Liberal Studies Learning Outcomes & the Capstone Refresh Process

Capstone experiences at NAU are constructed to be culminating experiences within the major that (as much as possible) integrate connections to the Liberal Studies Program. Therefore, the learning outcomes for the course should align closely, and even overlap, with the degree program's culminating learning outcomes as well as aspects of the Liberal Studies Program.

The goal is to **INTEGRATE** Liberal Studies into the culminating experience. Almost every degree program has a foundational relationship to the Liberal Studies Essential Skills and Distribution Blocks. The capstone refresh process encourages us to find the overlap that naturally occurs between the degree program and the Liberal Studies Program.

To facilitate the refresh process by aligning capstone course learning outcomes with one Liberal Studies Distribution Block's purpose/learning outcomes, and with at least two Essential Skills, please refer to the following definitions and examples. At minimum, your capstone course learning outcomes need to incorporate at least two Essential Skills and one learning outcome from one Distribution Block (myriad examples of different learning outcomes for the Distribution Blocks are provided below).

> ***PLEASE NOTE:***
> - *Capstone courses <u>do not satisfy a Distribution Block requirement for students</u>.*
> - *Criterion for approval of non-capstone courses within distribution blocks requires more extensive incorporation of Distribution Block purposes/learning outcomes.*

Liberal Studies Essential Skills

Each capstone course must incorporate at least two Essential Skills into the capstone syllabus' course purpose statement, course learning outcomes, and assignments.

Critical Thinking

Critical thinking includes the skills--particularly as applied to one's own work--of articulating the meaning of statement, judging the truth of a statement while keeping in mind possible biases, and determining whether a conclusion is warranted by the evidence provided.

Effective Writing

Effective writing conveys information or argues a point of view using organizational structures, supporting materials, and language appropriate for the topic, purpose, and audience.

Effective Oral Communication

Effective oral communication influences, informs, and/or connects with others by using organizational structures, supporting materials and delivery skills suitable to the topic, occasion and audience.

Scientific Inquiry

Scientific inquiry includes the skills of formulating hypotheses on the basis of observations, obtaining and analyzing data to test (i.e., refute or confirm) hypotheses, and explaining phenomena by means of accepted principle, theories or laws.

Quantitative Reasoning

Quantitative reasoning is the application of numerical, visual or symbolic reasoning for the purposes of drawing inferences, understanding phenomena or making predictions.

Creative Or Aesthetic Thinking

Creative or Aesthetic Thinking includes the skills of (1) artistic expression characteristic of the works of the fine, performing and literary arts, (2) analyzing and interpreting works of the artistic expression in systematic detail, or (3) processes of generating and evaluating innovative approaches to problem solving regardless of discipline.

Liberal Studies Distribution Blocks

Each capstone course must incorporate at least one Distribution Block into the capstone syllabus' course purpose statement, course learning outcomes, and assignments.

Aesthetic and Humanistic Inquiry

Purpose Statement: Aesthetic & Humanistic Inquiry Distribution Block
The purpose of the Aesthetic & Humanistic Inquiry requirement is to involve students in the study of the human condition through philosophical inquiry, ethical reasoning, and analysis of the various forms of creative expression.

Courses in this block provide guided opportunities for students to develop a working understanding of:
- the relationship between context and human creative expression,
- major conceptual frameworks utilized to make sense of the creative arts,
- how human experience and values are expressed through creative endeavors, and/or
- the multiple facets of the human condition.

