



Essential Skills and Component Summaries	
Essential Skill	Component Skills
Communication	<ul style="list-style-type: none">○ Identify and communicate in various genres and mediums○ Apply strategies to understand and evaluate messages○ Evaluate and produce arguments
Quantitative Reasoning	<ul style="list-style-type: none">○ Express quantitative information symbolically, graphically, and in written or oral language○ Interpret, analyze, and critique information or a line of reasoning presented by others○ Apply appropriate quantitative models to real-world or other contextual problems
Critical Thinking	<ul style="list-style-type: none">○ Delineate a problem or question.○ Identify and gather information/data necessary to address a problem or question.○ Evaluate evidence/data for credibility, probable truth, and relevance to a situation.○ Develop conclusions, solutions, and outcomes that reflect an informed evaluation
Information & Digital Literacy (Courses should address 3/4 components)	<ul style="list-style-type: none">○ Recognize the interdependent nature of the authority and value of information and use this knowledge ethically○ Understand, communicate, compute, create, and design in digital environments.○ Select, use, produce, organize, and share information with appropriate formats, collections, systems, and applications.○ Engage in an iterative process of inquiry that defines a problem or poses a question to generate a reasonable solution or answer through research
Personal and Social Responsibility (Courses should address 2/5 components)	<ul style="list-style-type: none">○ Intercultural reasoning and intercultural competence○ Sustainability and the natural and human worlds○ Ethical reasoning○ Collaboration skills, teamwork, and value systems○ Civic discourse, civic knowledge and engagement

Component Skills Table: Narrative sections for each skill should address the number of components indicated

Communication: 3/3 components	Quant. Reasoning: 3/3 components	Critical Thinking: 4/4 components	Information & Digital Lit. 3/4 components	Personal & Soc. Res.: 2/5 components
Genre and Medium Awareness, Application, and Versatility: Identify and communicate in various genres and mediums (oral, written, and digital) using strategies appropriate for the rhetorical situations (ie., attending to audience, purpose, and context)	Communication/Representation of Quantitative Information: Express quantitative information symbolically, graphically, and in written or oral language.	Problem Setting: Delineate a problem or question.	Authority and Value of Information: Recognize the interdependent nature of the authority and value of information and use this knowledge ethically when selecting, using, and creating information.	Intercultural reasoning and intercultural competence
Strategies for Understanding and Evaluating Messages: Apply strategies such as reading for main points; seeking key arguments, counterarguments, rebuttals; locating supportive documentation for arguments; reading with a specific stakeholder lens; applying a theoretical lens (e.g. cultural, political, economic) to understand and evaluate messages in terms of the rhetorical situation (audience, purpose, and context).	Analysis of Quantitative Arguments: Interpret, analyze and critique information or a line of reasoning presented by others.	Evidence Acquisition: Identify and gather the information/data necessary to address the problem or question.	Digital Literacy: Understand, communicate, compute, create, and design in digital environments.	Sustainability and the natural and human worlds
		Evidence Evaluation: Evaluate evidence/data for credibility (e.g. bias, reliability, validity), probable truth, and relevance to a situation.	Information Structures: Select, use, produce, organize, and share information employing appropriate information formats, collections, systems, and applications.	Ethical reasoning
Evaluation and Production of Arguments: Evaluate the authority of sources in their own arguments and those of others; distinguish among supported claims, unsupported claims, facts, inferences, and opinions. In arguments, integrate support for their own claims with information from sources that are used and cited ethically and appropriately (using a major citation system such as MLA and APA).	Application of Quantitative Models: Apply appropriate quantitative models to real-world or other contextual problems.	Reasoning/Conclusion: Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	Research as Inquiry: Engage in an iterative process of inquiry that defines a problem or poses a question and through research generates a reasonable solution or answer.	Collaboration skills, teamwork and value systems
				Civic discourse, civic knowledge and engagement – local and global

