Silver Core Curriculum
General Education Requirements,
Core Objective Standards,
Possible Student Learning Outcomes, and
Suggested Direct Assessment Methods

University of Nevada, Reno

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Office of the Core Curriculum
INTRODUCTION TO THE SILVER CORE

The function of a university education is not only to prepare students for successful careers in their chosen fields but also to provide them with the knowledge and skills to develop a rational and lucid personal identity, to introduce them to a variety of perspectives from which to grasp the complexity of experience, and to help them gain an appreciative understanding of the natural and cultural environments in which they live and their roles as responsible citizens of the world, the nation, and the state. The University of Nevada, Reno is implementing a new Silver Core Curriculum in Fall 2016 that is designed to help fulfill these objectives. All undergraduate students are required to complete the university’s Core Curriculum.

The Silver Core Curriculum will have a minimum of 24 credits of General Education requirements, but the Silver Core will focus on competency in 14 Core Objectives that all majors must provide to their students, either in the General Education requirements, in the college and major requirements, or in electives. Core Objectives are divided into 4 groups, or veins of silver. These are Vein I (Fundamental Practice), Vein II (Primary Areas of Focused Inquiry), Vein III (Advanced Areas of Focused Inquiry), and Vein IV (Integrative Experience).

Students are responsible for keeping track of their progress through the Core Curriculum. Students should complete their Core General Education requirements by the beginning of their junior year. Requests for substitutions, waivers, and exceptions must be made before the beginning of their senior year. It is also strongly recommended that students meet with their academic advisor each semester before registering for classes. Courses completed at the university or at any Nevada System of Higher Education (NSHE) institution to satisfy Core Curriculum requirements must be taken for a letter grade.

The Silver Core Curriculum will be in effect as of the Fall semester, 2016. Students who change their major must choose the catalog of the year of the latest change of major or the year of graduation. This choice will also apply to all Core Curriculum requirements.
A. SILVER CORE GENERAL EDUCATION REQUIREMENTS

Students must complete the following 24 minimum credits of specific General Education course requirements. All courses meeting these General Education requirements must be verified by the Core Curriculum Board, and student learning outcomes must be assessed:

- **Core Writing & Math** (6 credits). NSHE requires students to complete ENG 102 and at least 3 credits of an approved college math course. These 2 courses may require additional prerequisites, and majors may specify which college math course is required for their students. These 2 courses will build a foundation for the 3 objectives in Silver Vein I.

- **Core Natural Sciences** (6 credits). NSHE requires 6 credits or more of approved Natural Science courses, and at least 1 of these courses must include a substantial laboratory experience. Technology courses that include significant study of the natural sciences may be considered. These courses usually require completion of the Core Math requirement, and majors may specify which Natural Science courses are required for their students. These 2 courses will satisfy Core Objective 4 in Silver Vein II, while developing competency in 2 objectives of Silver Vein I.

- **Core Social Science, Humanities, & Fine Arts** (12 credits). Building on the NSHE requirements for social science, humanities, and fine arts, UNR requires students to take the following:
  - **Core Humanities** (6 credits). 2 Core Humanities courses will satisfy Core Objective 5, while developing competency in 2 objectives of Silver Vein I.
  - **Core Social Science** (3 credits). The Core Social Science course will satisfy Core Objective 6, while developing competency in 2 objectives of Silver Vein I.
  - **Core Fine Arts** (3 credits). The Core Fine Arts course will satisfy Core Objective 7, while developing competency in at least 1 objective of Silver Vein I.

- **Constitution.** NSHE requires that instruction must be given in the essentials of the Constitution of the United States and the Constitution of the State of Nevada, including the origin and history of the Constitutions and the study of and devotion to American institutions and ideals, pursuant to Nevada Revised Statutes 396.500. Courses which fulfill this requirement will satisfy Core Objective 8, and students may take them in their Core Humanities requirement, their Core Social Science requirement, or elsewhere in their major requirements.

The Core General Education requirements will build a foundation for the objectives in Silver Vein I and satisfy the objectives in Silver Vein II. Discipline-specific competency should be further developed for the objectives in Silver Vein I within the major, and these objectives will also be integrated into the Core Capstone course.

**Core Writing Requirement**

In Core Writing courses, students will learn to:

- compose and communicate effectively in a range of media for a variety of rhetorical and creative purposes
- demonstrate an ability to frame and analyze a problem, find and interpret relevant information, develop and evaluate possible solutions, come to well-grounded conclusions, and craft an appropriate argument, report, application, or other expression of such inquiry.
Students who complete ENG 102 will satisfy the Core Writing requirement. This course may have prerequisites, and each student’s initial placement in first-year English courses will be based on their ACT or SAT test scores. Placement is explained at http://www.unr.edu/cla/engl/core_writing/cw_course_placement.html.

It is common for students to take ENG 101 as freshmen in their Fall semester, and ENG 102 in the Spring. All degree-seeking students must be continuously enrolled in appropriate writing courses until the Core Writing requirement is completed. International students must complete ENG 114 and any prerequisite.

The Core Writing requirement builds a foundation for both CO1 and CO3.

**Core Mathematics Requirement**

Core Math provides students with a basic understanding of math skills and concepts. Familiarity with math is essential for success in other Core areas and is a foundational skill for most careers.

Students will be placed in their first math course based upon ACT or SAT scores. More information on placement is available at http://www.unr.edu/mathcenter/placement.html. All degree-seeking students must be continuously enrolled in appropriate math courses until the Core Mathematics requirement is completed.

Students must satisfy the Core Mathematics requirement by taking the specific Core Math course required by their major, along with any prerequisites. Mathematics courses verified by the Core Curriculum Board are listed in the University Catalog.

The Core Mathematics requirement builds a foundation for CO2.

**Core Natural Science Requirement**

The Core Natural Science requirement assists students in gaining a practical understanding of scientific methods and applying them in the laboratory. Students are required to take 6 credits of natural science, and major programs may require specific courses. At least 3 of these credits must be for a course with a substantive laboratory experience (Natural Science A). Other natural science courses are not required to have a laboratory experience (Natural Science B).

To meet the definition of a Natural Science A course, the following conditions must be met for the laboratory experience:

1. The laboratory must either be part of or a companion to a class that specifically addresses a natural science discipline (i.e., a course that explores the natural/physical world through scientific methods/processes).
2. At least 4 dedicated in-class investigations or experiences must be undertaken over the course of the semester where a specific scientific problem (or a set of related problems) is investigated. The length of the laboratory investigations must be appropriate in length to study a phenomenon so that a student approaches the task as a scientist would. Although a specific time may not be outlined, an investigation should include the ability to ask a question, collect evidence and/or data, support a claim based upon the evidence and/or data, and to communicate those findings through argumentation. It is reasonable to think
that this could be accomplished in up to 4 hours of lab time with appropriate homework support.

3. “Hands-on” activities are to be undertaken with the instructor acting as a guide that are representative of and appropriate for the field being studied. (Hands-on activities could be, for example: performing laboratory experiments involving the manipulation of scientific apparatus, running computer simulations, examining rock samples, collecting published data concerning weather patterns, etc.)

4. Scientific methods or processes specific to the natural science disciplines will be used in completion of the experience. Broadly these should involve:

   - generating a researchable question
   - collecting evidence that relates to the question being explored
   - formulating a logical claim based on the evidence collected
   - defending the claim based on the evidence through the use of argumentation that can be either written or presented in various formats relevant to the field.

Core Natural Science A and Natural Science B courses verified by the Core Curriculum Board are listed in the University Catalog. For many of the Core Natural Science courses, completion of the Core Mathematics requirement is a prerequisite. Individual exceptions to this rule may be made at the discretion of the instructor.

The Core Natural Science requirement satisfies CO4, and develops competency for both CO2 and CO3.

**Core Humanities Requirement**

Faculty and graduate assistants from 5 different disciplines (English, History, Foreign Languages and Literatures, Philosophy, and Political Science) participate in teaching the Core Humanities courses. These interdisciplinary courses examine the history, philosophy, cultural values, political systems, literature, and artistic works that have shaped societies in every continent from ancient times to the present. After completing these courses, students have a solid grounding in the knowledge and skills they need to navigate a complex and fast-changing world, including:

   - an understanding of the historical forces that created modern, diverse human cultures and the ways these cultures are interconnected both within the United States and across nations
   - the ability to read, understand, summarize, analyze, and synthesize information drawn from a variety of written and cultural sources
   - the ability to formulate interpretations and arguments, support them with evidence, and present them clearly and persuasively in both written and oral expression
   - informed perspectives on the major political and ideological debates of our times and the ability to participate in those debates as American and global citizens.

