Item Name: Request for New General Education Program Framework for Northern Arizona University

☐ Action Item

Requested Action: Northern Arizona University asks the board to approve their proposed General Education Program Framework.

Discussion

Northern Arizona University seeks to implement a new General Studies Program effective for newly admitted students in Fall 2023.

In 2018, NAU completed an academic program review for the Liberal Studies Program. Feedback from internal and external reviewers highlighted the need to articulate a clear relationship between the University-wide U.S. Ethnic Diversity and Global Diversity requirements and the Liberal Studies Program and to better differentiate the Program's four Distribution Blocks. In the summer of 2019 (revised policy in Feb. 2021), ABOR created a policy for General Education (ABOR Policy 2-210 General Education.pdf; See item 2: Proposed Revision to ABOR Policy 2-210) that articulated specific goals for the three Arizona state universities' general education programs. These two processes were the catalyst for the Liberal Studies Task Force to create the revision that is before you today.

Throughout AY 2019-2020, the Task Force met biweekly to develop a proposal that was then widely discussed with campus constituents twice in AY 2020-2021: October and February. Following the feedback and revision cycle, the proposed program was approved by the Liberal Studies Committee, Diversity Curriculum Committee, University Undergraduate Committee. The unanimous recommendation of each committee resulted in the proposal that was presented to the NAU Faculty Senate in March 2021 and approved nearly unanimously at the April 19, 2021 meeting.

The proposed General Studies Program fulfills all aspects of ABOR's policy 2-210, as evidenced in Appendix E. The intentional integration of skill development as students complete their breadth (content) requirements is crucial to address the needs of employers and workforce development. Every single course in the Knowledge Areas and Diversity Perspectives must engage students in Critical Thinking and Information Literacy specific to the area of breadth. In addition, courses incorporate high-impact practices by engaging students in the following skills, as appropriate to the assignments of the course: Civil Discourse in Writing, Civil Discourse in Speaking, Civil Discourse in

Contact Information:
Karen Pugliesi, NAU  karen.pugliesi@nau.edu  928-523-1593
Chad Sampson, ABOR  chad.sampson@azregents.edu  602-229-2512
Collaboration and Teamwork, Quantitative Reasoning and Applications. Practice in these breadth areas, along with discipline-specific work in the major, will ensure students receive the opportunities to excel in these employer-sought skills.

NAU is currently working on an implementation plan for the revised program. Starting in AY 23-24, students will enter the university under the new requirements. Students who entered the university prior to AY23-24 and are mid-stream in their academic careers would maintain the requirements from the old program. In addition, it is expected that some students who entered prior to AY23-24, as well as some transfer students, would adopt the requirements of the new program. This is quite a rapid timeline in relation to the breadth and depth of changes being implemented to the Program. Possible strategies for a phase-in are the focus of our implementation deliberations.

The depth in skill development and breadth of knowledge of a general education program is such that prioritizing assessment approaches is necessary. As we pivot to the implementation of the new program, we will initially focus our assessment on the areas articulated in ABOR policy. The Tri-University Assessment Working Group is piloting assessment for Written Communication in AY 2021-2022. Subsequently the Working Group will focus on Quantitative Reasoning, Civic Knowledge, and Critical Thinking assessments. Once we near the end of the completion of our first cycle of assessing these four areas, we will re-evaluate the resource requirements of the assessment endeavors and consider potential opportunities to expand the university-wide assessment to encompass additional content and skill areas of the program.

Committee Review and Recommendation

The Academic Affairs and Educational Attainment Committee reviewed this item at its September 9, 2021 meeting, and recommended forwarding the item to the full board for approval.

Statutory/Policy Requirements

ABOR Policy 2-210, “General Education”
EXECUTIVE SUMMARY

University: Northern Arizona University

Name of Proposed Academic Program:
Northern Arizona University’s General Studies Program

Academic Department:
The Office of the Provost

Geographic Site:
All available sites of Northern Arizona University

Instructional Modality:
All available modalities at Northern Arizona University

Total Credit Hours:
34

Proposed Inception Term:
Fall 2023

Brief Program Description:

NAU’s General Studies Program is designed to create well-rounded graduates who possess knowledge from a variety of disciplines and implement a range of crucial transferable skills. Students begin their journey with foundations in English (Writing) and Mathematics (Quantitative Reasoning). Students develop a firm understanding of past and contemporary contexts by taking courses in each of the following areas: (a) Arts & Humanities, (b) Social & Political Worlds, (c) American Institutions, and (d) Scientific Literacy & Methods. For each area, students have intentional engagements to apply fundamental critical thinking approaches and methods of information literacy. This provides students the skill to obtain high-quality information, evaluate its efficacy, and make critical, thoughtful decisions within all of these areas and apply it to their personal, local, state, national and global worlds.