General Education Learning Outcomes

Essential Skill: Communication

Courses in this area should begin to prepare students for communication in subsequent college courses and in the workplace, personal and social spheres, and civic life. The courses should prepare students to become versatile communicators who can respond to a diverse range of situations with appropriate written, oral, visual, or digital texts and performances.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Genre and Medium Awareness, Application, and Versatility: Identify and communicate in various genres and mediums (oral, written, and digital) using strategies appropriate for the rhetorical situations (i.e., attending to audience, purpose, and context)	Students communicate in various genres and mediums.	Students communicate in several genres and mediums, demonstrating awareness that different genres and mediums have different limitations and strengths.	Students communicate effectively in several genres and mediums, demonstrate awareness of limitations and strengths of each, and evaluate the effectiveness of their communications with regard to appropriateness to the rhetorical situation.	To demonstrate genre awareness, application, and versatility, students are asked to communicate well in genres such as a lab report, an essay, a white paper, a research proposal, a reflective response to readings, a marketing brochure and in varied mediums such as oral presentations, websites, written document.
Strategies for Understanding and Evaluating Messages: Apply strategies such as reading for main points; seeking key arguments, counter-arguments, rebuttals; locating supportive documentation for arguments; reading with a specific stakeholder lens; applying a theoretical lens (e.g. cultural, political, economic) to understand and evaluate messages in terms of the rhetorical situation (audience, purpose, and context).	Students use more than one for understanding and evaluating messages. They describe the central idea of a message.	Students use several strategies to understand and evaluate messages. They demonstrate awareness that different rhetorical situations may require different strategies.	Students use a wide range of strategies for understanding and evaluating messages. They also evaluate the effectiveness of strategies they use for interpreting messages in different rhetorical situations.	Use writing or speaking to convey their interpretation of materials and to assess what they have heard, read, or seen after applying strategies for evaluating messages such as reading for main points; seeking key arguments, counter-arguments, rebuttals; locating supportive documentation for arguments; reading with a specific stakeholder lens; applying a theoretical lens (e.g. cultural, political, economic). Examples of materials for assessing: Portfolio, presentation, writing assignment, oral presentation, digital assignment. To assess developing and proficient levels, students' work should include reflections in which students evaluate their choices and overall performance.
Evaluation and Production of Arguments: Evaluate the authority of sources in their own arguments and those of others; distinguish among supported claims, unsupported claims, facts, inferences, and opinions. In arguments, integrate support for their own claims with information from sources that are used and cited ethically and appropriately (using a major citation system such as MLA and APA).	Students understand that sources have varied validity and authority and that claims can be facts, opinions, inferences, and supported or unsupported.	Students evaluate a source's authority; distinguish among facts, opinions, and inferences; and identify claims that are supported and unsupported.	Students identify and develop claims that are supported by evidence and reasoning; evaluate and integrate arguments of others into their own written and spoken arguments.	Assess for student understanding of the authority (e.g., credibility, soundness) of what they read, hear, or see. Assess students' oral or written work in which they produce arguments of their own after evaluating others' relevant arguments. To demonstrate skills in producing arguments employing others' sound arguments, students effectively employ others' material within their own well-argued texts or presentations. Examples of materials for assessing: Portfolio, presentation, writing assignment, oral presentation, digital assignment.

Suggestions for assessment

Written documents and oral and electronic presentations should prepare students for or resemble those that graduates of the department or program typically perform for their work or lives. For instance, if assessment of recent graduates from a finance program determines that its alumni take jobs requiring them to address their communications almost exclusively to lay audiences for the purpose of recommending sound, personalized investment strategies, then students' ability to deliver effective performances in that genre, for that audience, and about similar ill-structured problems (with no single "right" answer) would be an appropriate measure of the competency.

General Education Learning Outcomes

Essential Skill: Critical Thinking

Critical thinking is the intellectual process of evaluating information, explanations, and arguments. This process is common among disciplines. Proficient critical thinkers are able to apply informed and reasoned thinking to problems in their fields.