To satisfy the Core Humanities requirement, students may choose any 2 of the following courses:

- CH 201: Ancient and Medieval Cultures
- CH 202: The Modern World
- CH 203: American Experiences and Constitutional Change
Because CH 203 satisfies the U.S. and Nevada Constitution requirements, students who choose to take CH 201 and CH 202 must satisfy the Constitution requirement with other available alternatives.

Students must first complete the Core Writing requirement before taking their Core Humanities courses. After admission to and matriculation at UNR, only Core Humanities courses taken here or at another NSHE institution will satisfy the requirement.

The Core Humanities requirement satisfies CO5, and develops competency for both CO1 and CO3. In addition, CH 203 satisfies CO8, and CH 201 and CH 202 may satisfy other objectives from Vein III.

**Core Social Science Requirement**

Core Social Science provides students with an understanding of human behavior from a scientific perspective. This enables students to appreciate the relevance of social science to their own lives and to contemporary social issues.

The social sciences apply the scientific method to developing a body of theory for the understanding of human behavior and social phenomena in the interaction among cultures, societies, and individuals. Methods of social science inquiry include the use of theory and/or models to develop refutable hypotheses, the design of experiments, surveys, or other methods of collecting data to observe behavior, and the interpretation of observed data to test hypotheses and improve theory.

Although there is no precise consensus on which subjects or disciplines belong among the social sciences, courses in fields that have not historically been considered one of the social sciences on the UNR Campus have the burden of demonstrating that they meet all the expectations of the Core social science. A Core social science course must:

1. Rely on the principles of a social science discipline through systematic analysis or investigation of human behavior in societies.
2. Focus on both theory and observation (as described above) to help understand and explain society, human behavior, or social condition.
3. Demonstrate how the scientific method is used to better understand social and human behavior.
4. Analyze or study human behavior or societies in terms of individuals, groups, communities, or cultures.

Students are required to take 3 credits of Social Science, and major programs may require specific courses. Social Science courses verified by the Core Curriculum Board are listed in the University Catalog. There is a math prerequisite for some Core Social Science courses, and individual exceptions to this rule may be made at the discretion of the instructor.

The Core Social Science requirement satisfies CO6, and develops competency for CO3 and either CO1 or CO2.

**Core Fine Arts Requirement**
Core Fine Arts equips students to recognize the crucial role the arts play in shaping our experiences in and understandings of the world. The array of offerings in this area enables students to investigate either academic or practical approaches to the various forms and meanings of artistic expression.

Students are required to take 3 credits of fine arts, and some major programs may require specific courses. Fine Arts courses verified by the Core Curriculum Board are listed in the University Catalog.

The Core Fine Arts requirement satisfies CO7, and develops competency for either CO1 or CO3.
B. SILVER CORE OBJECTIVES

The Silver Core Curriculum includes 14 Core Objectives in 4 veins. Courses may either build a foundation for an objective, develop competency in the objective, integrate the objective into the Core Capstone course, or satisfy an objective outright. All courses which satisfy an objective must be verified by the Core Curriculum Board. Verification requires that a substantial amount of student effort, roughly equivalent to 1 credit or more, be devoted to the objective. Courses which integrate or satisfy an objective must also assess student learning outcomes.

Silver Vein I (Fundamental Practice) includes 3 Core Objectives. The Core Writing and Math requirements will build a foundation for these objectives, and competency will be developed elsewhere in the General Education requirements. Majors will be expected to further develop discipline-specific competency in these objectives, and they will also be integrated into the Core Capstone course:

- CO1. Effective Composition & Communication
- CO2. Quantitative Reasoning
- CO3. Critical Analysis & Use of Information.

Silver Vein II (Primary Areas of Focused Inquiry) includes 5 Core Objectives. These will be satisfied by the Core Natural Science, Core Humanities, Core Social Science, and Core Fine Arts requirements:

- CO4. Physical & Natural Phenomena
- CO5. History & Culture
- CO6. Cultures, Societies, & Individuals
- CO7. Artistic Composition, Interpretation, & Expression

Silver Vein III (Advanced Areas of Focused Inquiry) includes 4 Core Objectives. These can be satisfied by courses within the student’s major requirements or electives, and at least 1 of these objectives should also be integrated into the Core Capstone course. Some General Education courses in Silver Vein II may also satisfy these objectives:

- CO9. Science, Technology & Society
- CO10. Diversity & Equity
- CO11. Global Contexts
- CO12. Ethics.

Silver Vein IV (Integrative Experience) includes the final 2 Core Objectives. The first of these objectives, CO13, is satisfied by the Core Capstone course, which must also integrate 2 of the objectives in Silver Vein I and 1 of the objectives in Silver Vein III. The second of these objectives, CO14, may be satisfied by either the Core Capstone course or another course in the major:

- CO13. Integration & Synthesis
C. CORE OBJECTIVE STANDARDS

STANDARDS for Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 1 - Effective Composition & Communication

Brief Description of Learning Objective: Students will be able to effectively compose written, oral, and multimedia texts for a variety of scholarly, professional, and creative purposes.

Standards or Requirements for Verification:

Only Core Writing courses may be verified for CO1. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

The foundation for this objective is built by the Core Writing requirement (ENG 102, or such equivalents as ENG 114), and should be developed by courses for which ENG 102 is a prerequisite. Each major should strive to teach writing within the discipline, and if possible, this objective should also be integrated into the Core Capstone course.

[Note: Core Objectives 1-3 will not be satisfied in the same manner as subsequent Core Objectives. These 3 objectives are not satisfied by a single course. Instead, a foundation for these objectives is built in Core Writing and Core Math requirements, and developed in other General Education courses. A discipline-specific competency should then be developed within the major and integrated into the Core Capstone course. These objectives should be assessed in the Core Writing, Core Math, and Core Capstone courses.]

While ENG 102 builds some skills requisite to oral and multimedia communication/composition competency (such as argument development and research skills), skills unique to oral and multimedia formats are not currently included among the student learning outcomes for ENG 102.

Courses building a foundation in this Core Objective will meet the expectations for the Core Writing requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 3 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that integrate CO1 should include at least 1 student learning outcome addressing composition and communication practices.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 2 - Quantitative Reasoning

Brief Description of Learning Objective: Students will be able to apply quantitative reasoning and mathematical analysis methodologies to understand and solve problems.

Standards or Requirements for Verification:

Only Core Math courses may be verified for CO2. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

The foundation for this objective is built by the Core Math requirement and should be developed by courses that require Core Math as a prerequisite, beginning with the Core Natural Sciences requirement. If possible, this objective should also be integrated into the Core Capstone course.

[Note: Core Objectives 1-3 will not be satisfied in the same manner as subsequent Core Objectives. These 3 objectives are not satisfied by a single course. Instead, a foundation for these objectives is built in Core Writing and Core Math requirements, and developed in other General Education courses. A discipline-specific competency should then be developed within the major and integrated into the Core Capstone course. These objectives should be assessed in the Core Writing, Core Math, and Core Capstone courses.]

This objective aims to ensure that students learn to think critically about mathematical models for relationships between different quantities and use those models effectively and accurately to solve problems and reach sound conclusions about them. Students should be able to comprehend, work with, and apply general mathematical techniques and models to different situations, not just plug problem-specific data into a given formula.

These skills will enable students to effectively use and interpret data, formulas, and graphs in the workplace, in the news media, and when making personal finance, health, and other types of decisions as informed citizens.

Courses that build a foundation for this objective may examine various types of mathematical techniques (including those related to uncertainty, probability, random events, and statistics) provided they include meaningful study of the methods, not simply applications of certain mathematical or statistical methods to another discipline. These courses should have assignments and exams that include significant components of several of the following activities:

- manipulations with algebraic formulas
- critical thinking about graphical representation of data
- practice assigning variables to quantities in order to describe relationships between the quantities
- application of mathematical or statistical models to different real-world contexts.

