The University of Wyoming Task Force on Learning Outcomes for the Baccalaureate: Recommendations

April 26, 2011

Preamble:

Provost Myron Allen charged the Task Force with recommending a set of learning outcomes for the University of Wyoming. He asked that we review the Liberal Education and America’s Promise (LEAP) recommendations for Essential Learning Outcomes that have been developed by the Association of American Colleges and Universities. In addition to a careful review of the LEAP Essential Learning Outcomes, the Task Force considered materials from a wide range of public and private universities and colleges.

We analyzed existing models of learning outcomes through a lens that focused on a high-quality liberal education and that was not constrained by our current University Studies Program (USP). Although we were not explicitly charged with the development of a new USP, we evaluated potential learning outcomes in the context of our university. While thinking about the well-rounded scholar and graduate, we also attempted to articulate an educational philosophy that would allow students and faculty a degree of flexibility and freedom in pursuing these outcomes.

Provost Allen also asked the Task Force to develop an assessment plan for all learning outcomes and to make a recommendation regarding the scope of a general education program at UW.

Learning and Developmental Outcomes for the University of Wyoming

Students at the University of Wyoming will acquire knowledge and competencies during their baccalaureate study through educational experiences that build upon prior academic and life experiences and prepare them for lifelong learning and citizenship.

Learning Outcome 1 (Breadth of Knowledge)¹. UW students will demonstrate knowledge of human culture and the physical and natural world.

- UW students will take courses in two areas—human culture (e.g., the arts, languages, humanities, social sciences, history) and the physical and natural world (e.g., the sciences and technology). The guiding principles here will be discovery and exposure to a range of disciplines.

¹ The phrase “breadth of knowledge” is directly from the LEAP report at http://www.aacu.org/leap/vision.cfm.
As part of their coursework in human culture, UW students will acquire knowledge of diverse cultures within and among societies.

The LEAP report describes “study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.” Universities and colleges across the U.S. have adopted this learning outcome in a variety of ways.

The disciplines listed above could be divided into many categories. We have divided them into two: human culture and the physical/natural world. We recommend students take courses in each of these broad categories. Some disciplines (e.g., Anthropology, Geography) do not clearly fall into one category or the other. Departments within these disciplines should be given the flexibility to place courses within the most appropriate category. Students will also take an additional course in Wyoming history and government as required by statute (W.S. 21-9-102).

Learning Outcome 2 (Competencies): UW students will acquire and develop competencies in (a) written and oral communication, quantitative reasoning, and information literacy, and (b) inquiry and analysis, critical and creative thinking, including the critical analysis of texts and other sources, ethical reasoning, independent learning, team-based learning, and problem solving.

• UW students will take courses in written and oral communication, quantitative reasoning, and information literacy to form a foundation for these competencies. This foundation will be built upon throughout their baccalaureate study. UW students will develop these competencies with increasing depth and sophistication.

UW students will be introduced to these competencies in their first year and will continue to develop the competencies within increasingly complex settings as they progress through their undergraduate course of study. The Task Force recommends that each degree program articulate how these competencies will be enhanced within the required curriculum.

Developmental Outcomes- Personal and Social Responsibility: UW recognizes and fosters a learning environment in which students strive for excellence, cultivate personal and academic responsibility, contribute to the local and global community as both participant and leader, understand personal health and wellness, and understand diverse perspectives.

• UW students will be exposed to a rich array of challenges and experiences, whether in residence at the university or through distance programs that advance these outcomes within their curricula.

---

2 The terminology here is from the University of Minnesota.
Developmental outcomes represent a unique responsibility for a university. The baccalaureate for both traditional and nontraditional students should provide opportunities for intellectual and personal growth that go far beyond learning outcomes that can be easily assessed.