Because of the process-oriented nature of critical thinking, a course that teaches the skill of critical thinking needs to cover, at least to some extent, all four component skills below, each of which is intimately and logically connected with the others. It is not simply inconsistent with critical thinking to formulate one's conclusions and then go looking for supportive evidence afterward. As students collect and assess evidence, they must have some understanding of the logical relation between the evidence they are collecting and the conclusions they are trying to reach or the problems they are trying to solve. However, it is entirely consistent that some courses place more emphasis on a particular subskill or subskills. A history course emphasizing archival research might place particular emphasis on the evidence acquisition subskill, and a philosophy course might place more emphasis on the reasoning subskill.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Problem Setting: Delineate a problem or question.	Students state problem/question appropriate to the context.	Students state and define an open ended problem/question appropriate to the context.	Students state, define, and describe components of an open ended problem/question appropriate to the context.	Formulate an experiment or research question Create a concept map Define a situation that can be addressed by a proof Describe a problem that will be developed into a paper Create a problem statement based on a topic of interest Identify perspectives and views on a problem
Evidence Acquisition: Identify and gather the information/data necessary to address the problem or question.	Students gather evidence addressing the problem/question from a mix of sources.	Students gather evidence addressing the problem/question from sources appropriate to the context while demonstrating some awareness of acquisition process, including personal assumptions.	Students gather an appropriate scope and depth of evidence sufficient to address a problem/question in context while demonstrating awareness of acquisition process, including personal assumptions.	Develop an annotated bibliography Collect qualitative and/or quantitative data
Evidence Evaluation: Evaluate evidence/data for credibility (e.g. bias, reliability, validity), probable truth, and relevance to a situation.	Students are able to describe appropriate sources.	Students are sometimes able to evaluate credibility and relevance of sources in addition to demonstrating some awareness of the evaluation process, including personal assumptions	Students are able to evaluate credibility and relevance of sources in addition to demonstrating an awareness of the evaluation process, including personal assumptions.	Differentiate relevant from irrelevant information Differentiate fact from opinion Assess and defend authority and credibility of data or other evidence Identify minority opinions and critical information Assess agreement among authorities
Reasoning/Conclusion: Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	Students can sometimes identify common logical flaws. Students can sometimes describe weak and strong arguments.	Students can identify common logical flaws. Students can sometimes differentiate weak and strong arguments. Students can sometimes identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Students can identify common logical fallacies. Students can differentiate weak and strong arguments. Students can identify and employ evidence and reasoning to build an argument and reach probable conclusions/solutions based on the evidence.	Assess an argument regarding whether the premises support the conclusion Assess certainty or probability that a conclusion is true Formulate a recommendation or persuasive argument supported by credible evidence Develop a conclusion based on experiments or data gathered

General Education Learning Outcomes

Essential Skill: Information & Digital Literacy

Courses that include the skill of information and digital literacy should begin to prepare students for upper division college courses, the workplace, and civic life. Information literacy spans across genres and content within the general education core and is not tied to a specific media or format. A course focused on information and digital literacy as an essential skill should encompass three of the four component skills.