The courses should ensure that students are synthesizing the material, understanding key concepts, and making abstract connections through testing of a comprehensive nature.

Courses building a foundation in this Core Objective will meet the expectations for the Core Mathematics requirement and should:
1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.

2. Include 3 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.

3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.

4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that *integrate* CO2 should emphasize models appropriate to the discipline that are grounded in sound mathematical techniques, or apply appropriate statistical methods in testing hypotheses against observed data.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 3 – Critical Analysis & Use of Information

Brief Description of Learning Objective: Students will be critical consumers of information, able to engage in systematic research processes, frame questions, read critically, and apply observational and experimental approaches to obtain information.

Standards or Requirements for Verification:

Only Core Writing courses may be verified for CO3. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

The foundation for this objective is built by the Core Writing requirement and developed in the Core Natural Science, Core Humanities, and Core Social Science requirements, as well as other courses within majors. If possible, this objective should also be integrated into the Core Capstone course.

[Note: Core Objectives 1-3 will not be satisfied in the same manner as subsequent Core Objectives. These 3 objectives are not satisfied by a single course. Instead, a foundation for these objectives is built in Core Writing and Core Math requirements, and developed in other General Education courses. A discipline-specific competency should then be developed within the major and integrated into the Core Capstone course. These objectives should be assessed in the Core Writing, Core Math, and Core Capstone courses.]

CO3 focuses on the critical analysis and use of information, and each of the primary terms included in CO3 (critical, analysis, use, and information) are defined as follows:

- **critical**: deliberate, systematic, purposeful, and informed
- **analysis**: systematic search and review of information, comparative consideration of information, framing questions appropriately for the task and resources at hand, and building from and toward the information gathered
- **use**: searching for and finding information through appropriate research methods, evaluating that information, and ensuring the appropriate use of that information
- **information**: any data, ideas, constructs, discussions that can be taken in or generated via critical academic work.

Courses building a foundation in this Core Objective will meet the expectations for the Core Critical Analysis & Use of Information requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 3 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.
Capstone courses that *integrate* CO3 should demonstrate alignment between this Core Objective and course assignments, as well as evidence of critical analysis, use of information, and research processes.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 4 – Physical & Natural Phenomena

Brief Description of Learning Objective: Students will be able to explain the processes by which the natural and physical world is investigated, articulate basic principles used to explain natural phenomena, and apply scientific processes to real problems using observational or experimental methods.

Standards or Requirements for Verification:

Only Core Natural Science courses may be verified for CO4, with or without a lab. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

This objective is satisfied by taking 6 credits in the Core Natural Science course list. So as to satisfy the requirement for a laboratory or similar experience, at least 1 course must be taken from the A-group Natural Science courses. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This objective aims to ensure that students gain a basic understanding of the natural world/universe and how human knowledge was developed and enhanced through scientific exploration. Key to this objective is the concept of scientific processes and methods, namely how scientists address specific questions concerning the natural and physical sciences and how these are incorporated into the larger body of scientific knowledge.

Courses satisfying this Core Objective will meet the expectations for the Core Natural Science requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 5 - History & Culture

Brief Description of Learning Objective: Students will be able to describe the processes by which past and present societies have been created and perpetuated through their history, ideas, and cultural products. Students will engage both historical and contemporary cultural texts through critical reading, analysis, and interpretation in the context of culture, society, and individual identity.

Standards or Requirements for Verification:

Only Core Humanities courses may be verified for CO5. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

This objective is satisfied by 2 Core Humanities courses meeting the standards below. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

Courses satisfying CO5 will be offered through the Core Humanities program (prefix CH). These courses will be interdisciplinary examinations of the history, cultures, and ideas that created the modern world. In addition, they will develop students' communication and critical thinking skills through extensive reading and analysis of primary source texts, oral discussion, and writing assignments.

Courses satisfying this Core Objective will meet the expectations for the Core Humanities requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 6 – Cultures, Societies & Individuals

Brief Description of Learning Objective: Students will learn how to systematically analyze human social conditions (e.g., individuals, groups, communities, and cultures). In particular, students will learn to observe, theorize, model, experiment, and/or interpret as a means of inquiring into human social relations.

Standards or Requirements for Verification:

Only Core Social Science courses may be verified for CO6. These should be lower-division (100-200 level) general education courses, for 3 or more units each.

This objective is satisfied by a single Core Social Science course approved by the Core Board. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

Courses satisfying this objective will also develop Core Objectives 1 or 2 and Core Objective 3. That is, a Core Social Science course should also help students improve their writing or quantitative skills and develop their critical thinking skills.

The objective of CO6 is to ensure that students learn how to systematically analyze human social conditions using the scientific method. Courses satisfying CO6 examine human and social behavior and introduce students to systematic methods of inquiry for understanding the interaction of individuals with their groups, communities, and societies. They may include topics such as political and economic systems, laws, ideologies, religious beliefs, customs, social structures, or personal experiences that influence ideas, actions, and decisions. Information may be collected and analyzed through empirical or qualitative research methods as appropriate to the discipline.

Courses satisfying this Core Objective will meet the expectations for the Core Social Science requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate one or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein II (Primary Areas of Focused Inquiry)

CORE OBJECTIVE 7 – Artistic Composition, Interpretation, & Expression

Brief Description of Learning Objective: Students will apply techniques of critical analysis to study and interpret works of art, dance, music, and theater in the context of culture, society, and individual identity. Students may cast their interpretation in the form of creative expression.

Standards or Requirements for Verification:

Only Core Fine Arts courses may be verified for CO7. These should be lower-division (100-200 level) general education courses, for 3 or more units each. Students who take three units of music ensemble courses which include performance may request a substitution.

This objective is satisfied by 3 credits of Core Fine Arts courses approved by the Core Board. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

The purpose of this objective is to ensure that all students gain both exposure to and a basic understanding of an area of fine arts, such as music, theater, dance, or art.

All courses satisfying the Core Fine Arts requirement must include substantial attention devoted to critical interpretation to satisfy the criteria for CO7. While it is invaluable that students gain an understanding in basic fine arts, it is just as crucial that a student’s fine arts education include attention to analysis or evaluation based on knowledge of relevant historical, cultural, aesthetic, or theoretical traditions. Students may satisfy the requirement either by articulating critical interpretation based on works, performance, or expression of others (past or contemporary), or by crafting an interpretation that demonstrates critical application of technique (i.e., in the form of a student’s own work, performance, or expression that demonstrably takes into account a historical, cultural, aesthetic, or theoretical tradition).

Courses should include lecture, a writing component, and/or creative activity that results in a display of the student’s work, whether through performance or exhibition. Courses satisfying CO7 should also develop CO1 and/or CO3.

Courses satisfying this Core Objective will meet the expectations for the Core Fine Arts requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 8 - Constitution

Brief Description of Learning Objective: Students will demonstrate familiarity with the origins, history, and essential elements of the Constitutions of the United States and Nevada, as well as the evolution of American institutions and ideals.

Standards or Requirements for Verification:

This objective may be satisfied by courses offered in various departments and programs (e.g., Core Humanities, Criminal Justice, History, Political Science, Philosophy) provided they meet the standards below. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This objective aims to ensure that students learn about the core principles embodied in the United States and Nevada Constitutions along with the central ideas, debates, policies, and structures that have shaped the United States. Courses satisfying this outcome may examine various aspects of American history, politics, society, and culture, provided they include some meaningful study of the Constitutions.

Courses satisfying this Core Objective will meet the expectations for the Core Constitution requirement and should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 9 – Science, Technology, and Society

Brief Description of Learning Objective: Students will be able to connect science and technology to real-world problems by explaining how science relates to problems of societal concern; be able to distinguish between sound and unsound interpretations of scientific information; employ cogent reasoning methods in their own examinations of problems and issues; and understand the applications of science and technology in societal context.

