

# ACAP

## Austin Competency Analysis Profile

### User Experience Design

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#### Conducted

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User Experience Design  
ACAP August 2013

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# Preface

Austin Community College would like to express our sincere appreciation to our business, industry, labor, and community partners who donated their time and expertise toward the identification and validation of competencies in the following Austin Competency Analysis Profile.

# Introduction

The ACAP (Austin Competency Analysis Profile) initiative comes out of the Instructional Development Services of Instructional Resources and Technology at Austin Community College. This initiative is ACC's primary source for Competency-Based Curriculum development, providing a connection between our academic and workforce programs and the needs of business and industry.

The ACAP is a process for analyzing an occupation to develop curriculum. The product is a competency list, employability skills, and academic skill levels that have been developed and validated by subject matter experts who perform the occupation. This list will be used to develop programs that address the needs of business and industry by equipping current and aspiring supervisors with the entry skills required in a workplace environment.

# A CAP Process Overview

## ***What are Austin Competency Analysis Profiles (ACAPs)?***

Austin Competency Analysis Profiles (ACAPs) are competency lists for academic and workforce programs verified by expert workers, or Subject Matter Experts. These lists evolve from a well-established job analysis process involving business, industry, labor, and community agency representatives from throughout the Austin area.

## ***How is an Austin Competency Analysis Profile used?***

Each ACAP identifies the occupational, academic, and employability skills (or competencies) needed to enter a given occupation or occupational area. The ACAP not only lists the competencies but also clusters those competencies into broader units and details the knowledge, skills, and attitudes (competency builders) needed to perform each competency.

Within the competency list are three levels of items: Supervisor, Manager and Director. Items essential for entry-level employment as a Supervisor or higher level position are required to be taught. Items deemed appropriate for entry-level employment as a Manager or higher, designated by (M), or Director, designated as (D), will only be introduced in advanced tracks as appropriate.

Educational institutions may add as many units, competencies, and/or competency builders as desired to reflect local employment needs, trends, and specialties. Local advisory committees are actively involved in the identification and verification of additional items. Faculty members formulate their courses of study using the varied contents of the ACAP. Faculty also monitor gains using many forms of assessment.

## ACAP: User Experience Design

Information Architect  
Interaction Designer  
User Interface Designer  
Experience Designer  
Graphic Designer  
Visual Designer  
Motion Graphics Designer  
Responsive Designer

# Occupational Competencies

The following Occupational Competencies have been identified and verified by a panel of subject matter experts currently employed as Supervisors, Managers and Directors. This panel of experts has determined that these skills will adequately prepare students for *entry level* positions in this field. The *Competencies* are grouped into units. *Competency Builders* are included to help identify the knowledge, skills and attitudes students need to perform each competency. These *Competencies* and *Competency Builders* are designed to be the basis for curriculum development to ensure business and industry input that is relative and meaningful to the workplace. These *Competencies* are intended to include all basic, necessary skills for this occupational area, but may be supplemented with additional competencies as faculty and advisory committee members see the need to do so.

## **Key Terms:**

*Competency*—an observable and measurable behavior that has a definite beginning and end; can be performed within a limited amount of time; consists of two or more competency builders; and leads to a product, service, or decision.

*Competency Builders*—the skills, knowledge, and attitudes (written in measurable terms) needed to perform a given competency.

*Entry Level*—position of employment that requires no previous experience, but may require some training and/or specific skills, knowledge, or attitudes.

# ACAP: User Experience Design

Unit 1	Research and Discovery
Unit 2	Conceptualization and Design
Unit 3	Prototype and Delivery
Unit 4	Professional Development

# Occupational Competencies

## ACAP: User Experience Design

### Unit 1: Research and Discovery

#### Competency 1.1 Define scope of work

##### *Competency Builders:*

- 1.1.1 Prioritize features and functions of the project
- 1.1.2 Identify agreed upon project objectives
- 1.1.3 Identify size and specifications of the work involved
- 1.1.4 Define project success criteria for all parties
- 1.1.5 Document scope of work in an accurate, complete and succinct form
- 1.1.6 Ascertain technical expectations of project
- 1.1.7 Communicate to customer division of responsibilities
- 1.1.8 Determine project budget and timeline