In addition to learning about the academic disciplines that have shaped these knowledge areas, our program recognizes that students benefit from the examination of societal and cultural influences represented in four Diversity Perspectives: U.S. Ethnic Diversity, Global Diversity, Indigenous Peoples, and Intersectional Identities. These courses ensure that students develop a range of intercultural competencies that will serve them in the workforce and as active and engaged citizens of their local, national, and global communities.

Courses in the program encourage students to actively investigate how contexts and value systems frame issues or problems. By exploring viewpoints, perspectives, and expertise that
differs from their own, students practice and refine skills necessary for engaging in civil discourse. This program design will guide our students to understand who we live and work with, and how we can civilly engage each other in our shared physical and online/virtual spaces.

The General Studies Committee will continue to oversee two requirements within a student's major. The Junior-Level Writing Requirement focuses students in practicing the art of writing in the approaches of their major discipline. The Senior Capstone requires specific skills of application appropriate to each discipline to ensure students are prepared to fully integrate their knowledge and skills into real-world experiences aligned with their major.

### General Studies Program

34 units

**Foundations**
- Mathematics Foundations (3 units)
- English Foundations (4 units)

**Knowledge Areas**
- American Institutions (3 units)
- Arts & Humanities (9 units)
- Scientific Literacy & Scientific Methods (9 units)
- Social & Political Worlds (6 units)

**Senior Capstone**

**Essential Skills Overlap w/ Major:**
- Applications
- Civil Discourse thru Writing
- Civil Discourse thru Speaking
- Civil Discourse thru Collaboration/Teamwork
- Quantitative Reasoning

**Ethics Embedded In the Major**

**Up to 9 units of Knowledge Areas may overlap with Major**

### Foundation Requirements (Descriptions in Appendix A)
- English (4 units)
- Mathematics (3 units)

### Knowledge Area Requirements (Course Design Requirements are located in Appendix B)
- American Institutions (3 units)
- Arts and Humanities (9 units)
- Scientific Literacy & Scientific Methods (9 units)
  - Scientific Literacy (6 units)
    - Physical/ Life/ Space or Earth Sciences (3 units)
    - Social Sciences (3 units)
EXECUTIVE SUMMARY

- Scientific Methods (3 units)
  - Social and Political Worlds (6 units)

**Diversity Perspectives** (Course Design Requirements are located in Appendix C)
Students will meet the Diversity Perspectives while fulfilling their Knowledge Area requirements, as Diversity Perspectives are embedded within the content of the disciplines.

- U.S. Ethnic Diversity
- Indigenous Peoples
- Global Diversity
- Intersectional Identities

**Essential Skills** (Descriptions in Appendix D)
Courses in the General Studies Program develop a range of essential and transferable skills:

- Applications
- Quantitative Reasoning
- Civil Discourse in Writing
- Civil Discourse in Speaking
- Civil Discourse in Collaboration/Teamwork

**Habits of Mind**: An overarching set of values called the “Habits of Mind” will be integrated throughout all General Studies Requirements: Curiosity, Intellectual Integrity, Persistence, Self-Awareness.

**For Transfer Students**: The Foundation, Knowledge Areas and Diversity Perspectives would continue to be transferred as a package for the AGEC, IGETC, CSUGE.

**Overlap with the Major Prefix**: Students will continue to be able to use up to nine units from the students’ major prefix to fulfill the Knowledge Areas.

**Requirements Embedded in the Major**
All students, including transfer students, will need to complete two course-specific requirements within their major at NAU: (1) Junior Level Writing Requirement; (2) Capstone Requirement. Each major will demonstrate how they infuse, or incorporate, Ethics in a disciplinary-appropriate manner into their courses and degree requirements.

**ABOR Policy 2-210 Comparison**
A comparison of NAU’s requirements to ABOR Policy 2-210 may be found in Appendix E.

**NAU’s General Studies Program Proposal Process**
The General Studies Program was developed to (a) incorporate improvements identified by NAU’s 7-year Academic Program Review of the Liberal Studies Program, and (b) integrate ABOR’s General Education Policy Requirements.

Following an extensive feedback and revision cycle (two full cycles of review and feedback by all academic committees and colleges, and the student governing body), the proposal was recommended by the Liberal Studies Committee, Diversity Curriculum Committee, and the University Undergraduate Committee to the Faculty Senate for their consideration and approval. In April, 2021 the proposal received 91% approval (yes votes) from the Faculty
Senate, with the understanding that the changes would require NAU to conduct capacity and implementation modeling. A modified Faculty Senate-charged Curriculum & Assessment Coordinating Committee (CACC) will work with the Provost Office to oversee implementation.

