

**Great Plains Technology Center
Lawton Campus
Career Major Descriptions
2011-2012**

Architecture & Construction (AC)

Lead Carpenter (1815 AD) – Mike Ferguson (Local Description)

This career major will provide a “hands-on” experience in the management aspects of the Carpentry Trades and delineate the role of a project leader or lead carpenter in planning and managing a construction site during the layout through framing phases of a residential home. Requirements include work scheduling, the preparation and solicitation of material lists to building suppliers, selection for building supplies, and scheduling for delivery and availability of materials. Students will also provide remedial instruction/assistance to first-year students experiencing difficulty with learning objectives outlined in the Frame Carpenter Major. This course will include rotational and team leader assignments within the student-built house project.

Residential Carpentry (1050 AD; 1050 HS) – Mike Ferguson

This career major will explore blueprint and plan reading and delineate the role of building design, building site planning, and site preparation as it relates to the actual construction of a house. In addition, the student will gain a working knowledge of selected hand and power tools as they relate to construction oriented projects. This will include use of all applicable tools and materials required in the construction of a house. All aspects of job site and workplace safety related to residential construction will be examined through lecture, video, and hands-on practicum.

Residential Electrician’s Assistant (1050 AD; 1050 HS) – Mike Klein

This career major is a foundational study in the design, in the selection of equipment and in the methods used in the installation of electrical systems in residential buildings. This comprehensive training combines classroom theory and hands-on learning in tools, equipment, electrical safety, blueprint reading and specifications, series circuits, parallel circuits and the basics of residential electrical wiring. This career major prepares students to sit for the Oklahoma Journeyman Electrician test.

Unlimited Electrician’s Assistant (1815 AD) – Mike Klein

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 with AC/DC circuitry, and wiring applications. Included are motors, motor control circuits, and power distribution systems as well as industrial controls and electromechanical devices, the National Electrical Code, and security and alarm systems. Hours completed in this major can be counted toward the 8,000 hours (four years) of work experience required for the journeyman electrician license.

Residential/Commercial HVAC Technician (1815AD) –

The Commercial HVAC Technician career major provides a balance of theory and application in keeping with the philosophy of Great Plains Technology Center. This includes a solid foundation of the principles of heating, ventilation, air conditioning and refrigeration combined with extensive laboratory experience.

Students will learn to test, to systematically troubleshoot, to repair and to maintain electrical and mechanical HVAC systems and components. Students will also receive training in designing, building and installing sheet metal duct work systems.

Residential HVAC Technician (1050 AD; 1050 HS) –

This career major is an introduction to air-conditioning and refrigeration, exploring career opportunities in the HVAC/R industry, personal safety and work practices, and personal protective equipment. Students will be instructed in the proper handling of pressurized fluids, handling hazardous substances, hand and power tools, and equipment used to test and service air conditioning.

Arts, A/V Technology & Communications (AT)

Printing Design Technician (1050 AD; 1050 HS) – Bunnie Craddock (Local Description)

This career major introduces students to the arts, A/V technology and communication field through the use of graphic design, illustration and production using a variety of industry mediums. Students will receive a working knowledge of the basic skills and techniques used in the graphic arts and printing industry. Printing Design Technicians work closely with designers to provide skilled document design support by demonstrating the ability and understanding of page layout, text formatting and design best practices. Instruction in this career major will include the fundamentals of layout and design, paste up, composition, proofreading, stripping, press operation, process camera, plate making, desktop publishing, binding, copy machine operation, reproduction, and graphic arts photography. This career major provides students with the skills necessary to successfully enter the printing industry as a design technician.

Digital Graphic Designer (1050 AD; 1050 HS) – Bunnie Craddock

Career Major Description: This career major introduces students to the Graphic Design field. Students will use a variety of professional applications – Adobe InDesign, Adobe Illustrator, Adobe Photoshop – to create a variety of advertising and publication design layouts. Instruction in this career major will also include professional camera operation, use of copy machines and finishing and bindery techniques. Students will create a portfolio of work assigned to demonstrate mastery of subject matter.