**Assessment of UW Baccalaureate Learning Outcomes**

The Task Force recommends the learning outcomes for a UW baccalaureate degree be assessed in an institutionally-coordinated fashion, using national instruments that are currently available and through the direct examination of student work (Table 1). Under the model described above, degree programs will assume more responsibility for identifying how students will achieve these learning outcomes within degree programs. We recommend, however, that University resources be dedicated to the assessment of these institutional-level outcomes. While the process should be coordinated at the highest levels, we expect faculty from across the university will participate in various assessment activities when called upon to do so. Faculty engagement in assessment, supported through additional ECTL programming and robust reward and recognition, will be necessary.

Table 1, prepared by Erika Prager, University Assessment Specialist, lays out a model for future assessment of the learning outcomes. We also offer the following specific recommendations:

**Learning Outcome 1: Breadth of Knowledge**

These learning outcomes can be qualitatively and quantitatively assessed by direct examination of student work. The current USP program is assessed using rubrics designed to measure each USP requirement. Faculty members who teach a designated USP course are asked to score a student assignment using the rubric. These scores are then collated and reviewed by the USP Committee. While the current process has produced some preliminary information on student performance, it is difficult to ascertain specific learning deficiencies due to the general nature of the rubrics.

The Task Force recommends an alternative approach. The process will be more valuable if small groups of faculty (from a variety of disciplines) gather for a single day to evaluate samples of student work. This type of assessment would clarify many of the ambiguities that plague the existing process and would foster discussion among faculty members as they work with one another to assess student learning. Such evaluations are direct measures of student learning and several models for this type of direct assessment already exist.

**Learning Outcome 2: Competencies**

These learning outcomes may be quantitatively assessed using existing national survey instruments and nationally-normed tests. They may also be assessed by the direct examination of student work. It should be noted that independent and team-based learning can only be assessed by indirect measures (*e.g.*, surveys of student perception). Currently, the Office of Academic Affairs, in consultation with the University Assessment Coordinators, administers the National Survey of Student Engagement (NSSE), the Faculty Survey of Student Engagement (FSSE), and the Collegiate Learning Assessment (CLA). Student participation in these assessments is voluntary. The Task Force recommends this approach be enhanced in two ways.
First, we suggest UW implement some of the newer, national-level assessment instruments, including the Tennessee Tech University critical thinking assessment instrument (CAT). Second, we recommend that faculty be trained in and specifically rewarded for participation in assessment scoring.

Developmental Outcomes.
Personal and social responsibility are difficult to assess directly, yet these are important priorities for the university. The most useful assessment information pertaining to developmental outcomes may be drawn from the National Survey of Student Engagement (NSSE) and the Faculty Survey of Student Engagement (FSSE). Indirect measures of these outcomes might be developed at UW, perhaps through the Office of Student Affairs by gathering information from students who are members of various subpopulations.

Scope of a General Education Program

Above, we describe the essential learning outcomes we propose for the University of Wyoming. We also evaluate the extent to which achievement of these outcomes can be assessed. There are at least two central questions that follow, prior to designing a general education program:

*How many credits should each student take to meet the general education requirements?*
*To what extent should students achieve these competencies and learning outcomes in shared, common coursework, and to what extent might students achieve them in other ways?*

Comments on the Current USP

The Task Force interacted with faculty, students, and administrators from units across campus and identified four key issues related to the current USP program:

1) Currently, undeclared students, transfer students, students who change majors, and double-majors encounter difficulty when degree programs embed foundation-level USP courses within the degree requirements.
   a. Undeclared students may face consequences if they fulfill the “wrong” USP course for a particular major;
   b. Students who change majors are often in the same position;
   c. Double-majors face the possibility of needing to take two sets of USP courses to meet degree-specific requirements.

2) The large number of categories in the University Studies Program (14 total) in addition to the two subcategories (core and embedded) and a complicated system of embedded courses create a dizzying array of requirements for students to manage in designing their degree programs.
   a. Transfer students, particularly from non-Wyoming institutions, face a complex problem in transcript evaluation.
b. Degree programs, and particularly professional programs, seek to maximize the possibility that students can complete a degree in 120 credits by embedding specific USP requirements/courses in their curricula. This leads to the problems noted above in item 1;

c. Students with special constraints on their time (nontraditional students who are working or managing families, athletes with major afternoon and evening responsibilities) have a difficult time identifying courses that fit into their schedules, especially given the tangle created by embedded USP requirements.

