

MUSCLE SHOALS CAREER ACADEMY

Every Student College and Career **Ready**



COURSE DESCRIPTION GUIDE 2025-26

Muscle Shoals Career Academy

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Layne Rinks

Director of Career Technical Education
Principal, Muscle Shoals Career Academy

COLLEGE AND CAREER READY!

CREDENTIALING OPPORTUNITIES AT MSCA



American Welding Society



Programs of Study Offered at MSCA

Construction Technology

Welding

Food and Wellness

Additive Manufacturing

Business Information Technology

Finance

Law Enforcement

Medical Science

Cosmetology & Barbering

Computer Science PLTW

Engineering PLTW

Collision Repair

Co-Op

DUAL ENROLLMENT COLLEGE CREDIT IS OFFERED IN THE FOLLOWING MSCA PROGRAMS

COLLISION REPAIR

CONSTRUCTION TECHNOLOGY

WELDING

MEDICAL SCIENCE

*ADDITIVE MANUFACTURING
TECHNOLOGY*

Course Description Guide

MUSCLE SHOALS CAREER ACADEMY

Principal/CTE Director:
Layne Rinks

Guidance Counselor:
Velvet Black

Career Coach:
Amy Dodson

Muscle Shoals City Schools Career Technical Education

Muscle Shoals City Schools provides Career and Technical Education programs that follow the National Career and Technical Education Model. The Career Clusters include courses that identify academic, technical knowledge and skills needed for students to pursue a wide range of career opportunities. Courses provide rigor and relevance for students by linking school-based learning with career-related experiences.

13 Career Clusters are offered in the Muscle Shoals City School District

Construction Technology
Welding
Food and Wellness
Additive Manufacturing
Business Information Technology
Finance
Law Enforcement
Medical Science
Cosmetology & Barbering
Computer Science PLTW
Engineering PLTW
Collision Repair
Co-Op

Our Vision Statement:



The Muscle Shoals Career Academy faculty envisions the active participation of each student in the teaching-learning process. We believe that the 21st Century offers many opportunities and challenges for students in their quest to become productive citizens in an ever-changing world of global economics and political ideology. As caretakers of tomorrow's humanity, it is our obligation to provide an environment conducive to learning; that all children may grow in prosperity and develop a love of country, thus providing a better community, state, nation and world for all mankind.

Each CTE Course has a \$30 Class Fee

CAREER PREPAREDNESS ~ Required Course for ALL Students

Credit 1.0

Students will learn to use basic hand and power tools, read blueprints, learn basic rigging skills, and gain employability skills. Students will be able to obtain a NCCER Certification

*Grade:
9-12*

Prerequisite(s): None

Program: CONSTRUCTION TECHNOLOGY

Architecture and Construction Foundations (Required)

Credit: 1.0

Architecture and Construction Foundations is the foundational course for the Architecture and Construction career cluster. It is the first step in any of the three pathways (Construction, Design and Preconstruction, or Maintenance and Operations). Topics include construction mathematics; hand and power tools; construction drawings, specifications, and layout; communication; and material handling.

*Grade:
9-12*

Prerequisite(s): None

Carpentry: Commercial Framing & Layout

Credit: 1.0

Carpentry: Commercial Framing and Layout is designed to equip students with fundamental knowledge and skills in the commercial construction industry. Students learn basic theory and practice hands-on application of skills. Topics include commercial drawings, steel framing, exterior finishes, thermal protection, roofing, doors, drywall, suspended ceilings, trim, and commercial cabinet installation.

*Grade:
10-12*

Prerequisite(s): Architecture and Construction Foundations

Construction Finishing

Credit: 1.0

Construction Finishing is designed to provide knowledge and skills used in applying a structure's exterior and interior finishes. Topics include exterior finishing, thermal and moisture protection, drywall, trim, stair layout, and cabinetry.

