

Passport Learning Outcomes

The Interstate Passport[®] framework consists of nine knowledge and skill areas. These areas are based on the Essential Learning Outcomes developed by the Association of American Colleges and Universities as part of its Liberal Education and America's Promise (LEAP) initiative, and on research conducted by WICHE on the general education requirements of colleges and universities in the region. For each knowledge or skill area, the framework contains the Features, Passport Learning Outcomes (PLOs) and attendant Transfer-Level Proficiency Criteria, which are examples of some assignments and activities faculty use to teach and assess the PLOs. The nine knowledge and skill areas are categorized as follows:

FOUNDATIONAL SKILLS

Oral Communication. Public speaking entails a crucial set of skills for higher education students to develop because of its importance for effective participation in classrooms and its central position as a tool of democracy and civic engagement. The ability to prepare and extemporaneously deliver an argument grounded in credible information and organized effectively is usually developed in one or more courses in oral communication and becomes strengthened across the curriculum. The following learning outcomes are not exhaustive, but to provide a balanced portrait of what receiving institutions can expect from transfer students who have earned a Passport. *Relationship to institution's Passport Block:* an introductory speech course, outcomes identified in other courses, or equivalent demonstration of speech proficiency is required.

- Preparation for Performance: (a) develop a central message and supporting details by applying ethics, critical thinking and information literacy skills; (b) organize content for a particular audience, occasion or purpose.
- Delivery: demonstrate performance skills that include organizing and delivering content for a particular audience, occasion and purpose, and using technology as appropriate.
- Monitor and Adjust: monitor and adjust for audience feedback.
- Critical Receiver: listen and critically evaluate the speaker's central message and use of supporting materials.

Written Communication. Writing sits at the heart of the mission of the higher education institution. Regardless of the discipline or the curriculum, written communication is the key that unlocks critical thinking, analysis, and logical reasoning. Learning to write effectively as an undergraduate is not accomplished in any one course, but almost always requires at least one dedicated course. Proficiency at writing includes the use of sources, writing process knowledge, convention and mechanics, self-assessment and reflection. This area further includes an introduction to analysis of the content of others' writings, critical thinking and logical reasoning in addressing that content in an appropriate context. *Relationship to institution's Passport Block:* an introductory writing course or equivalent demonstration of writing proficiency is required, with an expectation that students have opportunities to write as part of other lower-division courses.

- Rhetorical Knowledge: demonstrate rhetorical knowledge by addressing issues of audience, purpose, genre, syntax, structure, format and knowledge appropriate to the task.

- Use of Sources: evaluate, apply, and ethically synthesize sources in support of a claim, following an appropriate documentation system.
- Writing Process Knowledge: develop flexible strategies for generating, revising, editing, and proofreading.
- Conventions and Mechanics: demonstrate proficiency with conventions, including spelling, grammar, mechanics, word choice, and format appropriate to the writing task.
- Self-Assessment and Reflection: reflect on one's inquiry and composing processes to critique and improve one's own and other's writing.

Quantitative Literacy. Quantitative literacy requires comfort and capability with fundamental quantitative methods and incorporation of quantitative concepts into the student's worldview so the student does not hesitate to apply quantitative skills in any appropriate context. Specific quantitative skills that must be addressed are mathematical process, computational skills, formulation of quantitative arguments, analysis of quantitative arguments, communication of quantitative arguments, and quantitative models.

Relationship to institution's Passport Block: a course in mathematics, a course that intensively uses quantitative methods, or equivalent demonstration of quantitative literacy is required.

- Computational Skills: demonstrate proficiency with arithmetic and algebraic computational skills, and extend them, for example, to geometric and statistical computations.
- Communication of Quantitative Arguments: express quantitative information symbolically, graphically, and in written or oral language.
- Analysis of Quantitative Arguments: select and use appropriate numeric, symbolic, graphical and statistical reasoning to interpret, analyze and critique information or line of reasoning presented by others.
- Formulation of Quantitative Arguments: recognize, evaluate, and use quantitative information, quantitative reasoning and technology to support a position or line of reasoning.
- Mathematical Process: design and follow a multi-step mathematical process through to a logical conclusion and critically evaluate the reasonableness of the result.
- Quantitative Models: create, analyze and apply appropriate quantitative models to solve quantitative theoretical and real-world problems.

