



## CHAPTER 7

“I came to UW in 1998 with a strong desire to understand business and the environmental issues in the world since economic and financial sense drive business and affect the environment. What tapped my interest was the ENR capstone course series. We studied coalbed methane development, rural sprawl and collaborative process. The knowledge I gained helped me to advance my career more quickly than I would have otherwise.”

– *John Knight, former ENR student, founder of Knight Land Services, and current development director of Element Power based in Oregon*

# Enriching the Undergraduate Student Learning Experience

## THE UNIVERSITY’S COMMITMENT TO LEARNING

### (Core Component 1a)

Chapter 6 outlined the developments over the last decade in providing students with tools and learning environments to support their success. This chapter focuses on curricular revisions and developments that enrich the undergraduate learning experience. During the past 10 years, the university implemented a thorough review and revision of its general education program. It has worked to balance the demands of general education with the specialization required for majors and programs and to improve advising. The university has also expanded interdisciplinary programs, international learning opportunities, capstone experiences, and student leadership opportunities. And, with a decade’s work on assessment, we have evidence that many of the university’s departments and programs are creating cultures of assessment to improve student learning. (1a)

## COMMITMENT TO GENERAL EDUCATION

### (Core Components 2a, 2b, 2c, 3b, 4a, 4c, 4d, 5c)

The university’s general education program, known as the University Studies Program (USP), helps to ensure that students achieve a broad understanding of human knowledge through the completion of common requirements. As shown in Table 7.1, students must complete nine core components and an additional five embedded components to meet the requirements of the USP 2003 program. These requirements help students acquire the skills needed for full participation in a technologically complicated world and those necessary for personal and professional growth. (4c) The requirements further aim to facilitate students’ abilities to function and participate in multicultural communities and civic environments. (4a) The

Table 7.1. University Studies Components

Core Components <sup>1</sup>	Hours	Embedded Components <sup>2</sup>
Intellectual Community (I)	1-3	Information Literacy (L)
Writing 1 (WA)	3	Writing 2 (WB)
Oral Communication (O)	3	Writing 3 (WC)
Quantitative Reasoning 1 (QA)	3	Global Awareness (G)
Quantitative Reasoning 2 (QB)	3	US Diversity (D)
Science (S, SB, SP, SE)	4-8	
Cultural Context (C, CH, CS, CA)	9	
U.S. and Wyoming Constitutions (V)	3	
Physical Activity and Health (P)	1	
<b>TOTAL</b>	<b>30-36</b>	

Source: University Studies Program

<sup>1</sup>Two core components may not be fulfilled by the same course.

<sup>2</sup>Embedded components are those that may be taught as part of another course.

goals of the University Studies Program substantially mirror the essential learning outcomes advocated in the National Leadership Council's report entitled *College Learning for the New Global Century*.

The University Studies Program was substantially revised in 2003 in response to the call in the Academic Plan I to review USP, necessitated by 10 years without review and the proliferation of courses that fulfilled distribution requirements. The 2003 revision retained many of the original features of USP, including coursework in writing, quantitative reasoning, global awareness, science, humanities, social and behavioral sciences, and fine arts. Important additions included coursework in oral communication, information literacy, and cultural diversity. (4c) The component originally designed to introduce students to university life was revised to be an intellectual community course in which students are introduced to different forms of academic thought. (2c)

The USP Committee is comprised of faculty representatives from the six undergraduate colleges and other units serving undergraduate students, such as the libraries, the Outreach School, and the Wyoming community colleges. Representatives are appointed by the colleges and approved by the Faculty Senate for three-year terms. The USP Committee is charged with reviewing and approving all USP-designated courses. Specifically, the committee looks for how well particular courses meet the criteria for each designation. (3b) Faculty and departments wanting to maintain USP designation for particular courses must submit course syllabi to the committee once every three years. Innovative teaching and distance learning pedagogies are welcomed and encouraged. Proposals are first reviewed by the various colleges for the dean's approval before the USP Committee review. For example, in the College of Arts and Sciences, a proposal for a new course addressing a USP requirement is

reviewed by the A&S Course Subcommittee and the A&S Central Committee before moving to the USP Committee and finally the University Course Committee.

