

Career and Technical Education							
ALSDE - approved CTE Course of Study Standards linked HERE .							
Supplemental Resources: Subject area courses may utilize the following supplemental resources:							
Below are the adopted textbooks for CTE courses as well as the course outline and description.							
Course	Textbook Title	Author	Edition	Publisher	Copyright Year	Tentative Course of Study	Course Descriptions
SMAW FILLET/OFC	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of oxy-fuel cutting.
SMAW FILLET/OFC LAB	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course is designed introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of oxy-fuel cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-3 groups in accordance applicable welding code and be able to safely operate oxy-fuel equipment and perform those operations as per the applicable welding code.
GAS METAL ARC/FLUX FORED ARC WELDING	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides instruction and demonstration using the various transfer methods and techniques to gas metal arc and flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases.
GAS METAL ARC/FLUX FORED ARC WELDING LAB	NCCER: WELDING LEVEL I	NCCER	6th Edition	Pearson/Savvas	2023	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides instruction and demonstration using the various transfer methods and techniques to gas metal arc and flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases.
SMAW CARDBON PIPE	NCCER: WELDING LEVEL I	NCCER	6th Edition	Pearson/Savvas	2023	ALABAMA COURSE OF STUDY- Architecture and Construction	This course introduces the student to the practices and procedures of welding carbon steel pipe using the shielded metal arc weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, electrodes, proper joint geometry, joint preparation, and fit-up in accordance with applicable codes.
SMAW CARDBON PIPE LAB	NCCER: WELDING LEVEL I	NCCER	6th Edition	Pearson/Savvas	2023	ALABAMA COURSE OF STUDY- Architecture and Construction	This course is designed to provide the student with the skills in welding carbon steel pipe withshielded metal arc welding techniques in various pipe welding positions. Upon completion, students should be able toperform shielded metal arc welding on carbon steel pipe with the prescribed electrodes in various positions inaccordance with the applicable codes.
CTE LAB IN ARCHITECTURE AND CONSTRUCTION	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This one-credit course is an extended laboratory experience to address the advancement and specialization of careers within Architecture and Construction through individualized or small group instruction. This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.
SMAW FILLET/ PAC / CAC	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of carbon arc cutting and plasma arc cutting.
SMAW FILLET/ PAC / CAC LAB	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course is designed introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of plasma arc and carbon arc cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-4 groups in accordance with applicable welding code and be able to safely operate plasma arc and carbon arc equipment and perform those operations as per applicable welding code.
SHIELDED METAL ARC WELDING GROOVE	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides the student with instruction on joint design, joint preparation, and fit-up of groove welds in accordance with applicable welding codes. Emphasis is placed on safe operation, joint design, joint preparation, and fit-up. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds in accordance with applicable welding codes.
SHIELDED METAL ARC WELDING GROOVE LAB	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course provides instruction and demonstrations in the shielded metal arc welding process on carbon steel plate with various size F3 and F4 group electrodes in all positions. Emphasis is placed on welding groove joints and using various F3 and F4 group electrodes in all positions. Upon completion, the student should be able to make visually acceptable groove weld joints in accordance with applicable welding codes.
GTAW STAINLESS PIPE	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course is designed to provide the student with the practices and procedures of welding stainless steel pipe using the gas tungsten arc weld (GTAW) process. Emphasis is placed on pipe positions, filler metal selection, purging gasses, joint geometry, joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, filler metals, purging gas, proper joint geometry, joint preparation, and fit-up to the applicable code.

GTAW STAINLESS PIPE LAB	WELDING: PRINCIPLES AND APPLICATIONS	Jeffus	9th Edition	Cengage	2021	ALABAMA COURSE OF STUDY- Architecture and Construction	This course is designed to provide the student with the skills in welding stainless steel pipe with gas tungsten arc welding techniques in various pipe weld positions. Upon completion, students should be able to perform gas tungsten arc welding on stainless steel pipe with the prescribed filler metals in various positions in accordance with the applicable code.
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