### Learning Outcomes and Assessment Plan

Engagement in assessment provides the most rewarding elements of the educational experience: the opportunity to understand what our students learned from the design of our programs, and how to continue to adjust our methods and design to meet the learning needs of our students. The highest quality assessment that delivers the most useful results is a resource-heavy endeavor. NAU is deeply grateful for the assessment funds provided by the Arizona Board of Regents, as these funds allow us to continue to use the successful design principles from our previous university-wide assessments of Writing, Critical Thinking, Oral Communication, Quantitative Reasoning, and Scientific Inquiry.

The depth in skill development and breadth of knowledge of a general education program is such that prioritizing assessment approaches is necessary. As we pivot to the implementation of the new program, we will initially focus our assessment on the areas articulated in ABOR policy: Writing, Critical Thinking, Quantitative Reasoning and Civic Knowledge. The Tri-University Assessment Working Group is piloting assessment for Written Communication in AY 2021-2022. The Working Group is currently planning a Quantitative Reasoning assessment initiative and will subsequently plan Civic Knowledge and Critical Thinking assessments.

Once we near the end of the completion of our first cycle of assessing these four areas, we will re-evaluate the resource requirements of the assessment endeavors and consider potential opportunities to expand the university-wide assessment to encompass additional content and skill areas of the program.

The full list of learning outcomes and course design principles for the General Studies Program may be found in Appendices A through D.

### Four Assessment Areas

**Writing**

**Learning Outcome:**
Write toward a context, purpose and audience; Develop content; Apply conventions of organization; and Apply conventions of syntax and mechanics.

**Assessment Endeavor:** The Tri-University Assessment Working Group charged a group to develop the Writing Assessment that will be carried out in AY21-22. It is designed to obtain a sample of writing materials from courses across all disciplinary branches of the university at entry and exit points of the students’ academic career (English Foundations and Capstone). Samples of artifacts will be compiled for review by faculty trained in using the Tri-U Writing Rubric. NAU will conduct an internal assessment aligned with NAU learning outcomes to incorporate findings for the assessment into NAU-focused continuous improvement initiatives.
Critical Thinking
Learning Outcome:
Critical Thinking is defined differently depending on the Knowledge Area or Diversity Perspective, but follows the same basic principles: interpret and analyze from multiple perspectives, withhold judgment until you have assessed the evidence, advance an argument or problem solve to suggest solutions. See Appendix B and C for a full review of Critical Thinking by Knowledge Area and Diversity Perspective.

Assessment Endeavor: To be developed by Tri-University Assessment Working Group

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

Assessment Endeavor: To be developed by Tri-University Assessment Working Group

Civic Knowledge
Learning Outcome:
- An understanding of how the history of the United States continues to shape the present,
- The basic principles of American constitutional democracy and how they are applied under a republican form of government,
- An understanding of the United States Constitution and major American constitutional debates and developments,
- Knowledge of the essential founding documents and how they have shaped the nature and functions of American institutions of self-governance,
- An understanding of landmark Supreme Court cases and their effects on law and society, and
- The basic economic knowledge necessary to critically assess public policy options and to succeed professionally and personally.

Assessment Endeavor: To be developed by Tri-University Assessment Working Group

Projected Enrollment for the First Three Years:
NAU is planning a phased implementation of the revised program starting in AY23-24, thus first year students will enter under the new requirements, whereas transfers students may elect to be in the new program. Most students who entered the university prior to AY23-24 will continue in the existing program.

As such, the following estimates reflect approximately 5,500 first year students, as well as ~500 lower division transfer students and ~500 upper division transfer students who would have the opportunity to begin taking the program in AY23-24. In subsequent years, we size up the enrollments using the same estimates.

Year 1: AY 2023-2024: ~6,500
EXECUTIVE SUMMARY

<table>
<thead>
<tr>
<th>Year 2: AY 2024-2025: ~13,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3: AY 2025-2026: ~19,500</td>
</tr>
</tbody>
</table>

This is quite a rapid timeline in relation to the breadth and depth of changes being implemented to the Program. Possible strategies for a phase-in are the focus of our implementation deliberations.

**Evidence of Market Demand:**

Throughout the examination of NAU's general education program, the task force and committees evaluated numerous studies of high-impact practices and what employers value in order to provide a solid design of the breadth of knowledge and skill development rooted in general education curricula. Detailed information may be found here:

https://www.aacu.org/2021-report-employer-views-higher-education


Further, we note that our program requirements include the following high-impact practices recommended by the AAC&U. These high-impact practices foster student achievement and have been typically unavailable to underserved students:

https://www.aacu.org/node/4084

**Similar Programs Offered at Arizona Public Universities:**

University of Arizona and Arizona State University will also provide general education programs that are aligned with ABOR’s policy 2-210.

**Objection(s) Raised by Another Arizona Public University?**

| NA | YES | NO |

If Yes, Response to Objections:

**New Resources Required? (i.e. faculty and administrative positions; infrastructure, etc.):**

Our capacity and implementation modeling suggest that we will need to consider how to redistribute existing resources, as well as identify specific areas to invest faculty lines, as we transition to the new program to meet student capacity.

