Program Student Learning Outcomes (PSLO) by Academic Program

BUSINESS AND INFORMATION SYSTEMS PSLOs	
Degree or Certificate	**Program Student Learning Outcomes**
Accounting (CP-12)	**Students who have completed the CP for accounting will demonstrate the following skills:** 1. Master core accounting principles 2. Perform fundamental functions like accounting, finance, marketing, operations management, and business ethics 3. Developing analytical skills using data for decision making 4. Improve communication skills of written and oral reporting and accounting 5. Build problem-solving capabilities 6. Understand technology applications in accounting 7. Acquire specific accounting knowledge 8. Understand the importance of ethical conduct in accounting practice
Business Admin (AAS-60)	**Upon completion of this program, students are prepared to:** **1.** Understand legal, ethical, and social issues related to business decisions and the impact on various individuals, groups, and society. 2. Analyze economic and quantitative reasoning concepts to apply acritical thinking approach for problem-solving and making effective business decisions. 3. Apply Generally Accepted Accounting Principles (GAAP) using the accounting cycle to record, prepare, and analyze financial statements and other accounting internal reports for making effective business decisions. 4. Demonstrate technology skills using business software applications to prepare documents, reports, and presentations for the business environment. 5. Demonstrate verbal and written communication skills for the business environment, including presentation skills and interaction with diverse business groups.

Business (CP-15)	**Students who have completed the CP for Business will demonstrate the following skills:** 1. Foundational understanding of key business concepts, 2. Practical application of skills in areas like financial analysis, marketing, and communication 3. Application of real-world business scenarios, 4. Preparation for entry-level business positions 5. Improvement of career opportunities in the business field
Business (AS/AA-60)	**Upon completion of the Business Administration program students will demonstrate the following student learning outcomes:** 1. Apply the legal and ethical issues in business situations. 2. Demonstrate business professional work ethic, attitude, and values as they relate to the business environment. 3. Demonstrate use of software and technology skills needed to perform in business environments. 4. Analyze business, statistical, and economic transactions to prepare financial reports used for decision making in the business environments. 5. Demonstrate effective communication skills in a business professional manner. 6. Demonstrate ability to interact in a professional manner with diverse groups. **Upon completion of this program, students are prepared to:** • Understand legal, ethical, and social issues related to business decisions and the impact on various individuals, groups, and society. • Analyze economic and quantitative reasoning concepts to apply acritical thinking approach for problem-solving and making effective business decisions. • Apply Generally Accepted Accounting Principles (GAAP) using the accounting cycle to record, prepare, and analyze financial statements and other accounting internal reports for making effective business decisions. • Demonstrate technology skills using business software applications to prepare documents, reports, and presentations for the business environment. • Demonstrate verbal and written communication skills for the business environment, including presentation skills and interaction with diverse business groups.

Bus. Management (AAS-60)	**Upon completion of this program, students are prepared to:** 1. Apply critical thinking and problem-solving skills including economic and quantitative reasoning concepts to make informative business management decisions. 2. Apply Generally Accepted Accounting Principles (GAAP) using a manual and computerized accounting system to record financial and managerial business transactions to prepare internal reports and financial statements. 3. Understand legal, ethical, and social issues related to business decisions and the impact on various individuals, groups, and society. 4. Demonstrate technology skills to integrate MS Office products to compose, format, and distribute business documents using word processing, spreadsheet, database, and presentation software. 5. Create and maintain professional, user-friendly websites using modern web design software to accommodate the needs of the business office and customers. 6. Interact in a business professional manner with supervisors, co-workers, and customers using written and oral communication skills for the business environment.
Cyber Security (CP-18)	**Upon completion of this program, students are prepared to:** 1. Protect data against internal threats 2. Recognize and act against external threats (accidental or with malicious intent) 3. Assist employees and others in accessing the internet without cyber threats 4. Recognize and protect against phishing, social engineering, common security threats, insider threats, anti-malware, multi factor authentication, AI cyber threats, password management, deepfakes, reporting data breaches.
Inf Systems Tech (AAS-60)	**Upon completion of this program, students are prepared to:** 1. Assess operating systems using critical thinking skills, industry standard tools, and best practices to demonstrate proper installation, configuration, maintenance, troubleshooting, and customer service. 2. Detect, analyze, identify, and resolve security vulnerabilities, cyber threats and breaches using appropriate software (tools, devices, and processes) to defend network infrastructures. 3. Apply legal and ethical standards defined by federal, state, and local guidelines to provide integrity of data and network systems in information systems

	environments. 4. Perform entry-level system administrator duties to analyze, diagnose, and repair common problems with network infrastructures including operating systems and network servers. 5. Define networking terms such as Open System and Interconnection model, network devices, Transmission Control Protocol/Internet Protocol, and addressing. 6. Demonstrate effective communication by using written and oral communication skills in a business professional manner for the information systems environment.
Maintaining & Managing PC (CP-12)	**Students who have completed the Managing and Maintaining PC program will demonstrate fundamental knowledge of computer technology.** 1. The student will understand the terminology used in maintenance and management of personal computers—correct spelling and grammar will be expected on all work. 2. The student will understand the difference in operating system software and application software. 3. Students will be expected to be able to configure and troubleshoot operating systems and the applications running on it to perform efficiently and securely in home and corporate environments. The student will be able to identify and install the hardware components that make a personal computer system 4. The student will be able to identify and install peripheral equipment 5. The student will know how disassembly and assembly of a personal computer from hands on experience in the classroom 6. This will include optimizing and troubleshooting the Microsoft Office Suite, the OpenOffice.org suite, various web browsers, and email clients.
Medical Coding (CP-17)	**Upon completion of this program, students are prepared to**: • Utilize a working knowledge of medical terminology as related to body systems, billing and coding, and the use of electronic health records. • Demonstrate knowledge of diagnostic and procedure codes using ICD and CPT coding systems for medical billing in healthcare facilities.