#### Competency 1.2 Gather content as it relates to requirements

##### *Competency Builders:*

- 1.2.1 Collect company materials and company style guide (logos, fonts, etc.)
- 1.2.2 Identify additional resources and stakeholders
- 1.2.3 Verify information is correct, accurate, and appropriate
- 1.2.4 Build content matrix by mapping content to customer requirements
- 1.2.5 Index and weigh content properly by relevance
- 1.2.6 Identify sources of information
- 1.2.7 Establish deadlines for content delivery

#### Competency 1.3 Review technical considerations and constraints

##### *Competency Builders:*

- 1.3.1 Consider all technical environmental factors
- 1.3.2 Review all technological relationships
- 1.3.3 Document technical considerations and constraints
- 1.3.4 Address feasibility issues
- 1.3.5 Assess budget and equipment constraints
- 1.3.6 Present possible options to customer in various formats (power point presentation, Flash slideshow, poster presentations, pamphlets, etc.)

## **Competency 1.4    Select design tools and technology platform**

### *Competency Builders:*

- 1.4.1    Select tools and languages based on functional requirements, technical specifications, and budgetary considerations
- 1.4.2    Assess and evaluate third-party applications for applicability
- 1.4.3    Meet ease-of-use requirements in tools and technology

## **Competency 1.5    Develop project plan**

### *Competency Builders:*

- 1.5.1    Identify stakeholder requirements accurately in plan
- 1.5.2    Include project schedules, resource allocations, dependencies and milestones in plan
- 1.5.3    Define success criteria for project
- 1.5.4    Accurately document and update plan throughout the project life cycle
- 1.5.5    Define and document test strategy (QA, usability, ADA compliance, cross browser, cross platform, etc.)
- 1.5.6    Review project plan with customers as needed
- 1.5.7    Revise project plan as necessary

## **Competency 1.6    Assess business requirements**

### *Competency Builders:*

- 1.6.1    Research market need
- 1.6.2    Define audience and mission of project/product
- 1.6.3    Familiarize self with business and internal structure (interview stakeholders; Strengths, Weaknesses, Opportunities and Threats—SWOT)
- 1.6.4    Determine success criteria
- 1.6.5    Create a needs assessment document including an interpretation of the customer's business (who they are, what they do, unique qualities of the business, business goals, etc.)
- 1.6.6    Conduct competitive analysis

## **Competency 1.7    Assess user needs**

### *Competency Builders:*

- 1.7.1    Identify information needed about users
- 1.7.2    Target end users
- 1.7.3    Identify research strategy (qualitative, quantitative or both)
- 1.7.4    Create research plan
- 1.7.5    Conduct user research
- 1.7.6    Synthesize user research (stories, mental models, personas, scenarios)

## **Competency 1.8 Present research data and recommendations**

### *Competency Builders:*

- 1.8.1 Synthesize research data
- 1.8.2 Align business requirements and user needs
- 1.8.3 Articulate point of view that will drive design

## **Unit 2: Conceptualization and Design**

## **Competency 2.1 Create user interface based on usability principles and industry trends**

### *Competency Builders:*

- 2.1.1 Design intuitive navigation structures
- 2.1.2 Apply fundamentals of page layout
- 2.1.3 Apply principles of user experience design
- 2.1.4 Justify interface and screen design decisions based on the requirements of the project
- 2.1.5 Create uniform design patterns and feature functionality
- 2.1.6 Address accessibility standards
- 2.1.7 Conduct usability testing
- 2.1.8 Adhere to interaction patent restrictions

## **Competency 2.2 Design visuals using independent judgment, creativity, and appropriate technology**

### *Competency Builders:*

- 2.2.1 Use basic design techniques and principles
- 2.2.2 Translate aesthetics of graphic design into attractive interactive visual Interfaces
- 2.2.3 Use appropriate typography
- 2.2.4 Choose coordinated color schemes throughout the project
- 2.2.5 Consider cultural and contextual meanings in color scheme(s)
- 2.2.6 Use drawing and image editing tools to manipulate, create, and edit images
- 2.2.7 Follow interface design standards in graphic elements
- 2.2.8 Incorporate user requirements and company brand standards in graphics
- 2.2.9 Optimize graphics for platform
- 2.2.10 Adhere to licenses and copyright laws
- 2.2.11 Obtain written stakeholder approval