**Program Fee/Differentiated Tuition Required?**

| YES | NO |

**Specialized Accreditation?**

| YES | NO |
Appendix A. Foundation Requirements

English Foundations: The English Foundations offers students a valuable experience during their first year to help them develop the writing skills necessary for success at the university and on the job.

Mathematics Foundation: The Mathematics Foundation requirement helps first year students develop foundational skills necessary for future mathematical reasoning within their discipline. Courses that fulfill this requirement introduce students to mathematical skills necessary to understand and thrive in an ever-changing world. These skills include problem solving, critical thinking, creating mathematical models to understand complex processes, and interpreting and communicating technical results.

Appendix B. Knowledge Area Requirements

Information Literacy
The Information Literacy Essential Skill is a course design requirement for every course in the program. Information Literacy includes the ability to effectively find, evaluate, and use information. Information literacy requires an understanding of how information is generated, vetted, and stored within the discipline, as well as how it is consulted and re-used to create new knowledge. For this area of study, students should be able to (all three are required):
  a) Recognize and describe how professionals working in social disciplines generate and vet new information, and how they communicate information to each other and the general public;
  b) Effectively find, evaluate, and use information sources in social disciplines; and
  c) Judge the utility and quality of social information in making decisions.

Knowledge Area: American Institutions
Students take 3 units in this Knowledge Area. All courses must accomplish the following learning outcomes:

2) Content and Critical Thinking (all must be included)
   a) An understanding of how the history of the United States continues to shape the present,
   b) the basic principles of American constitutional democracy and how they are applied under a republican form of government,
   c) an understanding of the United States Constitution and major American constitutional debates and developments,
   d) knowledge of the essential founding documents and how they have shaped the nature and functions of American institutions of self-governance,
   e) an understanding of landmark Supreme Court cases and their effects on law and society, and
   f) the basic economic knowledge necessary to critically assess public policy options and to succeed professionally and personally.
3) Information Literacy

Incorporates one of the Essential Skills that expressly engages Civil Discourse*:
- Civil Discourse in Writing
- Civil Discourse in Speaking
- Civil Discourse in Collaboration and Teamwork

(Can include any additional Essential Skills deemed appropriate for the course.)

*Following feedback on an August draft, we are interested in highlighting that the Civil Discourse skills will be structured into courses across our curriculum. We are calling out the intentional inclusion of Civil Discourse in the American Institutions Knowledge Area. English Foundations and Junior Level Writing incorporate Civil Discourse in Writing. Further discussion with relevant curriculum committees will help us consider additional opportunities for skill development in this area.

Knowledge Area: Arts and Humanities
Students take 9-10 units (3 courses) in this Knowledge Area. All courses must accomplish the following learning outcomes:

1) Content: (include both)
   a) Recognize how works of the Arts and Humanities not only reflect or express what it means to be human, but also produce meaning, culture and/or history.
   b) Examine how Arts and Humanities build civic identity, connection and/or engagement.

2) Critical and Creative Thinking in this knowledge area (select at least one):
   a) Analyze and interpret the meaning of works of human expression or reflection by identifying and examining distinct connections between the work and its various contexts.
   b) Identify and consider the unique features and perspectives of varied cultural traditions through the study of creative works such as oral or written literature, religion, artistic creations and so forth.
   c) Apply analytic frameworks that increase awareness of how cultures and histories vary and shape human experience.
   d) Support interpretations with evidence from close observation/ awareness of the subject area.
   e) Withhold immediate judgment of a work to reflect on the possible breadth of meanings related to the work before making informed judgments.
   f) Examine how cultures impact and influence other cultures.
   g) Create artistic expressions characteristic of the fine, performing, and literary arts.
   h) Generate and evaluate innovative approaches to problem solving.

3) Information Literacy
Knowledge Area: Scientific Literacy and Methods

Scientific Literacy: Course Design Description
Students take 6 units (two courses) in this Knowledge Area, one in Physical Sciences/Life Sciences/Space and Earth Sciences, and one in Social Sciences. All courses must accomplish the following learning outcomes:

1) **Content**: Include (a) and (b)
   a) Explain theoretical frameworks developed in a range of subject areas, to include:
      i) Physical Sciences/ Life Sciences/ Space and Earth Sciences and
      ii) Social Sciences
   b) Examine how scientific theories impact civic identity, connection, and engagement.

2) **Critical Thinking** (select at least one):
   a) Transform curiosities or observations into questions that can be evaluated using the scientific method
   b) Develop and implement an approach to investigate the question raised
   c) Analyze the data/evidence using approaches in the subject area and examine the validity of arguments based on the evidence presented
   d) Make interpretations (based on the evidence) by connecting to other observations, theories, and approaches in the subject area
   e) Communicate findings in the manner that is appropriate to the subject area
   f) Generate and evaluate innovative approaches to problem solving.