	• Apply legal and ethical standards defined by federal, state, and local guidelines to provide patient confidentiality in the healthcare facility and community. • Prepare to take an industry recognized medical coding certification exam.
Medical Office Tech (AAS-60)	**Upon completion of this program, students are prepared to:** 1. Perform medical office procedures that include inputting patient information, appointment scheduling, and patient tracking using an electronic health record system. 2. Utilize a working knowledge of medical terminology as related to body systems, billing and coding, and the use of electronic health records. 3. Demonstrate knowledge of diagnostic and procedure codes using ICD and CPT coding systems for medical billing in healthcare facilities. 4. Apply legal and ethical standards defined by federal, state, and local guidelines to provide patient confidentiality in the healthcare facility and community. 5. Demonstrate technology skills to integrate MS Office products to compose, format, and distribute business documents using word processing, spreadsheet, database, and presentation software. 6. Apply Generally Accepted Accounting Principles (GAAP) to record business transactions and prepare financial statements using a manual and computerized accounting system. 7. Interact in a business professional manner with supervisors, co-workers, and patients using written and oral communication skills for the healthcare environment.
MS Operating Systems (CP-12)	**Students completing this program will demonstrate proficiency in the following objectives:** 1. Use Microsoft Office, Excel, and PowerPoint 2. Understand fundamental concepts of operating systems, file, management activities, Internet, E-mail using Microsoft Windows 3. Apply the fundamental principles of networking using Windows Server and Active Director 4. Perform object-oriented programming to create applications in a windows environment using Visual Basic language 5. Use structure, sequencing, and programming structures
Programming/Coding (CP-15)	**Students completing this program will demonstrate proficiency in the following objectives:**

	1. Applying problem-solving techniques using the computer. 2. Demonstrating proficiency of use with at least two programming languages and two operating systems. 3. Displaying analysis of complex problems and the synthesis of solutions to those problems. 4. Demonstrating comprehension of basic modern software engineering principles. 5. Understanding and applying how data is integrated into the use and development of computer software. **Expected student learning outcomes** 1. Recognizing basic hardware architecture and construction (examples: memory, CPU, external devices, and data representation). 2. Using programming software tools. 3. Demonstrating problem solving skills (Examples: Use of algorithms to solve problems, application of the concept of variables and constants of basic data types). 4. Utilizing programming constructs (Examples: Use of input and output devices for acquiring and displaying data). 5. Creating programming designs (Examples: Use of algorithms and desk checking to problem solve). 6. Incorporating the use of sequential, selection and repetition control structures. 7. Demonstrating an understanding of structured design (Example: Use of complex problem solving demonstrating efficient use of code). 8. Designing and writing programs incorporating data which consists of words and sentences.

GENERAL EDUCATION AND TRANSFER	
Degree or Certificate	**PSLOs**
Biology Major AS-60)	**<u>Associate of Science</u>** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, Chemistry/Pre-Medicine, General Science, Mathematics, Physics, Pre-Engineering **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1. Communicate effectively in a written and oral manner, 2. Know and apply knowledge of history, art, literature, and other cultures, 3. Understand and perform mathematical knowledge and skills, 4. Use problem solving, critical thinking, and scientific reasoning, 5. Use technological knowledge and skills.
Chemistry/ Pre Medicine Major (AS-60)	**<u>Associate of Science</u>** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, <u>Chemistry/Pre-Medicine</u>, General Science, Mathematics, Physics, Pre-Engineering

	Program Student Learning Outcomes for General Education The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1. Communicate effectively in a written and oral manner, 2. Know and apply knowledge of history, art, literature, and other cultures, 3. Understand and perform mathematical knowledge and skills, 4. Use problem solving, critical thinking, and scientific reasoning, 5. Use technological knowledge and skills.
General Science Major (AS-60)	**Associate of Science** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, Chemistry/Pre-Medicine, General Science, Mathematics, Physics, Pre-Engineering **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1. Communicate effectively in a written and oral manner, 2. Know and apply knowledge of history, art, literature, and other cultures, 3. Understand and perform mathematical knowledge and skills, 4. Use problem solving, critical thinking, and scientific reasoning, 5. Use technological knowledge and skills.

Mathematics Major (AS-60)	**Associate of Science** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, Chemistry/Pre-Medicine, General Science, Mathematics, Physics, Pre-Engineering **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1. Communicate effectively in a written and oral manner, 2. Know and apply knowledge of history, art, literature, and other cultures, 3. Understand and perform mathematical knowledge and skills, 4. Use problem solving, critical thinking, and scientific reasoning, 5. Use technological knowledge and skills.
Physics Major (AS-60)	**Associate of Science** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, Chemistry/Pre-Medicine, General Science, Mathematics, Physics, Pre-Engineering

	Program Student Learning Outcomes for General Education The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.
Pre-Engineering Major (AS--60)	**Associate of Science** The transfer program offers one Associate of Science degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Science Preparation for Specific Majors Biology, Business, Chemistry/Pre-Medicine, General Science, Mathematics, Physics, Pre-Engineering **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.

