oklahoma Salary

\$12/hour

Helpful Attributes and Abilities

- Good physical and mental health
- Patience and enthusiasm for working with children
- Good human relations skills
- Planning and organizational skills
- Creative thinking skills
- Reading and math skills at the 8th grade level or above

Who Can Enroll

Adults

Prerequisite

Must have a clean OSBI Background Check

Location

Springlake Campus
Child Care Training Center
3901 Martin Luther King Ave.
Oklahoma City, OK 73105

Financial Aid

Available for those who qualify

Student Organization

FCCLA-Family, Career and Community Leaders
of America

Certifications Available

ParaPro Teacher Assistant

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)

COURSE DESCRIPTION

EARLY CHILDHOOD DEVELOPMENT

Academic Commitment to Education (ACE) 120 hrs

This course is structured around classroom lectures, activities and projects. The course also includes a component where the student is placed in teaching experiences within the school system and under the supervision of the supervising teacher and corresponding classroom teacher. The purpose is to provide a quality experience for the student-teacher and the younger students in which the student will interact. This course is aligned with ten of the fifteen Oklahoma Teaching Competencies (OTC) based on the Interstate New Teacher Assessment and Support Consortium (INTASC) principles.

Child Development Associate I 190 hrs

This course will teach students how to handle health and safety requirements and emergencies. Students will learn good nutrition and guidance techniques. Students will also learn to provide care for infants and plan activities for children. Students will practice responding to scenarios that relate to children. Observation time will be a component of the course.

Child Development Associate II 190 hrs

Students will create appropriate activities for specific developmental areas. Students will learn how to develop daily and weekly schedules, as well as practice responding to scenarios involving children and parents. Students will learn how to select books based on criteria and develop competency goals.

Child Guidance, Behavior & Classroom Management 50 hrs

This course will allow students to gain knowledge in guidance theories, positive strategies that will enhance their understanding of the child guidance process by utilizing different care giving styles, specific positive discipline strategies and managing the physical environment effectively.

Classroom Management 120 hrs

This course combines effective teaching skills and classroom management into one comprehensive course. It is designed to provide basic pedagogical tools necessary for creating effective teaching and learning environments. Students will be introduced to the current research on instructional approaches and strategies for teaching and learning in today's classrooms. Students will be required to demonstrate these best practices within individual and small group experimental activities. Additionally, this course incorporates current research on the most effective strategies for improving classroom discipline, motivation, interpersonal relationships, and academic performance on all grade levels. Attention will be given to aspects of diversity and/or culture factors that influence perceptions about classroom management.

Cognitive/Social Skills 100 hrs

This course will give opportunities for students to learn cognitive and social needs of children birth to 8 years while focusing on appropriate experiences while creating a positive learning environment.

Creative Arts 80 hrs

This course is designed for students to focus on creativity, play and motor development while designing appropriate experiences for children birth to 8 years.

Early Care & Education Director 250 hrs

This course is aligned with the Oklahoma Career Tech duty/task lists for early childhood care and education occupations. The curriculum incorporates state licensing regulations and standards set forth by national organizations active in early childhood care and education. The curriculum offers various components of administering a child care center program, an understanding of the director's role in child care management; developing child care professionals; employment plans; and interactions with various situations and people are included. The necessary knowledge and skills in early childhood care and education and administration and management are incorporated. In addition, project-based activities are included to assist the students in preparing for a rewarding career. Prerequisites: Teacher Assistant, Master Teacher and Infant Toddler

Early Care & Education Infant and Toddler Care 140 hrs

This course is aligned with Oklahoma Career Tech duty/task lists for early childhood care and education occupations. This in-depth study is designed to provide training in the following areas: Ensuring a Safe and Healthy Environment, Understanding Infant and Toddler Development, Developing Relationships with Families, and Managing a Child Care Program. Prerequisites: Teacher Assistant and Master Teacher

Infant and Toddler Care 140 hrs

This course is designed for students that have completed Teacher Assistant and Master Teacher courses. The course is aligned with Oklahoma Career Tech duty/task lists for early childhood care and education occupations. This in-depth study is designed to provide training in the following areas: Ensuring a Safe and Healthy Environment, Understanding Infant and Toddler Development, Developing Relationships with Families, and Managing a Child Care Program. Prerequisite: Teacher Assistant and Master Teacher

Intro to Child Development 75 hrs

This course is designed to assist students in gaining a basic understanding of how children grow and develop from birth to age twelve. The course combines classroom instruction with lab experience and observation to develop competence in working with young children. The course will allow students the opportunity to experience firsthand how children develop skills during the early childhood years.

Intro to Guidance of Young Children 60 hrs

This course is designed to assist students in gaining an understanding of direct and indirect guidance techniques to be used with young children. The course combines classroom instruction with lab experience and observation to develop competence in working with young children. The course will allow students the opportunity to experience firsthand what it is like to guide children's behavior through direct and indirect methods.

Intro to Nutrition, Health & Safety 105 hrs

This course provides a basic understanding of strategies to develop children and to keep them safe and healthy. The course combines classroom instruction with lab experience and observation to develop competence in maintaining a safe and healthy learning environment for children. The course will allow students the opportunity to experience firsthand how to maintain safety and health regulations and to provide nutritious meals and snacks.

Observation & Training II 115 hrs

The course allows students firsthand experiences in the classroom observing and participating in lab experiences to develop competence in working with young children.

Parent, Community & Program Planning I 50 hrs

This course allows students to explore methods of effectively interacting with families. Students will learn practical application of developing child centered curriculum as well as effective program planning.

Parent, Community & Program Planning II 105 hrs

This course allows students to explore methods of effectively interacting with families. Students will learn practical application of developing child centered curriculum as well as effective program planning.

Professional Development I 95 hrs

This course is designed for the development of leadership, personal development and employability skills within the field of education.

Professional Development II 75 hrs

This course is designed for the development of leadership, personal development and employability skills within the field of education.

ELCCT 20 hrs

This class provides students with the child care/day-care center training needed to provide quality care for young children. Learning activities stress the importance of the role of the caregiver in child care work.

Field Experience 75 hrs

Students will observe classroom settings of various age levels throughout the school year. During extended field experience, students will work with small groups, prepare and present lessons and implement evaluations of activities while working under an experienced professional teacher.

Introduction to Computers and Applications-Paraprofessional 75 hrs

This hands-on course provides students with a basic understanding of computers and their application. Students will be able to demonstrate on an introductory level the use of a computer operating system, an office suite and productivity tools as well as the Internet.

Introduction to Computers and Applications-Teacher Prep 45 hrs

This hands-on course provides students with a basic understanding of computers and their application. Students will be able to demonstrate on an introductory level the use of a computer operating system, an office suite and productivity tools as well as the Internet.

Introduction to Secondary Education 120 hrs

This course is designed to introduce Pre-Education students to the professional community of teachers, administrators, and support staff vital to the education of our nation's youth and to the role school plays in society. This course initiates the process of developing a fundamental framework which allows students to become familiar with the culture of schools as they begin to assess their interest in the teaching profession.

Professional Development 45 hrs

This course is designed for the development of leadership, personal development and employability skills attainment within the field of education.

School Based or Child Care Practicum 100 hrs

Students will complete an internship that relates to being a paraprofessional or working with children. The internship will be planned to meet the student's needs and will help the student broaden their educational experience

Special Needs Paraprofessional Training 25 hrs

Students will learn the historical and legal foundations of special education, roles and responsibilities, ethical principles and professional conduct, HEP participation, disability awareness and learning strategies, planning, problem solving and communication, data collection and IEP progress monitoring, safe and healthy learning environments as well as behavior strategies.

Electrical Technology

- Electrician's Assistant Unlimited Complete
- Residential Electrician's Assistant

Electrician's Assistant Unlimited Complete

Career Major Description

This major prepares students as electrician's assistants who assist in installing, diagnosing and repairing electrical systems for residential, commercial and industrial applications. Students are trained in safety practices, hand and power tools/equipment use and application and electrical theory along AC/DC circuitry, and wiring applications. Included are motors, motor control circuits, and power distribution systems as well as industrial controls, electromechanical devices, and the National Electrical Code. Hours completed in this major can be counted toward the 8,000 hours (four years) of work experience required for the journeyman electrician license.

Average Oklahoma Salary

\$18/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A basic knowledge of general science
- Good manual dexterity
- Average strength and good physical health
- An ability to work independently and as part of a team

Who Can Enroll

Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

	Hours
General Construction Safety & First Aid.....	45
Electrical Safety in Construction	15
Electrical Theory in Construction	100
Electrical Schematic & Blueprint Reading in Construction	30
Electrical Power & Hand Tools and Equipment in Construction	30
Direct Current Circuits in Construction	45
Alternating Current Circuits in Construction	80
National Electrical Code in Construction	90
Residential Wiring Methods	300
Commercial Wiring Methods.....	200
Industrial Wiring Methods	80
Electrical Distribution in Construction	80
Motor Theory & Operation in Construction	60
Motor Control Wiring in Construction	60
Programmable Logic Controllers in Construction.....	30
Workforce Staging	45

Career Major Length

1290 Hours

Residential Electrician’s Assistant

Career Major Description

Learn to install, diagnose and repair electrical systems for residential applications. This major provides an understanding of the basic fundamentals of electricity and its practical applications, instructs the student in direct current and alternating current circuitry, teaches residential wiring, and gives the student an understanding of the National Electrical Code and how it applies to safe electrical installations. Hours completed in this major can be counted toward the 8,000 hours (four years) of work experience required for the journeyman electrician license.

Average Oklahoma Salary

\$18/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A basic knowledge of general science
- Good manual dexterity
- Average strength and good physical health
- An ability to work independently and as part of a team

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

Course Title	Hours
General Construction Safety & First Aid.....	45
Electrical Safety in Construction	15
Electrical Theory in Construction	100
Electrical Schematic & Blueprint Reading in Construction	30
Electrical Power & Hand Tools and Equipment in Construction	30
Direct Current Circuits in Construction	45
Alternating Current Circuits in Construction	80
National Electrical Code in Construction	90
Residential Wiring Methods	300
Workforce Staging	45

Career Major Length

780 Hours

COURSE DESCRIPTION

ELECTRICAL TECHNOLOGY

Alternating Current Circuits in Construction 80 hrs

This course covers electrical theory in AC circuits and develops understanding of generation, amplitude, phase, phase shift, power factor, measurement methods, and troubleshooting skills.

Commercial Wiring Methods 200 hrs

This course covers the circuits used in wiring commercial premises including service entry and branch circuit installation, load distribution, device installation, grounding, overcurrent devices, conduit bending and installation, panels and switchboards, and hazardous locations. Prerequisite: Completion of Residential Wiring course sequence

Direct Current Circuits in Construction 45 hrs

This course covers electrical theory in DC circuits and develops a student's understanding of the electrical units of volts, ohms, amps, and watts, measurement equipment and methods, interrelationships, and troubleshooting skills. Prerequisite: Electrical Safety in Construction

Electrical Distribution in Construction 80 hrs

This course covers the common practices of electrical distribution and the repair and maintenance of distribution systems. Prerequisite: Completion of Residential Wiring course sequence

Electrical Power & Hand Tools and Equipment in Construction 30 hrs

This course covers the safe use, operations and maintenance of power and hand tools used in construction.

Electrical Safety in Construction 15 hrs

Safety rules and regulations for electricians, precautions for electrical and mechanical hazards on the job, tool and equipment safety, first aid, CPR, blood borne pathogens, OSHA and NFPA mandated lockout/tagout, personal protective equipment, right to know, and confined space entry procedures.

Electrical Schematic & Blueprint Reading in Construction 30 hrs

This course prepares the student to interpret standard electrical schematics and construction blueprints.

Electrical Theory in Construction 100 hrs

This course covers Ohms law and concepts of electrical theory necessary to install, maintain and troubleshoot electrical circuits.

General Construction Safety and First Aid 45 hrs

General construction safety including tool and equipment safety, blood borne pathogens, CPR, PPE, confined space entry, hazardous materials and right to know.

Industrial Wiring Methods in Construction 80 hrs

This course covers the circuits used in wiring industrial premises including service entry and branch circuit installation, load distribution, device installation, grounding, over-current devices, conduit bending and installation, panels and switchboards, and hazardous locations. Prerequisite: Completion of Residential Wiring course sequence and Commercial Wiring Methods

Motor Control Wiring in Construction 60 hrs

This course covers relays, motor starters, overload sizing, ladder diagrams, and design of complex systems used to control motors in various commercial and industrial applications. Prerequisite: Completion of Residential Wiring course sequence

Motor Theory & Operation in Construction 60 hrs

This course covers the theory of operation of AC and DC motors, their construction, selection of appropriate motors for specific applications, and feeder calculations. Prerequisite: Completion of Residential Wiring course sequence

National Electrical Code in Construction 90 hrs

This course prepares the student to locate and interpret specific standards in the NFPA's National Electrical Code. Instruction includes load calculations, conductor sizing, conduit fill calculations, and standards for wiring practices.

Programmable Logic Controllers in Construction 30 hrs

This course covers the application of programmable logic controllers in various commercial and industrial applications and includes the application of internal relays, timers, counters, and special functions. Analog inputs and outputs are covered. Prerequisite: Completion of Residential Wiring course sequence

Residential Wiring Methods 300 hrs

This course covers the circuits used in wiring residential premises including service entry and branch circuit installation, load distribution, device installation, grounding, overcurrent devices, and lighting.

Workforce Staging 45 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.

Entrepreneurship

- Introduction To Entrepreneurship
- Small Business Entrepreneur

Introduction to Entrepreneurship

Career Major Description

This major introduces students to the concept of entrepreneurship. Students acquire knowledge of the nature and scope of entrepreneurship and the impact of entrepreneurship on market economies. Students examine and develop the personal traits and behaviors fundamental to becoming a successful entrepreneur, and they are exposed to the first steps of the entrepreneurial process. In addition, students develop an understanding of economic concepts and marketing functions.

Average Oklahoma Salary

Dependent upon the success of the business

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Basic computer literacy
- Strong interpersonal skills
- Good oral and written communication skills
- Positive attitude
- Dependability
- Self-motivated
- Desire to succeed
- Energetic

Who Can Enroll

Juniors & Seniors

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA, DECA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
Entrepreneurship Awareness	120
Business and Marketing Communications.....	60
Entrepreneurship	120
Accounting I.....	120
Buying and Merchandising	60
E-Commerce Marketing.....	120
Advertising Strategies.....	120
Career Major Capstone	120

Career Major Length

960 Hours

Small Business Entrepreneur

Career Major Description

This major prepares students to start their own businesses. Self-assessment activities help students determine their entrepreneurial potential. Using skills gained in accounting, buying and merchandising, e-commerce, marketing and advertising, students develop their own detailed business plan. They also explore the economic advantages and disadvantages of international trade. Students develop leadership traits and identify their leadership potential through participation in the DECA (an association of marketing students) student organization.

Average Oklahoma Salary

Dependent upon the success of the business

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Basic computer literacy
- Strong interpersonal skills
- Good oral and written communication skills
- Positive attitude
- Dependability
- Self-motivated
- Desire to succeed

Who Can Enroll

Juniors & Seniors

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA, DECA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
Entrepreneurship Awareness	120
Business and Marketing Communications.....	60
Entrepreneurship	120
Accounting I.....	120
Buying and Merchandising	60
E-Commerce Marketing.....	120
Advertising Strategies	120
Advanced Entrepreneurship.....	120
Career Major Capstone	120

Career Major Length

1080 Hours

COURSE DESCRIPTION

ENTREPRENEURSHIP

Accounting I 120 hrs

This course will provide students with a strong foundation in generally accepted accounting principles and techniques needed for success in careers in business related fields.