3) **Information Literacy**

Scientific Methods: Course Design Description
The purpose of the course is for all students to engage in the full experience of carrying out the scientific method within one of the Physical, Life, Space, Earth or Social Sciences. Students would take 3 to 4 units in this Knowledge Area; courses might be a 3-4 unit course with an embedded lab, field, or other engaged, active learning experience conducting the scientific method in the specific field of science, or a 2-3 unit course with a 1 unit co-requisite lab, field, or other experience conducting the scientific method as appropriate to the specific scientific discipline of the course. All courses must accomplish the following learning outcomes:

1) **Content**:
   a) Explain theoretical frameworks developed in a range of subject areas, to include:
      i) Physical Sciences/ Life Sciences/ Space and Earth Sciences and
      ii) Social Sciences

2) **Critical Thinking** (all five are required):
   a) Develop a research question or problem statement, and/or examine how research questions or problem statements are used to understand phenomena,
   b) Plan and carry out an investigation (use the subject area’s scientific method to collect data, make observations, etc.), and/or examine how investigations are developed to understand phenomena, to potentially include strengths and weaknesses of methods used in the investigation.
EXECUTIVE SUMMARY

c) Analyze and interpret the data/evidence,
d) Conduct interpretations from evidence, and/or connect interpretations to other
knowledge in the field of study; and
e) Communicate the results.

3) Information Literacy

Knowledge Area: Social and Political Worlds
Students take up to 6 units in this Knowledge Area. All courses must accomplish the
following learning outcomes:

1) Content
   a) Examine multiple forms of social systems and interactions within and/or outside
      of the United States.
   b) Examine how Social and Political Worlds impact civic identity, connection and/or
      engagement.

2) Critical Thinking (select at least one):
   a) Apply historical, economic, observational, comparative, and analytic
      methods to understand human identities, systems of communication, and
      interactions in local and global institutions.
   b) Examine how facts and opinions of different kinds are viewed by local
      and global societies, institutions and traditions.
   c) Examine critically the multiple aspects of social life that influence all types of
      communities (such as those that are inherited, voluntary, ethnic, cultural,
      linguistic, religious, political, ideological, as well as causes and movements,
      etc.).
   d) Analyze how ideologies, institutions and traditions contribute to and interact
      within local and global communities, including their systems of communication.
   e) Examine how U.S. institutions have impacted local and global societies.
   f) Withhold immediate judgment of situation/case/work to reflect on the
      possible breadth of meanings related to the work before making informed
      judgments.
   g) Generate and evaluate innovative approaches to problem solving.

3) Information Literacy

Appendix C. Diversity Perspective Requirements

Global Diversity
1) Content (including assignments/ assessments, discussions, lecture, reading
   materials, etc.)
   a) The majority (at least half) of course content focuses on the voices, expertise and
      viewpoints of non-Western peoples [outside of the Euro-North American world,
      such as peoples from Africa, Asia, Oceania, and the Americas south of the U.S.
      border], including their theoretical, historical, social, political, economic, cultural,
      geographic, environmental, religious, scientific, artistic, and intellectual traditions
and ways of knowing. (Indigenous Peoples are incorporated in the requirement under the Indigenous Peoples Diversity Perspectives category.)

b) Additional substantial, in-depth content examines the intersectionality of voices, expertise and viewpoints, examining how at least one (at minimum) additional element of social identity, including race and racism, gender, sexuality, socio-economic class, disability, nationality/geography, indigeneity combine to impact an individual or group’s experience.

c) AND select at least one more from the following:
   i) Inclusion of theoretical approaches emerging from post-colonial, neo-colonial contexts
   ii) Issues of difference with respect to non-Western/global populations and other under-represented groups
   iii) Contributions of non-Western groups (global populations) to culture and history
   iv) Terminology, vocabulary, and means of conceptualizing the social world by global minorities
   v) The complexity of historical and cultural influences and how they manifest within an individual or group’s identity
   vi) Anti-colonial or resistance movements
   vii) Diasporas, migrations, and borderlands

2) Critical Thinking:
   a) Evaluate how influences of inequality, power and privilege affect perspectives and ideologies
   b) AND select at least one more from the following:
      i) Analyze one’s experience when viewing, engaging, or applying the course’s content
      ii) Examine how our actions influence and are influenced by cultural paradigms
      iii) Recognize and articulate the ways in which mainstream culture reflects, influences, perpetuates, and resists other cultural ideologies
      iv) Withhold immediate judgment of a work to reflect on the possible breadth of meanings related to the work before making informed judgments
      v) Develop an understanding of the complex identities, histories and cultures of self and others