English, Speech, Drama Majors (AA-60)	**<u>Associate of Arts</u>** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, <u>English, Speech, Drama</u>, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.
Forestry Wildlife Management Majors (AA-60)	**<u>Associate of Arts</u>** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university.

	Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 1. Know and apply knowledge of history, art, literature, and other cultures, 2. Understand and perform mathematical knowledge and skills, 3. Use problem solving, critical thinking, and scientific reasoning, 4. Use technological knowledge and skills.
General Ed Major (AA-60)	**Associate of Arts** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:**

	1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills
Physical Education Major (AA-60)	**Associate of Arts** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.
Certificate of General Study (CGS-31)	**Certificate of General Studies** The PCCUA Certificate in General Studies (CGS) provides official documentation for completion of thirty-one (31) college credit hours in specific general education courses. It serves as an entry pathway for movement toward the Associate of Arts Degree.

	Program Student Learning Outcomes for General Education The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students graduating from the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.

ALLIED HEALTH	
Degree or Certificate	**PSLOs**

EMT (CP-16)	**The EMT faculty use the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.**
	
	• Demonstrate the following skills in accordance with National DOT standards:
	  ○ Mouth-to-mask ventilation with supplemental Oxygen
	  ○ Bag valve mask ventilation (apneic patient)
	  ○ Airway, oxygen, and ventilation skills
	  ○ Cardiac arrest management skills/AED
	  ○ Assessment of a trauma/medical patient
	  ○ Bleeding control and wound management
	  ○ Immobilization skills of long bone injuries, long bone, joint, and traction
	  ○ Immobilization skills of the spinal injured patient, seated and supine
	• Demonstrate safety and competency in the performance of skills that comply with National Registry Standards.

	• Model professional behavior when interacting with the healthcare team.
Health Science (AAS-60)	**The Health Science faculty use the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.** • Identify medical terminology, tools, and practices used in healthcare. • Promote factors that create a culture of safety. • Demonstrate cultural awareness/sensitivity in the healthcare setting. • Participate in identifying potential risk and way to eliminate these risks. • Communicate effectively with all members of the healthcare team • Collaborate with appropriate interprofessional members of the health care team. • Utilize conflict resolution principles as needed. This degree is designed for student who has completed all but one ADN program requirements so that student is not eligible to receive an AND degree. The student must have been enrolled until the end of Level IV of the ADN program, completed all course work and clinicals and had a minimum GPA of 2.0 or better.
Medical Lab Technology (MLT-AAS-69)	**The MLT faculty use the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.** 1. Graduates will apply knowledge of entry-level skills to accurately perform testing in all areas of the medical laboratory. 2. Graduates will evaluate clinical laboratory data and relate that data to various disease processes. 3. Graduates will comply with laboratory safety regulations and standards. 4. Graduates will demonstrate the elements of professionalism to operate as respected members of the health care team.

	5. Graduates will employ interpersonal communication skills in relaying laboratory test information and when interacting with patients, lab personnel and other health care professionals.
Med Pro Ed (CP-12)	**Students graduating from the Medical Professions Education program will perform the following tasks.** • Introduce students to a diverse range of healthcare professions and educational pathways to gain insight into the many career opportunities in the healthcare industry. • Students will gain understanding of the critical importance of healthcare worker and patient safety. • Students will learn medical terminology and the proper use in the professional setting. • The students will receive a comprehensive Introduction to Anatomy and Physiology, providing them with an in-depth understanding of the body's organization system and how all the systems work together. • In a diverse range of hands-on simulated patient care activities and assessments students will have a realistic understanding of the health care environment. Students will demonstrate knowledge in the following outcomes: • Proficiency in the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings taught within the context of body systems. • skills in pronouncing, spelling, and defining new words encountered in verbal and written information. • Students have the opportunity to acquire skills in interpreting medical records and communications accurately and logically. • Emphasis is on forming a foundation for a medical vocabulary including meaning, spelling, and pronunciation. • Medical abbreviations, signs, and symbols are included. • Define terminology related to safety in medical procedures.

	• Outline the basic rules of good body mechanics. • Identify safety regulations used for equipment and solutions in healthcare. • Discuss regulations for patient safety when performing procedures in the laboratory or clinical setting. • Discuss regulations to observe for personal safety. • Outline fire safety and evacuation guidelines. • Perform First Aid & CPR proficiently • Discuss classification of microorganisms. • Discuss elements in the chain of infection. • Distinguish between antisepsis, disinfection and sterilization. • Describe how pathogens affect the body. • Outline the correct procedure for washing hands. • Outline universal blood and body fluid precautions. • Discuss methods of infection control. • Differentiate between sterile
Nursing Assistant (CP-10 or 17)	**The Nursing Assistant faculty use the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.** • Administer safe and effective care to one or more assigned patients. • Use appropriate communication techniques and interpersonal skills when interacting with patients and members of the healthcare team. • Follow universal precautions to protect the health of patients and members of the healthcare team. • Implement interventions that maintain patient safety when providing routine patient care and care during emergency situations. • Apply principles of delegation as they relate to the role of a nursing assistant in a clinical setting. • Promote patient independence and right to actively participate in healthcare decisions. • Adhere to professional ethics and legal responsibilities when practicing as a nursing assistant.

