# PLOs: Unit Learning Outcomes

Honolulu Community College

Date: 09-26-2023

#### ILO

- 1. Critical Thinking: Effectively analyze arguments, assumptions, and problems, and draw conclusions.
- 2. Information Literacy: Form strategies to locate, evaluate, and apply information, and know the ethical and legal issues surrounding information and information technology.
- 3. Effective Communication: Actively express and exchange ideas through listening, speaking, reading, writing, and other modes of interpersonal expression.
- 4. Quantitative Reasoning: Effectively analyze numerical data, solve quantitative problems, and apply mathematical concepts.
- 5. Career Preparation: Demonstrate knowledge and skills to successfully move to a baccalaureate education or selected vocation.
- 6. Community Awareness and Social Responsibility: Demonstrate and apply an understanding of moral and ethical issues that pertain to the environment, social justice, and cultural diversity.

## Core Values (for SAO map only)

- 1. Student-centered and student focused
- 2. Community and industry partnerships
- 3. Indigenous serving
- 4. Sustainability
- 5. Diversity and equity

# Liberal Arts (AA)

- · Communicate effectively by means of listening, speaking, reading, and writing in varied situations.
- · Apply quantitative reasoning skills to solve problems, evaluate arguments and chains of reasoning, and interpret information.
- Demonstrate an understanding of life processes, individual development, thinking, and behavior.
- Demonstrate an understanding of the natural environment of the planet and learn to utilize natural resources sustainably.
- Demonstrate a comprehension and skill with research methods and scientific inquiry.
- Display knowledge of different groups and organizations in societies and respect for varied cultural values.
- Demonstrate a greater ethical understanding and reasoning ability about contemporary ethical issues.
- Identify and articulate in a reasoned manner the roots and causal basis of contemporary issues.
- Demonstrate a knowledge of one or more art forms and the role that the arts play in history and culture.

## **Communication and Services**

#### Administration of Justice

#### **Administration of Justice**

- Assess and respond appropriately to potential conflict situations.
- Communicate with a diverse population in a culturally sensitive manner.
- Develop Administration of Justice career plans.
- Maintain a drug free lifestyle.
- Practice within the legal/ethical parameters of the Justice profession.
- Use critical observation skills.
- Work independently and interdependently to accomplish shared professional outcomes.
- Write clear and accurate reports.

#### Communication Arts

#### Communication Arts

- Follow instructions to produce, modify, or output files according to client/project supplied criteria.
- Produce compositions utilizing the various steps of the design process: investigate client needs, do marketing research, define the design problem, problem solve, develop an idea/concept, thumbnails, layouts, comps and presentation art, prepare final art and produce mechanicals when necessary.
- Produce graphic design formats appropriate for delivery output while demonstrating the ability to meet deadlines, organize time and maintain schedules.
- Select appropriate software tools to achieve or maintain effective design solutions.
- Use tools, equipment and services to implement ideas for production. Techniques to include use of computer hardware, software, and service bureaus.
- Work independently as well as part of a team.

## Computing, Security, and Network Technology

# Computing, Security, and Networking Technology

- 1. Apply current industry standards, protocols, and techniques; and keep up with evolving technology to maintain professional proficiency.
- 2. Identify, analyze and improvise solutions to resolve problems using a systematic method.
- 3. Use appropriate industry tools and methodologies to analyze, troubleshoot, and install systems.
- 4. Install, configure, operate, and maintain systems.
- 5. Apply current standards for safety and security.
- 6. Communicate clearly and effectively through written reports and oral presentations.
- 7. Work effectively, independently, and interdependently, in diverse situations involving stress, teams, co-workers, customers, vendors, organizational partners and supervisors.
- 8. Demonstrate professionalism and integrity in supporting the mission of the organization.