## **Competency 2.3 Generate design directions**

### *Competency Builders:*

- 2.3.1 Identify strategies for generating ideas (research, sketching, word mapping, brain storming)
- 2.3.2 Brainstorm concepts and interactions within constraints of research

- 2.3.3 Design for different platforms
- 2.3.4 Create visual language and interaction themes and motion studies
- 2.3.5 Justify design concepts with research findings

**Competency 2.4 Prepare design concepts (wire frames, story boards, etc.)**

- 2.4.1 Prepare an appropriate number of preliminary concept alternatives
- 2.4.2 Incorporate the organization of information within constraints of research
- 2.4.3 Represent all required design features in mockup
- 2.4.4 Complete mockup within time and budget constraints

**Competency 2.5 Present design concepts to stakeholders**

- 2.5.1 Synthesize stakeholders' feedback into design or concept
- 2.5.2 Refine and re-present concept to reach consensus among stakeholders within a predetermined time frame
- 2.5.3 Prepare prototype based on final approved concept

**Competency 2.6 Create comprehensive design documents**

- 2.6.1 Create style and pattern guide
- 2.6.2 Create project brief
- 2.6.3 Create research findings document
- 2.6.4 Create clickable prototype/pdf
- 2.6.5 Create developer specs (e.g. annotated wireframes)
- 2.6.6 Articulate project schedule

## Unit 3: Prototype and Delivery

**Competency 3.1 Develop prototype**

*Competency Builders:*

- 3.1.1 Determine type of prototype (e.g. testing, final)
- 3.1.2 Determine delivery vehicle (e.g. clickable pdf, html5, keynote)
- 3.1.3 Create prototype per platform
- 3.1.4 Use assets if applicable
- 3.1.5 Develop interactive interface objects
- 3.1.6 Create visuals that simulate the behavior of navigation
- 3.1.7 Incorporate key features of the user experience (e.g. interactions, flow)
- 3.1.8 Create annotated version of prototype

## **Competency 3.2 Conduct internal evaluation of user interface, visual appeal and functional design**

### *Competency Builders:*

- 3.2.1 Ensure that design and interface specifications are complete and meet functional requirements
- 3.2.2 Assess strengths and weaknesses
- 3.2.3 Include appropriate team members and project stakeholders in the evaluation process
- 3.2.4 Evaluate the success of accessibility functionality

## **Competency 3.3 Develop and implement usability testing**

### *Competency Builders:*

- 3.3.1 Provide individuals from user community opportunities to interact with product
- 3.3.2 Document user reactions to the product
- 3.3.3 Observe users while using product when applicable
- 3.3.4 Convey information from usability testing clearly to the development team
- 3.3.5 Modify product based on usability test results

## **Competency 3.4 Hand off to customer/user**

### *Competency Builders:*

- 3.4.1 Ensure application meets customer/user requirements
- 3.4.2 Secure appropriate final approvals and signatures
- 3.4.3 Finalize and deliver user support and training materials
- 3.4.4 Finalize and deliver system support documentation (style guide, object definitions, etc.)
- 3.4.5 Put procedures for user feedback into place
- 3.4.6 Communicate rollout plans to stakeholders in a timely manner
- 3.4.7 Identify support staff training needs to accommodate within the plan

## **Unit 4: Professional Development**

## **Competency 4.1 Communicate in a professional manner**

### *Competency Builders:*

- 4.1.1 Interact with vendors, colleagues, and clients
- 4.1.2 Notify appropriate persons about problems and observations
- 4.1.3 Coordinate tasks with co-workers
- 4.1.4 Make oral, written, and visual presentations
- 4.1.5 Apply strategies for interacting with difficult personalities
- 4.1.6 Critique design work constructively

## **Competency 4.2 Keep accurate records**

### *Competency Builders:*

- 4.2.1 Use appropriate technical vocabulary
- 4.2.2 Establish and maintain file naming conventions and version control
- 4.2.3 Document results at time of performance
- 4.2.4 Develop and maintain a system of file management and organization (computer and written files)
- 4.2.5 Budget time and financial resources
- 4.2.6 Estimate cost of materials and labor
- 4.2.7 Track progression of the project as it relates to timeline using company protocol