Business, Management and Administration (BA)

Medical Insurance Coder (1050 AD; 1050 HS) – Sherrie Bellamy

This major prepares students to maintain patients' records using universally recognized coding systems that ensure compliance with federal regulations and insurance requirements. In addition to learning International Classification of Diseases (ICD) and Current Procedural Terminology (CPT) coding principles, students also learn medical office accounting procedures and medical insurance claim processing. Medical terminology and administrative routines and procedures specific to a medical office are covered. Students gain skills required for numerous industry-related certifications.

Medical Transcriptionist (1050 AD; 1050 HS) - Sherrie Bellamy

This major prepares students to transcribe dictated recordings made by physicians and other health care professionals into medical reports, correspondence and other administrative material. Emphasis is on developing transcription skills from voice media into usable medical communications. Correct formatting of medical documents, medical definitions and correct spelling of medical terminology are emphasized. In addition to transcription skills, students learn patient billing and medical insurance procedures. Students gain skills required for numerous industry-related certifications.

Education and Training (ET)

Pre-Education (600 AD; 600 HS) – Judy Holland

The Pre-Education major focuses on the various careers within the educational system. This career major emphasizes career skills to become a successful teacher/educator. Students will become familiar with the current issues within the classroom such as communication, technology, teaching methods, problem-solving skills and management of the learning environment. Students will have the opportunity to gain teaching experience through field experience.

Finance (FN)

Health Science (HS)

Advanced Respiratory Therapist (1945 AD) –

Students in this major will learn about the theory and practice in preparation for the Respiratory Therapist. Respiratory care procedures and the medications used in the treatment of respiratory and cardiac disorders are presented. They will also learn the anatomy and physiology of healthy and diseased cardiopulmonary systems. In addition, students will learn chemistry, physics, biology and microbiology as it relates to respiratory care additionally; the student is provided the opportunity to use the theory in practical clinical experiences. Students may obtain certification as a respiratory care therapist from the National Board of Respiratory Care (NBRC).

This career major is designed to prepare students for employment as a Respiratory Therapist. Respiratory Therapists work in a wide variety of clinical settings to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders.

This major is part of an advance standing agreement with Cameron University. Cameron University will offer general education, technical support, and related programs (33 credit hours) and Great Plains Technology Center will provide specialty programs in respiratory care (32 credit hours). Upon successful completion of both components the student will be awarded an Associate Degree in Respiratory Care by Cameron University. Successful degree candidates will be eligible to sit for the National Board for Respiratory Care exam to become a Certified Respiratory Therapist and a Registered Respiratory Therapist.

Licensed Practical Nurse (1508 AD) – Shirley Cottingham, Tamela Mitcham, Janet Tisdale, Mary Jo Melby, Diane Phillips and Karen Shirey

Core medical terminology, anatomy and physiology as well as long term care assistant are included in this career major. 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 National Council Licensing Examination for Practical Nurses (NCLEX-PN) and become licensed through the Oklahoma Board of Nursing.

Radiologic Technology (2815 AD) – Carrie Baxter, Donna Madden, Kelly Smith, and Deborah Ousley

Radiologic Technologists (Radiographer) work under the supervision of physicians, who are primarily Radiologists, operating radiologic equipment to produce radiographs of the body for diagnostic purposes. Various duties of students will include moving the radiology equipment into the specified positions and with proper training, adjusting the equipment control to set exposure techniques and factors based on cognitive and psychomotor skill obtained. Students will also gain limited knowledge and skills in specialty areas such as computed tomography, bone densitometry, mammography, magnetic resonance imaging, nuclear medicine, special procedures, and ultrasound and radiation oncology. This career major prepares students to sit for a National Certification exam given by the American Registry of Radiologic Technologists.

Surgical Technologist (1185 AD) – Ann Tahah and Charisse Martin

Surgical technologists handle 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.

The Surgical Technologist Major is designed to prepare post-secondary adult students for entry-level employment as Surgical Technologists. The career major is structured to provide the students with a foundation in the basic sciences and subjects unique to the operating room. Upon completing the major, the Graduate Surgical Technologist will be able to function as a member of the surgical team delivering direct patient care before, during, and after surgical intervention. The instructional content, which is based on an occupational analysis of the surgical technology field, and is adjusted to reflect local employment - local employment needs as determined by the instructor, administrators, and advisory committee. Upon successful completion of the career major, the Graduate will be eligible to sit for the National Certification Examination. The career major closely follows the guidelines of the Accreditation Review Committee on Education in Surgical Technology and the Commission on Accreditation of Allied Health Education Programs.