Component Skill	Emerging	Developing	Proficiency	Assessment Suggestions
Authority and Value of Information: Recognize the interdependent nature of the authority and value of information and use this knowledge ethically when selecting, using, and creating information.	Students recognize that information is produced by individuals and communities who may or may not be reliable and who may have a particular point of view; recognize that new knowledge builds upon existing knowledge, give credit through attribution, and do not plagiarize.	Students use established criteria to evaluate information, formats, and sources and to differentiate between reliable and convenient information; make informed choices regarding online actions in awareness of issues related to privacy and the commodification of personal information; safeguard personal information of self and others.	Students evaluate types of authorities and integrate new perspectives and alternative authoritative voices; recognize that citing preserves authority and gives credit through proper attribution; students apply an appropriate citation style	Author's credentials evaluation Source authority evaluation Citation formatting exercise Quoting, paraphrasing, and summarizing exercise Privacy exercise Copyright fair use application Speech or debate Essay Annotated bibliography Research paper
Digital Literacy: Understand, communicate, compute, create, and design in digital environments.	Students know current and common digital vocabulary; understand how to use common digital devices; troubleshoot basic problems associated with operating digital devices	Students select and use appropriate applications to create and effectively communicate; use common digital education and social communication platforms; use current computational tools.	Students demonstrate fluency using common digital education and social communication platforms; design effective digital media; demonstrate fluency in using current computational tools including identifying errors or misleading information.	Digital vocabulary test Demonstration of how to use common devices Demonstration of solving basic problems Presentation project; Communication project Typing test; Computation project Input creation test such as talk to text Digital error analysis – demonstration or report Design project – audio, visual, or both
Information Structures: Select, use, produce, organize, and share information employing appropriate information formats, collections, systems, and applications.	Students articulate basic features and functions of common information formats, collections, systems, and applications; search collections and systems using keywords and simple search strategies.	Students select and use information formats, collections, systems, and applications that best match information needs; search collections and systems using advanced iterative search strategies and techniques.	Students use applications to create and organize useful content in appropriate information formats and systems; recognize and explain how information is communicated using distinct formats created for a purpose and recognize that information systems organize and disseminate formats.	Close reading, format comparison, format evaluation, primary and secondary source comparison, speech, essay, lab report, web site, blog, news article, critique, business report, literature review, research paper, database and academic collection comparison, academic collection selection exercise, research journal. Personal information system, development of file systems, calendars, contacts, or citation management systems.
Research as Inquiry: Engage in an iterative process of inquiry that defines a problem or poses a question and through research generates a reasonable solution or answer.	Students recognize that research is an iterative, non-linear, creative process that leads to new knowledge and requires curiosity, reflection, critical thinking, and persistence.	Students define a problem or pose a question and find and evaluate relevant information; recognize that scholarship is a conversation that occurs over time among communities engaged in research.	Students define an appropriate scope of investigation, formulate research questions, and reframe research questions based on new information; analyze, evaluate, and synthesize ideas gathered from multiple sources to draw reasonable conclusions.	Research question formulation, thesis statement formulation, search statement construction, concept map, information cycle exercise, information evaluation, search result evaluation, critical reading, research journal.

The Information & Digital Literacy essential outcomes were adapted from the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education (<http://www.ala.org/acrl/standards/ilframework>) and were blended together and combined with Digital Literacy skills.

General Education Learning Outcomes

Essential Skill: Quantitative Reasoning

Quantitative reasoning involve representing and communicating quantitative information, analyzing and formulating quantitative arguments, and solving quantitative contextual problems. Contextual problems are “word problems” situated within a context relevant to the course content (e.g. economics, psychology, chemistry) or otherwise accessible to students. They may model aspects of real-world problems while maintaining an appropriate level of complexity for general education students.