Purpose	Examples of Associated Learning Outcomes
"the relationship between context and human creative expression"	Analyze the impacts of larger socio-historical contexts upon major literary and artistic works and movements. Critically examine the value and content of humanistic inquiry in today's world (ethical reasoning, visual and verbal analysis, aesthetic representation and engagement, etc.). Explain how creative works from past or present societies are individual expressions of socio-cultural, historical, and/or philosophical forces. Analyze the creative arts and their socio-historical contexts to reveal patterns, differences, or similarities related to human questions or problems.
"major conceptual frameworks utilized to make sense of the creative arts"	Analyze and compare theories used to make sense of the creative arts in terms of each theory's assumptions, applications, insights and oversights. Apply a major conceptual framework in the analysis of a creative work. Express and evaluate one's responses to creative works using the major conceptual frameworks and language of the discipline. Articulate how critical and creative thinking, expressive forms, traditions, belief systems, or communicative practices become relevant to human lives.
"how human experience and values are expressed through creative endeavors"	Identify, explore and evaluate creative, philosophical, and/ or religious works to discern expressions about the nature and value of human life. Understand and discuss the complex blend of imaginative vision, socio-cultural context, ethical values, and aesthetic judgment in creative, philosophical, or religious works. Identify ethical dilemmas and evaluate alternative courses of action based on ethical concepts and principles. Compare different traditions of ethical thought, within and across fields of knowledge, and identify impacts or consequences such traditions have on human welfare. Incorporate aspects of complexity into ethical reasoning, going beyond the binaries of "right and wrong."
"the multiple facets of the human condition"	Examine how the human condition is influenced by or reflected in various creative traditions, and how these definitions inform perspectives of reality. Analyze the importance of artistic expression to free and open-minded inquiry in human society. Analyze a variety of creative works contributing to larger historical conversations, debates, and traditions and define what they tell us about human identity, dignity, and experience. Examine how discovery and technological development impact humanistic and aesthetic values. Identify how and when creative, philosophical, religious and other works impact the creation of meaning in human lives.

Cultural Understanding

Purpose Statement: Cultural Understanding Distribution Block
The purpose of the Cultural Understanding requirement is to enhance students' understanding of different cultures of the world through the study of language, literature, religion, and artistic creation.

Courses in this block provide guided opportunities for students to develop a(n):
- working understanding of analytic frameworks that increase awareness of how cultures vary and shape human experience,
- appreciation for the unique features and perspectives of varied cultural traditions,
- greater familiarity with different cultures of the world, and/ or
- experience of diverse cultures.

Purpose	Examples of Associated Learning Outcomes:
"working understanding of analytic frameworks that increase awareness of how cultures vary and shape human experience"	Critically discuss how cultural contexts and discourses affect individual perspectives on global events. Apply discipline-specific concepts and techniques in analyzing cultures to identify how distinct cultures vary. Using discipline-specific tools and reflexive awareness, note and define the key patterns and assumptions in your own and/or another cultural system. Demonstrate how language, literature, religion, artistic creations, or performance express the attitudes, values, and beliefs of a culture. Describe how cultural systems develop out of adaptation to technological, environmental, and historical conditions. Analyze the effect of performance , rituals, and spectacles on individual and/or collective identity in diverse cultures. Understand and apply concepts about the interrelationship between language and culture. Understand and apply concepts of cultural competency, including knowledge about how an individual's cultural identity affects their learning and academic progress. Summarize discipline-specific theories and explanations of the role of literature, art, oral traditions, performance, folklore, science, technology, or mathematics in culture.
"appreciation for the unique features and perspectives of varied cultural traditions"	Demonstrate an ability to suspend judgment in learning about different cultures or interacting with culturally different others. Compare and contrast the worldviews of two or more distinct cultures, and the implications for behavior and perception. Demonstrate the ability to perceive any given phenomenon (events, conditions, relationships) from more than one cultural viewpoint. Recognize judgmental statements about human behavior and interactions and transform them into non-evaluative descriptions. Evaluate one's own values as well as one's biases and how those influence interactions and relationships with people of other cultures. Become critically reflective of one's own cultural origins, practices, and habits of thought. Examine reasoning and assumptions established by cultures to justify behaviors and actions.