Hospitality & Tourism (HT)

Culinary Coordinator (1050 AD) – Brenda Ronio and Ray Stonerock

This major prepares students to become culinary coordinators who manage or operate a restaurant or food service business. Instruction includes fundamentals of customer service and management, purchasing and cost control, and basic concepts and science of nutrition and nutritional cooking that apply to the food services business. An external internship in a specialized area of interest in culinary arts allows students to apply skills learned in the classroom and lab. (Prerequisite: Culinary Arts Hospitality Assistant career major)

Culinary Hospitality Assistant (1050 AD; 1050 HS) – Brenda Ronio and Ray Stonerock

This major prepares students as culinary assistants who perform a variety of food preparation tasks in food services and/or food preparation. Instruction provides an overview of restaurant duties, international cuisines, and management skills in the hospitality industry.

Hospitality Service Assistant (1050 AD; 1050 HS) – Rafael Quiles

This major prepares students to work in the hospitality industry as an assistant to a custodian. Instruction includes hand tools, chemical safety, maintaining floor and other surfaces, laundry, and facility care.

Information Technology (IT)

3D Animator (1050 AD; 1050 HS) – Jeremy Wright

This major prepares students to utilize animation skills to develop products for the Web, mobile devices, computer games, entertainment training simulations, and live video. They learn to create an animated sequence that conveys a story through the application of traditional film making principles in a 3D computer graphics environment. Students gain skills required for Adobe Certified Expert, Adobe Certified Associate, and/or Autodesk industry certifications. (Advanced Effects for Motion Graphics is an optional course that may be added to this career major).

3D Modeler (1050 AD; 1050 HS) – Jeremy Wright

This major prepares students to develop the animated characters and models used in such fields as television, motion pictures, the Internet and the computer games industries. Students will utilize modeling, rigging, and rig building to develop digital characters and 3D models, including shaping the 3D geometry and the animation controls for manipulating the geometry. Students gain skills required for Adobe Certified Expert, Adobe Certified Associate, and/or Autodesk industry certifications.

Desktop Support Technician (1050AD; 1050 HS) – William Matthey

In this career major students will demonstrate knowledge and problem-solving skills in the area of computer installation, evaluations, troubleshooting and upgrades of computer hardware. This would include, but not be limited to, storage, drives, system boards, processors, memory, peripherals, and networks. Emphasis will be placed on hardware devices and network systems as well as communication devices.

Enterprise Network Professional (1300 AD) – Carl Wicks

This career major is designed to train Microcomputer Hardware/Software/Network Technicians. Hardware diagnostics and repair are presented at the component level. System and application software installation, configuration, and use are covered in detail through the Cisco sponsored IT Essentials 1 curriculum. Network installation, administration and maintenance covers most common networking systems, including the full Cisco Systems Networking Academy (Cisco Certified Network Associate) and Cisco sponsored Panduit Network Infrastructure Essentials, which leads to the Panduit Authorized Installer (PAI) certification. Essential basic skills such as math and writing are also incorporated.

Multimedia Assistant (1050 AD; 1050 HS) – Danny Tibbs

This major prepares students to create and edit graphics for video, print and web publishing. Students gain fundamental web authoring skills and design strategies along with digital photography skills. They learn advanced non-linear computer editing techniques as they complete video-based projects for broadcast production. Customer service, marketing, project management and professionalism are stressed. Students gain skills required for Adobe, CIW, WOW, and/or Apple industry certifications.

Network System Technician (Security Emphasis) (1050 AD; 1050 HS) – Wesley Sloan

In addition to the skills learned as a Network Systems Technician, this major prepares students to implement security measures for computer systems. Students learn to plan, install, configure, troubleshoot and upgrade network hardware peripherals and protocols and to keep a company's network running efficiently. In addition, students learn to install, configure, maintain and manage a server environment. Students perform desktop maintenance and provide support for users in various network environments. Students in this major gain the technical skills required for Microsoft Certified System Administrator, as well as CompTIA, Cisco, and/or Novell industry certifications.