3) There is a complex process of course approval for general education requirements that may inhibit some faculty from proposing exciting courses for general education credit. Reducing the “red tape” involved in course approval may inspire faculty to develop rich, interesting courses to fulfill general education requirements.

4) The current system is so cumbersome that students have few opportunities to take electives that might strengthen their liberal education and/or lead to a minor in another discipline.

Perspective
We do not believe critical learning outcomes are achieved by checking off boxes associated with individual courses (e.g. “diversity,” “information literacy,” “critical thinking”). Rather, if these learning outcomes represent lifelong goals, they should be apparent throughout the UW curriculum. De-coupling learning outcomes from specific courses (L, I, G etc) does not represent diminished emphasis. We consider these outcomes so central to the attainment of a baccalaureate degree, they should become more central to all academic programs, not less so. Degree programs must take responsibility for the higher-order achievement and integration of these learning outcomes.

Recommendations:

We recommend that:

1) A system for general education at the University of Wyoming must ensure that students build a foundation for achievement of the learning outcomes in no more than 33 credits.

2) The system should provide as much flexibility as possible for students and for degree programs, and should be simple in its implementation.

3) Simplicity and flexibility should be achieved in two ways:
   a. Foundation-level courses (1000-2000) are not embedded as specific requirements in majors (flexibility for the student):
      i. Some of this coursework may be completed in a wide variety of ways.

1. Learning Outcome 1 (Breadth of Knowledge) and Quantitative Skills should be achievable via a broad array of foundation-level classes.
2. Those foundation-level classes should be broadly defined so that transfer evaluation is simple.
   ii. Some of these courses are fixed requirements that every student must take.
      1. The learning outcomes that correspond to fixed requirements most likely include foundation-level writing and communication, introductory scholarship skills, and the developmental outcomes.
      2. These fixed requirements are communicated to Wyoming community colleges via the articulation process so that transfer from those colleges is facilitated.

b. Degree programs bear responsibility for higher-order achievement and integration of the learning outcomes within their curricula. They will articulate specifically how they will achieve this.
   i. Once students have completed foundation-level training, degree programs will build upon that training to ensure higher-order achievement of key university learning outcomes. While this places responsibility upon degree programs, it also frees them from having to offer upper-level USP courses that are separate from the major.

4) The course approval process for general education will be simpler, and for the most part, not implemented course by course. However, there will likely be a process that allows degree programs to articulate how they will integrate learning outcomes within their curricula.

5) Degree programs must not offer courses that embed elements of the 33 general education credits noted above. Degree programs must also allow at least 9 hours of elective credit.

We provide a straw model in Table 2. Using this as an example, students would have the following as general education requirements for the baccalaureate.

1. All students must take two courses in human culture and two in science/technology. Of the latter, one must include a laboratory. (Note, there would be minimal course approval associated with these requirements).

2. All students must take:
   a. One course (3 credits) of writing, and one course (3 credits) of oral communication. There could be two tracks for this approach. In one, students take a writing course, then an oral communications course. That model is similar to the current structure and facilitates relatively easy transfer from community colleges. In the second model, students take a two-course sequence in which written and oral communication are integrated.
   b. A freshman seminar that addresses many of the developmental outcomes.

3. All students will achieve a more sophisticated, more integrated performance of the learning outcomes and the developmental outcomes through the advanced coursework within their degree programs.
Issues We Recognize

1. Department responsibility

While we believe we have laid the groundwork for a simpler, more flexible general education program at UW, we realize we are asking our colleagues to do some work in order to ensure these learning and developmental outcomes may be achieved. Departments will have to:

- Review and revise their curriculum (as needed) in the context of a new general education program and new student learning outcomes;
- Review, revise, and align departmental learning outcomes with the UW baccalaureate outcomes; and
- Engage more fully in various assessment processes to ensure that students are acquiring the competencies and knowledge associated with the learning outcomes.