*Grade:
10-12*

Prerequisite(s): Architecture & Construction Foundations

Dual Enrollment is available in this class

Welding

****All Welding courses include a \$5 locker usage fee****

Welding SMAW I		Credit: 1.0
Welding: SMAW I is designed to provide a fundamental understanding of welding safety and basic shielded metal arc welding (SMAW) equipment and procedures. Standards are designed to equip students with knowledge and skills for setting up equipment, preparing surfaces, and performing safe oxy-fuel cutting and welding.	Grade: 10-12	Prerequisite(s): Architecture and Construction Foundations
Welding SMAW II		Credit: 1.0
Welding: SMAW II presents information and skills needed to weld pipes and plates of various kinds. Topics include SMAW open-root pipe welds, plate welding, and stainless steel and carbon steel welding. The course also incorporates information about gas tungsten arc (tungsten inert gas) welding.	Grade: 10-12	Prerequisite(s): Architecture and Construction Foundations, Welding SMAW I
Welding: GMAW and FCAW		Credit: 1.0
Welding: GMAW and FCAW introduces metal arc and flux-cored arc welding processes. Emphasis is placed on safe operating practices, handling, and storage of compressed gasses. Process principles, component identification, various welding techniques, and base and filler metal identification are introduced. This course aims to prepare students to perform GMAW and FCAW welds in various positions.	Grade: 10-12	Prerequisite(s): Welding SMAW I
Career Pathway Project in Architecture and Construction	Grade : 12	
Career Pathway Project in Architecture and Construction is a capstone course designed for students who have completed two or more Career and Technical Education credits in the Architecture and Construction Career Cluster. This course allows students to utilize the knowledge and skills gained through their secondary coursework in a practical, real-world experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and explore it in depth while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education.		Must have taken 4 classes in welding
Dual Enrollment is offered in this class.		

Food and Wellness

Nutrition and Food	Credit: 1.0
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<i>A one-credit course designed to enable students to explore the relationship between food, nutrition, fitness, and wellness. Students learn how to select and prepare nutritious foods. A school-based laboratory is required for this course.</i>	Grade: 10-12	Prerequisite(s) None
Family and Consumer Sciences		Credit: 1.0
<i>A one-credit course that provides students with core knowledge and skills in the areas of marriage and family, parenting and care giving, consumer sciences, apparel, housing, food and nutrition, and technology. A school-based laboratory is required for this course.</i>	Grade: 9-12	Prerequisite(s): None
Event Planning		Credit: 1.0
<i>This is a one-credit course taught in grades 9-12. Students will learn to organize and plan all aspects of business and social events including the food, location, and decor associated with hiring an event planner. Concepts taught in the course to meet the needs of clients including planning for the event with activities, establishing a budget, determining the theme, planning the guest list, determining the location, developing an event plan schedule, planning transportation needs, training of staff, staging the event, calculating room and space requirements, providing necessary technology and equipment, planning food and beverage services, securing entertainment, understanding legal issues in event planning, and conducting post-evaluations of events. Students demonstrate leadership characteristics and make decisions based on integrating knowledge of financial, human resources, promotion, and event management principles. Students are prepared for various career opportunities in event planning.</i>	Grade: 10-12	Prerequisite(s):None
Additive Manufacturing		
Introduction to Drafting		Credit: 1.0
<i>For students interested in pursuing a career in engineering, architectural design, interior design or drafting, this course is essential. The course introduces students to AutoCAD Software. Students will be able to demonstrate multi-view drawings, including visualizing principle views, creating third angle projections, selecting proper drawing scale, and organizing layout of primary views.</i>	Grade: 10-12	Prerequisite(s): None
Intermediate Drafting		Credit: 1.0

Students expand their ability to illustrate more complex objects using the computer-aided drafting (CAD) systems. Topics include sectioning, auxiliary views, threads and fasteners, pictorials, and the continuation of conventional dimensioning practices.	Grade: 11-12	Prerequisite(s): Introduction to Drafting.
Advanced Drafting Design		Credit: 1.0
Advanced Drafting Design is designed for students who are interested in engineering and related mechanical drafting areas that require more in-depth study of mechanical design. Emphasis is placed on detailed parts drawings, bills of materials, and assembly drawings. Students are introduced to basic geometric dimensioning and tolerancing (GD&T) applications. Through intersections and development, students acquire basic sheet metal forming knowledge. Using this knowledge, students lay out and form models of geometric figures. Career readiness projects allow students opportunities to research industry standards and practices.	Grade: 11-12	Prerequisite(s): Intermediate Drafting.
Career Pathway Project in Manufacturing	Grade 12	
Career Pathway Project (CPP) in Manufacturing is a capstone course designed for career and technical education students who have completed two or more courses in the Manufacturing career cluster. This course allows students to utilize their secondary coursework through an experience that showcases their learning. It provides an opportunity for a student to choose an area of interest and engage in an in-depth exploration of the area while demonstrating problem-solving, decision-making, and independent-learning skills. The CPP contributes to an educational plan of challenging courses and practical experiences that prepares students for the workplace or for pursuing further education. This course may be taken in any program within the Manufacturing cluster.		Must have taken 3 classes in drafting
Dual Enrollment is offered in this class		
Business Information Technology		
CAREER PREP		Credit 1.0