Standards or Requirements for Verification:

The objective of CO9 is to ensure the student understands how profoundly scientific and technological developments affect society and the environment. In contrast to CO4, which pertains to the natural and physical worlds, CO9 is meant to develop an understanding of human interventions in those worlds and their impact on societies. Courses addressing this Core Objective might focus on historical or contemporary applications of scientific knowledge and their effects. They could examine issues such as the impact of technological advances on work, recreation, communication, economic systems, relationships, health, privacy, and environmental sustainability, among other things. Instructors should be mindful of prior knowledge that may be necessary to understand the concepts examined in the course and either include relevant foundational knowledge or require appropriate prerequisites or corequisites. The course syllabus must be explicit about how students in the course will obtain and/or use knowledge about science and technology in the context of its societal effects. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This Core Objective will typically be satisfied with a single course that devotes at least 1 credit of student effort (e.g., 15 hours of instruction) to this objective, or that has prerequisite courses that cumulatively devote sufficient attention to the objective.

Courses or sequences satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that integrate CO9 should include among their student learning outcomes some that specify, advance, or broaden this Core Objective.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 10 – Diversity & Equity

Brief Description of Learning Objective: Students will demonstrate an understanding of diversity through courses that focus on topics such as race, ethnicity, gender, sexuality, religion, physical ability, language, and/or social class with an emphasis on the analysis of equity. Students will apply and evaluate approaches or modes of inquiry used to analyze diversity and equity and the social barriers to these goals.

Standards or Requirements for Verification:

Within the context of the Core requirements at UNR, Diversity refers to an understanding of cultural difference as influenced by social identities such as race, ethnicity, gender, social class, national origin, and other socially constructed differences. Equity refers to efforts to value cultural difference and to create societal fairness. Courses addressing this objective may examine various topics related to this objective, such as the historical or contemporary experiences of particular groups of people; the origins and application of ideas about difference; theories of racial or gender oppression; and efforts to improve the living conditions or treatment of marginalized groups. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This Core Objective will typically be satisfied with a single course that devotes at least 1 credit of student effort (e.g., 15 hours of instruction) to this objective, or that has prerequisite courses that cumulatively devote sufficient attention to the objective.

Courses or sequences satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that integrate CO10 should include among their student learning outcomes some that specify, advance, or broaden this Core Objective.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of teaching and assessing the objective.
STANDARDS for Silver Vein III (Advanced Areas of Focused Inquiry)

CORE OBJECTIVE 11 – Global Contexts

Brief Description of Learning Objective: Students will apply and evaluate modes of academic inquiry, creative expression, or results of research to problems in historical and contemporary global contexts. Students will articulate connections among local, national, and international contexts and evaluate the ways that historical and contemporary global influences affect their current situations.

Standards or Requirements for Verification:

Students will critically reflect on their learning and life experiences in a global context and develop an understanding of different viewpoints on contemporary societies. Courses satisfying this objective will teach students to critically reflect on their learning and life experiences in a global context (e.g., non-U.S., comparative, or transnational) and comprehend different viewpoints on and contexts for contemporary culture, politics, and interactions. They may examine topics such as the history, cultures, economic systems, or political systems of nations other than the United States; international conflicts and their causes; colonialism and postcolonialism; and global phenomena that connect the fates of nations and regions. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This Core Objective will typically be satisfied with a single course that devotes at least 1 credit of student effort (e.g., 15 hours of instruction) to this objective, or that has prerequisite courses that cumulatively devote sufficient attention to the objective.

Courses or sequences satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that integrate CO11 should include among their student learning outcomes some that specify, advance, or broaden this Core Objective.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 12 - Ethics

Brief Description of Learning Objective: Students will demonstrate understanding of the ethical principles in general or in application of specialized knowledge, results of research, creative expression, or design processes. Students will demonstrate an ability to recognize, articulate, and apply ethical principles in various academic, professional, social, or personal contexts.

Standards or Requirements for Verification:

Courses that satisfy this objective should examine how individuals or societies may determine right from wrong in historical, contemporary, professional, and/or comparative contexts. They should enable students to 1) identify an ethical issue and analyze that issue in relationship to the specific topic of study or discipline; 2) identify the specific entities being affected by the ethical dilemma; and 3) articulate why a specific course of action is ethically defensible. Where appropriate, majors are encouraged to develop this objective within their courses, and if possible to integrate this objective into the Core Capstone course.

This Core Objective will typically be satisfied with a single course that devotes at least 1 credit of student effort (e.g., 15 hours of instruction) to this objective, or that has prerequisite courses that cumulatively devote sufficient attention to the objective.

Courses or sequences satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Capstone courses that integrate CO12 should include among their student learning outcomes some that specify, advance, or broaden this Core Objective.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.
STANDARDS for Silver Vein IV (Integrative Experience)
CORE OBJECTIVE 13 – Integration & Synthesis

Brief Description of Learning Objective: Students will be able to integrate and synthesize Core knowledge, enabling them to analyze open-ended problems or complex issues.

Standards or Requirements for Verification:

This objective is satisfied by the Core Capstone course. Capstones combine knowledge gained in other Core courses with knowledge gained in the major. Capstone courses should also integrate (a) CO1, (b) either CO2 or CO3 or both, and (c) either CO9, CO10, CO11, or CO12. Capstone courses should also assess the Student Learning Outcomes relevant to these Core Objectives.

Courses satisfying CO13 will be Capstone courses approved by the University Capstone Committee and the Core Curriculum Board. Course proposals will be expected to do the following:

1. Clearly articulate how the course curriculum and assignments require students to integrate knowledge and skills gained from CO1, at least 1 of the other 2 Core Objectives in Silver Vein I, and at least 1 of the Core Objectives in Silver Vein III.
2. Clearly articulate how the course curriculum and assignments require students to synthesize information in order to analyze an open-ended question or complex issue.

Courses satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Some examples of approved student learning outcomes and assessment methods are listed later in this document. Faculty may incorporate 1 or more of the examples from this list or propose their own student learning outcomes and methods of assessing the objective.

Prerequisites:

Prerequisites for Capstone courses are junior or senior standing and completion of all General Education courses that build Core Objectives 1-3 and satisfy Core Objectives 4-8. Other course-specific prerequisites may be applied, so long as they do not, in effect, exclude all other majors.
STANDARDS for Silver Vein IV (Integrative Experience)
CORE OBJECTIVE 14 - Application

Brief Description of Learning Objective: Students will be able to demonstrate their knowledge and skills developed in previous Core and major classes by completing a project or structured experience of practical significance.

Standards or Requirements for Verification:

This objective may be satisfied through an upper-division course or a structured experience, such as an exhibit, internship, performance, practicum, service learning, senior thesis, or Capstone project.

Courses and structured experiences satisfying CO14 must be approved by the appropriate Core Curriculum subcommittee and Core Curriculum Board. Course proposals will be expected to meet the following criteria:

1. Courses must be upper-division (300- or 400-level) and completed in residency.
2. Proposals must clearly articulate how an assigned project in the course or structured experience demonstrates that the student has applied the knowledge and skills gained through previous Core and major classes and connects to the fundamental principles inherent in the Core Objective standards.

Courses satisfying this Core Objective should:

1. Include the Core Objective, together with its brief description, on the course syllabus in its original form.
2. Include 1 or more student learning outcomes addressing this Core Objective on the course syllabus, along with other student learning outcomes appropriate to the course.
3. Identify in the course syllabus the teaching techniques and student experiences that will help students acquire the competencies described in the Core Objective.
4. Assess whether students have acquired the competency described in the student learning outcomes and use methods for collecting and analyzing data that can be reported to the Core Curriculum Board.

Prerequisites:
Prerequisites for courses satisfying CO14 include junior or senior standing and completion of all General Education courses that build Core Objectives 1-3 and satisfy Core Objectives 4-8. Other course-specific prerequisites may be applied.
D. SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 1 - Effective Composition & Communication

Effective Composition & Communication. Students will be able to effectively compose written, oral, and multimedia texts for a variety of scholarly, professional, and creative purposes.

Student Learning Outcomes

1. Written Communication SLOs

Written communication and composition skills are built in ENG 102. SLOs include the following:

Students will be able to:

- improve the writing practices learned in ENG 101: prewriting, composing, revising, responding, editing, attending to language and style, and writing with audience and purpose in mind
- frame complex research questions or problems in clear thesis statements
- demonstrate awareness of their own beliefs, concepts, and biases
- produce a well-supported argument that thoroughly and respectfully considers alternative viewpoints
- recognize, evaluate, and use in their writing a variety of information sources: expert people, publications of information agencies, popular and specialized periodicals, professional journals, books, and electronic resources
- conduct research ethically
- use the appropriate citation style
- write coherently and observe the standards of academic English.