KNOWLEDGE OF CONCEPT AREAS

Natural Sciences. Proficiency in the natural sciences entails exploration and comprehension of the universe that requires an informed understanding of the scientific method and its scope and an appreciation of the inherent beauty and wonder that one can find in science and its possibilities. It requires the application of the scientific method in conducting research by gathering and subjecting empirical evidence to quantitative analysis. Proficiency also demands understanding that all applicable evidence must be integrated into scientific models of the universe, and that scientific models must evolve. *Relationship to institution's Passport Block:* this area includes basic proficiency in the knowledge of concept in disciplines such as astronomy, biology, chemistry, geology, physics, and others.

- The Nature of Science: explain the following attributes of science:
 - a. Science is based on the assumption that reality exists, operates by consistent principles, and that the rules are understandable by critical analysis.
 - b. Processes and results must be reproducible and subjected to peer review.

- c. The results will display intrinsic variation and limitations.
- d. Continued scientific inquiry produces credible evidence that is used to develop scientific models and concepts.
- e. Models and concepts that withstand the most wide-ranging and persistent critical analyses are assumed to most closely describe reality and the principles by which it operates.
- Scientific Inquiry: demonstrate the application of specialized methods and tools of scientific inquiry by actively and directly collecting, analyzing, and interpreting data, presenting findings, and using information to answer questions.
- Core Concepts: accurately describe the scope of scientific study using core theories, practices and discipline-related terminology in two independent fields covering both a physical science and a life science.
- Scientific Literacy: (a) recognize the proper use of scientific data, principles and theories to assess the quality of stated conclusions; (b) demonstrate an ability to gather, comprehend, apply and communicate credible information on scientific and technical topics.
- Scientific Reasoning: demonstrate scientific reasoning processes to draw conclusions.
- Ethics: demonstrate an understanding of the standards that define ethical scientific behavior, including:
 - a. Honesty: the accurate use and reporting of scientific processes, data, and results, and the proper sharing of credit among colleagues.
 - b. Safety: ensuring the safety and well-being, both mental and physical, of practitioners, test subjects, local community, and environment.
 - c. Social Responsibility: recognition of the impact of our actions on the natural and human world.
- Science and Society: understand the role science plays in historical and contemporary issues.

Human Cultures. Proficiency in evolving human cultures Increases student knowledge and appreciation of the human condition in different cultures in relation to each other and of cultural diversity and/or cultural evolution over time. Subject matter may include study of the similarities and differences among cultures including cultural values, traditions, beliefs, and customs, as well as the range of cultural achievements and human conditions through time. *Relationship to institution's Passport Block:* this area includes disciplines such as history, anthropology, archaeology, political science, geography, ethnic studies, gender studies, languages, and others.

- Core Knowledge: define and apply knowledge of changing human cultures (including core vocabulary, terminology, information, concepts, theories and debates).
- Modes of Inquiry: identify and describe past and current forms of inquiry into changing human cultures across time and place.
- Investigation: research human cultures using relevant methodologies.
- Areas of Study: examine identities, languages, beliefs, and behaviors of oneself and others as parts of a dynamic culture or cultures.
- Attitudes Toward Cultural Difference: demonstrate understanding, respect, sensitivity, and empathy when interacting with one's own or others' cultures (including but not limited to people, language, artifacts, ideas, values, and customs).
- Factors Shaping Human Cultures: examine and explain the external, structural, and social elements influencing human cultures: class, race and mixed race, ethnicity, age, language, gender, disability,

sovereignty, sexual orientation, political ideologies, economic structure, natural environments, historical events, social movements, religion, and other forms of identity.