3) Information Literacy

Indigenous Peoples

1) Content
   a) The majority (at least half) of course content focuses on Indigenous Peoples, such as:
      i) The voices, expertise and viewpoints of Indigenous Peoples [those who share collective ancestral ties within a geographic region and who continue to maintain a distinct culture from the colonizing, and now-dominant, group. This requirement addresses Indigenous Peoples of the world, including but
EXECUTIVE SUMMARY

not limited to North and South America, Europe, Asia, Africa, etc.], including their theoretical, historical, social, political, economic, cultural, geographic, religious, environmental, artistic and intellectual traditions and ways of knowing.

ii) An examination of the historical forces that have had, or continue to have, an impact on an Indigenous group or groups either pre- or post-contact with non-Indigenous peoples, including governance, self-determination, and sovereignty.

iii) An examination of academic research methods based on the traditions and oral traditions of Indigenous peoples, Indigenous research methodologies, scholarship of Indigenous academics, or the traditional processes of knowledge acquisition of Indigenous peoples.

iv) Elements of modernity which intersect in a significant way with the lives, traditions, and future of Indigenous peoples and persons such as politics, globalization, health, representations in the media, academia, innovations, technology.

v) Historical and contemporary governance, self-determination, and sovereignty, federal Indian policy and intergovernmental relations, and policy, politics and administration by Indigenous nations.

vi) An exploration of language teaching, perpetuation and revitalization efforts in Indigenous communities.

b) Additional substantial, in-depth content examines the intersectionality of voices, expertise and viewpoints, examining how at least two elements of social identity, including race and racism, gender, sexuality, socio-economic class, disability, nationality/geography, indigeneity combine to impact an individual or group’s experience.

c) AND select at least one more from the following:

i) Contributions of Indigenous Peoples to culture and history

ii) Terminology, vocabulary, and means of conceptualizing the social world by Indigenous Peoples

iii) The complexity of historical and cultural influences and how they manifest within an individual or group’s identity

iv) Anti-colonial or resistance movements

v) Diasporas, migrations, and borderlands

2) Critical Thinking:

a) Evaluate how influences of inequality, power and privilege affect perspectives and ideologies.

b) AND select at least one more from the following:

i) Analyze one’s experience when viewing, engaging, or applying the course’s content

ii) Examine how our actions influence and are influenced by cultural paradigms

iii) Recognize and articulate the ways in which U.S. culture reflects, influences, perpetuates, and resists other cultural ideologies

iv) Withhold immediate judgment of a work to reflect on the possible breadth of
meanings related to the work before making informed judgments

v) Develop an understanding of the complex identities, histories and cultures of self and others

3) Information Literacy

Intersectional Identities

1) Content (including assignments/assessments, discussions, lectures, reading materials, etc.)
   a) Select one of the following:
      i) Option 1
         (1) The majority (at least half) of course content focuses on the voices, expertise and viewpoints that center perspectives oriented on gender, sexuality, disability/ableism, or class, including their theoretical, historical, social, political, economic, cultural, geographic, environmental, religious, artistic and intellectual traditions and ways of knowing.
         (2) Additional substantial, in-depth content examines the intersectionality of voices, expertise and viewpoints, examining how at least one (at minimum) additional element of social identity, including race and racism, gender, sexuality, socio-economic class, disability, nationality/geography, indigeneity combine to impact an individual or group’s experience.
      ii) Option 2
         (1) The majority of the course content examines the intersectionality of at least three voices and viewpoints, examining how elements of social identity, including race and racism, gender, sexuality, socio-economic class, and disability nationality/geography, indigeneity combine to impact an individual or group’s experience.
   b) AND select at least one more from the following:
      i) Inclusion of theoretical approaches emerging from experiential contexts (includes all of the groups’ experiences identified in (a))
      ii) Issues of difference with respect to other under-represented groups
      iii) Contributions of under-represented groups to culture and history
      iv) Terminology, vocabulary, and means of conceptualizing the social world by other under-represented groups
      v) The complexity of historical and cultural influences and how they manifest within an individual or group’s identity

2) Critical Thinking:
   a) Evaluate how influences of inequality, power and privilege affect perspectives and ideologies
   b) AND select at least one more from the following:
      i) Analyze one’s experience when viewing, engaging, or applying the course’s content
      ii) Examine how our actions influence and are influenced by cultural paradigms
      iii) Recognize and articulate the ways in which U.S. culture reflects, influences,
perpetuates, and resists other cultural ideologies
   iv) Withhold immediate judgment of a work to reflect on the possible breadth of meanings related to the work before making informed judgments
   v) Develop an understanding of the complex identities, histories and cultures of self and others
3) Information Literacy