## **Competency 4.3 Manage multiple tasks**

### *Competency Builders:*

- 4.3.1 Prioritize tasks
- 4.3.2 Manage time spent on tasks
- 4.3.3 Assign appropriate resources
- 4.3.4 Manage resources (e.g. assets)
- 4.3.5 Solve problems

## **Competency 4.4 Provide quality customer service to stakeholders**

### *Competency Builders:*

- 4.4.1 Set expectations
- 4.4.2 Adhere to contractual obligations
- 4.4.3 Manage relationships so that stakeholders are satisfied with current level of service
- 4.4.4 Meet expectations according to timeline
- 4.4.5 Identify problems and refer to appropriate personnel
- 4.4.6 Resolve conflicts with stakeholders

## **Competency 4.5 Create a digital portfolio**

### *Competency Builders:*

- 4.5.1 Define personal brand
- 4.5.2 Manage social media presence
- 4.5.3 Identify focus of portfolio
- 4.5.4 Arrange and refine projects for inclusion in a portfolio

## **Competency 4.6 Present professional portfolio**

### *Competency Builders:*

- 4.6.1 Articulate the elements of the portfolio and personal skills effectively during presentation
- 4.6.2 Create a follow up strategy

## **Competency 4.7 Identify industry requirements for employment**

### *Competency Builders:*

- 4.7.1 Identify current events, trends, skills, attitudes and behaviors pertinent to the industry and relevant to the professional development of the student
- 4.7.2 Research current salaries for desired field related to the region
- 4.7.3 Identify opportunities to gain experience (internships, pro-bono work, volunteer work, etc.)
- 4.7.4 Participate in professional organizations and conferences (AIGA, Graphic Artists Guild, etc.)
- 4.7.5 Participate in local networking opportunities (meet-up groups)
- 4.7.6 Identify trend setters in the field

## **Competency 4.8 Prepare for interviews**

### *Competency Builders:*

- 4.8.1 Develop interview skills
- 4.8.2 Practice mock interviews
- 4.8.3 Prepare a compelling resume
- 4.8.4 Choose professional or appropriate dress
- 4.8.5 Research companies to which you are applying

# **E**mployability Competencies .....

Employability Competencies are underlying skills, including work habits and ethics, essential to the workplace and personal growth. SCANS (Secretary's Commission on Achieving Necessary Skills) are the basis for these competencies and are included in all programs based on an ACAP (Austin Competency Analysis Profile). These skills are taught with the intention of providing the student with a well-rounded understanding of workplace expectations in areas not specific to a particular occupation, in an attempt to develop a valuable employee.

## **ACAP: User Experience Design**

Unit 1:	Resources
Unit 2:	Interpersonal
Unit 3:	Information
Unit 4:	Systems
Unit 5:	Technology
Unit 6:	Basic Skills
Unit 7:	Thinking Skills
Unit 8:	Personal Qualities

## Unit 1: Resources

### Competency 1.1 Manage time effectively

#### *Competency Builders:*

- 1.1.1 Select relevant, goal-related activities
- 1.1.2 Rank activities in order of importance
- 1.1.3 Allocate time to activities
- 1.1.4 Identify tasks to be completed
- 1.1.5 Develop and follow an effective, workable schedule based on accurate estimates of such things as importance of tasks, time to complete tasks, time available for completion, and task deadlines, without wasting time
- 1.1.6 Identify possible impact of schedules on other activities
- 1.1.7 Evaluate and adjust a schedule

### Competency 1.2 Manage money effectively

#### *Competency Builders:*

- 1.2.1 Prepare or use budgets including making cost and revenue forecasts
- 1.2.2 Record details to track budget performance
- 1.2.3 Adjust budget appropriately when needed
- 1.2.4 Allocate money to include accurately preparing and using a budget according to a consistent and orderly accounting method
- 1.2.5 Calculate future budgetary needs based on projected costs and revenues
- 1.2.6 Track the extent to which actual costs and revenues differ from the estimated budget, and take appropriate and effective action

### Competency 1.3 Manage material and facility resources effectively

#### *Competency Builders:*

- 1.3.1 Store resources such as materials, supplies, parts, equipment, space or final products in an order that makes the best use of them
- 1.3.2 Allocate materials and facility resources to include carefully planning the steps involved in the acquisition, storage, and distribution of resources
- 1.3.3 Acquire, transport, and store material and facility resources safely and efficiently
- 1.3.4 Maintain material and facility resources in good condition
- 1.3.5 Distribute material and resources to the end user