Advanced Entrepreneurship 120 hrs

This course is designed to provide a detailed study of all aspects related to starting a business. The course includes the basic fundamentals of marketing and business operations and advanced topics to consider when preparing for business ownership. Through self-assessment activities, students will identify their potential for creating a business or a marketable product/idea. Students will apply what they learn by developing their own detailed business plan. Self-employment is presented as a viable career option.

Advertising Strategies 120 hrs

This is a course of study in the basic functions of advertising; its role in marketing communications mix; economics, consumer behavior, and social influence. Students will explore advertising techniques and the technology used in advertising institutions and media; campaigns and appropriations; retail and business-to-business aspects to develop and implement a promotional plan.

Business and Marketing Communications 60 hrs

This is a course of study in the application of marketing skills developed through a variety of informal and formal experiences. The performance-based course will emphasize effective interpersonal and team building skills along with written and oral communication techniques. Technology will be used to create and deliver presentations, enhance problem-solving situations, and practice critical thinking and decision-making. Job interview, research paper, and/or projects will culminate this course.

Buying and Merchandising 60 hrs

This is an introductory course designed to explore the role and responsibility of a buyer and merchandiser. This course will cover job skills for the buyer or merchandiser including the ability to use mathematic formulas, budgeting, research, making purchases, and additional responsibilities of the buyer.

E-Commerce Marketing 120 hrs

This is a course of study in the development of communication and marketing strategies for effective electronic commerce to take place. The primary focus is how to: market products/services, use the Internet, identify markets, and communicate with them. This course provides an overview of the marketing activities businesses need to perform in order to maximize return and meet customer expectations with electronic purchases.

Entrepreneurship 120 hrs

This course is designed for the study of all aspects of starting a business. The course includes the basic fundamentals of marketing and business operations. Through self-assessment activities, students will identify their potential for creating a business or a marketable product/idea. Students will apply what they learn by developing their own business plan. Self-employment is presented as a viable career option.

Entrepreneurship Awareness 120 hrs

This course allows students to discover and determine their entrepreneurial aptitude. Students will explore the relationship between entrepreneurship, business and marketing skills, creative instincts, self-esteem/discipline, and independence. Career opportunities and pre-employment skills required for success in the areas of business, marketing, and management will also be introduced during this course. Students will develop leadership traits and identify their leadership potential through participation in the DECA (an association of marketing students) student organization.

Fundamentals of Technology 120 hrs

This course provides students with the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment, which is needed for success in careers in business related fields. This course also provides job readiness skills and soft skills that are critical for success in any workplace setting.

Intro to Entrepreneurship

Career Major Capstone 120 hrs

Internships, project-based instruction and additional industry certifications will be utilized in this course to reinforce skills obtained within the Intro to Entrepreneurship Career Major. Students will make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train, or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Small Business Entrepreneur

Career Major Capstone 120 hrs

Internships, project-based instruction and additional industry certifications will be utilized in this course to reinforce skills obtained within the Small Business Entrepreneur Career Major. Students will make final preparations for industry certifications as they master outlined competencies. Students will select from various project options to finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train, or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Fire Service

- Basic Firefighter

Basic Firefighter

Career Major Description

The Basic Firefighter career major will prepare students for the physical requirements of being a firefighter while they learn about the requirements, equipment, and basic knowledge needed to be a firefighter. Students will complete hazardous materials training and will complete the course requirements needed to take the Firefighter I certification.

Average Oklahoma Salary

Varies by location

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Juniors & Seniors

Location

South Bryant Campus
4901 South Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Certifications Available

CPR
Firefighter I

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
First Aid & CPR for the Professional Rescuer.....	20
Firefighter Equipment	60
Firefighter Physical Training.....	160
Fire Academy Orientation.....	50
National Incident Management Systems	120
Hazardous Materials Awareness	40
Fire Academy - Hazardous Materials Operations.....	80
Pump Operations/Water Supply.....	40
Firefighter I	232
Vehicle/Machinery Extrication Basics	50
Basic Wildland Firefighting	70
Carerr Readiness	50
Traffic Incident Management System	16
Fire Certification Review	40
Basic Firefighter Evaluations & Testing	30

Career Major Length

1058 Hours

COURSE DESCRIPTION

FIRE SERVICE

****PENDING****

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Graphic Design

- Graphic Design

Graphic Design

Career Major Description

Production artists design and prepare projects for print media using a variety of software packages and production skills. Students will learn common industry practices such as page layout and photo manipulation techniques, screen printing, vinyl signage and more.

Average Oklahoma Salary

\$13/hour

Helpful Attributes and Abilities

- Reading and language skills at the 10th grade level or above; math skills at the 9th grade level or above
- Art background, training or natural ability
- Attention to detail
- Basic typing and computer literacy skills
- Good eye-hand coordination
- Good interpersonal skills
- Ability to self-motivate and perform under pressure
- For Vinyl Graphics Installation course only: Ability to bend, stoop and reach above the head or below the knee holding 10 pounds

Who Can Enroll

Juniors & Seniors

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

Adobe Certified Associate

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
Safety	15
Mac and Adobe Basics.....	30
Fundamentals of Graphic Design.....	120
Printing & Production Basics.....	45
Typography 1	45
Typography 2	90
Advanced Desktop Publishing and Graphic Design	120
Screen Printing Basics	45
Vinyl Graphics Installaton	60
Porfolio Development.....	90
Digital Illustration.....	120
Multimedia Image Management	120
Animated Design	30
Independent Study and Skill Development.....	90
Workbased Learning	60

Career Major Length

1080 Hours

COURSE DESCRIPTION

GRAPHIC DESIGN

Advanced Desktop Publishing & Graphic Design 120 hrs

This course provides advanced education and skill development in desktop publishing, throughout this course will demonstrate the ability to create a wide variety of digital graphic products at an industry entry-level standard. Students who successfully complete this course will have advanced foundational skills in type, page layout, image capture, digital illustration and design principles. The skills are prerequisites for courses that provide training in specialized occupations within the Advertising Design and Print Production industries. The competencies of this course align with the Printed/SkillsUSA Workforce Ready System End of Instruction exams.

Animated Design 30 hrs

The popularity of animated GIFs in social media and advertising, the rise of short form video sharing sites like Vine and Instagram and the ability to easily create short animations and videos with mobile devices make this kind of "micro cinema" an important part of our contemporary media landscape. Course will include introduction to creating GIFs with Adobe Photoshop.

Digital Illustration 120 hrs

In this course, students prepare a variety of illustrations by hand.

Digital File Prep 30 hrs

This course covers preparing and troubleshooting digital files for various output needs.

Digital Illustration 120 hrs

Using illustration software, students create, import, edit and prepare a variety of illustrations.

Fundamentals of Graphic Design 120 hrs

This course provides an introduction to the graphic communications industry.

Independent Study and Skill Development 90 hrs

Students at this level will develop a higher level of graphic design skills. Activities will include exploration in advanced editing projects and individuals will pursue an area of interest in graphic design under the direction of the instructor.

Mac & Adobe Basics 30 hrs

Students learn to operate hardware components using the Macintosh computer system. They learn terminology and create a hierarchical filing system. They will also draw and paint in an electronic environment using the Illustrator software program. Assignments will reflect knowledge of creating original art for multimedia, the web and print.

Multimedia Image Management 120 hrs

The Multimedia & Image Management Techniques course will provide students with fundamental skills in image creation and management procedures and enhancement techniques as they create, revise, optimize and export graphics for video, print and web publishing.

Page Layout & Publication Design 90 hrs

In this course, students will use basic layouts to produce publications.

Portfolio Development 90 hrs

In this course, students design and develop projects for a personal professional portfolio.

Printing and Production Basics 45 hrs

This class covers the concept that, while most modern graphic design is created on computers using design software, the ideas and concepts don't stay on the computer. The ideas need to be completed in the computer software, then progress to an imaging (traditionally referred to as printing) process.

Project Management Conceptual Design Process 90 hrs

In this course students learn to manage a design project from concept to completion.

Safety 15 hrs

Students learn proper safety procedures to follow in the classroom and lab.

Screen Printing Basics 45 hrs

In this course, students learn the production side of vinyl signage and screen printing of T-shirts.

Typography 1 45 hrs

In this rigorous introductory course, we will study, name and measure the characteristics of letterforms. We'll consider the pragmatic concerns involved in selecting and combining type. We'll peek into the rich historical, cultural and aesthetic histories of familiar typefaces.

Typography 2 90 hrs

This class will continue the discussion of time-tested conventions and best practices in setting type, as governed by principles of hierarchy and spatial organization. And we'll explore the expressive, meaning-making potential of type.

Vinyl Graphics Installation 60 hrs

Students will learn vinyl/film application services for various surfaces including vehicles, walls, floors, and windows.

Workbased Learning Capstone/OJT 60 hrs

Students in this course put into practice all of the skills learned in this major. Students may work at a job site location to reinforce occupational and employability skills. This internship experience is designed to bridge the gap between school and work.

Health Careers Certification

- Advanced Unlicensed Assistant
- Nurse Aide
- Health Science Technology

Advanced Unlicensed Assistant

Career Major Description

Students in this career major will learn the functions of an Advanced Unlicensed Assistant, which includes performing more advanced functions in an assistive role with a licensed practical nurse or registered nurse in acute care facilities. They will complete a long-term care course and then proceed into the advanced curriculum and learn how to perform sterile specimen collection, urinary catheterization, and feeding per gastrointestinal tube. Advanced Unlicensed Assistant (AUA) certification must be obtained from the Oklahoma Board of Nursing.

Average Oklahoma Salary

\$10/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- A general interest in health careers
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Seniors

Prerequisites

- Currently enrolled in high school and Metro Technology Centers with a 3.0 GPA and 92% attendance
- Completed the Nurse Aide career major

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

Advanced Unlicensed Assistant (AUA)
Certified Nurse Assistant (CNA)
CPR

Course Title

Course Title	Hours
Health Careers Core Curriculum	225
Medical Terminology	45
Anatomy	60
Physiology.....	60
Healthcare Provider CPR and First Aid	15
Long Term Care Assistant.....	120
Advanced Unlicensed Assistant	240
EKG Management	15
Analyze EKG Tracing.....	15
EKG Practicum	90
Advanced Unlicensed Assistant Capstone	120

Career Major Length

1005 Hours

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

Nurse Aide

Career Major Description

Nursing aides help patients with routine healthcare needs, bedside care, and basic nursing procedures. They are often employed in a long term care facilities and hospitals. They play a vital role in the health care team. In this major, students will complete the health care core curriculum, medical terminology, and anatomy and physiology in addition to the long term care curriculum. Students must pass the Oklahoma State Nurse Aide Registry exam for long term care assistants to work in any facility.

Course Title

	Hours
Health Careers Core Curriculum	225
Medical Terminology	45
Anatomy.....	60
Physiology.....	60
Healthcare Provider CPR and First Aid	15
Long Term Care Assistant.....	120

Career Major Length

525 Hours

Average Oklahoma Salary

\$9/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- A general interest in health careers
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Juniors & Seniors

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

Certified Nurse Assistant (CNA)
CPR

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
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Pharmacy Clerk

Career Major Description

Students in this major will complete anatomy and physiology, medical terminology, core healthcare provider CPR and first aid, and the health careers core curriculum course along with the first four classes of the pharmacy technician major. Students will learn about pharmacy law and ethics, pharmaceutical terminology, pharmacology and get an orientation to the pharmacy technician career. Upon completion of this major students may enroll in the pharmacy technician major and receive credit for courses completed or go to work in a retail pharmacy setting as a clerk.

Course Title

	Hours
Health Careers Core Curriculum	225
Medical Terminology	45
Anatomy	60
Physiology.....	60
Healthcare Provider CPR and First Aid.....	15
Orientation to the Pharmacy Technician Career	15
Pharmacy Law and Ethics.....	15
Pharmacology for PhT	75
Pharmaceutical Terminology	15
Career Major Length	525 Hours

Average Oklahoma Salary

\$9/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- A general interest in health careers
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Juniors & Seniors

Location

Springlake Campus
 Health Careers Center
 1720 Springlake Drive
 Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

CPR

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

1500 West Seventh Ave., Stillwater, OK 74074,
 phone (405) 377-2000, 1-800-522-5810,
 fax (405) 743-6809

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Health Science Technology

Career Major Description

The healthcare industry is projected to be among the fastest growing industries in the economy. There are a variety of health occupations and job settings available to work in. In this career major, students will complete the health care core curriculum, medical terminology, and anatomy and physiology courses in addition to the Health Science Technology curriculum. The major will include a variety of tours, guest speakers, and classroom shadowing experiences to expose each student to many different health career professions.

Average Oklahoma Salary

\$11/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- A general interest in health careers
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Juniors

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

CPR

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
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2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

Course Title	Hours
Health Careers Core Curriculum	225
Core Medical Terminology	45
Anatomy.....	60
Physiology.....	60
CPR and First Aid	15
Health Care Clapstone	100
Health Care essentials	20
Dementia Care	10
Career Major Length	535 Hours

COURSE DESCRIPTION

HEALTH CAREERS CERTIFICATION

Advanced Unlicensed Assistant 240 hrs

The training program for Advanced Unlicensed Assistants (AUA) is designed to build on basic skills traditionally performed by nursing assistants. Selected advanced skills, legal and ethical aspects of health care and appropriate personal behaviors are presented in a format combining classroom lecture/discussion, demonstration/practice lab and clinical application. Graduates of an AUA training program are prepared to safely perform technical skills that are included on an approved skills list. Once the individual has completed the training, he/she applies for certification. The training is a minimum of 240 clock hours. Course hours are divided among the classroom, skills laboratory and clinical site. Prerequisite: Long Term Care or Basic Nursing Skills

Advanced Unlicensed Assistant Capstone 120 hrs

This course is designed to provide students the opportunity to explore different careers that they may obtain after becoming an Advanced Unlicensed Assistant. Students will prepare for the workforce by learning job readiness skills.

Analyze EKG Tracing 15 hrs

In this course, the technician interprets and evaluates electrocardiogram tracings.

Anatomy 60 hrs

Anatomy is the study of the structural complexity of the human body. This course is taught as a laboratory science for high school credit. The areas studied will include, but are not limited to: organization of the body, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system, urinary system, and reproductive system. An emphasis will be placed on active-learning exercises to help the student learn the structural organization of each body system.

Prerequisites: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment).

EKG Management 15 hrs

In this course, the student will set up and operate an electrocardiogram machine.

EKG Practicum 90 hrs

Students participate in clinical practicum for the EKG Technician. Clinicals may occur in a variety of settings that utilize EKG monitors.

Health Care Capstone 100 hrs

This course is designed to provide students the opportunity to explore health careers.

Health Care Essentials 20 hrs

Students in this course will learn skills that will prepare them to obtain a position in the health field.

Health Careers Core Curriculum 225 hrs

This course provides a core set of competencies that students need for most health careers. Topics covered include: Effective Communication, Medical Math, Safety, IT applications, Legal and Ethical Principles and Practice, Teamwork, Health Promotion, Healthcare Delivery Systems, and Employability Skills.

Healthcare Provider CPR and First Aid 15 hrs

This course will provide the most current guidelines for CPR developed by the American Heart Association. The student will receive training in Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)/Foreign Body Airway Obstruction (FBAO). The student will have an opportunity to become certified in Healthcare Provider CPR. This course will provide the knowledge for the student to perform basic first aid. Students will be provided an opportunity to gain skills towards first aide competency such as victim assessment, splinting, controlling bleeding, poisoning and burns.