The university established a general education articulation agreement with the seven Wyoming community colleges in 2001. Under this agreement, students who earn an associate's degree at a Wyoming community college and complete three additional mathematics credits transfer to the University of Wyoming having fulfilled the university's lower division general education requirements. The university recently reached a similar agreement with Pikes Peak Community College in Colorado. In the absence of an earned associate's degree, determination of course transfer is made on a case-by-case basis by the department where the course resides. If there is no university equivalent course, the community colleges then follow the standard university procedure for obtaining USP designation as described. (5c)

The oral communication requirement constitutes an example of how the university has strengthened curricula. The university has provided resources for the teaching of public speaking courses and for the Oral Communication Center that supports student learning in this area, and it systematically assesses student achievement each semester. (2c) Two strengths of the program for oral communication are especially notable. First, sections of public speaking courses are offered to two at-risk populations: conditionally admitted students involved in the Synergy program and students who self-identify as apprehensive about public speaking. Second, the Department of Communication and Journalism offers three to four Freshman Interest Group courses each fall semester to enhance retention. (2b)

University faculty and lecturers occasionally propose additions to the USP program. Recent suggestions include adding a component for ethics. Ethical reasoning is a learning goal not formally part of USP or most college-level requirements at the university, but ethics education is being developed in other ways. Several specific programs offer and even require coursework in ethics. Both anthropology and psychology majors, for instance, are required to take courses that introduce ethical issues of research with human participants. Similarly, an understanding of ethics in science is assessed in geology courses. The College of Business hired the Bill Daniels Distinguished Professor of Ethics to support significant ethical instruction in the college. From 2006-2009, the Ellbogen Center and the Philosophy department sponsored the Kaiser Ethics Project with external funding. In this program, 20 faculty groups developed and assessed new ethics components for courses in business, education, engineering, health sciences, humanities, writing, and biological science. The university has endorsed plans to expand this project. (4d)

Preliminary consideration also has been given to the addition of a technology requirement; future discussion will weigh this possibility against the merits of including and assessing technology experiences within specific disciplinary programs. Given the recent economic developments and the need for understanding the role of consumer credit in our society, financial literacy is another goal undergoing some discussion across the institution. (2a) These preliminary discussions are helpful as the university approaches another cycle of USP review in the next five years as part of the university planning process.

*“Over the last decade, one of the challenges in the university’s planning efforts has been balancing depth and breadth of majors, degree programs, and course offerings. Through planning, departments and colleges regularly evaluate majors to better target and tailor educational needs to Wyoming’s students.”*

## COMMITMENT TO PREPARING STUDENTS FOR A DIVERSE FUTURE (Core Components 2a, 2b, 2c, 4c)

Undergraduates can choose from more than 75 majors across six colleges, ranging from architectural engineering to theatre and dance, from kinesiology and health promotion to political science. Although some majors (including several new ones) have relatively few students, others have hundreds, and some remain in flux. Undergraduate majors with the highest enrollments in fall 2008 were elementary education, psychology, business administration, kinesiology and health promotion, criminal justice, mechanical engineering, and nursing. Interdisciplinary majors such as environment and natural resources and international studies are enjoying increased enrollments. (4c)

Over the last decade, one of the challenges in the university’s planning efforts has been balancing depth and breadth of majors, degree programs, and course offerings. Through planning, departments and colleges regularly evaluate majors to better target and tailor educational needs to Wyoming’s students. For example, the university eliminated 21 majors and added 22 during the period between 1999 and 2009.

