DIVISION OF OCCUPATIONAL TECHNOLOGY

This division consists of the Departments of Air Conditioning, Auto Body Repair, Automotive Technology, Diesel Technology, Electronics, Computerized Machining Technology, Upholstery, Welding Technology, and Petroleum Technology. All programs in this division are offered at the Searcy campus except Upholstery and Welding.

CERTIFICATE OF PROFICIENCY
UPHOLSTERY

This program is offered at the ASU-LRAFB center.

Auto Option

UPH	1004	Basic Upholstery Techniques
UPH	1014	Auto Upholstery I
UPH	1024	Auto Upholstery II
UPH	1034	Auto Upholstery III

Total Credit Hours: 16

Household Option

UPH	1004	Basic Upholstery Techniques
UPH	1044	Furniture Upholstery I
UPH	1054	Furniture Upholstery II
UPH	1064	Furniture Upholstery III
UPH	1074	Advanced Upholstery Techniques I
UPH	1084	Advanced Upholstery Techniques II

Total Credit Hours: 24 hours

TECHNICAL CERTIFICATE
AIR CONDITIONING

Jobs in refrigeration and air conditioning sales, installation, maintenance, service, and operation cut across every segment of commerce, industry, and home ownership. These jobs range from that of the semi-skilled worker who performs the simplest operational and maintenance tasks, to the plant superintendent who is responsible for the operation and maintenance of mechanical systems that may cost several million dollars.

An obstacle that lies in the path of the individual who hopes to acquire the needed basic and technical education to qualify for a good job in refrigeration and air conditioning is the fact that this is an industry with many specialized branches. In fact, the field is so broad that no one person could encompass

it in its entirety. For this reason, the ambitious individual who seeks a career in this field should acquire a basic education that will form a solid foundation for the technical education needed to qualify for a good job.

Course #		Course Title
ACR	1103	Electrical Motors & Components
ACR	1203	Gas Heating Systems
ACR	1204	Electric Circuits and Controls
ACR	2102	Air Distribution
ACR	2204	Materials
ACR	2304	Air Conditioning & Refrigeration Systems
ACR	2404	Air Conditioning & Refrigeration Components
COM	1003	Career Communications
IET	1002	Introduction to General Electronics I
IET	2002	Introduction to General Electronics II
MTH	2003	Technical Mathematics

TOTAL FOR AIR CONDITIONING CERTIFICATE 34

TECHNICAL CERTIFICATE
AUTO BODY REPAIR

The work of the auto body technician consists of those jobs that require knowledge of automotive construction and a relatively high degree of manual dexterity. Students enrolled in this department will become skilled in frame alignment, removing dents, replacing damaged parts, painting, and glass installation. Upon completion of this course, employment may be obtained in the field as an auto body technician, insurance adjuster, paint representative for a major paint company, or body shop owner.

Course #		Course Title
ABR	1103	Basic Automotive Body and Frame Alignment
ABR	1113	Introduction to Auto Body
ABR	1203	Collision Diagnostics and Estimating
ABR	1303	Basic Automotive Metal Repair
ABR	2103	Automotive Mechanical Components
ABR	2113	Automotive Refinishing Techniques
ABR	2203	Automotive Refinishing Preparation
ABR	2303	Special Automotive Body Material
COM	1003	Career Communications
IET	1002	Introduction to General Electronics I
IET	2002	Introduction to General Electronics II
MTH	1003	Introduction to Technical Mathematics

TOTAL FOR AUTO BODY REPAIR CERTIFICATE 34

TECHNICAL CERTIFICATE
AUTOMOTIVE TECHNOLOGY

The Automotive Technology program is designed to give students a working knowledge in the ever expanding field of automobile service and repair. This field has become so specialized and technical that demand for trained technicians increases daily.

The instruction, course of study, facilities, and equipment of this institution have been evaluated by the National Automotive Technicians Education Foundation (NATEF) and meet the National Institute for Automotive Service Excellence (ASE) standards of quality for the training of automobile technicians. We are certified in all eight areas of automotive technology.