Capstone courses integrating written communication and composition should seek to specify, advance, or broaden the above outcomes. Possible SLOs include:

Students will be able to:

- produce a lab report that clearly presents research results and thoroughly considers previous research on the topic
- produce a well-supported argument that makes an original contribution to the field and could be submitted for publication in an undergraduate journal.

2. Oral Communication SLOs

Capstone courses integrating oral communication might feature outcomes like these:

Students will be able to:

- explain the process, rules, and norms related to a communicative event, and appropriate responses to the communicative event
- demonstrate the ability to perform oral communication appropriate to a given communicative event
• display the willingness, readiness, and openness to participate in oral communication exchanges.

These general outcomes might be specified as follows in a presentation of a persuasive public speech (in an academic, community, or professional context):

Students will be able to:

• explain the difference among organizational structures, delivery types, and audience adaptation necessary to meet speech purpose
• demonstrate the ability to determine and focus purpose of speech, articulate a thesis, and state ideas directly
• demonstrate the ability to deliver an extemporaneous speech clearly and expressively using appropriate visual support and nonverbal communication
• demonstrate the ability to construct and present supported arguments with credible, cited evidence and demonstrate the ability to defend his/her position
• demonstrate the ability to utilize different persuasive appeals (logical, motivational, etc.) to achieve a particular speaking goal.

3. Multimedia Communication SLOs

Multimedia communication includes but is not limited to webpages, videos, research posters, electronic publications, or visual aids for presentations (Powerpoint, Prezi, etc.). Capstone courses integrating multimedia composition and communication might feature outcomes like the following.

Students will be able to:

• identify or describe the conventions and constraints (forms, genres, or media, typical purposes, audience expectations) in multimedia communication contexts
• demonstrate the ability to analyze an existing example of multimedia communication and write a detailed evaluation of design or compositional elements (e.g., layout/page design, typography or print conventions, use of white space, use of color for emphasis, use of animation or video, use of sound or music, editing/cutting best practices, file/media format) that takes into account conventions or constraints of this particular context
• demonstrate the ability to design and produce multimedia communication appropriate to a given research or creative context (purpose, audience, event, form/genre/medium).

These general outcomes might be specified as follows in a multimedia presentation of research results (poster for conference presentation).

Students will be able to:

• describe and explain the scientific poster genre, uses of summary, design elements, and audience adaptation necessary to communicate research results effectively
• demonstrate the ability to summarize information effectively, highlight key results, explain methodology or processes involved both visually and orally if questioned
• demonstrate mastery of composition practices associated with the genre of the poster presentation (appropriate use of layout/page design, typography or print conventions, white space, color for emphasis, terse and informative responses to queries about poster)
• produce a multimedia conference presentation that thoroughly and respectfully considers alternative viewpoints.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Written Communication Assessment Methods

Expert readers read a representative sample of ENG 102 student research papers and rate them from 1 (no mastery) to 4 (evident mastery) on demonstration of the above skills and knowledge (e.g., thesis statements, inclusion of alternative viewpoints, proper citation, etc.).

Outcomes in Capstone courses integrating written communication and composition might be assessed by a range of methods, but since they generally result in performances of some kind (papers, presentations, etc.), those performances could be rated by expert raters on relevant outcomes and on scales indicating benchmarks for proficiency.

Oral Communication Assessment Methods

These outcomes might be assessed in the context of a live or recorded student performance by 2 or more expert raters using rubrics keyed to the outcomes with a scale of 1 (little or no mastery demonstrated) to 4 (professional-quality performance).

Multimedia Communication Assessment Methods

These outcomes might be assessed in the context of the poster presentation by expert raters using rubrics keyed to the above outcomes and a scale from 1 (no mastery evident) to 4 (professional presentation).
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 2 - Quantitative Reasoning

Quantitative Reasoning. Students will be able to apply quantitative reasoning and mathematical analysis methodologies to understand and solve problems.

Student Learning Outcomes

Courses building CO2 might feature outcomes like this:

Students will be able to:

- apply general mathematical models to solve a variety of problems
- solve problems and correctly arrive at meaningful conclusions regarding their answers
- manipulate equations and formulas in order to solve for the desired variable
- interpret given information correctly, determine which mathematical model best describes the data, and apply the model correctly
- correctly apply mathematical language and notation to explain the reasoning underlying their conclusions when solving problems using mathematical or statistical techniques.

Capstone courses integrating CO2 might feature outcomes like this:

Students will be able to:

- apply mathematical tools and methods to formulate relationships between different quantities, in fields such as the physical and social sciences
- apply appropriate statistical methods to test hypotheses against observed data
- assign variables to quantities and formulate mathematically sound relationships between them to build mathematical models in a real world problem
- after using a mathematical or statistical model for a real-world situation, interpret numerical answers derived from a mathematical or statistical model of a real-world situation to reach sound conclusions.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Direct assessment of student mastery of the stated outcomes should be measured primarily through exams. For assessment purposes, item analysis on selected exam questions (sufficiently similar across the different sections) should be collected and analyzed. In addition, longitudinal analysis of success of students applying more foundational quantitative skills in more advanced courses should be performed where appropriate.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein I (Fundamental Practice)
CORE OBJECTIVE 3 – Critical Analysis & Use of Information

Critical Analysis & Use of Information. Students will be critical consumers of information, able to engage in systematic research processes, frame questions, read critically, and apply observational and experimental approaches to obtain information.

Student Learning Outcomes

Courses building CO3 might feature outcomes like these:

Students will be able to:

- identify the need for information, conduct topic exploration, and articulate a manageable focus for a research assignment
- develop and execute a research strategy appropriate to the task, including the finding and interpreting of information sources
- critically evaluate information from a variety of sources (expert people, popular and specialized periodicals, scholarly journals, books)
- synthesize and integrate information from multiple sources to contribute to the scholarly conversation
- develop and evaluate possible solutions that lead to well-grounded conclusions
- explain and apply many of the ethical, legal, and social issues related to information and its use.

Capstone courses integrating CO3 might feature outcomes like this:

Students will be able to:

- synthesize and integrate results from academic research to construct a literature review
- execute appropriate research strategies and practices to produce a lab report
- use advanced search strategies in library research databases and tools to find primary and secondary sources for a presentation or essay
- differentiate among and integrate information from a variety of sources (popular journalism, peer-reviewed journals, trade publications, statistics, web, government information, experts in the field, primary sources) to produce a report or research essay
- evaluate evidence and arguments used in information sources to summarize current thought on the issue being investigated
- frame original research in the context of prior literature, demonstrating an understanding of the discipline’s scope and methods.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through
evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Outcomes in Capstone courses integrating critical analysis and the use of information might be assessed by a range of methods, including review essays, research-based essays, lab reports, annotated bibliographies, presentations, posters, reflections, quizzes, or exams. Because many of these assessments are performance-based, rubrics can be used to rate samples of student work to identify levels of proficiency. For quizzes or exams, certain questions can be added to address the outcomes here, and item analysis of relevant questions can be conducted to assess students' success in the acquisition of these skills.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 4 – Physical & Natural Phenomena

Physical & Natural Phenomena. Students will be able to explain the processes by which the natural and physical world is investigated, articulate basic principles used to explain natural phenomena, and apply scientific processes to real problems using observational or experimental methods.

Student Learning Outcomes

Courses satisfying CO4 might feature student learning outcomes like the ones listed below. Faculty may use outcomes from this list or propose their own outcomes addressing the objective. Learning outcomes must be measurable so that they can be properly assessed.