Health Unit Clerk 120 hrs

Students in this course will learn basic computer skills, basic transcription, customer service, verbal and nonverbal communication skills, proper telephone etiquette, and organizational skills that will prepare them for the diverse roll of the health unit clerk.

Long Term Care Assistant 120 hrs

This course meets requirements set by the Oklahoma State Dept. of Health for Long Term Care Nurse aide curriculum. Upon completion of this course, the student will be eligible to sit for the state certification exam.

Medical Terminology 45 hrs

Medical Terminology is designed to develop in the students a working knowledge of the language of medicine. Students acquire word building skills by learning prefixes, suffixes, roots and abbreviations. By relating terms to body systems, students identify proper uses of words in a medical environment. Knowledge of medical terminology enhances students' ability to successfully secure employment or pursue advanced education in healthcare.

Pharmaceutical Terminology 15 hrs

This course is an in-depth study of pharmaceutical terminology and its applications to the health care industry. Course content focuses on identification of word parts, proper pronunciation and enunciation of medical terms, spelling of medical terms, and application of each medical term to the anatomy and physiology of the body. Correct pronunciation of drug names, which include brand, generic and chemical will also be studied.

Pharmacology for PhT 75 hrs

This course provides the student with an overview of the major categories of classifications of drugs. Emphasis is placed on actions of drugs in the human body as well as trade and generic names.

Pharmacy Law and Ethics 15 hrs

Upon completion of this course, the student will comprehend state and federal laws and regulations regarding controlled substances, storage and dispensing of controlled substances. The agencies that regulate pharmacy practice will also be studied.

Physiology 60 hrs

Physiology is the study of the intricate functional mechanisms of the human body. This course is taught as a laboratory science for high school credit. Students will conduct scientific investigations and fieldwork using scientific knowledge and methodology that will enable them to make educated conclusions based on higher-level critical thinking and problem solving skills. The areas studied will be an integration of biology and chemistry and will include, but are not limited to: chemical basis for life, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system & metabolism, urinary system, and reproductive system. Active-learning exercises will be included along with laboratory experiences. Prerequisites: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment).

**Professional Skills in the
Pharmacy 15 hours**

This course will prepare the student to meet the public in a pharmacy setting. The student will practice greeting customers, preparing prescriptions and instructing the customer on medication pickup. This course helps students develop employability skills necessary for success in the workplace, such as communication, personal responsibility and time management. Resume writing and practice job interviews will be conducted.

Retail Pharmacy Operations 30 hrs

This course will prepare the student to function in a retail pharmacy setting. The student will practice purchasing, inventory and quality assurance tasks.

**Therapeutic Modalities for the Physical
Therapy Aide 30 hours**

This course will enable students to understand the physiological effects, indications, contraindications and safety of the use of therapeutic modalities. The student will be able to provide basic patient care; understand various types of exercises and their functions in patient education; the use of range of motion; strengthening and proprioceptive exercises for major areas of the body.

**Therapeutic Rehabilitation for the
Physical Therapy Aide 30 hours**

This course prepares the physical therapy aide to assist patients in performing therapeutic exercises. Students learn the proper techniques needed for client safety and comfort. This course prepares the physical therapy aide to assist with ambulation and gait training. Students learn safe practices while demonstrating competency in ambulating the client. This course teaches the physical therapy aide basic skills needed to prepare a patient for treatment. Students will learn and skillfully perform a variety of transfer techniques frequently used in the clinical setting.

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Horticulture

- Floral Design Entrepreneur
- Horticulture Entrepreneur
- Horticulture Technician
- Landscape Designer

Floral Design Entrepreneur

Career Major Description

This major addresses the skills needed to be a successful floral designer as well as manage/own a retail floral business. Students will apply the leadership and business skills needed to succeed in the floriculture industry.

Average Oklahoma Salary

Dependent upon the success of the business

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Some background in biology
- Good eye-hand coordination and manual dexterity
- Good physical and mental health
- Be able to work under extreme weather conditions
- An ability to work independently and as part of a team
- Dependability
- Organizational skills
- Attention to detail
- Good communication skills
- Ability to take directions from others
- Positive attitude
- Self-motivated
- Desire to succeed
- Keyboarding skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Metro Career Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

Course Title	Hours
Basic Techniques and Styles	105
Introduction to Computers and Applications-Horticulture	45
Floral Industry.....	30
Principles of Horticulture.....	30
Agricultural Plants	60
Flowers and Foliage and Cut Flower Identification.....	75
Theory and Design.....	300
Retail Flower Shop	200
Price Structuring	60
Floral Processing and Conditioning	30
Workforce Staging for Floral Design Entrepreneur	60
Insect Collection and Identification	30

Career Major Length

1025 Hours

Horticulture Entrepreneur

Career Major Description

This major introduces students to safe practices, use of tools and equipment and planting techniques. Students learn to care for plants, as well as the safe uses of chemicals and testing soil, as it relates to the horticulture industry. Through this major study, students will also refine skills that will help them with horticultural entrepreneurial ventures.

Average Oklahoma Salary

Dependent upon the success of the business

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Some background in biology
- Good eye-hand coordination and manual dexterity
- Good physical and mental health
- Be able to work under extreme weather conditions
- An ability to work independently and as part of a team
- Dependability
- Organizational skills
- Attention to detail
- Good communication skills
- Ability to take directions from others
- Positive attitude
- Self-motivated
- Desire to succeed
- Keyboarding skills

Who Can Enroll

Juniors, Seniors & Adults

Location

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Oklahoma City, OK 73111

Financial Aid

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Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

Hours

Principles of Horticulture	30
Identification and Propagation of Horticulture Plants	90
Applying Pesticides	45
Agricultural Plants	60
Field Scouting, Weed Collection and Insect Collection	60
Fertilizers and Soils	90
Greenhouse Operations & Management	120
Workforce Staging	30
Introduction to Computers & Applications Horticulture	45
Entrepreneurship for Horticulture.....	105

Career Major Length

675 Hours

Horticulture Technician

Career Major Description

This major prepares students as horticultural assistants who undertake a range of tasks that relate to cultivation, growing, harvesting and maintenance of trees, plants and gardens. Students learn safe practices, use of tools and equipment, propagation and care of plants, soil testing, and preparation and safe application of chemicals. Included is information concerning construction, operation, and management of greenhouses.

Average Oklahoma Salary

\$10/hr

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Some background in biology
- Good eye-hand coordination and manual dexterity
- Good physical and mental health
- Be able to work under extreme weather conditions
- An ability to work independently and as part of a team
- Dependability
- Organizational skills
- Attention to detail
- Good communication skills
- Ability to take directions from others
- Keyboarding skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Metro Career Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

	Hours
Principles of Horticulture	30
Identification and Propagation of Horticulture Plants	90
Applying Pesticides	45
Agricultural Plants	60
Field Scouting, Weed Collection and Insect Collection	60
Fertilizers and Soils	90
Greenhouse Operations & Management	120
Workforce Staging-Horticulture	30

Career Major Length

525 Hours

Landscape Designer (T&I)

Career Major Description

This T&I career major will introduce students to the skills required to be employed as a landscaper designer. Students will be trained in the tools and equipment, use of surveying equipment, proper placement of landscape materials and estimating materials used in a landscape project.

MCA students; others with approval from Chief Officer, Enrollment, Recruitment & Transition Services are able to enroll in this program.

Average Oklahoma Salary

\$10/hr

Helpful Attributes and Abilities

- Reading and math skills at the 8th grade level or above
- Some background in biology
- Good eye-hand coordination and manual dexterity
- Good physical and mental health
- Be able to work under extreme weather conditions
- An ability to work independently and as a part of a team
- Dependability
- Organizational skills
- Attention to detail
- Good communication skills
- Ability to take directions from others
- Keyboarding skills

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Metro Career Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education
(OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association Commission on Accreditation &
School Improvement (NCA-CASI)

Course Title

	Hours
Landscape Design: Principles of Design	120
Landscape Design Process	60
Landscape Design Consideration.....	60
Landscape Grounds Keeping	120
Landscape Turf Management.....	120
Landscape Tool Operation	120
Landscape Desing: Attributes of Plantings	60
Workforce Staging-Landscape Designer	30

Career Major Length

690 Hours

COURSE DESCRIPTION

HORTICULTURE

Agricultural Plants 60 hours

This course is designed to prepare the student for taking the Agricultural Plant Certification test.

Applying Pesticides 45 hours

This course is designed to prepare the student to pass the Core Test to become a certified pesticide applicator. Covered are environmental concerns related to the use of pesticides, chemical safety and alternative pest control.

Basic Techniques and Styles 30 hrs

Students will learn shapes of arrangements; seasonal, holiday and special designs; flowers to wear; and everlasting flowers.

Fertilizers and Soils 90 hours

This course is designed to introduce students to the basis of plant growth, the soil and its nutrients. Areas addressed in this course will include erosion control, soil preparation, media preparation, soil pasteurization, cultivation, seed bed preparation, soil sampling and soil tests and their interpretation.

Field Scouting, Weed Collection and Insect Collection 60 hours

This course is designed to train students in the processes required to inspect fields for insects and weeds that could affect the growth of plants. It covers the processes for entering and using collected data to make a determination about appropriate nutrients and pesticides to protect plant growth.

Floral Industry 30 hours

Students will learn the flower harvesting processes, distribution processes, and retail flower shop operations and careers.

Floral Processing & Conditioning 30 hours

Students will learn the skills and techniques needed to maintain and increase the shelf life of cut flowers.

Flowers and Foliage 75 hours

Students will learn care and handling, harvesting and identification of flowers and foliage.

Greenhouse Operations & Management 120 hours

This course will cover the total operations and management of a greenhouse. Students will gain the knowledge and skills required to gain employment in the greenhouse industry and the skills to move up the career ladder. It also addresses the construction factors to consider when building a greenhouse and marketing strategies. Included is an internship in a business with greenhouse facilities.

Horticulture

Entrepreneurship 105 hours

This course provides students with a guide to creating a business plan as well as following basic accounting procedures. Students will also learn to identify legal issues as they relate to the profession. The course will also introduce the students to marketing their field of study.

Identification & Propagation of Horticulture Plants 90 hours

This course is designed to give students practical experience in reproducing and starting horticultural plant materials through both sexual and asexual methods. Included is identification of ornamental plants.

Landscape Design: Principles of Design 120 hours

The Landscape Design: Principles Of Design targets the specific areas of instruction are unity, balance, contrast, rhythm, color and texture, simplicity, ultimate effect and spatial articulation.

Landscape Design Attributes of Plantings 60 hours

The Attributes of Plantings Course addresses specific areas of instruction in Aesthetic value, Wildlife Conservation and Environmental Controls.

Landscape Designer Workforce Staging 30 hours

This course is designed to be delivered as an integrated component within the courses taken by the individual student. The course is designed for the development of leadership, personal development and employability skills

Landscaping Design Considerations 60 hours

Landscape Design Considerations Course identifies concerns and requirements for all engineered environments.

Landscaping Design Process 60 hours

The Landscape Design Process course prepares student to design using an identified process from area assessment to final landscape plan.

Landscape Grounds Keeping 120 hours

The Landscape Grounds Keeping course prepares students to successfully maintain landscaped environments. Specific areas of instruction include Pruning, Edging, Mowing, Trimming, Soil Preparation, Weeding, Mulching and Seasonal Applications.

Landscaping Turf Management 120 hours

The Landscape Turf Management course prepares students to successfully cultivate and maintain turf areas in landscaped environments. Specific areas of instruction include Cool Weather/ Hot Weather grass, Maintenance Schedules, Lawn Establishing, Aeration, Vertical Cutting, De-thatching, Irrigation, Herbicides, Pesticides, Fungicides, and Fertilization.

Landscaping Tool Operation 120 hours

The Landscape Lawn Tool Operation course provides students with skills necessary to safely and effectively operate tools associated with the landscape maintenance industry. Specific areas of instruction include Walk Behind Mower, Lawn Tractor, ZTR, Reel Mower, Verticut Machine, Edgers, Trimmers, Shears, Aerators, Tillers, Chippers, Sprayers & Spreaders, Safety for Power Tools, and Safety For Manually Operated Hand Tools.

Price Structuring 60 hours

Course will teach students how to price products. They will also learn the difference in wholesale and retail pricing, as well as structuring quantity discount pricing.

Principles of Horticulture 30 hours

This course is designed to prepare students for further studies in Horticulture. Careers and areas of horticulture are explored, as is how horticulture fits into the field of plant agriculture. Greenhouse watering, tools, safety, and plant growth are all aspects of this course.

Retail Flower Shop 200 hours

This course focuses on the business side of a retail flower shop.

Theory & Design 300 hours

Students will learn plant history, harmony, unity, color, balance, proportion, scale, focal point, rhythm line, form space, depth, texture and mechanics of floral design.

Workforce Staging 30 hours

This course is designed to be delivered as an integrated component within the courses taken by the individual student. The course is designed for the development of leadership, personal development and employability skills.

Law Enforcement Services

- Law Enforcement Officer Prep

Law Enforcement Officer Prep

Career Major Description

This major prepares students for careers in public safety or law enforcement. Students are introduced to the basics of law enforcement through courses in police fundamentals, defensive tactics, technical investigation and criminal law. In addition, students receive training in emergency telecommunications, equipment and weapons, and ethics and professional behavior.

Average Oklahoma Salary

\$13/hour-security guard
\$17/hour-patrol officer

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Juniors & Seniors

Location

South Bryant Campus
4901 South Bryant Ave.
Oklahoma City, OK 73129

Student Organization

SkillsUSA

Certifications Available

CLEET Unarmed Security Guard
CPR

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Healthcare Provider CPR and First Aid	15
Introduction to Law Enforcement.....	48
Police Function and Fundamentals	48
Unarmed Security - Phase 1	30
Unarmed Security - Phase 2.....	30
The Penal Code and Criminal Law	48
Technical Investigations.....	96
Courtroom Evidence and Testimony.....	54
Ethics and Professional Behavior in Law Enforcement.....	48
Tactical and Interpersonal Communications.....	30
Defensive Tactics for Law Enforcement.....	76
Traffic Management & Accident Investigation.....	35
Law Enforcement Equipment and Weapons	60
Emergency Telecommunications	80
Workforce Staging	60
Introduction to Detention Services	30
Rank and Structure.....	30
Security Procedures	45
Emergency Procedures.....	60
Community Policing	40
Law Enforcement Officer Prep Capstone	60

Career Major Length

1023 Hours

COURSE DESCRIPTION

LAW ENFORCEMENT SERVICES

Community Policing 40 hours

The student will understand and have a working knowledge of the officer's role relative to community relations. Police community relations are fast becoming one of the primary concerns of law enforcement personnel. Every action by a police agency has a bearing on the relationship of the police with the community. Good or bad police community relations rest singularly on the individual officer. The absence or presence of the community's good will toward the police has a great deal to do with the efficiency and safety of the police officers when performing their duties. By definition, police community relations is the process by which the police and the community work together to identify and resolve problems that have caused discord or might cause discord between them.

Courtroom Evidence & Testimony 48 hours

This course covers the study of law, rules and types of evidence as they pertain to admissibility in the court system of the United States of America. Students learn appropriate ways to present testimony in court.

Defensive Tactics for Law Enforcement 76 hours

In this course students study and practice methods of defense employed by law enforcement officers.

Emergency Procedures 60 hours

In this course students learn to identify emergency situations typical of a corrections facility and to respond appropriately.

Emergency Telecommunications 80 hours

In this course students learn the duties and responsibilities of a public safety telecommunications operator.