2. Diversity

We specify in the description of Learning Outcome 1 that students will acquire knowledge of diverse cultures within and among societies. While our recommendations include a much-simplified course approval process and more department autonomy in determining which courses might meet the human culture requirement, we advocate coursework that addresses both aspects of diversity.

3. Quantitative Reasoning.

We maintain that all UW undergraduates should be exposed to key foundation-level material in quantitative reasoning, on which the principles of complex reasoning and critical thinking are built. That said, the requirement can, and should, be flexibly implemented. Clearly, students who choose to study in technically-oriented fields (e.g., Engineering) will by default be exposed to such material and should not be overly burdened here. Conversely, students directed in more liberal arts-oriented tracks may have more need for foundation-level material. Additional courses could be designed with the interests of this latter collection of students in mind, offered by departments other than Mathematics and Statistics. We encourage the implementation committee to develop a wide variety of course options in this realm, not limited to College Algebra.
Appendix

Table 1. Proposed Assessment Map for Baccalaureate Degree Outcomes

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Assessment Measures</th>
<th>Direct Measures</th>
<th>Indirect Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Outcome 1 (Breadth of Knowledge):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human culture</td>
<td>Examination of student work</td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>Physical and natural world</td>
<td>Examination of student work</td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>Wyoming History and Government</td>
<td>Examination of student work</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learning Outcome 2 (Competencies):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written communication</td>
<td>CLA, Examination of student work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 3c, 3d, 3e, 11c</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSWC Items 1a, 1b, 1d, 1h, 2b, 2c, 2d, 2e, 2f, 2g, 2h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Items SD-a, A-b, A-c, A-d, CL-g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative reasoning</td>
<td>CAT, Examination of student work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Item 11f</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSWC Items 2d, 2f</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Item SD-d</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inquiry and analysis</td>
<td>CLA, CAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 1d, 1f, 2b, 2c, 3a, 3b, 6d, 6e</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSWC Items 2b, 2c, 2d</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Items SB-b, A-a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical and creative thinking</td>
<td>CLA, CAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 1i, 2a, 2b, 2c, 2d, 2e, 11e</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSWC Items 2e, 2f</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Items CE-a, CE-b, CE-c, CE-d, CE-e, SD-c, IS-b, IS-d, IS-g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-solving</td>
<td>CLA, CAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 4a, 4b, 11f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral communication</td>
<td>Examination of student work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 1b, 11d</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Items CL-f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical reasoning</td>
<td>Examination of student work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Item 11n</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Item SD-k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent learning</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team-based learning</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSSE Items 1g, 1h, 7c, 11h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSSE Items IU-c, IS-c, CL-e, SD-f</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Developmental Outcomes:**

<table>
<thead>
<tr>
<th>Developmental Outcomes</th>
<th>---</th>
<th>NSSE Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Striving for excellence</td>
<td>---</td>
<td>1k, 1s, 7b, 9d, 10f, 11i, 11o</td>
</tr>
<tr>
<td>Cultivating personal and academic responsibility</td>
<td>---</td>
<td>IU-b, EX-f, EX-g, SE-c</td>
</tr>
<tr>
<td>Contributing to local and global community</td>
<td>---</td>
<td>NSSE 1e, 1u, 1v, 6d, 6e, 10c, 11i</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FSSE EM-c, SE-a, SE-f, SE-g, SD-i, IS-h</td>
</tr>
<tr>
<td>Understand personal health and wellness</td>
<td>NSSE 6b</td>
<td></td>
</tr>
<tr>
<td>Understand diverse perspectives</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>

CLA = Collegiate Learning Assessment; administer once every three years to 100 freshmen and 100 seniors, next administration is fall 2011/spring 2012