### Competency 1.4 Manage human resources efficiently

#### *Competency Builders:*

- 1.4.1 Assess people's knowledge, skills and potential
- 1.4.2 Identify present and future work load
- 1.4.3 Match individual talents and workload effectively
- 1.4.4 Monitor performance and provide feedback actively

## Unit 2: Interpersonal Skills

### Competency 2.1 Participate as a member of a team

#### *Competency Builders:*

- 2.1.1 Work cooperatively with others
- 2.1.2 Contribute to group with ideas, suggestions, and efforts
- 2.1.3 Complete personal share of tasks necessary to complete a project
- 2.1.4 Encourage team members by listening and responding appropriately to their contributions
- 2.1.5 Build on individual team members' strengths
- 2.1.6 Resolve differences for the benefit of the team
- 2.1.7 Take personal responsibility for accomplishing goals
- 2.1.8 Challenge existing procedures, policies, or authorities responsibly

### Competency 2.2 Teach others

#### *Competency Builders:*

- 2.2.1 Coach or otherwise teach others to apply related concepts and theories to tasks
- 2.2.2 Convey job information to allow others to see its applicability and relevance to tasks
- 2.2.3 Identify training needs of others
- 2.2.4 Assess performance of others
- 2.2.3 Provide feedback on others' performance in a constructive manner
- 2.2.4 Provide solutions to observed problems

### Competency 2.3 Serve clients/customers

#### *Competency Builders:*

- 2.3.1 Identify customers/clients expectations through surveys, questions, body language, or expressions
- 2.3.2 Communicate and work with clients/customers to satisfy their expectations
- 2.3.3 Listen actively to customers to avoid misunderstanding and to identify needs
- 2.3.4 Provide alternatives to clients/customers to satisfy their expectations
- 2.3.5 Provide services and goods in a timely, positive manner
- 2.3.6 Obtain additional resources to satisfy client needs efficiently

### Competency 2.4 Exercise leadership

#### *Competency Builders:*

- 2.4.1 Communicate thoughts, feelings, and ideas to justify a position
- 2.4.2 Motivate and/or convince individuals or groups through encouragement or persuasion
- 2.4.3 Challenge existing procedures, policies or authorities responsibly
- 2.4.4 Use rules/values followed by others

- 2.4.5 Justify a position logically and appropriately
- 2.4.6 Consider minority viewpoints in making decisions or taking action

### **Competency 2.5 Negotiate to arrive at a decision**

#### *Competency Builders:*

- 2.5.1 Achieve agreement through exchanging specific resources or resolving divergent interests
- 2.5.2 Research opposition and the history of the conflict
- 2.5.3 Set realistic, obtainable goals
- 2.5.4 Present facts and arguments
- 2.5.5 Listen to and reflect upon what has been said
- 2.5.6 Clarify problems and resolve conflicts
- 2.5.7 Propose and examine possible options
- 2.5.8 Make reasonable compromises

### **Competency 2.6 Work with cultural diversity**

#### *Competency Builders:*

- 2.6.1 Work with men and women, and a variety of ethnic, social and educational backgrounds
- 2.6.2 Compare one's own culture and that of others
- 2.6.3 Respect the rights of others while helping them make cultural adjustments when necessary
- 2.6.4 Base impression upon individual performance, not stereotypes
- 2.6.5 Understand concerns of members of other ethnic and gender groups

## **Unit 3: Information**

### **Competency 3.1 Acquire and evaluate information**

#### *Competency Builders:*

- 3.1.1 Pose analytic questions to determine specific information needs
- 3.1.2 Select appropriate information sources
- 3.1.3 Determine when new information must be created and do so
- 3.1.4 Evaluate data for relevance and accuracy

### **Competency 3.2 Organize and maintain information**

#### *Competency Builders:*

- 3.2.1 Organize a variety of information forms or sources in a systemic fashion
- 3.2.2 Maintain written or other forms of information to keep up-to-date information available in a systemic fashion
- 3.2.3 Organize information from computer, visual, oral and physical sources in readily accessible formats, such as computerized data bases, spreadsheets, microfiche, video

disks, paper files, etc.