As is the case with the number of student majors, the number of faculty teaching students varies across departments. For example, there are seven tenured or tenure-track faculty in accounting compared to 17 in civil and architectural engineering. Growth of student numbers in certain majors does not necessarily lead to appointing additional faculty in that area. Although the university has central position management for the allocation of positions, enrollment in majors is one of several considerations for allocating faculty positions to a unit. Other factors include a unit’s contributions to service curricula, its alignment with institutional areas of distinction, and the availability of appropriate start-up funding. (2b)

External accreditation agencies often praise certain programs at the university as exemplary. During the recent National Council for the Accreditation of Teacher Education (NCATE) site visit for the College of Education’s reaccreditation, one of the major points of commendation was the series of concurrent majors between secondary education and content areas in both the Colleges of Agriculture and Natural Resources and Arts and Sciences. These concurrent majors are among the few that exist at colleges of education nationally. (2c)

The College of Business is accredited by the Association to Advance Collegiate Schools of Business (AACSB). AACSB accreditation is mission-based, focusing on continuous improvement and student learning. As the College of Business prepares for its AACSB accreditation visit in fall 2010, it is focusing on recent changes to its programs that keep it up-to-date. For example, the accreditation team will assess the college’s new focus on sustainable business practices as well as the planned changes to the MBA program and the recently approved PhD in marketing. (2a)

Degree programs offered through the Outreach School have grown to accommodate statewide workforce development. An example is the new Bachelor of Applied Sciences degree which is administratively housed in the College of Agriculture and Natural

Resources. This program allows site-bound individuals with significant work experience and Associate of Applied Sciences degrees from Wyoming community colleges to enhance credentials in leadership, management, and organizational areas and earn a bachelor's degree in the process. (4c)

## Aiding student learning through advising

(Core Components 1b, 2c, 5c)

Effective academic advising and career development are key components of academic success and student satisfaction. Colleges at the university employ several models to provide academic and career advising for students on the Laramie campus, at the University of Wyoming Casper College Center, and in the Outreach School. The Colleges of Agriculture and Natural Resources, Arts and Sciences, and Health Sciences have faculty advising models in which students are assigned a faculty advisor in their departments beginning their freshman year. The Colleges of Education and Engineering and Applied Science use centers staffed by professional advisors to provide academic advising for students in the first years and then assign faculty advisors in subsequent years. The College of Business utilizes a center staffed with professional advisors for all undergraduate students. In addition, faculty are assigned to provide career advice. Undeclared students are advised by the Center for Advising and Career Services under an agreement with the College of Arts and Sciences. All departments and programs participate in advising week each semester. (5c)

Academic advising conducted at the department level is supported through the Center for Advising and Career Services, a central unit that provides training for new faculty and provides all advisors with updates of new or changed general education requirements under the USP. Given the diverse nature of the student population, special populations of undergraduate students are provided additional advising opportunities. These groups of students include those enrolled in the Honors Program, student athletes, students who qualify for services under Student Educational Opportunity (first-generation students, low-income students, and students with disabilities), international students, and students who participate in domestic and international exchange programs. (1b) The university expects to provide additional advising services for returning veterans.

Advising for students not on the Laramie campus varies by student location. Those enrolled at the University of Wyoming Casper College Center have access to on-site advising in addition to Laramie campus advisors as described above. Students at other locations in Wyoming have access to regional center academic coordinators, the Outreach School academic advisor located in Casper, and Laramie campus advisors.

Student satisfaction on advising is important to the university. Students appear to be satisfied with advising overall. According to the 2008 ACT Student Opinion Survey, 77 percent of students were satisfied or very satisfied with advising services compared to 70 percent nationwide. In 2008, the College of Arts and Sciences implemented an online pilot survey designed to gain students' impressions of their advising experiences, which may serve as the basis for modifications in the future and for faculty development. (2c)

## Interdisciplinary learning

(Core Components 1b, 4c, 4d)

As a research university, the University of Wyoming has begun the important process of creating new interrelated, interdisciplinary units. Interdisciplinary programs are valued for the following reasons: 1) to offer students more opportunities in learning, 2) to offer more courses that carry perspectives spanning more than one traditional department, and 3) to prepare students for contemporary technical professions. (1b)