	• Demonstrate competence in providing personal care and basic nursing assistant skills to patients. • Demonstrate an understanding of basic restorative services provided by the nursing assistant as well as agency policy and procedures when administering patient care. • Demonstrate a basic understanding of patients' cognitive, behavioral, and social characteristics that impact patients' health and well-being.
Nursing, ADN (AAS-63)	**The ADN faculty use the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.** Provide safe, quality, evidence-based, patient-centered nursing care in a variety of healthcare settings to diverse patient populations throughout the lifespan. • Conduct comprehensive and/or focused physical, behavioral, psychological, and spiritual assessment of health and illness parameters in patients, using developmentally and culturally appropriate approaches. • Prioritize identified patient needs based on assessment findings. • Develop a plan of care based on evidence-based practice considering individual patient needs. • Implement patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, nutrition, medical and nursing management throughout the lifespan and in a variety of healthcare settings. • Promote factors that create a culture of safety. • Provide comprehensive patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations. • Implement nursing interventions to prevent illness, and restore, promote and maintain physical and mental health of patients across the lifespan in a variety of healthcare settings. • Monitor patient outcomes to evaluate the effectiveness and impact of nursing care. • Deliver care within expected timeframe.

	• Provide patient-centered transitions of care and hand-off communications, including discharge planning, to ensure the receiving caregiver has the knowledge needed to provide safe care. • Demonstrate cultural awareness/sensitivity when providing care to diverse patients in a variety of healthcare settings. • Revise the plan of care based on an ongoing evaluation of patient outcomes including recognition of alterations to previous patient conditions. • Demonstrate safe performance of psychomotor skills for efficient, safe, and compassionate patient care including accurate calculation of dosages. • Document accurately all aspects of patient care. **Clinical Judgment** Engage in clinical judgment to make patient-centered care decisions. • Use clinical judgment to make management decisions to ensure accurate and safe nursing care, including addressing anticipated changes in the patient's condition. • Display skill in using clinical judgment when implementing all steps of the nursing process while integrating best available evidence. • Anticipate risks, and predict and manage potential complications. • Prioritize patient care. • Evaluate the impact of economic, political, social, and demographic forces on the delivery of healthcare. • Analyze the clinical microsystem and its impact on the nurse's ability to provide safe, quality care. **Quality Improvement** Participate in quality improvement processes to improve patient care. • Apply quality improvement processes to effectively implement patient safety initiatives and monitor performance measures, including nursing-sensitive indicators in the microsystem of care.

	• Analyze information about quality improvement projects in a variety of healthcare settings. • Identify gaps between local and best practice and provide interventions for closing the gaps. • Participate in analyzing errors and identifying system improvements. • Implement National Patient Safety Goals in all applicable patient care settings. **Collaboration and Teamwork** Participate in collaboration and teamwork with members of the interprofessional team, the patient, and the patient's support persons. • Communicate effectively with all members of the healthcare team, including the patient and the patient's support network when making decisions and planning care. • Collaborate with the appropriate interprofessional healthcare provider to communicate data collected during patient care. • Implement patient safety and quality improvement within the context of the interprofessional team in a variety of healthcare settings. • Employ conflict resolution principles as needed. **Information Management** Use information management principles, techniques and systems, and patient care technology to communicate, manage knowledge, mitigate error, and support decision-making. • Use patient care technologies, information systems/technologies, and communication devices to support safe nursing practice. • Evaluate the role of information technology and information systems in improving patient care outcomes and creating a safe care environment. • Apply patient care technologies as appropriate to address the needs of a diverse patient population.

	<u>Leadership, Management, Legal, and Ethical</u> Assimilate leadership, management, legal, and ethical guidelines in practice as a professional nurse. • Practice within the legal and ethical frameworks of nursing practice. • Analyze planned patient care within the context of the ANA Standards of Practice. • Model accountability and responsibility for nursing care given by self and/or delegated to others as applied to the care of all patients. • Apply management skills and knowledge of the rules and principles of delegation when working with other healthcare team members. • Serve as a patient advocate. • Respond to natural and manmade disasters. • Initiate a plan for ongoing professional development and lifelong learning. *These PCCUA End-of-Program Student Learning Outcomes and Related Competencies should not be duplicated in any manner without written permission from PCCUA.
Phlebotomy (TC-27)	**The Phlebotomy faculty uses the following end-of-program student learning outcomes and related competencies to measure student achievement of end-of-program student learning outcomes and related competencies.** 1. Demonstrate knowledge of the health care delivery system and medical terminology. 2. Demonstrate knowledge of infection control and safety. 3. Demonstrate basic understanding of the anatomy and physiology of body systems and anatomic terminology in order to relate major areas of the clinical laboratory to general pathologic conditions associated with the body systems. 4. Demonstrate understanding of the importance of specimen collection and specimen integrity in the delivery of patient care. 5. Demonstrate knowledge of collection equipment, various types of additives used, special precautions necessary and substances that can interfere in clinical analysis of blood constituents. 6. Follow standard operating procedures to collect specimens.