Component Skill	Emerging	Developing	Proficient	Assessment Suggestions
Communication/Representation of Quantitative Information: Express quantitative information symbolically, graphically, and in written or oral language.	Students explain the meaning of graphics, numbers, or algebraic symbols within a given context.	Emerging skill descriptions plus: Students translate mathematical graphics and symbolism into written or oral language; translate written or oral language into mathematical symbols and graphics.	Developing skill descriptions plus: Students integrate written and symbolic mathematical constructs in describing particular contexts.	Exam Laboratory report Project Critique of media articles Written assignment: <ul style="list-style-type: none"> • report • paper • letter • article
Analysis of Quantitative Arguments: Interpret, analyze and critique information or a line of reasoning presented by others.	Students summarize quantitative arguments presented by others.	Emerging skill descriptions plus: Students differentiate and describe the parts of a quantitative argument presented by others; compare the conclusions of a quantitative argument with conclusions from other reliable sources.	Developing skill descriptions plus: Using appropriate techniques of mathematical proof or statistical analysis, students evaluate each component of a quantitative argument for mathematical validity and demonstrate whether an overall quantitative argument is valid, invalid, or questionable.	
Application of Quantitative Models: Apply appropriate quantitative models to real-world or other contextual problems.	Students identify, describe, and classify quantitative information needed to address contextual problems.	Emerging skill descriptions plus: Students identify appropriate mathematical or statistical models to represent quantitative information in contextual problems; apply those models to generate numeric predictions.	Developing skill descriptions plus: Students assess the validity of numeric predictions and correct unreasonable findings; analyze and interpret results; use them in a quantitative argument to support a position or line of reasoning or solve a contextual problem.	

General Education Learning Outcomes

Essential Skill: Personal and Social Responsibility

The following rubric describes the progression in skill level and understanding that students should demonstrate as they develop their personal and social responsibility skills in general education classes. It is suggested that a course designated as teaching personal and social responsibility skills include outcomes related to two of the rubric's component skill areas. The rubric is intended to provide guidance to faculty members designing courses and assessment tools for evaluating student learning of personal and social responsibility skills; it should not be viewed as establishing expectations for a certain level of achievement at the end of a single general education course.

Component Skill	Emerging	Developing	Proficient	Assessment
Intercultural reasoning and intercultural competence	Students describe a range of personal and social justice issues as they relate to specific contexts.	Students develop strategies for working with one's own and others' perspectives and ethnocentrism.	Students evaluate personal and social justice issues as they relate to specific contexts and compare and contrast multiple solutions across social and cultural relationships.	Presentations, case studies, projects, papers, online discussions, blogs
Sustainability and the natural and human worlds	Students explain the impact our actions have on the sustainability of the natural and human worlds.	Students examine the relationship among environmental, socio- cultural, political, and economic systems as they interact with and affect the sustainability of the natural and human worlds.	Students analyze specific local or global issues and develop strategies for creating just, sustainable systems in the natural and human world.	Papers, projects, presentations, case studies, online discussions, blogs
Ethical reasoning	Students recognize a variety of ethical theories and place them in specific contexts.	Students describe ethical issues in specific contexts and explain the relationship between ethics and ethical systems and moral norms.	Students compare a range of ethical perspectives and propose an ethical solution based on one or more of those perspectives.	Papers, projects, presentations, online discussions, blogs, case studies
Collaboration skills, teamwork and value systems	As a group member, students demonstrate shared ethical obligations and intercultural sensitivity.	Students demonstrate personal and mutual accountability and make use of individual strengths in meeting group objectives.	Students effectively complete a group project, reflect on the impact and effectiveness of teamwork, and, based on that reflection, describe ways to improve future collaborative work.	Papers and reports, group projects that culminate in a presentation, paper, or other product; evaluation of or reflection paper on teamwork collaboration, including a self-assessment.
Civic discourse, civic knowledge and engagement – local and global	Students explain diverse positions on issues, values, or practices and present one's own position on a specific problem related to one or more of the issues, values, or practices studied.	Students demonstrate the ability to participate in respectful civic dialogue that shares differing perspectives and recognize that there are multiple valid responses to local and global issues.	Students critically inquire into and deduce from evidence the organizational, cultural, economic, or political factors that hinder or support solutions to local and global problems.	Discussions, projects, blogs, debates, papers incorporating and responding to multiple perspectives

Sources: the WICHE Passport rubrics, PDQ, LEAP Value Rubrics, and the Carnegie Foundation. Examples of assessments are described in the "Passport Learning Outcomes and Proficiency Criteria" that could be used to measure the achievement of personal and social responsibility skills in discipline-specific contexts (see http://www.wiche.edu/passport/interstate_passport_components.)