Currently, the institution's interdisciplinary programs connect and integrate several academic disciplines, professions, and technologies. For example, the Haub School of Environment and Natural Resources (ENR) recognizes that natural resource issues inherently possess political, scientific, cultural, sociological, economic, and legal aspects. (4d) As a result, the ENR program requires students to complete a major in an affiliated discipline, which can be housed in any other department, while also completing coursework in interdisciplinary ENR classes. This program has realized steadily increasing enrollments in the last five years, with numerous ENR alumni achieving career success, as reflected in data collected from the Haub School's 2007 Alumni Survey. (4c)

Other interdisciplinary undergraduate majors include microbiology, earth systems science, energy resources science, and energy systems engineering. All provide students with opportunities to major in areas that cut across traditional disciplines. In the College of Arts and Sciences, seven units are formally designated as interdisciplinary. International studies, women's studies, and American studies offer undergraduate majors. Minors are offered in African American and diaspora studies, American Indian studies, Chicano studies, and religious studies. UP 3 calls for the consideration of new major programs in religious studies and American Indian studies. (4c)

While interdisciplinary academic programs are intellectually exciting, they pose challenges to the traditional academic management structures. Administration of cross-college interdisciplinary undergraduate majors follows several models, none currently entirely satisfactory. In the views of some, a new model employed for two programs, where management is the responsibility of a committee of academic deans with a lead dean, tends to diminish cross-college contributions, leading to a predominantly single-college interdisciplinary program. The university hopes to address this challenge during the implementation of UP 3. (4c)

## International learning

(Core Components 2b, 4b, 4c, 5c)

In the last decade, the university has increased the number of students involved in international programs. In 2003-2004, only 61 students studied abroad. In 2008-2009, more than 300 students took advantage of these programs. Students can make overseas study a part of their regular degree program, regardless of their majors or second language skills. Opportunities include a full academic year or semester, summer programs, 10-day or two-week trips during the regular semester, or a spring or winter break experience. These curricular and co-curricular experiences add to the breadth and depth of student learning at the university. (4b)

Former Vice President Dick Cheney and Lynne Cheney recently funded a gift that provides the university remarkable support for international education. This gift allowed co-location of all international education programs in the newly remodeled facilities now known as the Cheney International Center. With the Cheney gift of \$1.5 million fully matched by the State of Wyoming, \$3 million was available for the center. An additional \$1.7 million from the Cheney family was also matched by the state to establish a study abroad scholarship endowment. The goal is to build the endowment to \$10 million in support of study abroad students. (2b) To date, 350 students have benefitted from Cheney grants and fellowships with study in 45 different countries.

The Office of International Programs offers two study abroad options. One provides students with the opportunity to study in another country at a partnering institution. The university has 30 such formal partners. In this case, the student pays University of Wyoming tuition, fees, and housing costs to the host institution. A second option provides foreign students with the opportunity to study at the University of Wyoming. These two-way exchange programs provide global perspectives to both groups of learners. (4b, 4c)

The university also offers more than 400 exchange locations spanning the globe. The program is open to any country as long as it has an accredited institution that is willing to cooperate with the university. For example, a student might be interested in studying reproductive health in Mali or working as a wildlife researcher in Madagascar. (5c) There is strong student interest in study abroad, according to the 2009 NSSE results, indicating that the university has the opportunity to expand this program. Fifty-eight percent of freshmen have completed or planned to complete foreign language coursework while 45 percent of seniors have completed foreign language coursework. In addition, 40 percent of freshmen said they have completed or plan to participate in a study abroad program. However, only 12 percent of seniors said they have participated and 10 percent still plan to participate. Issues of money, time, distance from family, and possible delayed graduation may influence whether students actually participate in these offerings.

## Learning through capstone and research experiences

### (Core Components 4b, 5b)

One of a research university's greatest strengths lies in the breadth of opportunities for students to engage in problem-based learning with faculty. Because of its small size, the University of Wyoming has a distinct advantage in connecting students with faculty researchers. (4b) According to the 2009 NSSE results, 81 percent of freshmen have participated or plan to participate in a practicum, internship, field experience, cooperative experience, or clinical assignment. Forty-seven percent of seniors said they have participated in such an experience with another 29 percent still planning to do so in the future. (5b)

Many departments and programs offer students culminating research or internship opportunities through a capstone course or relevant professional experience. Several majors have developed innovative approaches to a capstone experience, while others are in the development stage.