Students will be able to:

- explain natural and physical phenomena as pertinent to the discipline studied
- connect natural and physical explanations to the larger body of scientific knowledge and/or understand how these explanations are related to real-world and societal problems
- describe scientific methods and processes as pertinent to the discipline studied
- propose scientific questions, gather evidence concerning these questions, make scientific claims based on the evidence gathered, and logically defend these claims
- discriminate between sound and unsound scientific claims based on the presented evidence

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

The following are some examples of direct assessment methods that might be used in courses satisfying CO4. Examples of student work should be evaluated according to a clear, consistent rubric or set of criteria. Faculty may choose methods from this list or propose alternative assessment methods:

- quiz or exam questions that test students’ ability to provide an acceptable scientific explanation for physical phenomena (faculty would report the percentage of students that gave a correct or acceptable answer to the questions relevant to this outcome)
- percentage correct/acceptable quiz/exam questions that test students’ ability to describe how scientific explanations could be revealed or deployed in real-world situations
- student work such as essays, posters, or oral reports evaluated by normed raters using a rubric measuring students’ grasp of the scientific methods and processes used
- hands-on experiments and lab reports evaluated by normed raters with a rubric measuring
students’ demonstration of the scientific method (asking/proposing a scientific question, seeking evidence concerning that question, formulating a claim based on that evidence, and defending the claim)
• a written or oral comparison and analysis of competing scientific claims and the evidence used to support them, evaluated by normed raters with a rubric measuring the quality of students’ analysis.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 5 - History & Culture

**History & Culture.** Students will be able to describe the processes by which past and present societies have been created and perpetuated through their history, ideas, and cultural products. Students will engage both historical and contemporary cultural texts through critical reading, analysis, and interpretation in the context of culture, society, and individual identity.

**Student Learning Outcomes**

Courses *satisfying* CO5 might feature student learning outcomes like the ones listed below. Faculty may use outcomes from this list or propose their own outcomes addressing the objective. Learning outcomes must be observable and measurable so that they can be properly assessed.

Students will be able to:

- read, interpret, and analyze primary source texts with attention to content, historical and cultural context, genre, and language
- analyze authors' arguments by identifying perspectives, assumptions, strategies, and omissions
- describe the historical forces that created modern, diverse human cultures and the ways societies and nations are interconnected
- demonstrate familiarity with the various modes of thought, interpretation, and analysis in the humanities and their uses for understanding contemporary issues
- articulate informed perspectives on the major political and ideological debates of our times and participate in those debates as American and global citizens.

**Direct Assessment Methods**

All courses that are satisfying as meeting a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

The following are some examples of direct assessment methods that might be used in courses satisfying CO5. Examples of student work should be evaluated according to a clear, consistent rubric or set of criteria. Faculty may choose methods from this list or propose alternative assessment methods:

- an essay or worksheet requiring students to identify key themes or arguments in a primary source text and place the work in historical context (faculty could either report the percent correct/acceptable responses or could report the evaluation of the student work by normed raters using disciplinary standards and a rubric keyed to this outcome)
- a close analysis of a text in class, orally or in writing, analyzing an author’s argument, evidence, logic, and other rhetorical strategies (faculty could score this performance with a rubric as recommended above and report the results)
• percent correct/acceptable responses to quiz or exam questions that test students’ knowledge of the major events, people, and ideas being studied
• essays or assignments requiring students to compare and analyze the different approaches evident in written and cultural sources drawn from a variety of disciplines (e.g., literature, history, political philosophy, art), which would most likely be evaluated with a rubric of criteria keyed to this outcome on a scale representing disciplinary standards
• discussion questions, in-class debates, or written assignments that require students to apply ideas and concepts learned in the course to contemporary issues, evaluated with the use of a rubric as described above.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 6 – Cultures, Societies & Individuals

Cultures, Societies, & Individuals. Students will learn how to systematically analyze human social conditions (e.g., individuals, groups, communities, and cultures). In particular, students will learn to observe, theorize, model, experiment, and/or interpret as a means of inquiring into human social relations.

Student Learning Outcomes

Courses satisfying CO6 might feature student learning outcomes like the ones listed below. Faculty may use outcomes from this list or propose their own outcomes addressing the objective. Learning outcomes must be observable and measurable so that they can be properly assessed.

Students will be able to:

- identify fundamental concepts within a field addressing issues of human social behavior
- use proposed social science theories and empirical evidence to provide logical, substantiated arguments in support of or in opposition to those theories and that evidence
- identify and explain ethical issues inherent in the study of human social behavior
- apply the social science research methods appropriate to the field they are studying and understand why these methods are used.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

The following are some examples of direct assessment methods that might be used in courses satisfying CO6. Examples of student work should be evaluated according to a clear, consistent rubric or set of criteria. Faculty may choose methods from this list or propose alternative assessment methods:

- percent correct/acceptable performance on an exam question testing students’ knowledge of a fundamental social science concept
- percent correct/acceptable performance on an exam question summarizing and critically analyzing a proposed social science perspective
- an essay arguing for or against research oversight on human subjects, evaluated with a rubric containing criteria keyed to this outcome and on a scale representing disciplinary standards
- percent correct/acceptable performance on an exam question that asks students to identify differences and similarities between competing social science theories
• percent correct/acceptable performance on a problem set that requires the application of 1 or more quantitative methods to a social science issue
• a 2-page social science essay that involves critical thinking about an issue or topic evaluated using a rubric as described above
• an assignment requiring primary data collection (e.g., participant observation with field notes, conducting a survey, time series data, etc.), evaluated using a rubric as described above
• an in-class group assignment that requires students to apply a specific theory of human social behavior to a current event or situation, evaluated using a rubric as described above.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 7 – Artistic Composition, Interpretation, & Expression

Artistic Composition, Interpretation, & Expression. Students will apply techniques of critical analysis to study and interpret works of art, dance, music, and theater in the context of culture, society, and individual identity. Students may cast their interpretation in the form of creative expression.

Student Learning Outcomes

Courses satisfying CO7 might feature student learning outcomes like the ones listed below. Faculty may use outcomes from this list or propose their own outcomes addressing the objective. Learning outcomes must be observable and measurable so that they can be properly assessed.

Students will be able to:

• use theoretical, critical, or practical concepts to analyze works of art, dance, music, and/or theatre
• articulate relationships between works of art (dance, etc.) and their contexts: culture, society, and individual identity
• articulate the relationships between historical context and works of art (either their own or those of others)
• demonstrate knowledge of artistic theory or technique in a work or performance.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

The following are some examples of direct assessment methods that might be used in courses satisfying CO7. Examples of student work should be evaluated according to a clear, consistent rubric or set of criteria. Faculty may choose methods from this list or propose alternative assessment methods:

• an assignment that asks students to apply concepts learned in the course to analyses of artistic works, in the form of an essay, oral report, or performance, evaluated using a rubric containing criteria keyed to this outcome and representing disciplinary standards
• a written assignment or oral report analyzing how an artist’s cultural surroundings and individual experiences might have influenced his or her work, evaluated via a rubric as described above
• an essay requiring students to place an artistic work in historical context by explaining the social conditions that existed at the time it was produced, evaluated via a rubric as described above
a portfolio or performance of representative work demonstrating the student’s application of artistic theory or technique, evaluated via a rubric as described above.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein II (Primary Areas of Focused Inquiry)
CORE OBJECTIVE 8 – Constitution

Constitution. Students will demonstrate familiarity with the origins, history, and essential elements of the Constitutions of the United States and Nevada, as well as the evolution of American institutions and ideals.

Student Learning Outcomes

Courses satisfying CO8 might feature student learning outcomes like the ones listed below. Faculty may use outcomes from this list or propose their own outcomes addressing the objective. Learning outcomes must be observable and measurable so that they can be properly assessed.

Students will be able to:

- outline the sources and evolution of key American institutions and ideals
- explain the historical origins, philosophical foundations, and core principles of the United States and Nevada Constitutions
- trace the sources and development of American intellectual traditions and cultural institutions
- understand the principles of constitutional government as practiced in the United States and Nevada.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

The following are some examples of direct assessment methods that might be used in courses satisfying CO8. Examples of student work should be evaluated according to a clear, consistent rubric or set of criteria. Faculty may choose methods from this list or propose alternative assessment methods:

- an essay tracing the origin and evolution of 1 or more ideas or institutions that have shaped American culture and society over time (e.g., liberty, slavery, the federal government, capitalism, democracy, manifest destiny), evaluated by normed raters using a rubric of criteria keyed to this outcome and a scale of agreed-upon standards for performance
- an essay explaining the historical origins of the Constitutions and the key ideas expressed in the documents, evaluated via rubric as described above
- percent correct/acceptable answers to quiz or exam questions that test students’ knowledge of American history, political and economic structures, cultural characteristics, or social conditions
percent correct/acceptable answers on a worksheet that requires students to identify, explain, and compare the key ideas and principles expressed in the United States and Nevada Constitutions.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 9 – Science, Technology & Society

Science, Technology & Society. Students will be able to connect science and technology to real-world problems by explaining how science relates to problems of societal concern; be able to distinguish between sound and unsound interpretations of scientific information; employ cogent reasoning methods in their own examinations of problems and issues; and understand the applications of science and technology in societal context.