Law, Public Safety, Corrections & Security (PS)

Basic EMT Firefighter (600 AD; 600 HS) – Nancy Howell

This career major provides the student with a fundamental understanding of the EMS system, well being of the EMT, medical/legal and ethical issues to the provision of emergency care. This career major will prepare students to sit for the National Registry Examination for Emergency Medical Technician I (Basic) which will qualify them as a Level I Firefighter. A 40-hour clinical experience will be included with the EMT curriculum. Students will complete certified curriculum and work-based conditioning to prepare for both the academic and physical requirements of both occupations. A firefighting practicum of 80 hours will be included as a work-based learning experience.

Criminal Justice Officer (1050 AD; 1050 HS) – Buddy Neasbitt

This career major is 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.

This career major will prepare students to enter the law enforcement profession as a qualified candidate. Students enrolled in the Criminal Justice career major will receive training that meets or exceeds CLEET standards. Students enrolled in the Criminal Justice career major must complete an 80 hour ride-a-long internship with the Lawton Police Department, Lawton Police Dispatch, US Marshall's Office and other agencies as assigned. Students must agree to allow the Great Plains Technology Center to submit their name to the Lawton Police Department and US Marshall's Office for approval to participate in the ride-a-long internship portion of this work-based learning experience.

Manufacturing (MA)

Design Engineer Technician (1050 AD; 1050 HS) – Todd Wallace

This career major is designed for those who wish to pursue careers in the architectural or engineering fields. Graduates of this design engineering training will have basic skills for employment in these disciplines. Students are also prepared to enter at advanced levels into professional degree programs at the university level, in pursuit of becoming registered architects and/or engineers.

During this training, students are required to apply the skills or background knowledge to actual problem solving situations. They will be trained in the latest computer aided drafting (CAD) and solid modeling software, Autodesk Inventor, Revit, and AutoCAD. The student will learn to use these programs to create the drawings necessary for prototyping and production, or in the case of buildings, for construction.

It is the intent of this career major to expose the student to a broad range of skills and basic data. This broad exposure gives the student the ability to be conversant with and/or to seek employment with all related professions within the architecture or engineering professions.

Combination Welder (1050 AD; 1050 HS) – Allen Bellamy

This career major will prepare students for jobs in the metal fabrication industry. Students will have an opportunity to obtain entry-level skills in various welding processes. This career major is designed to teach skills needed to pass the Oklahoma Department of Labor Certification Test for Welders, and most major companies' code tests. Welding practice is done on structural steel, plate, and pipe. Ferrous and non-ferrous metals are welded with some processes. Blueprint reading for welders, simple layout, and fabrication are also part of the curriculum. Instruction in the various welding processes includes: oxy-fuel cutting, shielded metal arc welding, plate and pipe welding, gas metal arc welding and gas tungsten arc welding, math for welders, as well as safety and the proper use of tools. Students will learn the skills necessary to gain employment in the industrial, construction, or manufacturing fields.

Transportation, Distribution & Logistics (TD)

Automotive Service Technician (1050 AD; 1050 HS) – Scott Bennett, John Knight and Bill Peters

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 and engine performance. 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 course work on how to evacuate and recharge air-conditioning systems using the proper refrigerant and basic diagnostics of the heat and A/C system. The hours completed in this major are aligned with ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Combination Collision Repair Technician (1050 AD; 1050 HS) – Tony Josey

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, 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 industry standard joints 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 ASE/NATEF standards, and ASE certification is recommended and industry recognized.

Medium Heavy Diesel Truck Service & Light Repair Technician (1050 AD; 1050 HS) – Eric Alexander

This career major is designed to provide students with the basic theory and hands-on experience to enter the trucking industry as an apprentice in one or more of the ASE certification areas covered within the career major. The certification areas covered in the career major are: Diesel Engines, Electrical/Electronic Systems, Brake Systems, Preventive Maintenance, Suspension and Steering, Introduction to Mechanics and Heating, Ventilation and Air Conditioning. The instructional material format used in this training presents complex mechanical activities in simple logical sequence. The format allows each student some flexibility and control over the learning rate. Instruction focuses on the basic theories of operation, service, and repair of medium/heavy trucks with a major emphasis on preventive maintenance and hands-on activities.