	7. Demonstrate understanding of requisitioning, specimen transport and specimen processing. 8. Demonstrate understanding of quality assurance and quality control in phlebotomy. 9. Communicate (verbally and nonverbally) effectively and appropriately in the workplace.
Practical Nursing (TC-42)	**The Practical Nursing faculty uses the following student learning outcomes and competencies to measure student achievement of program student learning outcomes and related competencies.** 1. Provide safe, quality, evidence-based, patient-centered nursing care to restore, promote, and maintain physical and mental health throughout the lifespan in a variety of healthcare settings. o Conduct comprehensive and/or focused physical, behavioral, psychological, and spiritual assessment of health and illness parameters in patients experiencing common health problems, using developmentally and culturally appropriate approaches. o Work with the professional nurse or other healthcare provider to identify patient needs based on assessment findings. o Contribute to a patient-centered plan of care based on knowledge of evidence and patient information/preferences to meet individual patient needs. o Provide patient-centered care focusing on restoration, promotion, and maintenance of physical and mental health. o Incorporate factors that create a culture of safety when providing patient care. o Reinforce patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations. o Implement nursing interventions to prevent illness, and restore, promote and maintain physical and mental health of patients across the lifespan. o Collect patient outcome data used to evaluate the effectiveness and impact of nursing care. o Deliver care within expected timeframe. o Communicate information about care provided and evaluation data including appropriate handoff at each transition in care. o Incorporate cultural awareness/sensitivity when providing care to diverse patients in a variety of healthcare settings.

	○ Assist with the revision of the plan of care based on an ongoing collection of patient data including recognition of alterations to previous patient conditions. ○ Safely perform all psychomotor skills needed for efficient, safe, and compassionate patient care including accurate calculation of dosages. ○ Accurately document all aspects of patient care. 2. Engage in clinical judgment to make patient-centered care decisions within the scope of practice of the Practical Nurse. ○ Use clinical judgment to ensure accurate and safe care when implementing all steps of the nursing process. ○ Anticipate risks, and predict and manage potential complications for patients experiencing common health problems. ○ Prioritize patient care. ○ Incorporate knowledge of the healthcare system and how it impacts the nurse's ability to provide safe, quality care.\ 3. Incorporate quality improvement activities to improve patient care. ○ Participate in quality improvement activities. ○ Use the data from quality improvement activities to plan patient care. ○ Report identified quality improvement concerns to appropriate personnel (e.g., nurse manager, risk manager, etc.). ○ Assist in analyzing errors and identifying system improvements. 4. Participate in collaboration and teamwork with the interprofessional team, the patient, and the patient's support persons. ○ Share pertinent, accurate and complete information with the interprofessional team. ○ Work with the professional nurse to plan patient safety and quality improvements within the context of the interprofessional team. ○ Interpret the impact of team functioning on safety and quality improvement. 5. Use information technology to support and communicate the provision of patient care. ○ Use patient care technologies, information systems/technologies, and communication devices to support safe nursing practice. ○ Use high quality electronic sources of healthcare information. ○ Enter computer documentation accurately, completely, and in a timely manner.

	6. Incorporate management, legal, and ethical guidelines within the scope of practice of a Practical Nurse. o Practice within the legal and ethical frameworks of practical nursing. o Demonstrate accountability for nursing care given by self and/or delegated to unlicensed personnel. o Delegate nursing tasks to unlicensed personnel. o Advocate for patient rights and needs. o Initiate a plan for ongoing professional development and lifelong learning. *These PCCUA Student Learning Outcomes and Related Competencies should not be duplicated in any manner without written permission from PCCUA.

SOCIAL SCIENCE – GENERAL EDUCATION	
Degree or Certificate	**PSLOs**
Behavioral Health (TC-33)	**Students completing the BH program will demonstrate knowledge in the following outcomes:** Trace the history and development of health care and delivery in the United States Apply medical terms appropriate to the study or behavior Identify a variety of methods of treatment and behavior Develop strong intra and interpersonal skills Understand problems related to substance abuse Know the basic chronic and infectious diseases Identify domestic abuse, understand safety, security, and emergency procedures in the work place Have written and oral skills Demonstrate legal and ethical behaviors Recognize the family as the primary institution Understand community dynamics and cultural difference.

Behavioral Health (AAS-60)	**Students completing the BH program will demonstrate knowledge in the following outcomes:** Demonstrate personal awareness and reflection about human behaviors related to health. Trace the history and development of health care and delivery in the United States and other nations, cultures, and civilizations. Identify and explain the role and function of human growth and development. Identify and discuss abnormal behaviors. Identify and share information about treatment and therapies related to behavioral health. Demonstrate skills in interpersonal communication with others in both the classroom and clinical setting. Identify and relate substance abuse indicators and treatments. Address practical applications of theory through working in a clinical setting of social service and human service operations. Identify and discuss chronic and infectious diseases and treatments. Apply appropriate protocols used for casework. Identify and discuss domestic violence issues and interventions. Apply safety, security, and emergency procedures in the work place using written and oral occupational skills. Understand legal and ethical responsibilities in the behavioral health and human services occupations. Recognize the multiple variations of family as a primary institution of behavioral health development. Explain and discuss the varied communities and community dynamics in relation to behavioral health needs and interventions. Understand, discuss, and practice interactions which demonstrate an appreciation for cultural diversity, the impact of inclusiveness, and the importance of equity in treatments, interventions, and protocols.
Criminal Justice (AAS-60)	**Students in the Criminal Justice Program exhibit the following behaviors:** • Understanding of the American criminal justice system. • Knowledge and an in-depth understanding of institutions, laws, theories and the players that make up the system.