#### Cosmetology

#### Cosmetology

- Achieve the preliminary qualifications and requisites to apply for the licensing examination.
- Conduct services in a safe environment and take measures to prevent the spread of infectious and contagious disease.
- Define and exhibit the basic art principles and elements related to the cosmetology.
- Describe and demonstrate the practical skills required to provide appropriate services to meet the needs of a variety of clients and/or students.
- Explain the State of Hawai'i laws and rules which govern the cosmetology industry.
- Model professional life skills and express business principles associated with a professional salon environment.

# Early Childhood Education

### **Early Childhood Education**

- Use knowledge of child development and of individual children to create healthy, challenging learning environments and experiences.
- Build respectful partnerships with children, families and their communities.
- Observe, document and assess all children's development and learning in partnership with families.
- Build positive relationships and guide all children through supportive interactions.
- Use content knowledge and appropriate pedagogy to create/design, implement and assess learning experiences.
- Use reflective practice to demonstrate professionalism.

# **Fashion Technology**

## **Fashion Technology**

- Apply knowledge of materials, construction techniques, and quality product manufacturing.
- Discuss current issues in the apparel industries, including social and ethical consequences.
- Drape, draft or manipulate flat patterns to create saleable designs with fabrics and notions suitable to the garment.
- Employ critical thinking, creativity, and technical skill mastery to prepare all pre-employment qualifications required for any emerging professional.

· Identify fashion trends, create professional sketches for presentations, and conduct consumer research with appropriate industry terminology.

#### Food Science and Human Nutrition

#### **PLO**

No PLOs

#### **Human Services**

### **Human Services**

- · Obtain information and guidance to transfer to a baccalaureate human services or social work program if desired.
- Work in the field of human services to serve clients or carry out other supportive human service agency functions.

#### Information and Computer Science

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## Music and Entertainment Learning Experience

## **Music & Entertainment Learning Experience**

- Career Pathways and Income Streams understand and identify primary income streams of intellectual property, jobs, projects, entrepreneurial opportunities and partnerships.
- Etiquette and Communication demonstrate industry professional vocabulary, terminology, articulation, dress, and hygiene.
- Industry Ethics and Standards understand business, technology, policy and practices in music and entertainment.
- Music and Entertainment Business identify and compare traditional and modern record label, publishing, marketing, advertising, production, public relations and event company business models.
- · Music Fundamentals understand and apply modern theory techniques in music, songwriting, sequencing, beat creation and traditional methods.
- Operation and Procedures extensive knowledge in operations of music business, recording studios, and live events.
- Problem Solving effectively demonstrate technical, business, and production troubleshooting skills to solve problems.
- Production and Planning conceptualize and apply skills in the area of live events, artist development, public relations and recording studio productions.
- Recording Technology proficiently produce, record, edit, mix and master audio for music and entertainment.
- · Science and Technology Thorough understanding of human hearing, sound properties, acoustics, electronics, physics, and audio systems.

## **Transportation and Trades**

## Aeronautics

#### **Aeronautics Maintenance Technology**

- Demonstrate a working knowledge and mechanical ability to inspect, maintain, service and repair aircraft electrical, engine (piston and turbine), airframe structure, flight control, hydraulic, pneumatic, fuel, navigation and instrument systems and other aircraft components specified by Federal Aviation Regulation Part 147
- Display proper behavior reflecting satisfactory work habits and ethics to fulfill program requirements and confidence to prepare for employment
- Identify, install, inspect, fabricate and repair aircraft sheet metal and synthetic material structures
- Maintain and repair any part in any aircraft system of any rotorcraft, light aircraft, air carrier aircraft, glider, or balloon within the regulatory limits imposed by the FAA certification, without error, to ensure the safety of the flying public
- Obtain FAA general mechanic, airframe and powerplant certifications
- Satisfactorily pass the Federal Aviation Administration (FAA) knowledge, oral, practical and written examinations in General, Airframe, and Powerplant subjects

## **Applied Trades**

#### **Applied Trades courses**

- Analyze and evaluate information: Identify factors, analyze implications, and solve problems.
- Apply knowledge and skills gained in the classroom to perform work duties on the waterfront.