U.S. Ethnic Diversity

All courses must accomplish the following learning outcomes:
1) Content (including assignments/ assessments, discussions, lecture, reading materials, etc.)
   a) The majority (at least half) of course content focuses on voices, expertise and viewpoints of U.S. Ethnic minority groups (such as African American, Asian American, Latino/a, Pacific Islander peoples), including their theoretical, historical, social, political, economic, cultural, geographic, environmental, religious, artistic and intellectual traditions and ways of knowing. (Indigenous Peoples are incorporated in the requirement under the Indigenous Peoples Diversity Perspectives category.)
   b) Additional substantial, in-depth content examines the intersectionality of voices, expertise and viewpoints, examining how at least one (at minimum) additional element of social identity, including race and racism, gender, sexuality, socio-economic class, disability, nationality/geography, indigeneity combine to impact an individual or group’s experience.
   c) AND select at least one more from the following:
      i) Inclusion of theoretical approaches emerging from critical race theory and similar contexts
      ii) Issues of difference with respect to U.S. ethnic minorities
      iii) Contributions of U.S. ethnic minorities in U.S. democracy and western civilization
      iv) Terminology, vocabulary, and means of conceptualizing the social world by U.S. Ethnic Minorities
      v) The complexity of historical and cultural influences and how they manifest within an individual or group’s identity
      vi) Anti-colonial, Latinx social movements, and resistance movements and struggles
      vii) Diasporas, migrations and borderlands, particularly in the Southwest.
2) Critical Thinking:
   a) Evaluate how influences of inequality, power and privilege affect perspectives and ideologies
   b) AND select at least one more from the following:
      i) Analyze one’s experience when viewing, engaging, or applying the course’s content
      ii) Examine how our actions influence and are influenced by cultural paradigms
      iii) Recognize and articulate the ways in which U.S. culture reflects, influences,
perpetuates, and resists other cultural ideologies
iv) Withhold immediate judgment of a work to reflect on the possible breadth of meanings related to the work before making informed judgments
v) Develop an understanding of the complex identities, histories and cultures of self and others
3) Information Literacy

Appendix D. Essential Skill Descriptions

**Civil Discourse through Writing:** Effective writers engage in civil discourse through an awareness of audiences’ expectations and needs. This involves decisions about the purpose of the writing assignment, about research, about the interpretation of information using appropriate theories or frameworks, about formal, generic, and stylistic conventions, about rhetorical approaches. Effective writers consider opposing viewpoints or counter-arguments, and offer reasoned analysis of these perspectives. All of these approaches open the possibility for a shared dialogue and open debate.

**Civil Discourse through Speaking:** Effective speakers engage in civil discourse through an awareness of audiences’ expectations or needs, and gauging reactions and connections that are also embodied in nonverbal gestures and personal interaction. To be an effective communicator, a speaker’s purpose must be clear. An effective speaker has completed essential research, interpreted information using appropriate theories or frameworks, has assembled an argument based on logic, rhetorical modes, and developed an approach that is aware of the best formal, generic, and stylistic conventions. An effective speaker creates an opportunity to consider opposing viewpoints or counter-arguments and offers reasoned analysis of these perspectives. In many instances, effective communication in speech relies on the skill of listening, of pausing and considering alternative perspectives, and synthesizing, refining, and drawing attention to the limits or possibilities of different interpretations.

**Civil Discourse through Collaboration and Teamwork:** Effective collaborations and teamwork depends on the ability to engage in civil discourse. Working together toward a common goal is an essential competency in many educational, professional, and personal settings. Effective communication is a key component of teamwork and ensures that each individual’s role is clearly defined, that deadlines and priorities are mutually understood, and that others’ skills and talents are respected and/or amplified for the collective good. Team members facilitate a positive working environment to accomplish shared goals. Team members communicate effectively, which includes active listening and respect for individuals, and a willingness to civilly debate or argue about analysis or methods. Team members fulfill their own individual responsibilities and support the collective priorities of the group. Team members look for innovative ways to find solutions that meet the common goal.
**Quantitative Reasoning:** Quantitative Reasoning is the application of numerical, visual or symbolic reasoning for the purposes of drawing inferences, understanding phenomena or making predictions. This includes elements related to the ability to: Identify and evaluate important assumptions in estimation, modeling, and data analysis; convert relevant information into various numerical, visual, or symbolic forms (e.g., equations, graphs, diagrams, tables, words); Calculate accurately and comprehensively to solve a problem; Explain information or phenomena presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words); Make judgments, make predictions, and draw inferences based on the quantitative analysis of data, while recognizing the limits of this analysis.