	• Understanding of policing and enforcement in the criminal justice occupations. • Application of criminal justice through real life scenarios. • Written competency of criminal justice concepts and theories. • Observation and analysis of ethical and professional obligations of the criminal justice agent in varied criminal justice roles. • Understanding of policing and enforcement among the criminal justice units within the system (courts, police, corrections, investigators, and the community). • Identification and application of practices appropriate to the criminal justice types of investigation.

Early Childhood Education (ECE-CP 17)	**Students completing the program will demonstrate the following skills needed to pass the Child Development Associate's (CDA) Assessment:**
	1. Knowledge related to providing a safe and healthy, and learning environment
	2. Understanding of physical and intellectual development
	3. Understanding and application of social and emotional development practices
	  • Developing interpersonal relationships
	  • Management of program operation
	  • Commitment to teaching and professionalism
	  • Observing and recording children's behavior
	  • Child growth and development
	4. Observations on teaching site
	5. Writing a resume, portfolio, and competency statements
	6. All training necessary to pass the CDA Assessment
	7. CPR for infants and children

Early Childhood Education (ECE-TC 30)	**Students completing the program will demonstrate the following skills:** 1. Understand child development from birth to age 8 2. Develop the ability to establish family and community collaboration 3. Be aware of professionalism required to serve in early childhood environments 4. Acquire and apply knowledge about adaptations and accommodations for diverse learners in inclusive settings

Early Childhood Education (ECE-AAS- 60)	**Students completing the program will demonstrate the following skills:** 1. Understand child development from birth to age 8 2. Develop the ability to establish family and community collaboration 3. Be aware of professionalism required to serve in early childhood environments 4. Acquire knowledge about adaptations and accommodations for diverse learners in inclusive settings • Students will demonstrate the ability to use written and oral communication. • Students will be able to demonstrate and apply principles of child development and learning theories in the physical, social, emotional, cognitive, & aesthetics development of children. • Students will be able to plan and implement developmentally appropriate curriculum and instructional practice based on how children grow and develop. • Students will use informal and formal assessment strategies to plan and implement individualized curriculum and environmental teaching practices. • Students will demonstrate a commitment to professionalism by reflecting on their practices, articulating a philosophy and rationale for decisions and self–assessment, and evaluating the effects of their choices and actions on others. • Students will apply and utilize language appropriate materials for children's emergent literacy development. • Students will develop and maintain positive partnerships with families and communities.
Education (AA-60)	**<u>Associate of Arts</u>** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors

	General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students completing the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.
Law and Social Science	**Associate of Arts** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students completing the general education core or transfer program will demonstrate skills to do the following:** 1. Communicate effectively in a written and oral manner,

	2. Know and apply knowledge of history, art, literature, and other cultures, 3. Understand and perform mathematical knowledge and skills, 4. Use problem solving, critical thinking, and scientific reasoning, 5. Use technological knowledge and skills.

Law Enforcement (CP-9)	**Students completing the program will demonstrate the following skills:** 1. Knowledge of law enforcement theory and practice 2. Law enforcement field practices including stops, arrests, protocols, safety, reporting 3. Safety procedures for situational conditions with civilians 4. Safety procedures for situational conditions for officer safety
Political Science and Public Administration	**Associate of Arts** The transfer program offers one Associate of Arts degree. Although there is only one degree, there are multiple disciplines within this degree. The Program of Study course schedules have been developed so that students enroll in the appropriate courses within a discipline (called majors) fully prepared for transfer to a college or university. Associate of Arts Preparation for Specific Majors General Education, Business Administration, Early Childhood Education, English, Speech, Drama, Forestry/Wildlife Management, Law & Social Science, Physical Education, Political Science/Public Administration. **Program Student Learning Outcomes for General Education** The General Education Program serves two functions: it provides students desiring to transfer to a four-year college or university with the skills needed to succeed, and it provides the general education core needed to complete technical certificates and degrees. **Students completing the general education core or transfer program will demonstrate skills to do the following:** 1.Communicate effectively in a written and oral manner, 2.Know and apply knowledge of history, art, literature, and other cultures, 3.Understand and perform mathematical knowledge and skills, 4.Use problem solving, critical thinking, and scientific reasoning, 5.Use technological knowledge and skills.
Teaching (CP-12)	**Students completing this program will demonstrate skills which reflect the following:** 1. Knowledge about education and teaching theory 2. Use of technology for education 3. Knowledge of general Education in Child Growth and Development/General Psychology

	4. Apply basic math skills needed for teaching.
Teaching (TC-31)	**Students completing this program will demonstrate skills which reflect the following:** 1. Knowledge about education and teaching theory 2. Use of technology for education 3. Knowledge of general Education in Child Growth and Development/General Psychology 4. Apply basic math skills needed for teaching. 5. General Education skills reflected from English/Communications courses 6. Foundational mathematics needed for teaching 7. Basic science knowledge including a Lab Sciences (Biology with Lab)
Teaching (AAT-60)	**After participating in the AAT program and successfully completing the required courses, students will demonstrate skills which reflect the following:** 1. Create learning experiences that make aspects of subject matter engaging for diverse learners. 2. Describe how assessment data (formative, summative, and standardized) is used to plan ongoing instruction. 3. Demonstrate competency in mathematics education and utilizing their analytical and occupational skills to solve real-life problems. 4. Show improvement in their writing, reading, speaking, and listening skills. 5. Increase their understanding of different cultures and societies across the globe and how both have changed over time. 6. Increase their understanding of basic principles and their application in physical and biological sciences. 7. Increase their technological and research skills.