Student Learning Outcomes

Courses that satisfy CO9 and Capstones that integrate it may include such SLOs as the following, as appropriate for the level and intent of the course:

Students will be able to:

- explain how science relates to a problem of societal concern
- distinguish between sound and unsound interpretations of scientific information
- employ cogent reasoning methods in their own examinations of problems and issues
- describe how scientific and technological developments affect society and the environment
- identify the historical, economic, cultural, and/or societal impacts of such issues as sustainability, energy problems, water quality, and information science
- demonstrate a knowledge of scientific and technological advancements and their impact on historical and modern societies
- analyze the scientific debates and ethical concerns of such issues as global warming, biotechnology, GMO foods, healthcare, innovation, and economic competitiveness
- articulate ways in which society is transformed by science and technology
- integrate, synthesize, and apply knowledge of the relationship between science and technology and societal issues in both focused and broad interdisciplinary contexts

Direct Assessment Methods:

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Courses satisfying CO9 must also include assessment methods and plans. The following are suggestions for assignments that may generate measurable data for assessment, along with some potential measurement tools:

- shared (standard, program-wide) exam questions that require demonstration of knowledge regarding the scientific method and/or evaluation of how it is employed in research and development of technology (e.g., attention to the connections between
research questions, study design, results, conclusions) (multiple-choice questions of this kind might be subjected to item analysis; short written responses might be scored by programmatic raters using a rubric keyed to CO9 SLOs)

- writing in response to case studies that requires students to explain and/or analyze the impact or influence of science and/or technology in 1 or more social contexts (e.g., local, regional, national, international) (reports or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO9 SLOs)

- evaluative arguments (essays) that require students to examine the application of science or development of technology in 1 or more historical or contemporary situations (e.g., nuclear energy production, steam engines, digital communications) (essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO9 SLOs)

- oral presentations that critically discuss how the scientific method is employed in the development and application of a particular kind of technology (e.g., evaluation of studies related to the technology) (in the context of a live or recorded student performance, these critical analyses might be assessed by 2 or more expert raters using rubrics keyed to the CO9 SLOs).
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 10 – Diversity & Equity

Diversity & Equity. Students will develop a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate attentiveness to and analysis of diversity and equity.

Student Learning Outcomes

Courses that satisfy CO10 and Capstones that integrate it may include such SLOs as the following, as appropriate for the level and intent of the course:

Students will be able to:

- identify the complex elements important to members of a diverse cultural group or groups in relation to its/their history, values, politics, economy, or beliefs and practices
- use models and theories of cultural difference to investigate topics in diversity and equity
- select and apply appropriate methods of inquiry to analyze complex questions about cultural difference and/or equity
- describe the perceptions, viewpoints, or life experiences of people in at least 1 society or culture outside of the United States or in non-dominant or marginalized groups within the United States
- articulate an awareness of some of the central historical and present diversity issues addressed in the course, including race, ethnicity, gender, social class, religion, sexual identity, ability, national origin, or other identities
- demonstrate knowledge of the history, customs, worldviews, or other cultural markers of 1 or more groups of national origin outside of the United States or of minority status within the United States
- analyze and interpret information about cultural differences, cultural rules, and cultural biases in their own society or about non-dominant or marginalized groups
- analyze ways in which cultural groups differ and how such differences position them in relation to one another
- articulate ways in which social identities such as race, class, and gender intersect in order to influence individual life experiences and/or perspectives
- integrate, synthesize, and apply knowledge of other cultures in both focused and broad interdisciplinary contexts.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Courses satisfying CO10 must also include assessment methods and plans. The following are suggestions for assignments that may generate measurable data for assessment, along with some potential measurement tools:
• shared (standard, program-wide) exam questions that require demonstration of knowledge of the history, customs, worldviews, and/or other cultural markers of 1 or more groups of national origin outside of the United States or of minority status within the United States (multiple-choice questions of this kind might be subjected to item analysis; short written responses might be scored by programmatic raters using a rubric keyed to CO10 SLOs)

• writing assignments that require students to discuss and/or analyze cultural differences, cultural rules, and cultural biases in their own society or outside of the United States or about non-dominant or marginalized groups within the United States (arguments or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO10 SLOs)

• writing assignments and discussion questions that encourage students to integrate, synthesize, and apply knowledge of 1 or more central diversity issues, including race, ethnicity, gender, social class, religion, sexual identity, ability, national origin, or other identities (reports or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO10 SLOs)

• oral presentations that critically discuss history, customs, worldviews, and/or other cultural markers of 1 or more groups of national origin outside of the United States or of minority status within the United States (in the context of a live or recorded student performance, these critical analyses might be assessed by 2 or more expert raters using rubrics keyed to the CO10 SLOs).
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein III (Advanced Areas of Focused Inquiry)
CORE OBJECTIVE 11 – Global Contexts

Global Contexts. Students will apply and evaluate modes of academic inquiry, creative expression, or results of research to problems in historical and contemporary global contexts. Students will articulate connections among local, national, and international contexts and evaluate the ways that historical and contemporary global influences affect their current situations.

Student Learning Outcomes

Courses that satisfy CO11 and Capstones that integrate it may include such SLOs as the following, as appropriate for the level and intent of the course:

Students will be able to:

• articulate and evaluate connections among local, national, and international contexts
• analyze multiple connections between geographically and/or temporally distant places and periods
• demonstrate how local and global contexts of ideas or events affect understandings of contemporary and/or historical ideas, events, or issues
• critically examine complex issues and problems of global nature
• select appropriate methods of inquiry or creative expression to apply to problems in global contexts
• apply modes of academic inquiry, creative expression, or results of research to problems in historical and contemporary global contexts
• demonstrate how local and global contexts of ideas or events result in nuanced or conflicting understandings of contemporary and/or historical ideas, events, or experiences.
• contextualize current events and experiences in relation to historical and current global contexts
• identify, analyze, and interpret connections between localized events and their global contexts
• identify and apply multiple perspectives pertaining to global issues.

Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Courses satisfying CO 11 must also include assessment methods and plans. The following are suggestions for assignments that may generate measurable data for assessment, along with some potential measurement tools:

• shared (standard, program-wide) exam questions that require student demonstration of knowledge of theories, definitions, or issues pertaining to globalization and/or
transnationalism (multiple-choice questions of this kind might be subjected to item analysis; short written responses might be scored by programmatic raters using a rubric keyed to CO11 SLOs)
• writing assignments that require students to identify, analyze, and interpret connections between local events and their global contexts (arguments or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO11 SLOs)
• individual or group writing projects that require students to gather, analyze, and present information on contemporary or historical global contexts (reports or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO11 SLOs)
• oral presentations that analyze and interpret multiple viewpoints on issues and concerns of global significance (in the context of a live or recorded student performance, these analyses/interpretations might be assessed by 2 or more expert raters using rubrics keyed to the CO11 SLOs).
Silver Vein III (Advanced Areas of Focused Inquiry)

CORE OBJECTIVE 12 – Ethics

Ethics. Students will demonstrate understanding of the ethical principles in general or in application of specialized knowledge, results of research, creative expression, or design processes.