Ethics & Professional Behavior in Law Enforcement 48 hours

In this course students explore their professional duties and the rationale for them when facing ethical dilemmas in the criminal justice career field.

Healthcare Provider CPR & First Aid 15 hours

This course provides the most current guidelines for CPR developed by the American Heart Association. Students receive training in Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)/Foreign Body Airway Obstruction (FBAO). Students have an opportunity to become certified in Healthcare Provider CPR. This course provides the knowledge for students to perform basic first aid. Students are provided an opportunity to gain skills toward first aid competency such as victim assessment, splinting, controlling bleeding, poisoning and burns.

Introduction to Detention Services 30 hours

This course covers trends and developments in all elements of a modern correctional system for the treatment of juvenile and adult offenders. The history of corrections will also be discussed.

Introduction to Law Enforcement 48 hours

This course provides an introduction to the historical background, professional direction, agencies and processes, purposes, functions, ethics, administration, and technical problems of the criminal justice system. Areas examined are municipal, state, and federal systems. The powers and limitations of the law enforcement officer will be discussed.

Law Enforcement Equipment and Weapons 60 hours

This course is a study of various types of equipment and weapons currently used by law enforcement. Students study safety policies, procedures, care and maintenance of weapons.

Law Enforcement Officer Prep Capstone 60 hours

In this course students make final preparation for industry certifications and finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Penal Code and Criminal Law 48 hours

In this course students study the legal basis of law enforcement including categories, features of crimes and elements of crimes, effects of legal decisions on criminal law, local ordinances and regulatory functions.

Police Function & Fundamentals 48 hours

In this course students gain the theory and basic knowledge required to perform as an entry-level peace officer. Areas of study include authority, ethics, arrest powers, collection of evidence, U.S. Constitutional law, public relations, patrolling, and criminal procedure.

Rank & Structure 15 hours

In this course students learn to identify the typical organizational structure in a law enforcement setting.

Security Procedures 45 hours

This course covers basic and advanced security procedures in a corrections setting. Topics include goals of security, contraband, counts, key and tool control, patrolling, informants, daily inspections and transporting inmates.

Tactical & Interpersonal Communications 30 hours

This course is an introduction to negotiations, communications, critical thinking, prioritization, telephone etiquette and stress management.

Technical Investigations 96 hours

In this course students study the legal and technical procedures required to gain the evidence necessary to prove the elements of crimes as defined by Title 21 Oklahoma State Statutes. The course includes the search, collection and preservation of evidence, witness and victim interviewing, preparation of reports, crime scene records, standard crime scene photography, and virtual crime scene photography.

Traffic Management & Accident Investigation 35 hours

In this course students learn the principles of traffic control, traffic safety, traffic law enforcement (Title 47, Oklahoma State Statutes), selective enforcement, traffic accident investigation and industry-accepted techniques for standard and high-risk traffic stops.

Unarmed Security – Phase 1 30 hrs

In this course students learn the basic tasks in private security training required by the Oklahoma Security Guard and Private Investigator's Act of 1987. Areas of study include interpreting the O.S.G.P.I. Act, responding to accidents and emergencies, writing field notes, writing reports, interpreting legal powers and limitations. Upon completion of Unarmed Security Phases 1 and 2, students qualify to sit for the State Unarmed Security exam for Oklahoma State Unarmed Security Guard License.

Unarmed Security – Phase 2 30 hrs

In this course students study the private security training required by the Oklahoma Security Guard and Private Investigator's Act of 1987. Areas of study include practicing public relations, performing fixed post duties, patrolling and investigating security incidents. Upon completion of Unarmed Security Phases 1 and 2, students qualify to sit for the State Unarmed Security exam for Oklahoma State Unarmed Security Guard License.

Workforce Staging 30 hours

Content of this course is integrated within the other courses of this career major and is aimed at developing students' leadership and employability skills.

Legal Office Services

- Legal Office Assistant
- Legal Receptionist

Legal Office Assistant Prerequisite: Legal Receptionist

Career Major Description

Learn to prepare legal correspondence and documents. In this major students learn terminology and office procedures specific to the legal field. Students use advanced computer applications skills to prepare complex legal documents and also gain knowledge of legal specialties.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Strong interpersonal skills
- Good oral and written communication skills
- Positive attitude
- Dependability

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

ALS . . . the basic certification for legal professionals
 Certiport IC3

Industry Accreditations

NALS . . . the association for legal professionals

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Foundations for the Legal Office	180
Legal Office Procedures	200
Advanced Computer Applications for the Law Office	180
Advanced Legal Communications	180
Legal Specialties	180
Legal Office Assistant Capstone	150
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

1190 Hours

Legal Receptionist

Career Major Description

Learn basic legal office procedures to prepare for an entry level position in the legal field. In this major students gain basic office and computer skills along with legal terminology, billing and mail handling specific to the law office.

Average Oklahoma Salary

\$10/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Strong interpersonal skills
- Good oral and written communication skills
- Positive attitude
- Dependability

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
 Information Technology Center
 1800 Springlake Drive
 Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3

Industry Accreditations

NALS . . . the association for legal professionals

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
 Oklahoma State Board of Education (OSBE)

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Foundations for the Legal Office	180
Legal Office Procedures.....	200
Legal Receptionist Capstone.....	150
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

650 Hours

COURSE DESCRIPTION

LEGAL OFFICE SERVICES

Advanced Computer Applications for the Law Office 180 hours

This course provides students with the advanced software skills needed for the Legal Office. Students work with Microsoft Word and WordPerfect to learn legal document formatting. Advanced presentation software skills are also covered. Prerequisite: Foundations for the Legal Office

Advanced Legal Communications 180 hours

In this course students gain skills to communicate effectively in a law office. Transcription, dictation, legal citations, law library research and docket management are included along with advanced business correspondence and legal terminology. Prerequisite: Advanced Computer Applications for the Law Office.

Foundations for the Legal Office 180 hours

In this course students master the skills needed to use general software applications effectively in the work environment, to express themselves clearly and correctly with spoken and written language, and to learn general legal terminology and apply it correctly in appropriate settings. Prerequisite: Fundamentals of Technology

Fundamentals of Technology 120 hrs

In this course students learn the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment. This course also provides job readiness skills and soft skills that are critical for success in any workplace setting

Legal Office Assistant Capstone 150 hours

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Prerequisite: All other courses in career major

Legal Office Procedures 200 hours

In this course students master the soft skills, ethics and communication, and general administrative procedures and tasks necessary to be successfully employed in a legal office. This course provides students with the concepts, principles and attitudes needed to understand how an office is operated and managed in a rapidly changing global environment.

Prerequisite: Foundations for the Legal Office

Legal Receptionist Capstone 150 hours

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Prerequisite: All other courses in career major

Legal Specialties 180 hours

In this course students learn the basics of how the court system works. They also study the nine basic categories of law and become familiar with the principles that guide them. Prerequisite: Advanced Computer Applications for the Law Office

Medical Assisting

- Medical Assistant

Medical Assistant

Career Major Description

Medical assistants are multi-skilled health professionals who work primarily in ambulatory settings such as medical offices and clinics. They perform clinical and administrative tasks and their duties vary by office or clinic. The major combines classroom, laboratory and work-site learning components to ensure that each student achieves entry-level competencies for the medical assistant. Students practice in a variety of settings as chosen by the instructor. Students completing this career major will be eligible to sit for the Certified or Registered Medical Assistant exam.

Average Oklahoma Salary

\$11/hour

Helpful Attributes and Abilities

- Reading skills at the 10th grade level or above; math skills at the 8th grade level or above
- The ability to work well with others
- Mental alertness
- Dependability
- Organizational skills
- Attention to detail
- Good communication skills
- Basic typing and computer literacy skills

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- 18 years old
- CPR for Health Care Providers
(American Heart Association Course)

Location

Springlake Campus
Metro STEM Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

Administrative Medical Assistant,
CareerTech Testing Center (CCTC)
Certified Clinical Medical Assistant (CCMA),
National Healthcare Association (NHA)
Certified Medical Assistant,
American Association of Medical Assistants (AAMA)
Clinical Medical Assistant, CareerTech Testing Center (CCTC)
Medical Administrative Assistant (CMAA),
National Healthcare Association (NHA)
National Certified Medical Assistant,
National Center for Competency Testing (NCCT)
Phlebotomy Medical Assistant,
CareerTech Testing Center (CCTC)
Registered Medical Assistant (RMA),
American Medical Technologist (AMT)

Course Title

Course Title	Hours
Academic Life Skills.....	15
Medical Terminology	45
Clinical Procedures I.....	120
Clinical Procedures II	120
Pharmacology	60
Anatomy and Physiology.....	120
Medical Insurance and Coding	54
Medical Assisting Applications.....	75
Medical Informatics	45
Medical Law and Ethics.....	40
Administrative Medical Office Procedures.....	105
Medical Office Laboratory Procedures	55
Medical Assisting Simulation	90
Medical Assisting Externship	171
Career Major Length	1115 Hours

Industry Accreditations

The Medical Assistant Program is accredited by the Commission of Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the *Medical Assisting Education Review Board (MAERB)*.

Commission on Accreditation of Allied Health Education Programs (CAAHEP),
25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, (727) 210-2350

Medical Assisting Education Review Board (MAERB)
20 N. Wacker Drive, Suite 1575, Chicago, IL 60606,
1-800-282-2262, www.maerb.org

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405)
521-6205
Judy_Jolley@mail.sde.state.ok.us

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COURSE DESCRIPTION

MEDICAL ASSISTING

Academic Life Skills 15 hours

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Administrative Medical Office Procedures 105 hours

Students will apply the basic concepts and principles of medical office practices and procedures with entry-level proficiency in the performance of duties in the administrative medical office. Prerequisite: Acceptance to the Medical Assistant major

Anatomy & Physiology 120 hours

Anatomy/Physiology is the study of the structural complexity of the human body and its intricate functional mechanisms. This course is taught as a laboratory science. Students will conduct scientific investigations and fieldwork using scientific knowledge and methodology that will enable them to make educated conclusions based on higher-level critical thinking and problem solving skills. The areas studied will be an integration of biology and chemistry and will include, but are not limited to: organization of the body, chemical basis for life, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system & metabolism, urinary system, and reproductive system. An emphasis should be placed on real-world applications, and active-learning exercises should be included along with laboratory experiences.

Prerequisite: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment)

Clinical Procedures I 120 hours

The student will receive an overview of the Medical Assistant career. An emphasis will be placed on professionalism, history of the profession, human relations, OSHA guidelines, medical asepsis, vital signs, routine medical office procedures, emergency procedures, law, ethics, communication and documentation. Prerequisite: Acceptance to the Medical Assistant major or focus

Clinical Procedures II 120 hours

The student will demonstrate an understanding of such skills as maintaining the examination area, performing clinical lab tests, venipuncture, microhematacrit and twelve lead electrocardiograph (ECG). An emphasis is placed on the patient's physical examination and treatment procedures that are performed in a medical office setting. Prerequisite: Acceptance to the Medical Assistant major or focus

Medical Office Laboratory Procedures 55 hours

Students receive an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports. Prerequisite: Acceptance to the Medical Assistant major

Medical Assisting Applications 75 hours

Students demonstrate proficiency in microcomputer word processing software applied to the medical office to create, modify, store, retrieve, and print documents. This course is an introduction and overview with an emphasis on learning and applying the mechanics of common software for medical office correspondence. Prerequisite: Acceptance to the Medical Assistant major

Medical Assisting Externship 171 hrs

This course is designed to apply the knowledge and skills acquired in previous medical assistant courses to the clinical site. Externship assignments are scheduled to provide students with adjunct faculty and supervised experience in performing the skills and competencies of a medical assistant in a physician's office. Students will accept accountability and responsibility for their own behavior while in the learning environment and will practice within the clinical and legal framework of the profession of medical assistant. Prerequisite: Acceptance to the Medical Assistant major

Medical Assisting Simulation 90 hours

This course is designed to build upon previous knowledge from medical assistant courses. The student will apply critical thinking skills for medical assistants to include the process of planning, managing and delivering care to patients. During this course, the student will schedule, prepare and assist in the care of a group of virtual patients' health care needs. An emphasis will be placed on communication skills in relation to patients and their families. The student will manage a simulated clinic including patient charts, inventories, billing, scheduling, insurance form preparation, coding and other administrative and clinical duties. A variety of teaching methods, learning activities, and computer research and practical simulations are utilized. Prerequisite: Acceptance to the Medical Assistant major or focus

Medical Informatics 45 hours

The student will gain an understanding of the automated medical office by using a computerized medical office package. Included in this software package are billing, charge slips, scheduling, insurance form preparation and patient data storage. The student will demonstrate familiarity with methods and techniques used in literary research for medical professionals. The student will further be exposed to advanced Internet research. Prerequisite: Acceptance to the Medical Assistant major

Medical Insurance and Coding 54 Hours

This course covers information necessary to understand medical insurance form preparation and coding as used in a medical clinical office. Students demonstrate an understanding of the legal issues of insurance claims, procedural & diagnostic coding, delinquent claims, problem solving, managed care systems, proper form preparation and several major types of medical forms. Prerequisite: Acceptance to the Medical Assistant major

Medical Interventions 120 hours

Medical practice includes interventions to support humans in treating disease and maintaining health. Student projects will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will study the design and development of various medical interventions including vascular stents, cochlear implants, and prosthetic limbs. They will review the history of organ transplants and gene therapy, and read current scientific literature to be aware of cutting edge developments.

Medical Law and Ethics 40 hours

This course covers information necessary to understand the legal and ethical standards of the medical assisting practice. Students will demonstrate a knowledge of ethical issues, contracts, healthcare worker liability, medical litigation, drug regulations, discrimination issues, OSHA rules, bioethical issues, medical records, acceptable fees, and laws that may affect the health care professional. Emphasis is placed upon the settings that employ medical assistants. Prerequisite: Acceptance to the Medical Assistant major or focus

Medical Terminology _____ **45 hours**

Medical Terminology is designed to develop in the students a working knowledge of the language of medicine. Students acquire word building skills by learning prefixes, suffixes, roots and abbreviations. By relating terms to body systems, students identify proper uses of words in a medical environment. Knowledge of medical terminology enhances students' ability to successfully secure employment or pursue advanced education in healthcare.

Pharmacology _____ **60 hours**

The student will identify sources, schedules and classes of drugs. The student will identify and interpret actions of drugs commonly used in a physician's office, accurately calculate drug dosage and identify appropriate medication routes. The student will follow the written, verbal and standing physician orders and properly prepare and administer using aseptic technique as required. Prerequisite: Acceptance to the Medical Assistant major

Medical Office Technology

- Electronic Health Records Specialist
- Medical Insurance Coder
- Medical Office Assistant

Electronic Health Records Specialist

Career Major Description

To meet the growing needs of healthcare facilities in maintaining electronic health records (EHR), students will learn regulatory requirements, healthcare terminology/acronyms, organizational behavior, medical business operations, and a basic understanding of practice workflow while adhering to code of conduct policies and best practices. Students will gain the knowledge and skills required to implement, deploy, and support health IT systems in various clinical settings

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Positive attitude and dependability
- Strong interpersonal skills
- Good oral and written communication skills
- Strong ethical standards

Immunizations Required:

- **Rubeola, Mumps, Rubella**
One of the following:
 - a) Positive rubella, rubeola and mumps titer
 - b) One (1) MMR AND positive (+) titer for rubeola & mumps
 - c) Two (2) MMR vaccines
- **T.B. Screening Tuberculin (PPD) test**
One of the following:
 - a) Two (2) negative TB skin tests, given within the last 12-month period prior to beginning clinicals. Student must stay current during their entire clinical stay, OR
 - b) If positive TB, student must present:
- **Documented proof of positive TB**
- **A negative chest x-ray**
- **Public health release**
- **Current symptom survey**
- **Hepatitis B**
One of the following:
 - a) Three (3) hepatitis vaccinations
 - b) Positive hepatitis B surface antibody
 - c) Hepatitis B waiver signed by student
- **Varicella**
One of the following:
 - a) Two (2) varicella vaccinations
 - b) Positive varicella titer

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies.....	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Foundations of Medical Office/Medical Terminology.....	180
Patient Billing	180
Medical Insurance.....	180
ICD-CPT Coding	180
Electronic Health Records I	120
Electronic Health Records II.....	120
Electronic Health Records Specialist Capstone.....	170
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

1370 Hours

Financial Aid

Pending approval

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3
Certified Electronic Health Record Specialist (CEHRS)

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

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Medical Insurance Coder

Career Major Description

Medical coders maintain patients' records using universally recognized coding systems to ensure compliance with federal regulations and insurance requirements. In this major students learn the medical coding skills, anatomy and terminology necessary for employment in a health care facility. Students also gain skills in patient billing and medical insurance.