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The Honors Program and the College of Engineering and Applied Science have long-standing records of excellence with their capstone research experiences. Every honors student works with a faculty member for the equivalent of a three-credit course to write and present a substantial creative or research project for a senior thesis. All students in the College of Engineering and Applied Science complete a senior design project, which involves significant faculty mentoring and formal coursework. (4b) Students always work in teams for their projects. Professional engineers are invited to provide outside assessments of their final presentations. The college has created an innovative interdisciplinary option for these design projects. In spring 2008, students won first place in the Environmentally Friendly Drilling-Disappearing Roads Competition at Texas A&M University.

One of the most successful undergraduate research opportunities for attracting and retaining students under the university's science, technology, engineering, math (STEM) disciplines is the Wyoming Experimental Program to Stimulate Competitive Research (EPSCoR) funded by the National Science Foundation. The EPSCoR program offers opportunities for secondary science majors to pair with STEM graduate students in research projects. These future science teachers gain increased familiarity and confidence with scientific experimentation. In addition, undergraduate students majoring in STEM disciplines can apply for research fellowships for specific topics. Over the last 11 years, the program has provided 388 fellowships. Of the students who participated, nearly 100 percent graduated, with 89 percent continuing in STEM-related careers.

A second undergraduate STEM effort focused on biomedical education and training is the Wyoming Idea Networks of Biomedical Research Excellence (INBRE) program funded by the National Institutes of Health. Recently renewed for five additional years of funding, INBRE provides several programs that offer undergraduate students, as well as Wyoming community college students, access to biomedical-related education and research opportunities. The UW-Community College INBRE Transition Scholarship program provides support for students transferring from community colleges to the university. As part of the award, students are required to conduct mentored biomedical research in laboratories during their junior and senior years. In 2009, five transition scholars were enrolled at the university, including one at the University of Wyoming Casper College Center.

Undergraduate Research Day allows the university to recognize students for their research contributions. This on-campus event presents students with a unique opportunity to showcase their research along with their peers. Over the past five years, it has become increasingly popular with students and their faculty mentors. In 2009, 293 students presented their research at this May event, which is essentially a mini-conference with poster sessions and participant engagement.

Departments and programs have also increased the number of opportunities for students to engage in internships, juried contests and performances, and other programs that connect students to professionals from beyond the university. (4b) For example, students in the Department of Agricultural and Applied Economics have the opportunity to study

agricultural practices and economics in France, and veterinary science students work in the necropsy lab at the Wyoming State Veterinary Laboratory, researching wildlife diseases and domestic animals. The College of Business hosts a centralized internship program providing both course credit and stipends to students. The college offers a minor in entrepreneurship for students to think about ways to start their own business and sponsors a competitive grant open to all university students for \$10,000 in funding for business plan development. (4b) The Community Health Advancement Program, sponsored by the Division of Medical Education and Wyoming Area Health Education Center, creates opportunities for students to design, plan, implement, and evaluate programs for local agencies offering health care assistance and support.

### Learning through leadership

(Core Components 2c, 4b, 5a, 5b, 5c, 5d)

Leadership development in both the curriculum and co-curriculum is a major part of the university's mission to prepare students for work and lifelong learning. There are numerous opportunities for students to receive formal training in leadership through coursework. Student opportunity for leadership development is enhanced by the more than 200 student organizations on campus. Students can participate in nationally-ranked club sports teams, award-winning service learning programs, and nationally recognized residence hall leadership programs. In fact, according to the 2009 NSSE results, the majority of students spend some time engaging in co-curricular activities (64 percent of freshmen and 57 percent of seniors). (4b, 5b) Table 7.2 provides detail about students' level of participation.

The Freshman Senate is an example of a program that actively engages new student leaders from the time they arrive at the university. Senators make valuable contacts with first-year students and serve as liaisons between freshmen and university departments to convey student opinions about what is working and what makes the transition to college life difficult. At the end of the school year, these leaders present their recommendations to the president of the university.