3.2.4 Transform data into different formats in order to organize them by the application of various methods such as sorting, classifying, or more formal methods

### **Competency 3.3 Interpret and communicate information**

#### *Competency Builders:*

- 3.3.1 Select information to be communicated
- 3.3.2 Identify best methods to present information (e.g., overheads, handouts, etc.)
- 3.3.3 Communicate results to others in desired format
- 3.3.4 Convey information to others through a variety of means including oral, written, graphic, pictorial or multi-media methods

### **Competency 3.4 Process information using computer**

#### *Competency Builders:*

- 3.4.1 Acquire information from the internet and other computer based resources
- 3.4.2 Organize information, using spreadsheets, word processor, and data bases effectively
- 3.4.3 Analyze information to identify trends, make projections, etc.
  
- 3.4.4 Enter, modify, retrieve, store and verify data and other information in a computer
- 3.4.5 Choose format for display (e.g., line graphs, bar graphs, tables, pie charts, narrative)
- 3.4.6 Convey information into the chosen format
- 3.4.7 Communicate information using e-mail, list serves, word processor, or other computer based communication functions

## **Unit 4: Systems**

### **Competency 4.1 Apply appropriate techniques to function within social, organizational, and technological systems to attain goals effectively and ethically**

#### *Competency Builders:*

- 4.1.1 Identify dynamics and components of social, organizational and technological systems
- 4.1.2 Recognize acceptable behavior and attitudes within social, organizational and technological systems
- 4.1.3 Communicate through acceptable methods to interact with social, organizational, and technological systems effectively, efficiently, and ethically
- 4.1.4 Recognize how a system's structures relate to goals
- 4.1.5 Recognize the right of people to ask for information and where to get resources

## **Competency 4.2      Monitor and correct performance of a system**

### *Competency Builders:*

- 4.2.1 Distinguish trends
- 4.2.2 Predict impact of actions on system operations
- 4.2.3 Diagnose deviations in the function of a system/organization
- 4.2.4 Correct performance through necessary action
- 4.2.5 Detect deviations from systems intended purpose
- 4.2.6 Troubleshoot the system
- 4.2.7 Make changes to the system to rectify system function and to ensure quality of product

## **Competency 4.3      Improve and design systems**

### *Competency Builders:*

- 4.3.1 Make suggestions to modify or improve existing products or services
- 4.3.2 Implement approved improvements in systems
- 4.3.3 Evaluate the benefits of the improvements
  
- 4.3.4 Develop/recommend new or alternative system designs based on relevant feedback
- 4.3.5 Communicate the results of the evaluations

# Unit 5: Technology

## **Competency 5.1      Select appropriate technology**

### *Competency Builders:*

- 5.1.1 Determine the desired results or outcomes and applicable restraints
- 5.1.2 Visualize the necessary methods and applicable technology
- 5.1.3 Evaluate specifications
- 5.1.2 Judge which procedures, tools, machines or programs will produce the desired results

## **Competency 5.2      Apply technology to task**

### *Competency Builders:*

- 5.2.1 Set up tools such as machines, computers, and programming systems, using proper procedures, to get desired results
- 5.2.2 Analyze how different parts of machines interact and how machines interact with broader production systems
- 5.2.3 Install machines including computers
- 5.2.4 Interpret machine output accurately
- 5.2.5 Detect errors from program output

## **Competency 5.3      Maintain and troubleshoot technology**

### *Competency Builders:*

- 5.3.1 Prevent problems in machines, computers, and other technologies
- 5.3.2 Identify problems in machines, computers and other technologies
- 5.3.3 Perform routine maintenance and service of machines, computers, and other technologies
- 5.3.4 Detect more serious problems
- 5.3.5 Generate workable solutions to correct deviations
- 5.3.6 Recognize need for additional help

## **Unit 6: Basic Skills**

## **Competency 6.1      Read written information in prose and documents, such as manuals, graphs, and schedules with understanding**

### *Competency Builders:*

- 6.1.1 Determine the main idea or essential message
- 6.1.2 Identify relevant details, facts, and specifications
- 6.1.3 Infer or locate the meaning of unknown or technical vocabulary
- 6.1.4 Judge the accuracy, appropriateness, style, and plausibility of reports, proposals, or theories of other writers