APPLIED TECHNOLOGY - WORKFORCE AND SKILLED TRADES	
Degree or Certificate	**PSLOs**
Advanced Manufacturing (CP-12)	**Students completing the Advanced Manufacturing CP program will perform the following tasks.** 1. Understand and recognize concepts in advanced manufacturing and operations 2. Apply basic concepts in advanced manufacturing and operations 3. Apply manufacturing best practices and technologies to evaluate problems related to testing and validation. 4. Use standards of measurements for classroom investigations and identify errors. 5. Recognize safety hazards and potential safety issues and apply safe work practices and procedures in accordance with OSHA standards to safely handle tools, personal protective equipment, and a variety of materials used in manufacturing
Advanced Manufacturing (TC-33)	**Students completing the Advanced Manufacturing TC program will perform the following tasks.** 1. Understand and recognize concepts in advanced manufacturing and operations 6. Apply concepts in advanced manufacturing and operations to analyze issues related to quality management 7. Apply manufacturing best practices and technologies to evaluate problems related to testing and validation. 8. Use standards of measurements for classroom investigations and identify errors. 9. Recognize safety hazards and potential safety issues and apply safe work practices and procedures in accordance with OSHA standards to safely handle tools, personal protective equipment, and a variety of materials used in manufacturing. 10. Identify processes and materials used for manufacturing

Agriculture Mechanics (CP-14)	**Students completing the Agricultural Mechanics and Equipment Technology program will perform the following tasks:**
	1. Demonstrate an understanding of farm operation and management.
	2. Apply technical skills in the operation, maintenance and repair of agriculture equipment used for the following:
	    1. tillage and planting,
	    2. crop protection products application,
	    3. forage harvesting,
	    4. precision agriculture practices,
	    5. overall farm operations.
	3. Identify and discuss farm business management principles and practices used for production agriculture

CDL Truck Driving (CP-17)	**Upon successful completion of this program the student will be able to master the skills necessary to obtain a Class 'A' CDL. The student will also be able to understand and discuss the importance of safety as it relates to the operation of a semi-tractor and trailer in and around docks, shippers and consignees, in both city and/or over the road driving.** **The CDL program is designed to prepare students to pass the CDL exam and acquire a Class A license, and enter the truck driving career. Program Learning Outcomes include the following:** P1: Students will identify, understand, and apply CDL rules, regulations, and laws related to truck driving. P2: Students will identify and maintain equipment as part of truck maintenance and pre-trip preparedness. P3: Students will demonstrate truck driving operations while driving a manual, standard truck. P4: Students will apply safety protocols for various driving situations. P5: Students will document using reports, logs, and electronic tools. P6: Students will communicate in an effective, courteous, and precise manner. P7: Students will successfully complete Truckers Against Trafficking Training

Construction Technology (CP-20)	**The PCCUA Construction Program uses the National Center for Construction Education & Research (NCCER) curriculum. Students completing the program will demonstrate the following skills.** 1. Use fundamentals of basic carpentry techniques 2. Apply basic masonry strategies 3. Demonstrate skills for basic metal working 4. Understand and apply basic electrical wiring 5. Demonstrate basic welding necessary for construction activities
Construction Technology (TC-30)	**The PCCUA Construction Program uses the National Center for Construction Education & Research (NCCER) curriculum. Students completing the program will demonstrate the following skills:** 1. Use basic carpentry techniques 2. Apply masonry strategies 3. Demonstrate skills for basic metal working 4. Understand and apply basic electrical wiring 5. Demonstrate welding necessary for construction activities 6. Operate heavy equipment such as a cherry picker, back hoe, and crane 7. Completion a site-based construction project 8. Demonstrate site layout, reinforcing materials, electrical installations and safety. 9. Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic rigging, basic communication skills.
Construction Technology (AAS-60)	**The PCCUA Construction Program uses the National Center for Construction Education & Research (NCCER) curriculum. Students completing the program will demonstrate the following skills:** 1. Use basic carpentry techniques 2. Apply masonry strategies 3. Demonstrate skills for basic metal working 4. Understand and apply basic electrical wiring

	5. Demonstrate welding necessary for construction activities 6. Operate heavy equipment such as a cherry picker, back hoe, and crane 7. Completion a site-based construction project 8. Demonstrate site layout, reinforcing materials, electrical installations and safety. 9. Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic rigging, basic communication skills. 10. Apply basic employability skills, 11. Demonstrate functional knowledge of trades, building materials, fasteners, adhesives, and site layout. 12. Use advanced applications and construction methods for various types of horizontal formwork for types of elevated decks and the formwork systems and methods used in their construction **Additional SLOs include the following:** • Students will be able to read and understand blueprints and specification, estimate construction costs, schedule the proper sequence of construction activities, understand office operations and field operations, and identify code requirements.