According to the ACT Student Opinion Survey, student satisfaction has increased with student government since 1998. In 1998, only 37 percent of students were satisfied with student government. That number has increased to 49 percent in 2008. Conversely, the student dissatisfaction rate has decreased from 13 percent in 1998 to 4 percent in 2008. (2c) Satisfaction with a student voice in college policies has also increased from 1998 to 2008. Twenty-nine percent of students were satisfied with the student voice in college policies in 1998. This number increased to 41 percent in 2008. Although progress has been made in this area, more work remains since half of the students have remained neutral about this issue.

Two programs that have gained momentum within the last 10 years are the Center for Volunteer Service (CVS) and the Wyoming Conservation Corps (WCC). The CVS partners with more than 80 agencies and entities in the greater Laramie/Cheyenne area. In 2007-2008, the Center for Volunteer Service recruited 1,782 volunteers who collectively

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Table 7.2. Participation in Co-curricular Activities by Student Class Level

Hours per Week	Freshmen	Seniors
None	35%	42%
1 to 5 hours	32%	32%
6 to 10 hours	14%	11%
11 or more hours	18%	14%

Source: National Survey of Student Engagement, 2009

performed 15,195 hours of service. Another CVS effort is the annual Alternative Spring Break. Launched in 2006 with partial funding through AmeriCorps, this program includes such efforts as hurricane relief work in Mississippi, trail restoration work in Utah, and legislative visits in Washington, DC. (5d)

Besides logging in service hours, volunteers in these programs participate in a rigorous training curriculum that addresses the following topics: effective communication, diversity appreciation, time management, financial management, public speaking, conflict resolution, team-building strategies, civic participation, political engagement, and best practices for volunteer generation. The curriculum operates under a service learning paradigm, pairing reading, discussion, and structured reflection activities to encourage volunteers to connect service with personal growth and assess community impact. (5d)

Launched in 2006, the Wyoming Conservation Corps (WCC) is modeled on the AmeriCorps program. Initial funding for the program was provided by the Wyoming State Legislature. The WCC mission is to provide students with leadership and natural resource management experience through public service opportunities on Wyoming's public lands. Each summer the WCC partners with state and national land management agencies. WCC fieldwork ranges from building trails and fences to clearing natural fuels in forests and restoring riparian habitats for wildlife. (5c) Since the WCC's implementation in 2006, 87 students and more than 50 university and statewide volunteers have completed over 64,000 hours of service to maintain and improve public lands in Wyoming.

The university assesses volunteer learning both qualitatively and quantitatively. In the AmeriCorps program, volunteers complete written reflections on a monthly basis in which they describe what they have learned as a result of their service and how it ties into principles of civic engagement. They also compose an essay at the end of their service term that describes a transformative moment in their service. In both programs, volunteers complete surveys to gauge their perceptions of their growth. An average of 75 to 85 percent of the volunteers reported that they have significantly improved in civic engagement. In 2008-2009, volunteers were asked to participate in a follow-up survey six months out from their service experience to determine how they have put these skills to use in their personal and professional lives and if they have continued to stay involved. (5d)

Student Leadership and Civic Engagement (SLCE) is the main organization that oversees student leadership development activities at the university. SLCE offers leadership programs and resources for individual students, support and training to student organizations, and management of student internships with a focus on leadership and citizenship. (4b) As a result of its 2007 report, SLCE implemented a number of activities that have strengthened student leadership development, including co-locating space within the Wyoming Union to facilitate new partnerships between the Center for Volunteer Service and the Campus Activities Center. (4b, 5a)

SLCE administrators are working with leaders across the university to examine existing co-curricular activities and leadership curricula to develop a long-term plan for student leadership and civic engagement. For example, a series of leadership seminars was piloted with students interested in being resident assistants (RA) in 2009-2010. Applicants were required to participate in five workshops prior to being interviewed for the RA position. With this requirement in place, 91 students applied for approximately 35 RA vacancies, a record year clearly demonstrating the need for this training. Other SLCE efforts may include developing new initiatives, incorporating a broader academic plan (along with new and existing curricula), and conducting a full comprehensive assessment of overall leadership development at the university.