"greater familiarity with different cultures of the world"	Critically describe within a cultural framework similarities and differences of political, social, economic, technological, and/or religious systems. Describe socially-relevant aspects of language, language socialization, and communication. Critically evaluate information in the media and popular culture about other cultures and cultural differences. Identify specific variations in cultural approaches to concepts such as kinship and marriage, family, wealth and success, beauty and health, religion and ritual. Compare cultural systems within a specific region or across various regions of the world. Explain the importance members of another culture place upon their history, values, politics, communication styles, economy, or beliefs and practices. Describe how artistic creations, literature, religion, or performance reflect or challenge the norms of the culture in which they are produced. Identify how levels of cultural identity vary widely among individuals.
"experience of diverse cultures"	Recognize how different audiences perceive different meanings in a given piece of information. Understand specific cultural differences in verbal and nonverbal communication and demonstrate ability to apply this knowledge to communicate across cultures. Effectively communicate a viewpoint from within the perspective of a culture other than one's own. Recognize one's own culturally-conditioned reaction to ideas or actions observed in another culture, and effectively move beyond reaction to a contextualized understanding. Re-interpret intercultural experience from the perspectives of other worldviews Recognize individual and cultural differences and demonstrate an ability to communicate and interact effectively and respectfully across cultures. Identify cultural bias, stereotypes, and ethnocentrism. Apply discipline-specific techniques to understanding the effects of racism, stereotyping, and discrimination to teaching and learning.

Science and Applied Science

Purpose Statement: Science and Applied Science Distribution Block
The purpose of the Science & Applied Science Distribution Block requirement is to increase students' knowledge about the natural world and the impact of technology on the human condition and the natural world.

Courses in this block provide guided opportunities for students to develop a working understanding of:
- important theories, concepts, and taxonomies that are central to scientific disciplines,
- the application of scientific knowledge and technologies to problem solving,
- the impact of technology on the human condition and the natural world,
- the basis and limits of contemporary scientific knowledge, and/or
- the application of the scientific method to understand a variety of physical and biological phenomena.

Purpose	Examples of Associated Learning Outcomes (adaptations to specific content and/or alternative outcomes addressing the purpose are acceptable):
"important theories, concepts, and taxonomies that are central to scientific disciplines"	Describe the scientific method as a method of inquiry and as a process for investigating a problem. Explain major concepts, principles, and fundamental theories in at least one area of science. Identify and explain key events in the development of a science discipline within a characterization of science as an evolving body of knowledge. Differentiate between facts, hypotheses, theories, and laws. Demonstrate an understanding of the differences among the theoretical, practical, creative and cultural dimensions of scientific inquiry.
"the application of scientific knowledge and technologies to problem solving"	Apply scientific knowledge to understand how science and its applications inform global, national, and/or local decisions. Evaluate contrasting scientific perspectives and approaches in problem solving. Describe the inter-dependence of scientific and technological developments. Describe current scientific approaches and findings that inform the protection of human, environmental, and cultural resources. Make informed decisions on contemporary individual or social matters demanding scientific literacy. Critically apply scientific theory and methods of inquiry to evaluate information from a variety of sources to develop solutions to a problem.
"the impact of technology on the human condition and the natural world"	Assess how the relationship of science and technology affects human roles and identities in society. Analyze the impacts of technology across time, and how those impacts have changed human relationship to the environment, to other humans, and how humans have made sense of the world. Evaluate social and philosophical implications of scientific discoveries. Assess the impact of specific technologies on particular segments of the natural world and its sustainability. Demonstrate how science and technology can lead to equity for marginalized populations, including differently abled persons, women, and people of lower incomes.