## **Competency 6.2      Communicate thoughts, ideas, information, and messages in writing**

### *Competency Builders:*

- 6.2.1 Record information completely and accurately
- 6.2.2 Compose and create documents such as letters, directions, manuals, reports, proposals, graphs, and flow charts
- 6.2.3 Use language, style, organization and format appropriate to the subject matter, purpose, and audience
- 6.2.3 Include supporting documentation where appropriate
- 6.2.4 Attend to level of detail
- 6.2.5 Check, edit, and revise for correct information, appropriate emphasis, form, grammar, spelling, and punctuation

**Competency 6.3      Perform arithmetic computations and concepts with appropriate technology and/or paper and pencil to solve simple work problems**

*Competency Builders:*

- 6.3.1 Perform basic computations
- 6.3.2 Use basic numerical concepts such as whole numbers and percentages in practical situations
- 6.3.3 Make reasonable estimates of arithmetic results without a calculator
- 6.3.4 Use tables, graphs, diagrams, and charts to obtain or convey quantitative information

**Competency 6.4      Perform mathematics in a variety of techniques to approach practical problems appropriately**

*Competency Builders:*

- 6.4.1 Choose appropriate technique to solve problem
- 6.4.2 Use quantitative data to construct logical explanations for real world situations
- 6.4.3 Express mathematical ideas and concepts orally and in writing
- 6.4.4 Predict an event considering the role of chance in the occurrence

**Competency 6.5      Listen and react appropriately to verbal messages**

*Competency Builders:*

- 6.5.1 Receive, attend to, interpret, and respond to verbal messages appropriately
- 6.5.2 Receive, attend to, interpret, and respond to other cues such as body language appropriately
- 6.5.3 Listen to comprehend, learn, critically evaluate, appreciate, or support the speaker

**Competency 6.6      Deliver oral messages appropriately to listeners**

*Competency Builders:*

- 6.6.1 Organize ideas and communicates orally as appropriate for the situation and listeners
- 6.6.2 Participate in conversation, discussion, and group presentations
- 6.6.3 Select an appropriate medium for conveying a message
- 6.6.4 Use verbal language and other cues, such as body language, in a way appropriate in style, tone, and level of complexity to the audience and the occasion
- 6.6.5 Speak clearly and communicate a message
- 6.6.6 Respond to listener feedback in a way that indicates understanding
- 6.6.7 Ask questions when needed

## Unit 7: Thinking Skills

### Competency 7.1      **Generate new ideas using creative thinking**

#### *Competency Builders:*

- 7.1.1 Change or reshapes goals using nonlinear or unusual connections
- 7.1.2 Imagine new ideas by combining ideas or information in new ways
- 7.1.3 Connects seemingly unrelated ideas
- 7.1.4 Reshape goals in ways that reveal new possibilities

### Competency 7.2      **Make decisions**

#### *Competency Builders:*

- 7.2.1 Specify goals and constraints
- 7.2.2 Generate alternatives
- 7.2.3 Consider risks
- 7.2.4 Evaluate and choose best alternatives
- 7.2.5 Analyze how personal, family, and social factors influence decisions, behaviors, and lifestyles
- 7.2.6 Utilize a decision-making process to develop future career goals

### Competency 7.3      **Apply problem solving skills appropriate to situation**

#### *Competency Builders:*

- 7.3.1 Recognize a problem exists (i.e., that there is a discrepancy between what is and what should be)
- 7.3.2 Identify possible reasons for the problem
- 7.3.3 Devise and implement a plan of action to resolve the problem
- 7.3.4 Evaluate and monitor progress
- 7.3.5 Revise the plan as indicated by the findings
- 7.3.6 Communicate in both oral and written language while working with others to identify/resolve problems
- 7.3.7 Reason inductively and deductively to solve problems
- 7.3.8 Select and apply problem-solving methods

### Competency 7.4      **See things in the mind's eye**

#### *Competency Builders:*

- 7.4.1 Organize and process symbols, pictures, graphs, objects or other information to visualize actual representation (such as a building from blueprints)
- 7.4.2 Visualize possible options
- 7.4.3 Communicate visualized options verbally