The shop is equipped with state of the art diagnostic equipment and the latest in technical publications to enhance student training. Graduates of this program may find employment as technicians in specialty shops, independent garages, fleet garages, and auto dealerships.

Course #		Course Title
AST	1103	Introduction to Automotive Technology
AST	1204	Automatic Transmissions
AST	2104	Brakes
AST	2204	Suspension and Steering
AST	2304	Basic Electrical and Electronics
AST	2404	Manual Transmissions/Transaxles
AST	2504	Engine Performance I
AST	2604	Engine Performance II
AST	2704	Automotive Climate Control
AST	2804	Engine Rebuild
COM	1003	Career Communications
IET	1002	Introduction to General Electronics I
IET	2002	Introduction to General Electronics II
MTH	1003	Introduction to Technical Math

TOTAL FOR AUTOMOTIVE TECHNOLOGY CERTIFICATE 49

TECHNICAL CERTIFICATE
DIESEL TECHNOLOGY

Enrollees in the Diesel Technology Program will be trained in the repairing and maintenance of heavy equipment, e.g., farm equipment, industrial equipment and heavy trucks. An increasing demand for mechanics in this field is due to the growth in diesel engines used in mobile equipment and in farming.

Students completing this course should be qualified to find employment in the following areas: farm equipment dealerships, heavy truck dealerships, industrial equipment dealerships, independent truck shops, independent diesel mechanics shops, river boat mechanics, and in some auto mechanics shops.

Course #		Course Title
DST	1104	Diesel Engine Technology
DST	1204	Transportation Electronics
DST	1304	Tractor and Trailer Hydraulics
DST	2104	Climate Control
DST	2204	Brake Systems
DST	2304	Truck Preventive Maintenance
COM	1003	Career Communications
IET	1002	Introduction to General Electronics I
IET	2002	Introduction to General Electronics II
MTH	1003	Introduction to Technical Mathematics

TOTAL FOR DIESEL TECHNOLOGY CERTIFICATE 34

TECHNICAL CERTIFICATE
INDUSTRIAL ELECTRONICS

This program is designed specifically for students that want to work on the equipment in factories. In addition to the basic electronic courses, this program includes hydraulic/pneumatic systems, industrial wiring, and PLCs (a computer used in factories).

Course #		Course Title
IET	1103	Microprocessor Fundamentals
OR		
IET	1203	Basic Machining
IET	1104	AC/DC Circuits
IET	1204	Power Transmission
IET	1304	Electrical Power Systems
IET	2104	Control Systems
IET	2204	Solid-State Devices
IET	2304	Digital & Programmable Logic Controllers
IET	2203	Welding
OR		
IET	2303	System Troubleshooting
COM	1003	Career Communications
MTH	2103	Advanced Technical Math

TOTAL FOR INDUSTRIAL ELECTRONICS CERTIFICATE 36

TECHNICAL CERTIFICATE
COMPUTERIZED MACHINING TECHNOLOGY

The Computerized Machining Technology program will prepare the student in designing, prototyping, and manufacturing of machined parts. AutoDesk Inventor and MasterCam software will be used in designing parts, and machines such as

lathes and mills will be used in their manufacture. The student will be prepared for entry level employment in designing, prototyping, and manufacture with CNC machines of molds and tools in the Computerized Machining occupation.

Course #		Course Title
CMT	1003	Master Cam I
CMT	1103	Prototyping I
CMT	1203	Basic Machining
CMT	2003	Master Cam II
CMT	2103	Prototyping II
CMT	2203	Die Making
CMT	2303	Computer Numeric Control Machining
CMT	2403	Heat Treatment of Metals
COM	1003	Career Communications
IET	1002	Introduction to General Electronics I
IET	2002	Introduction to General Electronics II
MTH	1103	Introduction to Algebra

TOTAL FOR COMPUTERIZED MACHINING TECHNOLOGY CERTIFICATE 34

CERTIFICATE OF PROFICIENCY
WELDING TECHNOLOGY

The Certificate of Proficiency in Welding Technology prepares the student for entry-level employment as a structural welder. Courses completed in this program may be applied toward the Technical Certificate and the Associate of Applied Science degree in Welding Technology.