Purpose	Examples of Associated Learning Outcomes (adaptations to specific content and/or alternative outcomes addressing the purpose are acceptable):
"the basis and limits of contemporary scientific knowledge"	Explain how science is both a body of knowledge and a formal process of gathering knowledge. Assess the potential and limits of science to address problems of the contemporary world. Examine how issues in the philosophy, history, sociology, and politics of scientific knowledge have led to changing scientific frameworks. Examine how scientific discoveries and public interactions with the scientific community lead to new thinking, and change how human individuals and societies relate to the world. Explain the difference between science and pseudoscience. Compare and contrast theories and/or models in science with those in belief systems such as religion or political ideology. Assess the use of science to justify racism, eugenics, and genocide.
"the application of the scientific method to understanding a variety of physical and biological phenomena"	Explain how scientific uncertainty informs the foundation and evaluation of hypotheses. Assess the relationship of ethical reasoning to scientific investigation and application. Practice the data collection and experimentation of the natural sciences, including the use of logic, precision, experimentation, and objectivity. Learn how to gather data in the lab or in the field, examine the findings, and test hypotheses. Formulate a testable scientific hypothesis, and design a valid experiment to test it. Generate and evaluate evidence necessary to test and/or revise a hypothesis. Create, interpret and evaluate descriptions and representations of scientific data including graphs, tables, and/or models. Investigate a natural phenomenon using observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis.

Social & Political Worlds

Purpose Statement: Social & Political Worlds Distribution Block

The purpose of the Social & Political Worlds Distribution Block requirement is for students to explore how different empirical and theoretical strategies are used to study human behavior and social, political, and cultural systems.

Courses in this block provide guided opportunities for students to develop a working understanding of:
- patterns that characterize the history of human communities, including the communities' relationship to its ecological context,
- relationships between the psychological, social, cultural and political components of human communities,
- dynamics of human behavior in varied contexts, and the major dimensions of variation in human experience,
- systematic components and dynamics of contemporary human societies and/or relationships between human societies in the global community, and/or
- different empirical and theoretical strategies are employed to study human behavior and social, political, and cultural systems

Purpose	Examples of Associated Learning Outcomes:
"patterns that characterize the history of human communities, including the communities' relationship to its ecological context"	Describe the general course of development in human social organization in specific regions. Analyze the environmental, cultural, socio-political, religious, and economic conditions that allowed civilizations to develop or collapse. Assess the impact of industrialization and economic development on traditional societies. Characterize the dynamic relationships between a non-industrial culture and its ecological contexts. Evaluate the use of past and present subsistence technologies as they relate to available natural resources, environmental zones, fluctuating climates, and human populations.
"relationships between the psychological, social, cultural, and political components of human communities"	Articulate the impact of societal institutions on the experiences and needs of individuals, groups, and/or organizations. Use discipline-specific tools and theories to investigate issues of power, status, and inequality. Critically analyze the treatment of race, gender, and ethnicity in selected societies. Describe the formation and durability of political, economic, and social organizing principles and their differences and similarities across contexts. Assess the political, economic, and social trade-offs reflected in individual decisions and societal policymaking and enforcement.
"dynamics of human behavior in varied contexts, and the major dimensions of variation in human experience"	Describe the development of human diversity with reference to major changes in terms of the interactions with the natural environment, architecture, social organization, technology, and/or religion. Explain the nature of power, authority, and legitimacy and their acquisition, operation, and impact on society. Evaluate the nature and values of organizations and polities and their importance in social problem solving and policy making. Apply disciplinary knowledge from the social or behavioral sciences to contemporary ethical or social dilemmas.

"systematic components and dynamics of contemporary human societies and/or relationships between human societies in the global community"	Demonstrate understanding of the major principles, models, and issues under investigation by a discipline in the social and/or behavioral sciences. Explain the impact of globalization on politics and policy making at local, regional, and/or national levels. Assess the role of emigration and immigration in contemporary social dynamics and/or issues of individual identity. Analyze contemporary economic development and financing in global markets for their impact on regional or local economic, environmental, social, or political systems.
"different empirical and theoretical strategies employed to study human behavior and social, political, and cultural systems"	Accurately summarize the theories and methods of social scientific inquiry as they apply to the study of organizations and polities. Apply discipline specific empirical and theoretical strategies to study human communities. Apply the major concepts and methods used by social or behavioral scientists to investigate, to analyze, or to predict individual or group behavior. Explain how discipline-specific principles can be used to investigate or explain social issues and inform public policy.