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Positive attitude and dependability
- Strong interpersonal skills
- Good oral and written communication skills
- Strong ethical standards

Immunizations Required:

- **Rubeola, Mumps, Rubella**
One of the following:
 - a) Positive rubella, rubeola and mumps titer
 - b) One (1) MMR AND positive (+) titer for rubeola & mumps
 - c) Two (2) MMR vaccines
- **T.B. Screening Tuberculin (PPD) test**
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- **A negative chest x-ray**
- **Public health release**
- **Current symptom survey**
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One of the following:
 - a) Three (3) hepatitis vaccinations
 - b) Positive hepatitis B surface antibody
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One of the following:
 - a) Two (2) varicella vaccinations
 - b) Positive varicella titer

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Foundations of Medical Office/Medical Terminology.....	180
Patient Billing	180
Medical Insurance	180
ICD9-CPT Coding	180
Medical Insurance Coder Capstone	170
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

1130 Hours

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Certiport IC3

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Medical Office Assistant

Career Major Description

Demand is strong for health care professionals who can multi-task while managing health information in a computerized office environment. In this major students learn skills for entry-level employment in physicians' offices, clinics, hospitals and other health care facilities. Medical terminology, billing and insurance are covered.

Average Oklahoma Salary

\$11/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 8th grade level or above
- Positive attitude and dependability
- Strong interpersonal skills
- Good oral and written communication skills
- Strong ethical standards

Immunizations Required:

- **Rubeola, Mumps, Rubella**
One of the following:
 - a) Positive rubella, rubeola and mumps titer
 - b) One (1) MMR AND positive (+) titer for rubeola & mumps
 - c) Two (2) MMR vaccines
- **T.B. Screening Tuberculin (PPD) test**
One of the following:
 - a) Two (2) negative TB skin tests, given within the last 12-month period prior to beginning clinicals. Student must stay current during their entire clinical stay, OR
 - b) If positive TB, student must present:
 - **Documented proof of positive TB**
 - **A negative chest x-ray**
 - **Public health release**
 - **Current symptom survey**
- **Hepatitis B**
One of the following:
 - a) Three (3) hepatitis vaccinations
 - b) Positive hepatitis B surface antibody
 - c) Hepatitis B waiver signed by student
- **Varicella**
One of the following:
 - a) Two (2) varicella vaccinations
 - b) Positive varicella titer

Who Can Enroll

Juniors, Seniors & Adults

Location

Springlake Campus
Information Technology Center
1800 Springlake Drive
Oklahoma City, OK 73111

Course Title

	Hours
Fundamentals of Technology	120
• Computer Literacy	
• Basic Internet	
• Basic Network Concepts	
• Basic Word Processing, Spreadsheets, Presentations & Database Software	
Fundamentals of Administrative Technologies	120
• Office Procedures	
• Telephone Etiquette	
• Advanced Word Processing & Spreadsheet Software	
Foundations of Medical Office/Medical Terminology	210
Patient Billing	180
Medical Insurance	180
Medical Office Assistant Capstone	120
• Work-based learning experiences	
• Projects	
• Certifications	
• Portfolios	

Career Major Length

930 Hours

Financial Aid

Available for those who qualify

Student Organization

BPA-Business Professionals of America

Certifications Available

Administrative Medical Assistant (ODCTE)
Certiport IC3

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

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COURSE DESCRIPTION

MEDICAL OFFICE TECHNOLOGY

Electronic Health Records I 120 hours

In this course students learn to manage electronic health information using common electronic data interchange systems. Through classroom and computer lab training students acquire the skills necessary to maintain the medical, legal, accreditation and regulatory requirements of the electronic health record and database; project management and fundamentals of change. Prerequisite: Fundamentals of Administrative Technologies

Electronic Health Records II 120 hrs

This course builds on the skills learned in the Electronic Health Records I course as students continue to learn how to manage electronic health information using common electronic data interchange systems. Through classroom and computer lab training students acquire the skills necessary to maintain the medical, legal, accreditation and regulatory requirements of the electronic health record and database; project management and fundamentals of change. Prerequisite: Electronic Health Records I

Electronic Health Records Specialist Capstone 70 hours

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands.

Prerequisite: All other courses in career major

Foundations of Medical Office/Medical Terminology 180 or 210 hours

In this course students prepare for a position as a medical office assistant, medical records technician, medical coder, or medical transcriptionist by gaining skills in medical anatomy and terminology as well as administrative routines and procedures followed in a medical office. The importance of complete accuracy and confidentiality in maintaining medical records is stressed. Additional areas emphasized in this course include preparation of patient records and medical data entry. Prerequisite: Fundamentals of Administrative Technologies

Fundamentals of Administrative Technologies 135 hrs

This course builds on the beginning business skills gained in the Fundamentals of Technology course and provides students with the concepts, principles, and attitudes needed to understand how an office is operated and managed in a rapidly changing global environment. The integration of state-of-the-art personal computing is done throughout the course. Prerequisite: Fundamentals of Technology

Fundamentals of Technology 120 hrs

This course provides students with the fundamental concepts, principles, and ideas needed to understand how business is operated and managed in a rapidly changing global environment. Students also learn job readiness and soft skills that are critical for success in any workplace setting. Students are introduced to new and emerging technology such as GPS/GIS and podcasting.

ICD9-CPT Coding 180 hours

This course introduces the basic principles and conventions of the International Classification of Diseases (ICD) as well as Current Procedural Terminology (CPT) coding. Students simulate the application of coding principles with examples and exercises based on actual case documentation. Prerequisite: Medical Insurance, Patient Billing

Medical Insurance 180 hours

In this course students learn the basic functions of processing medical insurance claims and handling cash-related accounting procedures. A computer-based training program guides students through the insurance claim form cycle and focuses on the areas in which medical office assistants encounter the greatest difficulties. Students are introduced to information about major insurance programs and federal health care legislation. Prerequisite: Patient Billing

Medical Insurance Coder Capstone 170 hours

Work-based learning experience, project-based instruction and additional industry certifications will be utilized to reinforce skills obtained within any career major in the Business, Management and Administration cluster. Students will make final preparation for industry certifications and will finalize portfolios that highlight skills and certifications. Students may also undertake special projects, cross-train or participate in workplace learning opportunities to enhance skills in accordance with industry demands. Prerequisite: All other courses in career major

Patient Billing 180 hours

This course provides an overview of medical office accounting procedures, introduces the features of a patient billing system, and presents important concepts relating to a medical office accounting function. Simulated practice using cutting-edge patient billing software allows the student to assume the role of a medical billing assistant in a doctor's office. Prerequisite: Foundations of Medical Office/Medical Terminology

Practical Nursing

- 1+1 Practical Nurse
- Practical Nurse

1+1 Practical Nurse

Career Major Description

This career major prepares the student to become a licensed practical nurse, an important member of the health care team who works under the supervision or direction of a registered nurse, licensed physician or dentist. Students will learn the role of the LPN and how to care for a variety of patients including geriatric, pediatric, oncology, and pre/post operative patients. Students will learn how to identify patient problems, identify appropriate interventions and evaluate nursing care. Graduates of this career major will be eligible take the NCLEX-PN and become licensed through the Board of Nursing. Referral from a college partner is required for admission to the 1+1 career major.

Students in the 1+1 major must have already completed college level courses in Medical Terminology and Anatomy & Physiology.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 12th grade level or above
- Attention to detail
- Flexibility
- Good communication skills
- Good physical and mental health
- Ability to work well with others
- Ability to relate to people in a caring, empathetic manner

Who Can Enroll

Adults w/referral from collegiate partners (OSCC, Rose State & OSU-OKC)

Prerequisites

- High school diploma or GED
- 18 years old
- CPR for Health Care Providers (American Heart Association Course)
- Medical Terminology (2-3 college credit hours)
- Anatomy & Physiology (4 or more college credit hrs)

Location

Springlake Campus, Health Careers Center
1720 Springlake Drive, Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America
OSALPN-Oklahoma State Association Licensed Practical Nurses - Student Chapter

Certifications Available

Licensed Practical Nurse (LPN)
Advanced Unlicensed Assistant (AUA)
Certified Medication Aide (CMA)
Certified Nurse Assistant (CNA)

Course Title

Course Title	Hours
Academic Life Skills.....	15
Basic Nursing Skills.....	91
Concepts of Nursing	40
Fundamentals of Nursing	160
Clinical I Basic Nursing.....	80
Pharmacology & Intravenous Therapy Skills	50
Medical Surgical Nursing I.....	99
Clinical II Medical Surgical Nursing Part I.....	168
Medical Surgical Nursing II.....	99
Clinical III Medical Surgical Nursing Part II.....	168
Nursing Specialties	120
Clinical IV Maternal/Newborn, Pediatric and Mental Health	104
Transition to Practice	54
Clinical V Transition to Practice.....	96

Career Major Length

1344 Hours

Industry Accreditation

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326
Phone: 404-975-5000, www.acenursing.org

Oklahoma Board of Nursing

2915 N. Classen, Suite 524, Oklahoma City, OK 73106, 405-962-1800

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
fax (405) 743-6809

Oklahoma State Board of Education (OSBE)

2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

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Practical Nurse (Traditional Day PN)

Career Major Description

This career major prepares the student to become a licensed practical nurse, an important member of the health care team who works under the supervision or direction of a registered nurse, licensed physician or dentist. Students will learn the role of the LPN and how to care for a variety of patients including geriatric, pediatric, oncology, and pre/post operative patients. Students will learn how to identify patient problems, identify appropriate interventions and evaluate nursing care. Graduates of this career major will be eligible take the NCLEX-PN and become licensed through the Board of Nursing.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading, language and math skills at the 12th grade level or above
- Attention to detail
- Flexibility
- Good communication skills
- Good physical and mental health
- Ability to work well with others
- Ability to relate to people in a caring, empathetic manner

Who Can Enroll

Adults

Required Prerequisites

- High school diploma or GED
- 18 years old
- Medical Terminology (2-3 college credit hours)

Recommended Prerequisite

- CPR for Health Care Providers (American Heart Association Course)
- Technical Anatomy & Physiology (4-5 college credit hours)

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America
OSALPN-Oklahoma State Association Licensed
Practical Nurses - Student Chapter

Certifications Available

Licensed Practical Nurse (LPN)
Advanced Unlicensed Assistant (AUA)
Certified Medication Aide (CMA)
Certified Nurse Assistant (CNA)

Course Title

	Hours
Academic Life Skills.....	15
Basic Nursing Skills.....	91
Concepts of Nursing	40
Fundamentals of Nursing.....	160
Clinical I Basic Nursing.....	80
Pharmacology & Intravenous Therapy Skills.....	50
Medical Surgical Nursing I.....	99
Clinical II Medical Surgical Nursing Part I.....	168
Medical Surgical Nursing II.....	99
Clinical III Medical Surgical Nursing Part II.....	168
Nursing Specialties	120
Clinical IV Maternal/Newborn, Pediatric and Mental Health	104
Transition to Practice	54
Clinical V Transition to Practice.....	96

Career Major Length

1344 Hours

Industry Accreditation

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326
Phone: 404-975-5000, www.acenursing.org

Oklahoma Board of Nursing
2915 N. Classen, Suite 524, Oklahoma City, OK 73106, 405-962-1800

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln, Oklahoma City, OK 73105-4599,
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Judy_Jolley@mail.sde.state.ok.us

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COURSE DESCRIPTION

PRACTICAL NURSING

Academic Life Skills 15 hours

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Basic Nursing Skills 91 hours

This course is designed to introduce students to basic nursing care for long term care patients. This course consists of 75 hours of didactic learning in which students will identify roles and responsibilities of a nurse assistant while learning basic care skills. The students will be able to identify normal and abnormal findings of basic skills. The course consists of at least 16 hours of long term clinical experience in which students will perform skills learned in the didactic portion of the course.

Clinical I Basic Nursing 80 hours

Clinical I- Basic Nursing focuses on the PN student providing comfort and assistance in performing activities of daily living for patients with common non-complicated disorders. Data collection skills will be practiced. The student will assist the client and significant others during the normal expected stages of growth and development. Experiences will be provided that will give the student opportunities to reduce the patient's potential for developing complications or health problems related to treatments, procedures or existing conditions. Students will identify patient problems, appropriate interventions and evaluate nursing care to patients in extended care facilities. Prerequisite: Acceptance to the Practical Nurse major, 1+1 Practical Nurse major, or Nursing Prep major

Clinical II Medical Surgical Nursing Part 1 168 hours

Clinical II-Medical Surgical Nursing (Part I) focuses on the utilization of the nursing process in caring for acute care patients. The emphasis will be on prioritization, decision making, time management and critical thinking appropriate to the LPN's scope of practice. As the student progresses, more complex patient situations will be presented and they will begin to function in a role independent of the instructor. Rotations includes nursing care for patients with medical surgical problems, home health needs, geriatric nursing needs and conditions that requires visits to the medical office. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Clinical III Medical Surgical Nursing Part 2 168 hours

Clinical III-Medical Surgical Nursing (Part II) is a continuation of the utilization of the nursing process in caring for acute care patients. The student will care for multiple patients during this clinical rotation. The emphasis will be on prioritization, decision making, time management and critical thinking appropriate to the LPN's scope of practice. As the student progresses, more complex patient situations will be presented and they will begin to function in a role more independent of the instructor. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Clinical IV Maternal/Newborn, Pediatric and Mental Health 104 hrs

Clinical IV- The PN student will assist the patient and significant others during the normal expected stages of growth and development from conception throughout the life span in the clinical environment. The PN student will provide patient care related to prevention and early detection of health problems involved in maternal/newborn, pediatric and mental health nursing. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Clinical V Transition to Practice 96 hours

Clinical V-Transition to Practice skills are enhanced as the student functions in the role of team leader. The course will prepare the student to independently assume the role of the LPN in professional practice; a preceptor rotation assists in the completion of this transition. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Concepts of Nursing 40 hours

The Concepts of Nursing course focuses on the use of nursing related concepts by practical nurses as providers of care and members of the discipline in collaboration with health team members. Emphasis is placed on the concepts of learning, teamwork, communication in nursing, human development, professionalism, health promotion, nursing ethics and law, and changing health care delivery systems. Prerequisite: Acceptance to the Practical Nurse major, 1+1 Practical Nurse major, or Nursing Prep major