Cosmetology Manicuring (CP 18)	**Students completing the program will be able to perform the following tasks:** 1. Understand the nail structure and its disorders related to nails. 2. Perform advanced and specialty manicures, pedicures, and massages. 3. Demonstrate proficiency in using salon equipment and tools to perform nails and manicuring services. 4. Practice safety, sanitation, and infection control protocols per cosmetology regulations and guidelines related to nails and manicuring. 5. Understand basic communication skills with diverse groups of people in the salon environment. 6. Demonstrate readiness of all skills required for the Arkansas State Cosmetology Board Licensing Exam for Manicuring.
Cosmetology (TC-45)	**Students completing the program will demonstrate the following tasks:** 1. Perform services in hair care and design including hair cutting, hair styling, hair coloring, scalp protection, and chemical texture. 2. Demonstrate advanced techniques in manicures, pedicures, skin care, and facial makeup procedures. 3. Understand advanced knowledge of microbiology, chemistry, and electricity as they relate to the cosmetology industry. 4. Demonstrate proficiency in using salon equipment and tools to perform cosmetology services. 5. Practice safety, sanitation, and infection control protocols per cosmetology regulations and guidelines. 6. Develop business management and customer service skills that apply to salon operations. 7. Demonstrate readiness of all skills required for the Arkansas State Cosmetology Board Licensing Exam.

General Welding (CP-15)	**Students completing the General Welding program will demonstrate the following skills:** 1. Understand various principles and procedures for welding applications 2. Apply oxy fuel cutting practice 3. Perform basic plasma cutting, air carbon use, arc cutting 4. Perform basic exothermic cutting and oxyacetylene cutting
Inert Gas Welding (CP-15	**Students in the Inert Gas Welding program will demonstrate the following skills:** Principles of various welding procedures Safety protocols and practices in inert gas welding Practical applications of arc tungsten welding (tig) Practical applications for gas metal arc welding (mig)
Mild Steel Welding (CP-15)	**Students completing the the Mile Steel Welding program will demonstrate the following skills:** 1. Principles of various welding procedures 2. Protocols for shielded metal arc welding 3. Safety protocols and practices in mild steel welding 4. Welding joints and beads on light gauge steels and thick metals 5. Welding V—Butt joints on plate steel and pipe fitting 6. Metal welding in flat and horizontal positions

Welding Technology (TC-34)	**Students in the Welding Technology TC program will demonstrate the following skills:** 1. Students will achieve a complete understanding of welding symbols and print drawing and reading. 2. Students will use the correct procedure in setting up equipment and the skills used in welding 3. Students will use TIG and MIG machines in both pipe and plate welding 4. Students will be able to explain the physical aspect of different metals Welding students need a strong foundation to compete in an ever-changing technological society. Therefore, to meet the projected workforce needs, it is imperative to emphasize the skills needed to be a marketable welder. At PCCUA, we are committed to teach the skills in demand for our graduates to compete in the welding job market. Some of the general skill sets required are: o Mathematical skills o Safety standards o Blue print reading o Reading and translating diagrams and flow charts o Cutting, trimming, and fusing metal together o Working in adverse conditions o Learning new technologies as needed

Graphics (CP-13)	**Students who have completed the graphics communication program CP will demonstrate the following skills:** 1. Illustrate design symbolism using computers, lasers and printers 2. Use basic production and manipulation of visual images 3. Apply computer image editing skills 4. Perform fundamental drawing and art illustrations using drafting techniques 5. Apply basic art elements using two-dimensional composition and 2-D imaging using raster, vector, and layout programs.
Graphics (TC-30)	**Students who have completed the graphics communication program CP will** 1. Illustrate design symbolism using computers, lasers and printers 2. Use basic production and manipulation of visual images 3. Apply computer image editing skills 4. Perform fundamental drawing and art illustrations using drafting techniques 5. Apply basic art elements using two-dimensional composition and 2-D imaging using raster, vector, and layout programs. 6. Examine and produce animation through storyboarding techniques, 3D modeling, image maps, textures, lighting, and motion 7. Apply techniques for package design, client presentation, and marketing 8. Produce handcrafted calligraphy and computer manipulated characters. 9. Apply layouts, copy marks, styles in layouts using Adobe InDesign, QUARK, and MS Publisher
Graphics (AAS-60)	**Students who have completed the graphics communication program TC will demonstrate the following skills:** 1. The ability to solve communication problems, including the skills of problem identification, research and information gathering, analysis, generation of alternative solutions, 2. The ability to describe and respond to the audiences and contexts, which communication solutions must address, including recognition of the physical, cognitive, cultural, and social human factors that shape design decisions. 3. The ability to create and develop visual form in response to communication problems, including an understanding of principles of visual organization/composition, information

	hierarchy, symbolic representation, typography, aesthetics, and the construction of meaningful images. 4. An understanding of tools and technology, including their roles in the creation, reproduction, and distribution of visual messages. Relevant tools, technologies, and research include drawing, printing, photography, and time-based and interactive media (film, video, computer multimedia). 5. An understanding of design from a variety of perspectives, including those of art history, communication, technology, and the social and cultural use of design objects. 6. An understanding of basic business practices, including the ability to organize design projects and to work productively as a member of teams.

Horticulture Operations (CP-8)	**Students completing the Horticulture Operations program will demonstrate the following skills:** 1. Knowledge about careers in agriculture 2. Understanding of the principles of plant science 3. Understanding of the principles of horticulture processes

HVAC (CP-12)	**Students completing the PCCUA HVAC Certificate of Proficiency will demonstrate the skills to:** 1. Apply safe working practices 2. Apply principles used to install air conditioning, heat pumps, furnaces, and system controls. 3. Recognize and apply components of air distribution system 4. Diagnose problems related to electrical, heating, and air systems 5. Problem solve/trouble shoot electrical, heating, and air systems 6. Use tools required for electrical, heat and air system installation, testing, and repair 7. Apply basic service and customer service skills related to HVAC work 8. Apply basic skills of energy management