Student Learning Outcomes

Courses that satisfy CO12 and Capstones that integrate it may include such SLOs as the following, as appropriate for the level and intent of the course:

Students will be able to:

- identify and analyze an ethical issue in the subject matter under investigation or in a relevant field
- identify the multiple ethical interests at stake in a real-world situation or practice
- articulate what makes a particular course of action ethically defensible
- assess their own ethical values and the social context of problems
- identify ethical concerns in research and intellectual contexts, including academic integrity, use and citation of sources, the objective presentation of data, and the treatment of human subjects
- demonstrate knowledge of ethical values in non-classroom activities, such as service learning, internships, and field work
- integrate, synthesize, and apply knowledge of ethical dilemmas and resolutions in academic settings, including focused and interdisciplinary research

Direct Assessment Methods:

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Courses satisfying CO 12 must also include assessment methods and plans. The following are suggestions for assignments that may generate measurable data for assessment, along with some potential measurement tools:

- shared (standard, program-wide) exam questions that require demonstration of knowledge of ethical values and principles (e.g., identify and explain what makes an issue an ethical issue, define particular ethical principles and values {multiple-choice questions of this kind might be subjected to item analysis; short written responses might be scored by programmatic raters using a rubric keyed to CO12 SLOs)
- case study writing assignments that require students to identify and explain ethical dilemmas, as well as all entities that have ethical claims or interests in the dilemma (arguments or essays thus generated could be collected and scored against a rubric articulating features for 1 or more CO12 SLOs)
- case study writing assignments that encourage students to articulate an ethical course of action for a specific decision-maker, and to defend that recommendation using ethical
principles and values (arguments thus generated could be collected and scored against a rubric articulating features for 1 or more CO12 SLOs)

- oral presentations that critically discuss ethical principles as these are applied in conduct of research (e.g., protecting human subjects, humane treatment of animals) or in professional practice (e.g., law, business, medicine) (in the context of a live or recorded student performance, these critical analyses might be assessed by 2 or more expert raters using rubrics keyed to the CO12 SLOs).
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein IV (Integrative Experience)
CORE OBJECTIVE 13 – Integration & Synthesis

Integration & Synthesis. Students will be able to integrate and synthesize Core knowledge, enabling them to analyze open-ended problems or complex issues.

Student Learning Outcomes

The SLOs for these courses need to address the Core Objective of Integration and Synthesis. These SLOs should be fairly consistent among courses in terms of focusing on integration and synthesis, although SLOs will be adapted for course- and program- specific assessments for Capstones.

SLOs should incorporate elements of integration and synthesis, along with course-specific learning outcomes:

Integration: Students will be able to assemble, develop, design, formulate, or combine knowledge gained from at least 2 Core Objectives in Vein I and 1 Core Objective in Vein III to provide a basis for analyzing or solving an open-ended question, problem, or complex issue. This might be accomplished through analysis of literature, creative or research projects, grant proposals, or case studies.

Synthesis: Students will be able to develop new data or information using techniques from different disciplines previously learned in Core Objectives 1-12 and use that information to design a project, solve a problem, or analyze a complex issue.

Capstone courses satisfying CO13 should include a combination of program SLOs and SLOs specific to this Core Objective and might include the following:

Students will be able to:

- make connections between and apply theories from previous coursework and/or other disciplines to the context/topic of the Capstone course
- demonstrate mastery of skills built from COs 1, 2, and/or 3
- make connections between courses taken in the major and in the Core
- explain key theories in the discipline related to the course topic
- demonstrate inclusion and understanding of the interplay among different disciplinary fields relevant to the topic at hand (through what is presented/described in literature review, etc.)
- apply relevant theories from a variety of disciplines in analyzing case studies
- show insight or new knowledge by identifying gaps in previous literature and/or through research design
- critically examine how one’s configuration within intersecting social forces impacts one’s worldview
- identify and summarize current scholarly conversations (e.g., challenges, opportunities, trends) that exist within the field and related fields.
Direct Assessment Methods

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

Capstone courses satisfying CO13 must integrate at least 2 Core Outcomes from Silver Vein I (CO1, CO2, and/or CO3) and most likely will include CO3 in part. Incorporating assessment of CO3 (and related Core Objectives in Silver Vein I) as part of that of CO13 is therefore recommended. For example, assessing integration of knowledge might be also assessing the writing skills of a literature review (CO1), as well as ability to evaluate information (CO3). Assessment can be done by collecting a sample of major assignments (comprehensive exams, research project, presentation, portfolio, etc.) across all Capstone courses and evaluating integration and synthesis elements following examples of SLOs listed above.
SUGGESTED STUDENT LEARNING OUTCOMES & ASSESSMENT METHODS

Silver Vein IV (Integrative Experience)
CORE OBJECTIVE 14 – Application

Application. Students will be able to demonstrate knowledge and skills developed in previous Core and major classes by completing a project or structured experience of practical significance.

Student Learning Outcomes

Courses satisfying CO14 should address how the student applies knowledge gained from the Core and major to create a product of practical significance. As application experiences are different, examples of SLOs specific to internship, service learning, performance, or senior paper/research project experience are provided below:

1. Senior Thesis, Design Project, or Research Project

Many of these may be similar to those outlined in Core Objectives 1-3 and/or 13, with additional SLOs that focus on application of the skills or knowledge. Additional SLOs may be discipline-specific (for the project) or include elements of Institutional Review Board (IRB) proposals, grant proposals, research ethics certification, or specific methodology/data gathering and analysis as required by a project.

Students will be able to:
• articulate an original research question to pursue in a research project
• develop and design appropriate steps and tasks to conduct a research project based on an original research question
• write the results of a research study in the appropriate academic format for a given discipline
• write a grant proposal to an appropriate granting agency to obtain resources for a given research project.

2. Performance

Students will be able to:

• explore the role of artistic expression in addressing social issues
• use creative expression to consider multiple and possibly divergent solutions to problems
• engage in artistic collaboration and creative reinterpretation of art made by others
• use creative expression to demonstrate an understanding of theories and concepts from other disciplines.

3. Internship

Students will be able to:

• apply academic knowledge in a professional setting to solve practical real-world problems
• acquire new knowledge in a new setting to enhance classroom education
• apply higher order thinking skills to “real-world” situations
• develop skills and competencies specific to an occupation or profession
• develop professionally relevant competencies and relationships in a professional setting
• develop skills to work effectively within formal and informal networks and work cultures
• develop skills for understanding and working with people of diverse backgrounds or cultures
• demonstrate growth from exposure to a professional field and an understanding of professional etiquette
• observe and begin to understand professional organizational culture
• evaluate one’s own performance in light of one’s expressed goals and learning outcomes
• compare and contrast one’s self-perception to the professional perception of a site supervisor.

4. Service Learning

General Service Learning SLOs

Many service experiences build students’ awareness of diversity, foster moral reasoning, and develop an attitude towards being an engaged and civically responsible citizen. Students build understanding of and problem-solve community issues. Examples of SLOs for service learning course could include those below:

Students will be able to:

• define, describe, analyze, and integrate the concepts of individual, social, and cultural group identities and concepts of social privilege and marginalization
• demonstrate critical analysis of their own assumptions, values, and stereotypes, and evaluate the relative privilege and marginalization of their identities
• articulate the relationship between individual, group, community, and societal well-being
• develop critical understanding of ethical behavior in the concept of their professional discipline with regard to the issue of social well-being
• analyze a community issue in the context of systemic inequality, discrimination, or social injustice
• examine demographics, socio-cultural dynamics and assets of a specific community through a social justice framework
• develop intercultural communication skills, reciprocity, and responsiveness in service work with the community.

Course-Specific SLOs

A basic model for a service learning SLO would include learning objectives regarding specific skills to master or a knowledge area to learn and a service objective regarding how students will achieve the learning objective with the service experience. These SLOs can be specific to the course or more general to service and course content. Examples are below:

Students will be able to:
• examine the strengths and weaknesses of educational policy arguments through tutoring in local public schools
• provide examples of the principles of behavioral psychology through interacting with individuals in community groups in the city
• explain scientific topics to a general audience through presenting and teaching science demonstrations to children
• examine and articulate cultural differences through interacting with individuals at community organizations in the city.

**Direct Assessment Methods**

All courses that are verified as satisfying a Core Objective will be assessed on a regular basis to determine how well students are learning the knowledge and skills described in the objective. Instructors are expected to develop ways of directly measuring student learning (through evaluating the work students produce in the course) and to report these measurements to the Core Board upon request.

All courses satisfying CO14 should include some form of written, performed, or portfolio assignment that reflects and reports on the application experience. These assignments can be collected to assess how the student applied Core and major knowledge to the application experience, the student’s understanding of how the research/work produced is relevant to an audience outside the major, and/or how the student learned from the application experience.

Many application experiences (service learning and internship specifically) have other built-in assessment measures through specific programs and colleges that can also be used to assess student learning. The Office of Service Learning and Civic Engagement offers pre- and post-test surveys for student learning outcomes specific to service learning, as well as models for community partners to evaluate student performance. Many internship programs may also have processes for employer evaluation or student surveys. Individual programs might also have rubrics specific to senior papers or projects that can also be used for assessment.