Fundamentals of Nursing 160 hours

The Fundamentals of Nursing course is an introduction to nursing care. Topics include utilizing the nursing process, performing assessment/data collection, and providing patient education. Principles and skills of nursing practice, documentation, and an introduction to physical assessment/data collection are taught. Special topics covering the care of the geriatric patient, the dying patient, the pre/post operative patient, and

the management of pain are included in the course. Emphasis will be placed on developing critical thinking skills, demonstrating professionalism by maintaining confidentiality, recognizing legal/ethical responsibilities, acting as a patient advocate, maintaining positive patient/colleague relationships, and by implementing appropriate standards of care. Prerequisite: Acceptance to the Practical Nurse major, 1+1 Practical Nurse major, or Nursing Prep major

Medical Surgical Nursing I 99 hours

The Medical Surgical Nursing I course builds on concepts from previous courses, this course focuses on health management, maintenance and prevention of illness; care of the individual as a whole and deviations from the normal state of health. The administration of patient care includes using the nursing process, performing focused assessments, using critical thinking, and assisting with patient education. The systems included are integumentary, musculoskeletal, respiratory, cardiac, vascular, urinary and sensory. The concepts of patient care; treatments, pharmacology, and diet therapy are included within each system. Content is presented from a patient-centered approach based on Maslow's Hierarchy of Needs. Patient care includes consideration of physiological, cognitive, psychosocial, and spiritual needs. Consideration is also given to the impact of health issues; the potential physical and mental adjustments as well as diversional and rehabilitative activities. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Medical Surgical Nursing II 99 hours

The Medical Surgical Nursing II course builds on concepts from previous courses, this course focuses on health management, maintenance and prevention of illness; care for the individual as a whole; and deviations from the normal state of health. Administering patient care includes use of the nursing process while performing focused assessments, using sound judgment, and providing patient education. The systems included are hematology, immunology, neurology, digestive, endocrine, and reproductive, as well as oncology nursing. The concepts of patient care, treatments, pharmacology, and diet therapy are included within each system. Content is presented from a patient-centered approach based on Maslow's Hierarchy of Needs. Patient care involves consideration of physiological, cognitive, psychosocial, and spiritual needs within a cultural framework. Consideration is also given to the impact of health issues: the potential physical and mental adjustments required, as well as any necessary diversional or rehabilitative activities. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Nursing Specialties 120 hours

This course includes content in the nursing specialty areas of maternal and newborn nursing, pediatric nursing and mental health nursing. Maternal and newborn nursing includes 40 hours theory designed to familiarize the student with the holistic approach to care for the antepartum, intrapartum, postpartum client and the neonate. The normal processes of conception, fetal development, labor and delivery, postpartum period and family involvement are included. Mental health nursing includes 40 hours of theory with focus on the role of the practical nurse. The content includes the universal concepts needed to care for clients experiencing common mental health alterations, mental health issues, and client care needs that frequently challenge the geriatric client. Pediatric nursing includes 40 hours where students learn to relate normal growth and development along with the physical, emotional and social needs of the pediatric client; apply fundamental nursing skills and principles in the care of the pediatric client and family; and describe various pediatric disorders.

Prerequisite: Acceptance to the Practical Nurse major or 1+1 PN Practical Nurse major

Pharmacology & Intravenous Therapy Skills 50 hours

This course provides instruction in basic pharmacology that is needed for safe and effective medication administration. Skills include medication administration as well as IV therapy. Fluid and electrolyte balance will be included. Content includes components of medication preparation and administration including the essential knowledge needed to adequately contribute to the assessment and evaluation of the effects of medication on clients throughout the lifespan. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Transition to Practice 54 hours

The Transition to Practice course is designed to provide concepts to be discussed in relation to the transition from student to Licensed Practical Nurse. Beginning organization and management skills are included. The student will participate in job readiness skills. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

PN Select

- PN Select

PN Select

Career Major Description

PN Select will prepare students to transition into the Practical Nursing program offered at Metro Technology Centers. Practical nursing will prepare students to become a licensed practical nurse, an important member of the health care team. Students will learn the role of the LPN and how to care for a variety of patients. Students will learn how to identify patient problems, identify appropriate interventions and evaluate nursing care. Graduates of this career major will be eligible to take the NCLEX-PN and become licensed through the Board of Nursing.

Average Oklahoma Salary

\$15/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- A positive attitude
- A general interest in health careers
- Good communication skills
- The ability to relate to people in a caring, empathetic manner
- Good eye-hand coordination
- Good physical and mental health
- Dependability
- Ability to work effectively with a wide variety of personality types

Who Can Enroll

Seniors

Prerequisites

Currently enrolled in high school and Metro Technology Centers with a 3.0 GPA and 92% attendance

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

- *Licensed Practical Nurse (LPN)
- Certified Nurse Assistant (CNA)
- Advanced Unlicensed Assistant (AUA)
- *Available once Practical Nursing program is complete

Course Title

Hours

Academic Life Skills	15
Advanced Anatomy and Physiology	90
Basic Nursing Skills	91
Concepts of Nursing	40
Fundamentals of Nursing	160
Clinical I Basic Nursing	80
*Pharmacology & Intravenous Therapy Skills (HS)	50
*Clinical IV Maternal/Newborn, Pediatric and Mental Health	104
*Medical Surgical Nursing I	99
Nursing Specialties (Adult)	120
*Clinical II Medical Surgical Nursing Part I	168
*Medical Surgical Nursing II.....	99
*Clinical III Medical Surgical Nursing Part II.....	168
*Clinical V Transition to Practice	96
Transition to Practice (Adult)	54

Career Major Length

1434 Hours

*These are courses that will be taken and completed in the adult Practical Nursing program.

Industry Accreditation

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326
Phone: 404-975-5000, www.acenursing.org

Oklahoma Board of Nursing
2915 N. Classen, Suite 524, Oklahoma City, OK 73106, 405-962-1800

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810,
fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

COURSE DESCRIPTION

PN SELECT

Academic Life Skills 15 hours

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Basic Nursing Skills 91 hours

This course is designed to introduce students to basic nursing care for long term care patients. This course consists of 75 hours of didactic learning in which students will identify roles and responsibilities of a nurse assistant while learning basic care skills. The students will be able to identify normal and abnormal findings of basic skills. The course consists of at least 16 hours of long term clinical experience in which students will perform skills learned in the didactic portion of the course.

Clinical I Basic Nursing 80 hours

Clinical I- Basic Nursing focuses on the PN student providing comfort and assistance in performing activities of daily living for patients with common non-complicated disorders. Data collection skills will be practiced. The student will assist the client and significant others during the normal expected stages of growth and development. Experiences will be provided that will give the student opportunities to reduce the patient's potential for developing complications or health problems related to treatments, procedures or existing conditions. Students will identify patient problems, appropriate interventions and evaluate nursing care to patients in extended care facilities. Prerequisite: Acceptance to the Practical Nurse major, 1+1 Practical Nurse major, or Nursing Prep major

Clinical II Medical Surgical Nursing Part 1 168 hours

Clinical II-Medical Surgical Nursing (Part I) focuses on the utilization of the nursing process in caring for acute care patients. The emphasis will be on prioritization, decision making, time management and critical thinking appropriate to the LPN's scope of practice. As the student progresses, more complex patient situations will be presented and they will begin to function in a role independent of the instructor. Rotations includes nursing care for patients with medical surgical problems, home health needs, geriatric nursing needs and conditions that requires visits to the medical office. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Clinical III Medical Surgical Nursing Part 2 168 hours

Clinical III-Medical Surgical Nursing (Part II) is a continuation of the utilization of the nursing process in caring for acute care patients. The student will care for multiple patients during this clinical rotation. The emphasis will be on prioritization, decision making, time management and critical thinking appropriate to the LPN's scope of practice. As the student progresses, more complex patient situations will be presented and they will begin to function in a role more independent of the instructor. Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Clinical IV Maternal/Newborn, Pediatric and Mental Health 104 hrs

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Prerequisite: Acceptance to the Practical Nurse major or 1+1 Practical Nurse major

Pre-Engineering

- PLTW Pre-Engineering

PLTW Pre-Engineering

Career Major Description

Students in this major will study pre-engineering through the exciting Project-Lead-the-Way (PLTW) curriculum that will provide students hands on projects and experiences. In addition, students will complete advanced math and science courses. Students who complete this major will have been exposed to a diverse curriculum that will better equip them to choose a major at the college/university level. Students will also have the strong math and science foundation needed to be prepared to enter a college/university program in a pre-engineering related field.

NOTE: Students will take the required PLTW courses. They will then take a combination of elective PLTW courses, math and sciences as determined by course availability to complete the remaining 480 hours for 2-year students, or 960 hours for 3-year students.

Average Oklahoma Salary

Varies

Helpful Attributes and Abilities

- Reading, language and math skills at the 9th grade level or above
- Ability to take directions from others
- Good eye-hand coordination
- Manual dexterity
- Ability to stand for long periods of time
- Ability to handle high stress situations
- Good physical and mental health
- Attention to detail
- Ability to organize and prioritize
- Ability to be a team player
- Ability to work in a fast-paced environment

Who Can Enroll

Juniors & Seniors

Prerequisites

- Minimum overall GPA of 3.0
- Grade level of B or above in math and science
- Algebra I (with a B or better)
- Geometry (with a B or better) or concurrent enrollment

Location

Springlake Campus
Metro STEM Academy
1901 Springlake Drive
Oklahoma City, OK 73111

Student Organization

SkillsUSA

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)

Course Title

Course Title	Hours
Introduction to Engineering Design (PLTW).....	120
Principles of Engineering (PLTW)	120
Civil Engineering and Architecture (PLTW)	120
Computer Integrated Manufacturing (PLTW)	120
Computer Science Principles (PLTW).....	120
Digital Electronics (PLTW)	120
Engineering Design and Development (PLTW)	120
Pre-AP Algebra II.....	120
Pre-AP Geometry	120
Pre-AP Trigonometry	60
Pre-AP Pre-Calculus	60
Pre-AP Chemistry	120
Pre-AP Physics.....	120
AP Calculus.....	120
AP Statistics	120
AP Chemistry	120
AP Physics I.....	120
AP Physics II.....	120
AP Environmental Science	120

Career Major Length

960 Hours

COURSE DESCRIPTION

PRE-ENGINEERING

AP Calculus 120 hours

This course is primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. Prerequisite: Pre-AP Trigonometry/Pre-Calculus

AP Chemistry 120 hours

Chemistry is the study of the properties of materials and the changes that materials undergo. A student will see how chemical principles operate in all aspects of our lives, from everyday activities to far-reaching matters like the development of drugs to cure cancer. Students will learn through laboratory and lecture methods using group and individual activities, cooperative learning, presentations, and technology to enhance the learning environment. Students will learn how to design and conduct experiments using a variety of laboratory techniques and technology to investigate a chemical concept. They will apply stoichiometric concepts to chemical reactions and analyze how atomic structure relates to periodicity. The student will analyze how atomic structures relate to chemical bonding and apply chemical concepts to reactions in aqueous solutions. They will learn about gas laws as well as study electrochemistry. Prerequisite: Chemistry I or Pre-AP Chemistry and Algebra I

AP Environmental Science 120 hours

AP Environmental Science is a course that will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. Yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science.

Prerequisite: Biology I and Geometry

AP Physics I 120 hours

Through inquiry-based learning students will develop critical thinking and reasoning skills. This course covers classical mechanics/Newtonian physics at a rigorous level along with simple harmonic motion including sound, light and optics. Successful students will possess excellent geometry and algebra skills along with mastery of basic trigonometry functions.

AP Statistics 120 hours

AP Statistics is a course that introduces students to the main concepts in statistics and enables them to collect, analyze, and draw a conclusion from data. The four main concepts are: Exploring Data, Sampling and Experimentation, Anticipating Patterns, and Statistical Inference. Students are expected to take the AP Statistics Exam upon completion of the course and could receive college credit with an acceptable score. AP Statistics follows AP Central's recommended course content. Prerequisite: Pre-AP Trigonometry/Pre-Calculus

Computer Integrated Manufacturing 120 hours

This course applies principles of robotics and automation and builds on computer solid modeling skills developed in Introduction to Engineering Design. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

Computer Science Principles 120 hours

Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. While this course can be a student's first in computer science, students without prior computing experience are encouraged to start with Introduction to Computer Science. CSP helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. The course curriculum is a College Board-approved implementation of AP CS Principles.

Digital Electronics 120 hours

This course teaches students about the electronic circuits used to process and control digital signals. Students are exposed to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Students will continually hone their interpersonal skills, creative abilities and understanding of the design process.

Engineering Design and Development 120 hours

This course is an engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students identify a problem, complete extensive research, apply principles developed in the preceding courses and are guided by a community mentor. Prerequisite: Principles of Engineering

Introduction to Engineering Design 120 hours

This course teaches students problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

Pre-AP Algebra II 120 hours

This course will enhance and expand the mathematical foundations of Algebra I and Geometry. The course will stress the fundamental extension of previous mathematics and the preparation for future higher-level mathematics courses. It will involve operations with real and complex numbers as well as matrices. The problem solving processes will use functions and relations. Within the course applications of math, and while satisfying predictions based on a set of data, the use of data analysis, and statistics will be justified. Students who master Pre-AP Algebra II will gain experience with quadratic functions, conic sections, logarithmic and exponential functions, linear functions, solution methods for systems of linear functions, and matrix operations. Prerequisite: Algebra I

Pre-AP Chemistry 120 hours

Pre-AP Chemistry is designed to prepare students for the complex thinking that will be expected in future science courses. This course will focus on the development of the student as a scientist through the study of chemistry. Being a scientist requires a broad set of tools, including theory, problem solving, written and oral communication, interpreting data and laboratory skills. Areas covered are: Matter, atoms & periodic table, molecules & compounds, chemical reactions & stoichiometry, Aqueous solutions & reactions, Gases, Energy & Chemical Reactions, Atomic & Molecular Structure. Prerequisite:

Pre-AP Geometry 120 hours

This course will allow students the chance to relate mathematics to real-life situations and careers. It will build logical reasoning capabilities as well as give students an opportunity to justify conclusions in a structured manner. Students will analyze characteristics and properties of two- and three-dimensional geometric shapes. They will use visualization, spatial reasoning, and geometric modeling to solve problems. Throughout the course students connect the algebra skills previously developed to the geometric concepts. Pre-AP Geometry is a rigorous course that prepares students for higher-level mathematics. Prerequisite: Algebra I

Pre-AP Physics 120 hours

This course covers the basics of kinematics (motion) in one and two dimensions, as well as forces and vectors. Students study work, energy and power that lead into the study of momentum and the conservation of energy. Circular and projectile motion and gravitation, translational and rotational equilibrium, fluid mechanics and thermal physics will be covered. Students study electricity and magnetism then look at waves and optics. A final subject area will be atomic and nuclear physics. Good algebra skills are critical to success in this course, as well as knowledge of right angle trigonometry.

Pre-AP Trigonometry 60 hours

This course includes a study of six basic functions of trigonometry, solutions of right and oblique triangles, identities, and complex numbers. A graphing calculator is recommended and will be used as an aide to computations.

Prerequisites: Algebra II or Pre-AP Algebra II

Pre-AP Pre-Calculus 60 hours

This course is designed to be in preparation for Calculus or AP Calculus. The course gives a review study of straight lines, conic sections, simplification of equations, algebraic curves, transcendental curves, a completed study of straight lines, polar coordinates, and an introduction to limits and derivatives. A graphing calculator is recommended and will be used as an aide to computations.