## **Competency 7.5      Apply learning strategies to support life-long learning**

### *Competency Builders:*

- 7.5.1 Apply and adapt existing and new knowledge and skills, using learning techniques, in both familiar and changing situations
- 7.5.2 Evaluate learning style (visual, aural, etc.) to make proper selection of learning techniques
- 7.5.3 Identify various learning techniques including formal learning strategies (note taking or clustering items that share some characteristics) and informal learning strategies (awareness of unidentified false assumptions that may lead to faulty conclusions)
- 7.5.4 Make decisions/plans concerning school to work training and future educational needs using relevant resources

## **Competency 7.6      Apply reasoning to finding solutions or draw conclusions**

### *Competency Builders:*

- 7.6.1 Discover a rule or principle underlying the relationship between two or more objects
- 7.6.2 Extract rules or principles from a set of objects or a written text
- 7.6.3 Apply principles to solve problems
- 7.6.4 Draw conclusion from available information using logic
- 7.6.5 Apply rules and principles to a new situation
- 7.6.6 Determine which conclusion is correct when given a set of facts and conclusions
- 7.6.7 Evaluate alternatives and assess consequences to achieve personal and social goals

## **Unit 8: Personal Qualities**

## **Competency 8.1      Act responsibly**

### *Competency Builders:*

- 8.1.1 Persevere toward goal attainment with a high level of effort
- 8.1.2 Set high standards in order to become excellent at doing tasks by setting high standards, paying attention to details, working well and displaying a high level of concentration even when assigned an unpleasant task
- 8.1.3 Display a high standard of attendance, punctuality, enthusiasm, vitality, and optimism in approaching and completing tasks

## **Competency 8.2      Exhibit effective self-esteem**

### *Competency Builders:*

- 8.2.1 Maintain a positive view of self and believes in own self-worth
- 8.2.2 Identify own skill and abilities possessed
- 8.2.3 Recognize own emotional capacity and needs
- 8.2.4 Identify/Apply effective ways to handle emotional capacity and needs
- 8.2.5 Recognize own impression on others

### **Competency 8.3     Employ appropriate social skills**

#### *Competency Builders:*

- 8.3.1 Demonstrate understanding, friendliness, adaptability, empathy and politeness in new and on-going group settings
- 8.3.2 Assert self in familiar and unfamiliar social situations
- 8.3.3 Relate well to others
- 8.3.4 Respond appropriately as the situation requires
- 8.3.5 Take an interest in what others say and do

### **Competency 8.4     Manage self**

#### *Competency Builders:*

- 8.4.1 Assess own knowledge, skills, and abilities accurately
- 8.4.2 Set well-defined and realistic personal goals
- 8.4.3 Monitor progress toward goal attainment
- 8.4.4 Motivate self through goal achievement
- 8.4.5 Exhibit self-control and respond to feedback unemotionally and nondefensively
- 8.4.6 Initiate action

### **Competency 8.5     Apply integrity and honesty to all matters**

#### *Competency Builders:*

- 8.5.1 Recognize situations when faced with making a decision or exhibiting behavior that may break with commonly held personal or societal values
- 8.5.2 Understand the impact of violating these beliefs and codes on an organization, self, and others
- 8.5.3 Choose an ethical course of action

# Glossary

**ACAP**—*Austin Competency Analysis Profile*—a well-established job analysis process unique to Austin Community College involving business, industry, labor, and community agency representatives from throughout the Austin area.

**Advanced Competencies**—the occupation and academic competencies needed to advance in a given occupation.

**Competency**—an observable and measurable behavior that has a definite beginning and end; can be performed within a limited amount of time; consists of two or more competency builders; and leads to a product, service, or decision.

**Competency Builders**—the skills, knowledge, and attitudes (written in measurable terms) needed to perform a given competency.

**Core Competencies**—the essential occupational and academic competencies needed to enter and remain in a given occupation.

**Employability Competencies**—underlying skills, abilities, and knowledge as they relate to work ethics, work habits, and personal growth and development.

**Entry Level**—refers to the requirements necessary for someone entering into the occupation (without previous on the job experience).

**Performance Level**—refers to the level at which an employee would need to function effectively having gained on-the-job knowledge.

**SME**—*Subject Matter Expert*—incumbent worker in a given occupation that is knowledgeable about the job.

**Target Job Titles**—titles that may be assigned to the types of jobs aligned with an ACAP. Possible titles of jobs for which students would qualify with certificates or degrees in the programs based on an ACAP.