- Demonstrate communication skills (read critically, write effectively, speak with clarity, and listen actively).
- · Demonstrate drafting and plan reading skills.
- Demonstrate knowledge of Physics (fluids, mechanical, electrical and thermal).
- Demonstrate positive work habits and ethical behavior.
- Use Mathematics (algebra, geometry and trigonometry) to solve work related problems.
- Use technology effectively (word processing, spreadsheets, software, and equipment).

## Architectural Engineerg and CAD Technology

## **Architecture, Engineering and Construction Technologies**

- Draw objects of various orientations as may be prescribed, draw sections and elevations of objects, and interpret drawings identify the relationships of objects or object features to demonstrate visualization and graphic representation proficiency and knowledge.
- Identify or describe the typical characteristics and uses of common construction materials, products, and systems, assess their sustainability, document them in drawings, and make appropriate selections based on design project requirements.
- Demonstrate either proficiency in designing and creating the construction documents and a materials estimate for a residential or commercial building, or essential skills necessary for responsibly planning, scheduling, and managing a construction project.
- Demonstrate proficiency in the use of the latest 3D computer modeling software, applicable codes, and industry best practices to create, modify, reconcile, or parse architectural or engineering design and construction documents.
- Model habits and attitudes for success in professional employment, prepare and present a professional resume and portfolio, and demonstrate developed interviewing skills in preparation for employment.
- Demonstrate computation, communication, critical thinking, research, and problem-solving skills as well as a sensitivity and appreciation of diversity and community to perform effectively as a team member in a professional, competitive, and diverse work environment and as a responsible member of the community.

## Auto Body Repair and Painting

## **Auto Body Repair and Painting**

- Create positive relationships with customers and co-workers in the work environment that will effectively support the work to be accomplished and promote customer satisfaction.
- Demonstrate personal and professional health and safety practices required for the Auto Body industry.
- Demonstrate professional work ethics and standards that are expected when working in varied situations in the industry.
- Exercise sound choices and explain reasons when undertaking simple and diverse endeavors.
- · Work independently as well as interdependently to demonstrate professionalism and integrity with customers, co-workers, managers and vendors.

#### Automotive Mechanics Technology

#### Automotive Technology

- Gain employment in the automotive industry in any of the eight NATEF areas: engine repair, automatic transmission/transaxle, manual drive train and axles, suspension and steering, brakes, electrical/electronics systems, heating and air conditioning, and engine performance
- Gain personal knowledge and experience in vehicle repair
- Increase their marketability through learning time management and team work skills

### Carpentry

#### **PLO**

- Demonstrate personal and professional health, fitness and safety practices required for the building and construction occupations.
- Gain employment in the Carpentry Industry.
- Interact with customers and coworkers on construction jobs in ways that effectively support the work to be accomplished and promote customer satisfaction.
- Practice Quality Workmanship.
- Use appropriate materials, tools, equipment and procedures to carry out work on construction projects.

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#### **Diesel Mechanics**

## **Diesel Mechanics Technology**

- · Apply theory and principles for proper diagnosis, repair, and maintenance in the heavy-duty truck equipment industry.
- Demonstrate ability to communicate effectively to gather and convey information.
- Function safely in a heavy equipment shop environment.
- Practice the minimum essential mental, physical, and behavioral skills necessary to maintain professional proficiency.
- Work collaboratively with others as well as independently.

# Electrical Installation and Maintenance Technology

## **Electrical Installation & Maintenance Technology**

- Calculate electrical circuit loads and design/draw the electrical circuits.
- Comply with published electrical codes and safety standards.
- Install electrical systems/equipment in new construction under supervision of a journey person.
- Select and order appropriate electrical parts (materials) based on blueprints and drawings.
- Troubleshoot, repair, and conduct routine maintenance of electrical systems/equipment.
- Work independently and inter-dependently on a construction and/or maintenance project meeting industry standards.