CAT = Critical thinking Assessment Test; pilot administration in fall 2011/spring 2012, administer every year to 300 to 400 students, score 100 to 200 tests depending on results of pilot project

NSSE = National Survey of Student Engagement, administer once every three years to all freshmen and seniors, next administration is spring 2012

CSWC = Consortium for the Study of Writing in College, administer with NSSE if this additional survey is available, tentative next administration is spring 2012

FSSE = Faculty Survey of Student Engagement, administer with NSSE once every three years, next administration spring 2012

**NSSE Items**

1b. Made a class presentation

1d. Worked on a paper or project that required integrating ideas or information from various sources

1e. Included diverse perspectives in class discussions or writing assignments

1f. Come to class without completing readings or assignments

1g. Worked with other students on projects during class

1h. Worked with classmates outside of class to prepare class assignments

1i. Put together ideas or concepts from different courses when completing assignments or during class discussions

1k. Participated in a community-based project as part of regular course

1s. Worked with faculty members on activities other than coursework (committees, orientation, student life, etc.)

1u. Had serious conversations with students of a different race or ethnicity than your own

1v. Had serious conversations with students who are very different from you in terms of religious beliefs, political opinions, or personal values
2a. Coursework emphasizes: Memorizing facts, ideas, or methods from your courses or readings
2b. Coursework emphasizes: Analyzing the basic elements of an idea, experience, or theory
2c. Coursework emphasizes: Synthesizing and organizing ideas, information, or experiences.
2d. Coursework emphasizes: Making judgments about the value of information, arguments, or methods
2e. Coursework emphasizes: Applying theories or concepts to practical problems or in new situations
3a. Number of assigned textbooks, books, or book length packs of course readings
3b. Number of books read on your own for personal enjoyment or academic enrichment
3c. Number of written papers or reports of 20 pages or more
3d. Number of written papers or reports between 5 and 19 pages
3e. Number of written papers or reports fewer than 5 pages
4a. Number of problem sets that take you more than an hour to complete
4b. Number of problem sets that take you less than an hour to complete
6b. Exercised or participated in physical fitness activities
6d. Examined the strengths and weaknesses of your own views on a topic or issue
6e. Tried to better understand someone else’s view by examining how an issue looks from his or her perspective
7a. Participated in a practicum, internship, field experience, co-op experience, or clinical assignment
7b. Participated in community service or volunteer work
7c. Participated in a learning community or some other formal program where groups of students take two or more classes together
7g. Participated in independent study or self-designed major
9d. Participating in co-curricular activities
10c. Encouraging contact among students from different economic, social, and racial and ethnic backgrounds
10f. Attending campus events and activities
11c. Writing clearly and effectively
11d. Speaking clearly and effectively
11e. Thinking critically and analytically
11f. Analyzing quantitative problems
11h. Working effectively with others
11i. Voting in local, state, or national elections
11j. Learning effectively on your own
11l. Understanding people of other racial and ethnic backgrounds
11n. Developing a personal code of values and ethics
11o. Contributing to the welfare of your community
CSWC Items
1a. Brainstormed (listed ideas, mapped concepts, prepared an outline, etc.) to develop your ideas before you started drafting your assignment
1b. Talked with your instructors to develop your ideas before you started drafting your assignment
1c. Talked with a classmate, friend, or family member to develop your ideas before you started drafting your assignment
1d. Received feedback from your instructor about a draft before turning in your final assignment
1h. Proofread your final draft for errors before turning it in
2b. Summarize something you read, such as articles, books, or on-line publications
2c. Analyze or evaluate something you read, researched, or observed
2d. Describe your methods or findings related to data you collected in lab or field work, a survey project, etc.
2e. Argue a position using evidence and reasoning
2f. Explain in writing the meaning of numerical or statistical data
2g. Write in the style and format of a specific field (engineering, history, psychology, etc.)
2h. Include drawings, tables, photos, screen shots, or other visual content into your written assignments
3d. Instructor asked you to give feedback to a classmate about a draft or outline the classmate has written
3g. Instructor asked you to write with classmates to complete a group project