**Applications:** Applications involve the analysis and synthesis of content and theoretical approaches (provided in the course) within a context relevant to the area/field/discipline. Applications result in a product appropriate to the area/field/discipline that can be used to evaluate students’ understanding and ability to apply the course’s content. Examples align with area/field/disciplines, such as: Performance Project(s); Case Studies; Civic Engagement Project(s); Laboratory Project(s); Studio Project(s); **Disciplinary Project(s) that combine multiple skills, in any combination, from the list above**—for example, a research project, with a written element assigned individually, and an oral portion completed in teams. (Information Literacy + Written Communication + Speaking + Teamwork). This provides the opportunity for students to practice applications and for faculty to implement multiple skills into a course, where appropriate to the course’s design.

**Appendix E. Comparison of ABOR Policy 2-210 to NAU’s General Studies Program**

<table>
<thead>
<tr>
<th>ABOR Knowledge</th>
<th>NAU General Studies Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature, Fine Arts, Humanities</td>
<td>- <strong>Arts and Humanities</strong> (9-10 units)</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>- <strong>Scientific Literacy</strong> in Social Sciences (3 units)</td>
</tr>
<tr>
<td></td>
<td>- Option to take <strong>Scientific Methods</strong> in Social Sciences</td>
</tr>
<tr>
<td>American Institutions</td>
<td>- <strong>American Institutions</strong> (3 units)</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>- <strong>Scientific Literacy</strong> in Physical-Life/Space/Earth Sciences</td>
</tr>
<tr>
<td></td>
<td>- Option to take <strong>Scientific Methods</strong> in Physical-Life/Space/Earth Sciences</td>
</tr>
</tbody>
</table>
### EXECUTIVE SUMMARY

| Composition, Communication, and Rhetoric | - English Foundations (4 units)  
| - Junior Level Writing (3 units)  
| Essential Skill: Practice Civil Discourse Through Writing in Knowledge Areas |
| Mathematics and Quantitative Reasoning | - Mathematics Foundations (3 units)  
| - Scientific Methods (3-4 units)  
| Essential Skill: Practice Quantitative Reasoning in Knowledge Areas |

<table>
<thead>
<tr>
<th>ABOR Attributes</th>
<th>NAU General Studies Program: Habits of Mind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Integrity and Curiosity</td>
<td>Curiosity: Civic-minded thinkers in a democratic society are open to new perspectives, are creative and willing to explore different, original, and creative ways of thinking</td>
</tr>
<tr>
<td>Open-mindedness</td>
<td>Intellectual integrity: Civic-minded thinkers take responsibility for their work, their positions, and have the courage to dissent or stand in opposition</td>
</tr>
<tr>
<td>Pursuit of Truth</td>
<td>Persistence: A growth-mindset is essential to learning and progress and an essential feature of informed decision-making whether in personal, professional, or civic contexts</td>
</tr>
<tr>
<td>Engaged, Civic-Minded, Citizens</td>
<td>Self-awareness: Being civic-minded and committed to civil discourse in a democratic society requires self-reflection about learning, about one’s own positions, and about the health and well-being of oneself and others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ABOR Skills</th>
<th>NAU Proposed Program</th>
</tr>
</thead>
</table>
| Written and Oral Communication | Written Communication:  
| - English Foundations (4 units)  
| - Junior Level Writing (3 units)  
| - Essential Skill: Civil Discourse through Writing in Knowledge Areas  
| Oral Communication:  
| - Essential Skill: Civil Discourse through Speaking in Knowledge Areas |
### EXECUTIVE SUMMARY

| Critical Thinking | Critical Thinking is Addressed in each Knowledge Area:  
|                  | - Arts and Humanities (9 units)  
|                  | - Scientific Literacy and Scientific Methods (9 units)  
|                  | - Social and Political Worlds (9 units)  

| Ethical Reasoning | Defined by the Major and Exhibited within the Degree Program’s Curriculum Map  

| Teamwork | Essential Skill: *Civil Discourse through Collaboration and Teamwork* in Knowledge Areas  

| Intercultural Competency | - Diversity Perspectives that Overlap with Knowledge Areas (9 units)  
|                          | - American Institutions (3 units)  
|                          | - Arts and Humanities (9 units)  
|                          | - Social and Political Worlds (6 units)  

| Time Management | Time and Priority Management Modules Embedded in First-Year Courses  

| Information and Data Literacy | Information Literacy is Taught in each Knowledge Area:  
|                               | - American Institutions (3 units)  
|                               | - Arts and Humanities (9 units)  
|                               | - Scientific Literacy and Methods (9 units)  
|                               | - Social and Political Worlds (6 units)  
| Data Literacy: | - Mathematics Foundations (3 units)  
|                | - Scientific Methods (3 units)  
|                | - Essential Skill: *Quantitative Reasoning* in Knowledge Areas  

| Ability to Engage in Civil Discourse | Essential Skills practices in Knowledge Area Courses:  
|                                      | - Civil Discourse through Writing  
|                                      | - Civil Discourse through Speaking  
|                                      | - Civil Discourse through Collaboration and Teamwork  