<i>Students will learn to use basic hand and power tools, read blueprints, learn basic rigging skills, and gain employability skills. Students will be able to obtain a NCCER Certification.</i>	<i>Grade: 9-12</i>	<i>Prerequisite(s): None</i>
DIGITAL PUBLICATIONS DESIGN		Credit: 1.0
<i>Digital Publications Design gives students marketable experience in both print and digital publishing. Emphasis is placed on page layout and design, computerized text, graphic art, digital photography, and the use of software to create a variety of publications</i>	<i>Grade: 9-12</i>	<i>Prerequisite(s): None</i>
DIGITAL MEDIA DESIGN		Credit: 1.0
<i>Digital Media Design provides a creative, hands-on environment in which students collaborate to produce a variety of digital media projects. Students use various hardware, peripherals, software, and web-based tools to learn skills involving graphic design, digital photography, web design, and digital video production. Additionally, the standards are designed for students to engage in critical thinking skills and practice appropriate behavior in the use of technology. Emphasis is placed on exploring and demonstrating business-related skills such as teamwork, interpersonal skills, and ethics while completing their projects.</i>	<i>Grade: 9-12</i>	<i>Prerequisite(s): None</i>
BROADCAST ~ TROJAN NEWS TEAM		Credit: 1.0
<i>Students will use Adobe Premiere Pro Software to edit and publish a weekly news broadcast. Broadcast Scriptwriting, Video Equipment Operation, and self-motivation are required. This is a project-based course, ability to work toward and meet deadlines is a MUST!</i>	<i>Grade: 10-12</i>	<i>Teacher Approved</i>
CAREER PREP		Credit 1.0
<i>Students will learn to use basic hand and power tools, read blueprints, learn basic rigging skills, and gain employability skills. Students will be able to obtain a NCCER Certification</i>	<i>Grade: 9-12</i>	<i>Prerequisite(s): None</i>

Business Software Applications I	Grades 10-12	Credit : 1.0	
<i>Business Software Applications I emphasize the skills required to create, edit, and publish industry-appropriate documents. Areas of instruction include the integration of word processing, desktop publishing, spreadsheets, database management, and presentation software as well as the use of emerging technologies. Competencies for the co-curricular student organizations, DECA and Future Business Leaders of America (FBLA-PBL), are also embedded in this course. Students will have the opportunity to gain industry-recognized credentials to document basic computer skills needed for future education or employment.</i>			
ECONOMICS AND FINANCIAL SERVICES			Credit: 1.0
<i>Economics and Financial Services presents basic topics in economics, including the principles and practices of banking, credit, and consumer lending in the United States. Additional emphasis is placed on money management, economic growth and stability, and characteristics of different economic systems and financial institutions. The course includes the major functions of banks and other financial intermediaries, central banking and the Federal Reserve System, current trends in the finance industry, credit functions, principles of credit risk evaluation, loan creation, debt collection, and stocks and bonds.</i>	Grade: 9-12	Prerequisite(s): None	
ACCOUNTING		Credit: 1.0	
<i>Accounting is designed to help students understand the basic principles of the accounting cycle. Whether students aspire to be future business owners or work in finance with other companies, accounting skills are fundamental to success and applicable in many different fields. This course provides a comprehensive introduction to basic financial accounting, including analyzing and recording business transactions, preparing and interpreting financial statements, demonstrating generally-accepted accounting principles, and performing banking and payroll activities. Additionally, students receive exposure to the ethical considerations that accounting professionals must face and the standards of practice governing their work.</i>	Grade: 9-12	Prerequisite(s): None	
Dual Enrollment is offered in this class			
Law Enforcement			
INTRODUCTION TO PUBLIC SAFETY		Credit: 1.0	