FSSE Items
Importance for Undergraduates
IU-a. Practicum, internship, co-op experience, or clinical assignments
IU-b. Community service or volunteer work
IU-c. Participation in a learning community or some other formal program where groups of students take two or more classes together
IU-d. Independent study or self-designed major
Emphasis
EM-c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Extent
EX-f. Encouraging students to participate in co-curricular activities
EX-g. Encouraging students to attend campus events and activities
Student Behavior
SB-b. Frequently come to class without completing readings or assignments
Student Engagement
SE-a. Have class discussions or writing assignments that include diverse perspectives
SE-c. Participate in a community-based project as part of your course
SE-f. Have serious conversations in your course with students of a different race or ethnicity than their own
SE-g. Have serious conversations in your course with students who are very different from them in terms of their religious beliefs, political opinions, or personal values

Assignments
A-a. Number of assigned textbooks, books, or book-length packs of course readings
A-b. Number of written papers or reports of 20 pages or more
A-c. Number of written papers or reports between 5 and 19 pages
A-d. Number of written papers or reports of fewer than 5 pages

Homework
H-a. Number of problem sets that take your students more than one hour to complete
H-b. Number of problem sets that take your students less than one hour to complete

Importance for Your Students
IS-b. Work on a paper or project that requires integrating ideas or information from various sources
IS-c. Work with classmates outside of class to prepare class assignments
IS-d. Put together ideas or concepts from different courses when completing assignments or during class discussions
IS-g. Examine the strengths and weaknesses of their views on a topic or issue
IS-h. Try to better understand someone else’s views by imaging how an issue looks from that person’s perspective

Class Time
CL-e. Small group activities
CL-f. Student presentations
CL-g. In-class writing

Course Emphasis
CE-a. Memorizing facts, ideas, or methods
CE-b. Analyzing the basic elements of an idea, experience, or theory
CE-c. Synthesizing and organizing ideas, information or experiences
CE-d. Making judgments about the value of information, arguments, or methods
CE-e. Applying theories or concepts to practical problems or in new situations

Student Development
SD-a. Writing clearly and effectively
SD-b. Speaking clearly and effectively
SD-c. Thinking critically and analytically
SD-d. Analyzing quantitative problems
SD-f. Working effectively with others
SD-g. Learning effectively on their own
SD-i. Understanding people of other racial and ethnic backgrounds
SD-j. Solving complex real-world problems
SD-k. Developing a personal code of values and ethnic
Table 2. One model for meeting the Task Force recommendations

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Recommended mode of delivery</th>
<th>Total number of credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Foundation (may not be embedded in major)</td>
<td>Flexible Foundation (may not be embedded in major)</td>
</tr>
<tr>
<td>Learning Outcome 1 (Breadth of Knowledge):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human culture</td>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td>Physical and natural world</td>
<td>(7)</td>
<td></td>
</tr>
<tr>
<td>Wyoming History and Government</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Learning Outcome 2 (Skills):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written communication</td>
<td>(6) (Two possible tracks).</td>
<td>Degree programs articulate how they will achieve advanced writing.</td>
</tr>
<tr>
<td>Oral communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative reasoning</td>
<td>(6)</td>
<td></td>
</tr>
<tr>
<td>Inquiry and analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical and creative thinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical reasoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team-based learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Outcomes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Striving for excellence</td>
<td>(These could be combined into the freshman seminar noted above)</td>
<td>Degree programs articulate how they will meet these outcomes at a level of depth. Students do not have these on a menu for coursework.</td>
</tr>
<tr>
<td>Cultivating personal and academic responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributing to local &amp; global community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal health and wellness</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Understand diverse perspectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Additional responsibility in degree programs</td>
<td>+ degree program responsibility</td>
<td></td>
</tr>
</tbody>
</table>