Creative Expression. Interpretive and creative expression of the potential and limits of the human condition relies on critical analysis of specific texts or works to support its claims. *Relationship to institution's Passport Block:* this area includes disciplines such as music, visual arts, design, theater, film, media, literature, architecture and, potentially, many others.

- Basic Knowledge: through the study of literary, performing and/or visual arts, employ fundamental discipline-specific principles, terminology, skills, technology, and methods.
- History and Cultures: identify, explain and/or demonstrate relationships among societal, cultural, and historical contexts.
- Ethics: demonstrate knowledge of and empathy for the diversity of values, beliefs, ideas, and practices embodied in the human experience.
- Creative Process: engage in a creative process through experimentation, reflection, tolerance for failure, and revision.
- Aesthetics and Analysis: use appropriate methods and tools to analyze, interpret and critique creative processes, works, and/or presentations.

Human Society and the Individual. Human society and the individual explores human behavior in social settings through scientific inquiry within the context of value systems, institutions, economic structures, social groups and/or environments. *Relationship to institution's Passport Block:* this area includes social science disciplines such as sociology, geography, history, criminology, psychology, economics, and others.

- Core Knowledge: (a) define vocabulary, concepts and terminology in the social sciences, and identify theories; (b) explain the role of individuals and institutions within the context of society.
- Basics of Scientific Inquiry: (a) explain and apply theories to social phenomena and human activity; (b) evaluate various types and forms of research, including their ethical considerations.
- Analytical Applications: (a) identify, frame and/or respond to a research question; (b) compile, interpret, analyze and/or evaluate qualitative and/or quantitative data.
- Information Use and Communications: (a) interpret and communicate various representations of qualitative and/or quantitative data; (b) responsibly identify, categorize, evaluate, and cite multiple sources.
- Social Responsibility: (a) recognize the complexities of diverse social identities; (b) evaluate issues of social justice with regard to identities within diverse contexts; (c) apply knowledge and experience critically so as to realize an informed sense of self, family, community, and the diverse social world in which we live.

CROSSCUTTING SKILLS

Critical Thinking. Critical thinking is a cross-disciplinary process based on information literacy that uses inquiry and analysis and leads to problem solving. Critical thinking is also a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating a judgment or conclusion. *Relationship to institution's Passport Block:* this area may be addressed by a single course or in multiple courses across the lower-division general education curriculum. Options may include science, quantitative literacy, economics, computer science, sociology, philosophy, history, literature and others.

- Problem Setting: identify a problem or question and its component parts.
- Recognize Assumptions: recognize and assess personal and other relevant underlying assumptions.
- Evidence: identify, gather, and analyze the information/data necessary to address the problem or question.
- Evaluate: evaluate information/data for credibility (e.g., bias, reliability, validity) and relevance to a situation.
- Context: identify relevant (disciplinary) context(s) including, as appropriate, principles, criteria, concepts, values, histories, and theories.
- Reasoning/Conclusion: develop logical conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.

Teamwork and Value Systems. **Teamwork** is collaborating towards a common purpose through shared responsibility and mutual accountability, while maintaining healthy relationships. **Value Systems** are a coherent set of ethical standards adopted and/or evolved by a team as a standard to guide its behavior. Teamwork and Value Systems may be embedded in any of the content areas or across multiple courses in the institution's Passport Block. *Relationship to institution's Passport Block:* this area may be addressed by a single course or in courses across the lower-division general education curriculum. Options may include science lab courses, psychology, theater, and many others.

- Teamwork Fundamentals: explain teamwork fundamentals including but not limited to team roles, rules and expectations, time and conflict management, goal setting and problem solving, and other relevant models and concepts.
- Purposeful Participation: demonstrate teamwork fundamentals through participation and mutual accountability.
- Shared Value Systems: demonstrate shared ethical obligations and intercultural sensitivity as they relate to teamwork.
- Evaluation: evaluate and communicate strengths and weaknesses of their teamwork: contributions of oneself, team members, and the team.
- Reflection: reflect on and communicate the impact and effectiveness of their teamwork.