Prerequisites: Algebra II or Pre-AP Algebra II

Principles of Engineering 120 hours

This course helps students understand the field of engineering /engineering technology. Students explore various technology systems and manufacturing processes helping them learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. This course also includes concerns about social and political consequences of technological change. Prerequisite: Introduction to Engineering Design

Radiologic Technology

- Radiologic Technology

Radiologic Technologist

Career Major Description

Students in this major will learn how to perform imaging procedures using ionizing radiation. They will learn appropriate patient care skills as well as radiation protection procedures for their patients, themselves, and others. They will learn to operate a variety of imaging equipment, factors that affect image quality, and criteria for image evaluation. Extensive clinical assignments are included. Upon completion, graduates will satisfy the educational requirements to take the Radiography certification exam provided by the American Registry of Radiologic Technologists (ARRT).

Average Oklahoma Salary

\$20/hour

Helpful Attributes and Abilities

- Good physical and mental health
- Ability to critically think and problem solve
- Ability to work well with others
- Ability to work independently
- Flexibility to work in various environments
- Ability to wear a lead apron and stand for long periods of time
- Ability to adapt to emergency situations

Who Can Enroll

Adults

Prerequisites

- High school diploma or GED
- 18 years of age
- CPR for Health Care Provider (AHA Course)
- Associate Degree (which must include 5 hours of Anatomy & Physiology and 2-3 hours of Medical Terminology) OR lack no more than 12 college credit hours from receiving such a degree

Location

Springlake Campus
Health Careers Center
1720 Springlake Drive
Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

American Registry of Radiologic Technologists (ARRT) National Certification exam

Course Title

Hours

Academic Life Skills.....	15
Introduction to Radiologic Science & Health Care	48
Ethics and Law in the Radiologic Sciences	32
Patient Care in Radiologic Sciences	64
Pharmacology and Venipuncture	32
Radiographic Procedures I.....	150
Image Analysis I	48
Principles of Imaging.....	60
Digital Image Acquisition and Display.....	64
Radiation Production and Characteristics.....	48
Radiographic Procedures II.....	150
Image Analysis II.....	48
Imaging Equipment.....	72
Clinical Practice I.....	645
Clinical Practice II	645
Radiation Biology	48
Radiation Protection.....	48
Advanced Imaging	48
Clinical Practice III.....	199
Radiographic Pathology.....	32
Career Preparation for Radiography	16
Comprehensive Program Review for Radiography	64

Career Major Length

2576 Hours

Industry Accreditations

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, (312) 704-5300
mail@jrcert.org

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
1500 West Seventh Ave., Stillwater, OK 74074,
phone (405) 377-2000, 1-800-522-5810, fax (405) 743-6809

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln, Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205, Judy_Jolley@mail.sde.state.ok.us

COURSE DESCRIPTION

RADIOLOGIC TECHNOLOGY

Academic Life Skills 15 hours

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Advanced Imaging 48 hours

This course emphasizes advanced skills and specific career knowledge for the health care professional. To broaden their knowledge of primary radiographic procedures, the student will be involved in the exploration of specialized diagnostic and/or therapeutic procedures that may include, but is not limited to, the study of advanced imaging procedures and related associated imaging modalities, analysis of radiographic/sectional images, and evaluation of ethical dilemmas. Flexibility is built into this course to provide a means for program faculty to develop the specialized knowledge and skills that may be required of students at their specific geographical location. Prerequisite: Acceptance to the Radiologic Technologist major

Career Preparation for Radiography 16 hours

This course emphasizes communication skills and specific career knowledge for the health care professional. To support an occupational job search, a functional resume will be produced that summarizes the student's education, personal and professional achievements and work experience. To enhance their professional images, each student will construct cover letters and thank you notes that may be updated or changed as needed. Advanced career modality requirements and preparation will be investigated, as well as the requirements for professional continuing education and opportunities for life-long learning. Prerequisite: Acceptance to the Radiologic Technologist major

Clinical Practice I 645 hours

Content and clinical practice experiences should be designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined and evaluated. Prerequisite: Acceptance to the Radiologic Technologist major

Clinical Practice II 645 hours

Content and clinical practice experiences should be designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined and evaluated. Prerequisite: Acceptance to the Radiologic Technologist major

Clinical Practice III 199 hours

This course contains content and clinical practice experiences designed to sequentially develop, apply, critically analyze, integrate, synthesize, and evaluate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice and professional development are discussed, examined, and evaluated. Practice experiences should be designed to provide patient care and assessment, competent performance of radiologic imaging procedures and total quality management. Levels of competency and outcomes measurement ensure the well being of the patient before, during, and following the radiologic procedure. Prerequisite: Acceptance to the Radiologic Technologist major

Comprehensive Program Review for Radiography 64 hours

This course provides a comprehensive review of the radiography curriculum in preparation for taking the certification exam given by The American Registry of Radiologic Technologists (ARRT). Identified areas of weakness will help the student focus on the curriculum items that need concentrated study. The computerized testing format of the ARRT exam will be emphasized. Prerequisite: Acceptance to the Radiologic Technologist major

Digital Image Acquisition and Display 64 hours

This course contains content designed to impart an understanding of the components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving, and retrieval are discussed. The guidelines for selecting exposure factors and evaluating images within a digital system will assist students to bridge between film-based and digital imaging systems. Principles of digital system quality assurance and maintenance are presented. Prerequisite: Acceptance to the Radiologic Technologist major

Ethics and Law in Radiologic Sciences 32 hours

Content is designed to provide a fundamental background in ethics. The historical and philosophical basis of ethics, as well as the elements of ethical behavior are discussed. The student will examine a variety of ethical issues and dilemmas found in clinical practice. An introduction to legal terminology, concepts, and principles will also be presented. Topics include misconduct, malpractice, legal and professional standards and the ASRT scope of practice. The importance of proper documentation and informed consent is emphasized. Prerequisite: Acceptance to the Radiologic Technologist major

Image Analysis I 48 hours

Content is designed to provide a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation, and the factors that can affect image quality. Actual images will be included for analysis. This course emphasizes the importance of identifying and evaluating diagnostic images. Guidance is given in the selection of accurate improvement methods. Knowledge and experience is also gained during the first year clinical evaluations with the instructor, and through routine image assessment during the Procedures course. Prerequisite: Acceptance to the Radiologic Technologist major

Image Analysis II 48 hours

Content is designed to provide a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis. Prerequisite: Acceptance to the Radiologic Technologist major

Imaging Equipment 72 hours

Content is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. The content also provides a basic knowledge of quality control. Prerequisite: Acceptance to the Radiologic Technologist major

Introduction to Radiological Science and Health Care 48 hours

Content is designed to provide an overview of the foundations in radiography and the practitioner's role in the healthcare delivery system. Principles, practices and policies of the healthcare organizations are examined and discussed in addition to the professional responsibilities of the radiographer. Prerequisite: Acceptance to the Radiologic Technologist major

Patient Care in Radiologic Sciences 64 hours

Content is designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified. Prerequisite: Acceptance to the Radiologic Technologist major

Pharmacology and Venipuncture 32 hours

Content is designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of venipuncture and administration of diagnostic contrast agents an/or intravenous medications is included. The appropriate delivery of patient care during these procedures is emphasized. Prerequisite: Acceptance to the Radiologic Technologist major

Principles of Imaging 60 hours

Content is designed to establish a knowledge base in factors that govern and influence producing and recording radiologic images. Film and electronic imaging with related accessories are emphasized. Class demonstrations/labs are used to demonstrate theory application. Prerequisite: Acceptance to the Radiologic Technologist major

Radiation Biology 48 hours

Content is designed to provide an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues, and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation. Prerequisite: Acceptance to the Radiologic Technologist major

Radiation Production and Characteristics 48 hours

Content is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter. Prerequisite: Acceptance to the Radiologic Technologist major

Radiation Protection 48 hours

Content is designed to present an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel, and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health care organizations are incorporated. Prerequisite: Acceptance to the Radiologic Technologist major

Radiographic Pathology 32 hours

Content is designed to introduce theories of disease causation and the pathophysiologic responses pathogenesis, clinical manifestations, radiographic appearance and management of alterations in body systems are presented. Prerequisite: Acceptance to the Radiologic Technologist major

Radiographic Procedures I 150 hrs

Content is designed to provide the knowledge base necessary to perform standard radiographic procedures. Consideration is given to the evaluation of optimal diagnostic images. Laboratory experience complements the didactic portion. This course provides the student with theoretic concepts, terminology and clinical application for routine positioning procedures. Students will be given an opportunity to demonstrate their knowledge and skill in performing the simulated exams, which will later become a basis for competency in the clinical practicum. Knowledge of anatomic structures and radiographic quality will be evaluated in classroom activities. Prerequisite: Acceptance to the Radiologic Technologist major

Radiographic Procedures II 150 hours

Content is designed to provide an advanced knowledge base necessary to perform standard radiographic procedures, including basic computed tomography (CT) and special studies. Consideration is given to the evaluation of optimal diagnostic images. Laboratory experience should complement the didactic portion. This course provides the student with theoretic concepts, terminology, and clinical application for routine positioning procedures. Students will be given an opportunity to demonstrate their knowledge and skill in performing the simulated exams, which will later become a basis for competency in the clinical practicum. Knowledge of anatomic structures and radiographic quality will be evaluated in classroom activities. Prerequisite: Acceptance to the Radiologic Technologist major

Surgical Technology

- Surgical Technologist
- Central Sterile Processing Technician

Surgical Technologist

Career Major Description

Surgical technologists handle the instruments, supplies and equipment necessary during the surgical procedure and work closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel to deliver patient care before, during and after surgery. The major combines classroom instruction, laboratory practice, and clinical experience to ensure that each graduate meets entry level competencies as a Surgical Technologist. Graduates of the Surgical Technologist major may take the NBSTSA National Certification examination.

Average Oklahoma Salary

\$15/hour

Who Can Enroll

Adults

Required Prerequisites

- High school diploma or GED
- 18 years old
- CPR for Health Care Providers (American Heart Association Course)

Recommended Prerequisites

- Medical Terminology (3 college credit hours)
- Anatomy & Physiology (4 or more college credit hours)

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Ability to take directions from others
- Good eye-hand coordination
- Manual dexterity
- Ability to stand for long periods of time
- Ability to handle high stress situations
- Good physical and mental health
- Attention to detail
- Ability to organize and prioritize
- Ability to be a team player
- Ability to work in a fast-paced environment

Location

Springlake Campus, Health Careers Center
1720 Springlake Drive, Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

Certified Surgical Technologist

Industry Accreditation

The Surgical Technologist program is accredited by the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA)

Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N., Suite 158, Clearwater, FL 33763 (727) 210-2350

Course Title

Course Title	Hours
Academic Life Skills.....	15
Medical Terminology.....	45
Anatomy and Physiology.....	120
Surgical Technology Orientation.....	15
Core Employability Skills.....	30
Introduction to Surgical Technology.....	30
Essentials of Surgical Asepsis.....	60
Surgical Case Management.....	120
Surgical Tech Practicum I.....	30
Surgical Patient Care.....	45
Surgical Pharmacology.....	30
Microbiology and Wound Healing.....	30
Surgical Procedures I.....	90
Surgical Procedures II.....	75
Disaster and Emergency Preparedness.....	15
Surgical Tech Practicum II.....	240
Surgical Tech Practicum III.....	240

Career Major Length

1230 Hours

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE) 1500 West Seventh Ave., Stillwater, OK 74074, phone (405) 377-2000, 1-800-522-5810, fax (405) 743-6809, www.okcareertech.org

Oklahoma State Board of Education (OSBE)
2500 N. Lincoln
Oklahoma City, OK 73105-4599
phone (866) 249-9410, fax (405) 521-6205
Judy_Jolley@mail.sde.state.ok.us

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Central Sterile Processing Technician

Career Major Description

Central Sterile Processing Technicians handle the instruments, supplies and equipment necessary during the surgical procedure and work closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel to deliver patient care before, during and after surgery. The major combines classroom instruction, laboratory practice, and clinical experience to ensure that each graduate meets entry level competencies as a Surgical Technologist. Graduates of the Surgical Technologist major may take the NBSTSA National Certification examination.

Average Oklahoma Salary

\$15/hour

Who Can Enroll

Adults

Required Prerequisites

- High school diploma or GED
- 18 years old
- CPR for Health Care Providers (American Heart Association Course)

Recommended Prerequisites

- Medical Terminology (3 college credit hours)
- Anatomy & Physiology (4 or more college credit hours)

Helpful Attributes and Abilities

- Reading, language and math skills at the 10th grade level or above
- Ability to take directions from others
- Good eye-hand coordination
- Manual dexterity
- Ability to stand for long periods of time
- Ability to handle high stress situations
- Good physical and mental health
- Attention to detail
- Ability to organize and prioritize
- Ability to be a team player
- Ability to work in a fast-paced environment

Location

Springlake Campus, Health Careers Center
1720 Springlake Drive, Oklahoma City, OK 73111

Financial Aid

Available for those who qualify

Student Organization

HOSA-Health Occupations Students of America

Certifications Available

Certified Surgical Technologist

Industry Accreditation

The Surgical Technologist program is accredited by the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA)

Commission on Accreditation of Allied Health Education
Programs 25400 US Highway 19 N., Suite 158, Clearwater,
FL 33763 (727) 210-2350

Course Title

	Hours
Academic Life Skills.....	15
Medical Terminology.....	45
Anatomy and Physiology.....	120
Surgical Technology Orientation	15
Core Employability Skills.....	30
Introduction to Surgical Technology.....	30
Essentials of Surgical Asepsis.....	60
Surgical Case Management.....	120
Surgical Tech Practicum I.....	30
Surgical Patient Care.....	45
Microbiology and Wound Healing.....	30
Disaster and Emergency Preparedness	15
Surgical Tech Practicum II.....	240
Surgical Tech Practicum III	240

Career Major Length

1035 Hours

DO NOT ADVERTISE

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE) 1500 West Seventh Ave., Stillwater, OK 74074, phone (405) 377-2000, 1-800-522-5810, fax (405) 743-6809, www.okcareertech.org

Oklahoma State Board of Education (OSBE) 2500 N. Lincoln Oklahoma City, OK 73105-4599 phone (866) 249-9410, fax (405) 521-6205 Judy_Jolley@mail.sde.state.ok.us

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COURSE DESCRIPTION

SURGICAL TECHNOLOGY

Academic Life Skills 15 hours

This course is designed to provide adult students the foundation needed for success in school while preparing for certification or licensure in the chosen healthcare field. Topics of instruction include time management, resource management, study techniques, test taking skills, communication, cultural diversity, ethics and professionalism.

Anatomy & Physiology 120 hours

Anatomy/Physiology is the study of the structural complexity of the human body and its intricate functional mechanisms. This course is taught as a laboratory science. Students will conduct scientific investigations and fieldwork using scientific knowledge and methodology that will enable them to make educated conclusions based on higher-level critical thinking and problem solving skills. The areas studied will be an integration of biology and chemistry and will include, but are not limited to: organization of the body, chemical basis for life, cells & tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, blood, circulatory system, lymphatic & immune systems, respiratory systems, digestive system & metabolism, urinary system, and reproductive system. An emphasis should be placed on real-world applications, and active-learning exercises should be included along with laboratory experiences.