## Fire and Environmental Emergency Response

# Fire and Environmental Emergency Response

- · Apply knowledge and skills required to respond appropriately to environmental emergencies at the private, city, state, or federal level.
- Apply knowledge and skills required to respond appropriately to fires at the private, city, state, or federal level.
- Apply knowledge and skills required to respond appropriately to medical emergencies at the private, city, state, or federal level.

# Industrial Education

#### **PLO**

No PLOs

# Occupational Environmental Safety Management

#### Occupational & Environmental Safety Management

- Analyze proximate and root causes of work-related accidents
- $\bullet$  Conduct training and presentations on occupational/environmental safety & health topics
- Demonstrate necessary knowledge and skills for employment in the field of occupational and environmental safety and health
- Develop a written accident prevention and safety management program
- Exercise choices, explain reasons for choices, and analyze potential consequences when dealing with ethical dilemmas concerning health and safety professionals
- Identify and apply appropriate OSHA/HIOSH and EPA regulatory requirements
- Recognize and evaluate workplace and environmental hazards
- Recommend control measures and accident prevention strategies

# Refrigeration and Air Conditioning

## Refrigeration & Air Conditioning Technology

- Demonstrate knowledge and skills required for the repair and maintenance of air conditioning and refrigeration equipment according to National Standards.
- Demonstrate positive work habits and attitudes.
- Gain employment in the field of refrigeration and air conditioning.

#### Sheet Metal and Plastics

## **Sheet Metal & Plastics Technology**

- Explain the use of Short-cut layout methods and when they apply.
- Identify Air Conditioners ductwork fittings, their uses, the connection types, and their fabrication methods.
- Identify and install common fasteners used in sheet metal work.
- Identify and properly use personal safety equipment.
- Identify the base rules for order of operation in fabrication.
- Identify the different gauges of sheet metal, forming methods, and connection processes after lay out.
- Identify the proper use, care and safety concerns of shop equipment.
- · Layout, cut, notch, and bend in proper order, various fittings / components using sheet metal and plastic.
- Produce basic fitting layout using any of the three methods.
- Produce orthographic drawings for items requiring fabrication.
- Produce soldering joints on galvanized iron.
- Properly mix and apply acids used in soldering.
- Show proper use and care of sheet metal hand tools.
- · State the three forms of metal fabrication.
- Understand the need for safety equipment in the shop & field.

## Welding

#### Welding Technology

- Demonstrates competencies in manufacturing process development and design, production, maintenance installation and repair, supply chain logistics, quality assurance/continuous improvement and health and safety.
- Demonstrates competencies in SMAW, GMAW, FCAW, GTAW, thermal cutting, OFC, PAC, CAC and inspection.
- $\bullet \ \mathsf{Demonstrates} \ \mathsf{integrity}, \ \mathsf{motivation}, \ \mathsf{dependability} \ \mathsf{and} \ \mathsf{reliability} \ \mathsf{and} \ \mathsf{willingness} \ \mathsf{to} \ \mathsf{learn}. \\$
- Demonstrates knowledge in safety and health, drawing and symbols, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Gas Tungsten Arc Welding (GTAW), Thermal Cutting, Oxygen Fuel Cutting (OFC), Plasma Arc Cutting (PAC), Carbon Arc Cutting (CAC) and Inspection.
- Demonstrates skills related to applied science, basic computers, applied mathematics/measurements, reading for information, business writing, listening and following directions, locating/using information and speaking/presentation.
- Demonstrates understanding of business fundamentals, teamwork, adaptability/flexibility, marketing and customer focus, planning and organizing, problem solving and decision-making and applied technology.
- $\bullet \ \, \text{Demonstrates welding fundamentals, processes and equipment, materials and metallurgy and welding safety}.$