WELD	1004	Shielded Metal Arc Welding
WELD	1104	Gas Metal Arc Welding
WELD	1204	Gas Tungsten Arc Welding
WELD	1304	Metal Fabrication

TOTAL FOR WELDING TECHNOLOGY CERTIFICATE OF PROFICIENCY 16

TECHNICAL CERTIFICATE
WELDING TECHNOLOGY

The Technical Certificate in Welding Technology prepares the individual to obtain marketable welding skills and the opportunity to earn various welder certifications as defined by the American Welding Society. Courses completed in this program may be applied toward the Associate of Applied Science degree in Welding Technology.

General Education Core (6 credit hours)

COM	1003	Career Communications (or higher)
MTH	1003	Introduction to Technical Mathematics (or higher)

Welding Technology Core (16 credit hours)

WELD	1004	Shielded Metal Arc Welding
WELD	1104	Gas Metal Arc Welding
WELD	1204	Gas Tungsten Arc Welding
WELD	1304	Metal Fabrication

Advanced Welding Technology Core (8 credit hours)

Choose TWO of the following courses:

WELD	2004	Advanced Shielded Metal Arc Welding
WELD	2104	Advanced Gas Metal Arc Welding
WELD	2204	Advanced Gas Tungsten Welding
WELD	2304	Advanced Metal Fabrication

TOTAL FOR WELDING TECHNOLOGY CERTIFICATE 30

ASSOCIATE OF APPLIED SCIENCE WELDING TECHNOLOGY

The Associate of Applied Science degree in Welding Technology is designed to prepare the individual for a career as a welding technician in the fabrication, construction and manufacturing industries. The program includes hands-on application of shielded metal arc welding (SMAW), gas tungsten arc welding (GTAW), and gas metal arc welding (GMAW) processes, in all positions, using pipe, plate and structural shapes. The requirements for this program enable the individual to earn several welding certifications.

General Education Core (21 credit hours)

ENG	1003	Freshman English I
ENG	1013	Freshman English II
OR		
ENG	1033	Technical Writing & Communication
MATH	1003	Intermediate Algebra (or higher)
CIS	1503	Microcomputer Applications I
PSY	2013	Introduction to Psychology
OR		
SOC	2213	Principles of Sociology
HIST	2763	United States to 1876
OR		
HIST	2773	United States Since 1876
OR		
POSC	2103	U.S. Government
SPCH	1203	Oral Communications

(continued next page)

Technical Related Core (8 credit hours)

EGT	1104	Basic Drafting
EGT	1124	Introduction to Computer-Aided Design

Welding Technology Core (32 credit hours)

WELD	1004	Shielded Metal Arc Welding
WELD	1104	Gas Metal Arc Welding
WELD	1204	Gas Tungsten Arc Welding
WELD	1304	Metal Fabrication
WELD	2004	Advanced Shielded Metal Arc Welding
WELD	2104	Advanced Gas Metal Arc Welding
WELD	2204	Advanced Gas Tungsten Arc Welding
WELD	2304	Advanced Metal Fabrication

TOTAL FOR AAS IN WELDING TECHNOLOGY 61

CERTIFICATE OF PROFICIENCY PETROLEUM TECHNOLOGY

The Certificate of Proficiency in Petroleum Technology prepares the individual with an overview of the petroleum industry and skills for jobs in the gas mining industry. The courses are designed to provide: 1) basic first aid and an awareness of health, safety and environmental concerns related to working in the petroleum industry; 2) purposes and procedures involved in exploration, drilling, production, transportation, marketing and refining; 3) a working knowledge of rig equipment, drilling components and proper procedures of successful drilling; and 4) the skills necessary to handle all categories of load handling.

Required Courses

PT	1001	Medic First Aid
PT	1003	Introduction to the Petroleum Industry
PT	1013	Drilling Operations
PT	1023	Rigging and Load Handling

TOTAL FOR CERTIFICATE OF PROFICIENCY IN PETROLEUM TECHNOLOGY 10