Prerequisite: Algebra I, Geometry (or co-enrollment), and Biology I (or co-enrollment)

Core Employability Skills 30 hours

In this course students learn how employability skills enhance their employment opportunities and job satisfaction. Student are introduced to key employability skills and will learn the importance of maintaining and upgrading skills as needed. Prerequisite: Acceptance to the Surgical Technologist major

Disaster and Emergency

Preparedness 15 hours

This course includes these aspects of emergency preparedness and disaster training: preparation and planning, detection and communication, incident management and support systems, safety and security, clinical/public health assessment and intervention, contingency, continuity and recovery and public health law and ethics. This is a new course for surgical technology, however it could be offered in any career major. Prerequisite: Acceptance to the Surgical Technologist major

Essentials of Surgical

Asepsis 60 hours

This course will introduce the student to the principles and practices of aseptic technique, scrubbing, gowning, gloving, sterilization and disinfection. Upon completion of this course, the student will be able to discuss and demonstrate the principles of aseptic technique. Prerequisite: Acceptance to the Surgical Technologist major

Introduction to Surgical

Technology 30 hours

This course is designed to provide information introducing the student to the roles and responsibilities of the surgical team and the health care system. Students will explore the ethical and legal concepts and professional responsibilities of the surgical technology field. Prerequisite: Acceptance to the Surgical Technologist major

Medical Terminology 45 hours

Medical Terminology is designed to develop in the students a working knowledge of the language of medicine. Students acquire word building skills by learning prefixes, suffixes, roots and abbreviations. By relating terms to body systems, students identify proper uses of words in a medical environment. Knowledge of medical terminology enhances students' ability to successfully secure employment or pursue advanced education in healthcare.

Microbiology & Wound

Healing 30 hours

This course is designed to provide the student with a basic background in microbiology. This course will provide a better understanding of the relationship between microorganisms and the maintenance of health and/or the prevention of disease. The course of study includes a general introduction to microbiology, infection/immunology and wound healing.

Prerequisite: Acceptance to the Surgical Technologist major

Surgical Case Management 120 hrs

This course will introduce the student to the supplies and equipment that are an integral part of their training as a Surgical Technologist, including instrumentation, suture, sponges, drains, counts, and the sterile field and draping of sterile field. Upon completion of the course, the student will be able to demonstrate competency in using supplies and equipment in the surgical environment. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Patient Care 45 hours

Upon completion of this course the student will be able to demonstrate patient care skills in the surgical environment. The course enables the student to develop techniques used to safely transport, position and prep the patient for surgery, and the proper care of surgical specimens. Students will apply these skills across the lifespan and to patients with complex needs. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Pharmacology 30 hours

This course familiarizes the student with the various drugs used in surgery and their administration. The student will demonstrate an understanding of basic anesthesia equipment, drugs and methods in order to

function effectively in the surgical setting. Upon course completion the student may assist the anesthesia personnel if required. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Procedures I 90 hours

This course is designed to provide instruction in basic, intermediate and advanced core procedures outlined in the Core Curriculum for Surgical Technologists by the Association of Surgical Technologists. The student will be able to apply and demonstrate the concepts related to the following surgical procedures: General, Obstetric and Gynecological, Genitourinary, Otorhinolaryngologic, and Orthopedic Surgery. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Procedures II 75 hours

This course is designed to provide instruction in basic, intermediate and advanced specialty procedures outlined in the Core Curriculum for Surgical Technologists. The student should be able to apply and demonstrate the concepts related to each of the following surgical procedures: Neurosurgery, Cardiothoracic, Peripheral Vascular, Oral, Maxillofacial, Plastic and Ophthalmic Surgery. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Tech Practicum I 30 hrs

This course provides practical experiences in the laboratory setting or clinical environment. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Tech Practicum II 240 hrs

This course provides clinical experience in the surgical environment. The student assumes responsibility as the first scrub role, handling instruments and supplies and equipment necessary for the surgical procedure. Emphasis is placed on core surgical procedures. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Tech Practicum III 240 hrs

This course provides advanced clinical experience in the surgical environment with minimal assistance. Emphasis is on specialty surgical procedures. Students will prepare for and complete the national certification exam. Prerequisite: Acceptance to the Surgical Technologist major

Surgical Technology

Orientation 15 hours

Surgical Technology Orientation includes the basic safety concepts, individual learning styles, introduction to information technology and review of the surgical technology handbook. Prerequisite: Acceptance to the Surgical Technologist major

Welding

- Combination Welder
- SMAW Structural Welder
- Structural Welder

Combination Welder

Career Major Description

The Combination Welder career major prepares students to do quality welding for a variety of construction and manufacturing jobs using multiple structural welding techniques. Instruction will cover welding theory and safety fabrication, layout, print reading, symbols, math, welding codes, metal characteristics/properties and oxyfuel cutting. Students will learn to perform high quality welds in accordance with welding procedure specifications used in a variety of welding occupations.

Average Oklahoma Salary

\$19/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general science
- Good eye-hand coordination

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

AWS Standard Welders Qualification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

	Hours
Fundamentals of Welding	40
Fundamentals of Cutting Processes	30
Oxyfuel Cutting	30
SMAW Electrodes.....	15
SMAW Equipment & Setup.....	15
Welding Joint Fit-Up & Adjustment	15
Beads & Fillet Welds-SMAW	140
Weld Quality	15
Plasma Arc Cutting	15
SMAW Open V-Groove Welds	120
Groove Welds with Backing-SMAW.....	50
Open Root Pipe Welds-SMAW.....	96
Metal Characteristics & Properties	30
Metal Preparation & Heat Treatments	30
Air Carbon Arc Cutting & Gouging.....	15
Welding Detail Drawings.....	30
Welding Blueprints	15
GMAW/FCAW Equipment & Setup.....	15
GMAW Structural Plate	83
GMAW Pipe Welding	65
FCAW Structural Plate.....	80
FCAW Pipe	45
GTAW Equipment & Filler Materials.....	15
GTAW Structural Plate	80
GTAW Aluminum Plate	45
GTAW Carbon Steel Pipe	90
Forklift Training.....	10
Workforce Staging	55

Career Major Length

1284 Hours

SMAW Structural Welder

Career Major Description

Learn to do structural welding to use either in construction or as a structural steel fabricator. This major covers welding theory, fabrication, layout, print reading, welding symbols, math, and welding codes with an emphasis in Shielded Metal Arc Welding (stick) techniques.

Average Oklahoma Salary

\$14/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general science
- Good eye-hand coordination

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

AWS Standard Welders Qualification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)
Oklahoma State Board of Education (OSBE)
North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

	Hours
Fundamentals of Welding	40
Fundamentals of Cutting Processes	30
Oxyfuel Cutting	30
SMAW Electrodes.....	15
SMAW Equipment & Setup.....	15
Welding Joint Fit-Up & Adjustment	15
Beads & Fillet Welds-SMAW	140
Weld Quality	15
SMAW Open V-Groove Welds	120
Groove Welds with Backing-SMAW.....	50
Metal Characteristics & Properties	30
Metal Preparation & Heat Treatments	30
Welding Detail Drawings.....	30
Welding Blueprints	15
Forklift Training.....	10
Workforce Staging	55

Career Major Length

640 Hours

Structural Welder

Career Major Description

Learn to do structural welding to use either in construction or as a structural steel fabricator. This major covers welding theory, fabrication, layout, print reading, welding symbols, math, and welding codes with specialized instruction in Shielded Metal Arc Welding (stick), Gas Metal Arc Welding (MIG), Flux-cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (TIG) techniques. This major offers specialized preparation for structural certification by the American Welding Society (AWS).

Average Oklahoma Salary

\$14-16/hour

Helpful Attributes and Abilities

- Reading and math skills at the 10th grade level or above
- An ability to compute percentages, measurements and simple fractions
- A basic knowledge of general science
- Good eye-hand coordination

Who Can Enroll

Juniors, Seniors & Adults

Location

South Bryant Campus
4901 S. Bryant Ave.
Oklahoma City, OK 73129

Financial Aid

Available for those who qualify

Student Organization

SkillsUSA

Certifications Available

AWS Standard Welders Qualification

Metro Tech Accreditations

Oklahoma Board of Career and Technology Education (OBCTE)

Oklahoma State Board of Education (OSBE)

North Central Association-Commission on Accreditation & School Improvement (NCA-CASI)

Course Title

Hours

Fundamentals of Welding	40
Fundamentals of Cutting Processes	30
Oxyfuel Cutting	30
SMAW Electrodes.....	15
SMAW Equipment & Setup.....	15
Welding Joint Fit-Up & Adjustment	15
Beads & Fillet Welds-SMAW	140
Weld Quality	15
Plasma Arc Cutting	15
SMAW Open V-Groove Welds	120
Groove Welds with Backing-SMAW	50
Metal Characteristics & Properties	30
Metal Preparation & Heat Treatments	30
Air Carbon Arc Cutting & Gouging.....	15
Welding Detail Drawings.....	30
Welding Blueprints	15
GMAW/FCAW Equipment and Setup	15
GMAW Structural Plate	83
FCAW Structural Plate.....	100
GTAW Equipment & Filler Materials.....	15
GTAW Structural Plate	80
GTAW Aluminum Plate	45
Forklift Training.....	10
Workforce Staging	55

Career Major Length

1008 Hours

COURSE DESCRIPTION

WELDING

Air Carbon Arc Cutting and Gouging 15 hrs

This course is an introduction to air carbon arc cutting equipment and procedures. The course covers how to identify electrodes and safe operations of equipment. Instructions in performing air carbon arc welding and gouging work assignments are also given in this course. Prerequisite: Completion of SMAW Structural Welder course sequence

Beads & Fillet Welds SMAW 140 hrs

This course is an introduction to the preparation and setup of arc welding equipment and the processes of striking an arc. It also covers how to make stringers, weave overlapping beads and fillet welds.

Fundamentals of Welding 40 hrs

This course is an introduction to basic welding safety, math, hand tools, power tools, blueprints, rigging, communication skills and employability skills.

Fundamentals of Cutting Processes 30 hrs

This course is an introduction to uses of safety equipment, protecting clothing, and procedures for cutting metals.

FCAW Structural Pipe 45 hrs

This course is an introduction to how to set up FCAW equipment, the procedures and techniques used to make V-groove pipe welds with FCAW in the 1G-ROTATED, 2G, 5G, and 6G positions. Prerequisite: Completion of Structural Welder course sequence

FCAW Structural Plate 80 hrs

This course covers how to build a pad of stringer and weave beads using filler metals and shielding gas. Students will learn how to perform FCAW multi-pass fillet welds on plate in multiple positions. Prerequisite: Completion of SMAW Structural Welder course sequence

GMAW Pipe Welding 65 hrs

This course is an introduction to open root V-groove welding of pipe in the 2G, 5G and 6G positions. Prerequisite: Completion of Structural Welder course sequenc

Forklift Training 10 hrs

This course is an introduction to types of equipment used in the industry, careers in heavy equipment, apprenticeship requirements, advantages and disadvantages of being a heavy equipment operator, operator responsibilities, operator skills, CDL requirements, jobs performed by heavy equipment operators and characteristics of a good operator.

GMAW Structural Plate 83 hrs

This course covers how to build a pad of stringer and weave beads using filler metals and shielding gas. Students will learn how to perform GMAW multi-pass fillet welds on plate in multiple positions. Prerequisite: Completion of SMAW Structural Welder course sequence

GMAW/FCAW Equipment and Setup 15 hrs

This course is an introduction to safety procedures for GMAW and FCAW equipment and explains the filler metals and shielding gases used to perform GMAW and FCAW. It also covers equipment setup and operations. Prerequisite: Completion of SMAW Structural Welder course sequence

GTAW Aluminum Plate 45 hrs

This course is an introduction to open root V-groove welding of aluminum plate in the 2G, 5G and 6G positions. Prerequisite: Completion of SMAW Structural Welder course sequence

GTAW Carbon Steel Pipe 90 hrs

This course is an introduction to how to set up GTAW equipment, procedures and techniques used to make V-groove pipe welds with GTAW in the 1G-ROTATED, 2G, 5G and 6G positions. Prerequisite: Completion of Structural Welder course sequence

GTAW Equipment and Filler Materials 15 hrs

This course is an introduction to GTAW safety, identification of uses of GTAW equipment, filler metals and shielding gases and setup of equipment. Prerequisite: Completion of SMAW Structural Welder course sequence

GTAW Structural Plate 65 hrs

This course is an introduction in how to pad in all positions using GTAW and carbon steel filler metal. Students will learn how to make multi-pass V-butt open-groove weld with carbon steel filler metal in the 1G, 2G, 3G, and 4G positions. Prerequisite: Completion of SMAW Structural Welder course sequence

Metal Characteristics and Properties 30 hrs

This course is an introduction to physical characteristics, mechanical properties, composition and classification of common ferrous and nonferrous metals. The course covers visual inspection and x-ray fluorescent spectrometry methods used to identify metals.

Metal Preparation and Heat Treatments 30 hrs

This course provides information on how to clean and prepare all types of base metals for cutting and welding. The course explains preheating, inter-pass temperature control, and post-heating procedures that sometimes need to be done to preserve weldment ductility and weld quality. It introduces students to the equipment used for heat treatment of metals.

Open-Root Pipe Welds-SMAW 96 hrs

This course is an introduction to open-root welds and how to set up welding equipment for making open-root welds. It provides the procedures for making 1G, 2G, 5G, and 6G open-root pipe welds. Prerequisite: Completion of Structural Welder course sequence

Oxyfuel Cutting 30 hrs

This course is an introduction to safety requirements for oxyfuel cutting. It identifies oxyfuel cutting equipment and setup procedures, and how to light, adjust and turn off equipment. Instruction on cutting techniques, straight line piercing, bevels, washing and gouging is also given.

Plasma Arc Cutting 15 hrs

This course is an introduction to plasma arc cutting equipment and procedures. This course covers safe amperage, gas pressure, and flow rate, plasma arc cutting methods for piercing, slotting, squaring, and beveling metals. Prerequisite: Completion of SMAW Structural Welder course sequence

SMAW Electrodes 15 hrs

This course is an introduction to electrode characteristics and different types of filler metals. It describes the role of the American Welding Society (AWS) and the American Society of Mechanical Engineers (ASME). The course covers safety storage and control of filler metals and identifies the use of codes.

SMAW Equipment and Setup 15 hrs

This course is an introduction to SMAW and welding safety and how to connect welding current and set up arc welding equipment. The course covers the importance of tools used to clean welds.

Groove Welds with

Backing-SMAW 50 hrs

This course is an introduction to groove welds and how to start up welding equipment for making groove welds, how to make groove welds with backing, performing flat, horizontal, vertical and overhead groove welds.

SMAW Open V-Groove Welds 120 hrs

This course is an introduction to open V-groove welds and how to set up welding equipment for making an open V-groove weld. Procedures for making flat, vertical, horizontal, and overhead open V-groove welds are covered.

Weld Quality 15 hours

This course is an introduction to codes that govern welding. The course identifies and explains weld imperfections and causes, examination practices, qualification tests and the importance of quality welds.

Welding Blueprints 15 hours

This course is an introduction to basic blueprint terms, components and symbols, types of blueprint drawings (civil, architectural, structural, mechanical, plumbing/piping and electrical), and interpretation of drawing dimensions and specifications.

Welding Detail Drawings 30 hrs

This course is an introduction to identifying and understanding welding detail drawings. It includes fills, object views, dimensioning on drawings, use of notes and the bill of materials. Also given is an introduction to the different welding symbols, different types of fillet welds, groove welds, non-destructive examination symbols, how to read welding symbols on drawings and specifications and welding procedures.

Welding Joint Fit-up and Adjustment 15 hrs

This course is an introduction to identifying and explaining job code specifications, use of fit-up gauges and measuring devices to check fit-up and alignment, the use of plate and pipe fit-up and alignment tools to properly prepare joints. The course introduces steps to check for joint misalignment of poor fit.

Workforce Staging 55 hrs

This course is designed to be delivered as an integrated component within the courses taken by the individual student. Course is designed for the development of leadership, personal development and employability skills attainment.



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Preparing for Life

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