## ASSESSMENT OF UNDERGRADUATE LEARNING

### (Core Component 2c)

The university's assessment efforts aid the institution and its various constituents to gain specific knowledge of what students are learning. Assessment results are used by the university to develop ways to improve its learning opportunities. Assessment occurs at all levels of the university and includes a range of methods. The university has moved beyond using grades and indirect assessments such as surveys as its primary assessment tools. While these still have a purpose, direct measures of student learning have become critical, with the university examining more examples of student work over time. (2c)

### University-level assessment

#### (Core Components 1a, 2c)

The university assessment specialist in the Office of Academic Affairs coordinates various institutional-level assessment projects, including the National Survey of Student Engagement (NSSE), the Faculty Survey of Student Engagement (FSSE), the Collegiate Learning Assessment (CLA), and the parsing the first-year experience study. The university has conducted the NSSE five times since 2000. The most recent administration in 2009 included participation in the Consortium for the Study of Writing in Colleges. The FSSE was administered in 2005 and 2009. The University of Wyoming was one of 50 institutions selected to participate in the first CLA longitudinal study that began in 2005. Also, in 2005, the university was selected to participate in Pennsylvania State University's parsing the first-year experience study. (2c) These studies have provided the university with an

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excellent mix of direct and indirect measures of student learning at the institutional level and have formed the basis for participation in the Voluntary System of Accountability. The university assessment specialist frequently presents results of these projects to the university community via brown bag sessions through the Ellbogen Center for Teaching and Learning and in assessment newsletter articles. In addition, various programs such as LeaRN routinely use these results in their work with faculty and students. (1a)

## General education assessment

### (Core Components 2c, 3a, 4c)

The responsibility for the assessment of the general education University Studies Program (USP) resides with the USP Committee and the faculty who teach USP courses. (2c) The Department of English has accepted responsibility for assessing writing 1 (WA) and has conducted two assessments: one in 2005 and one in 2009, using a rubric developed by the faculty and instructors teaching composition. The Department of Mathematics has taken over responsibility for quantitative reasoning (QA and QB) assessment since the majority of designated quantitative reasoning courses reside within the department. Formal assessment of general education by the USP Committee began in 2004 with the awarding of two assessment assistance grants to the committee to develop writing 3 (WC) and oral communication (O) rubrics. (4c) The committee began using these rubrics to assess both requirements in 2005-2006. The University Assessment Coordinators Committee further encouraged the development of rubrics, as well as other mechanisms of assessment for other USP core or embedded components, with the awarding of additional assessment grants. Table 7.3 provides a summary of these projects from 2004 to 2008.

With regard to the WC requirement, in fall 2005, 182 students in 11 courses were evaluated. Based on class writing assignments evaluated according to a rubric developed by a team of WC instructors, 80 percent or more of students achieved an excellent or good rating (4 or 3 on a 4-point scale) on each of 11 outcome elements. In spring 2006, 212 students from 13 courses were evaluated with largely similar results, although percentages dropped below 80 percent for two of the 11 elements. Results for fall 2006 (231 students in 13 courses) were similar to fall 2005 results. (3a)

Assessment of student learning in oral communication (O) has been conducted nearly every semester since the rubric was developed in 2004. Data for 448 students who completed COJO 1010 in spring 2009 indicated that between 61 and 78 percent of students rated well done/exemplary or satisfactory/acceptable on each of the 15 dimensions of the assessment. (3a)

Academic Plan II identified the need for an extensive assessment of the USP program with the intent of using this information to improve and revise the program in future years. Based on successful assessments of the WC and O components, the USP Committee designed rubrics in 2008-2009 for direct assessment of student work in all core and embedded components. The committee also created a three-year schedule for assessing all USP courses beginning in 2009-2010. The committee conducted faculty development

Table 7.3. Summary of Completed University Studies Program Assessment

Academic Years 2004-2005 to 2008-2009					
Core Components	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Writing 1 (WA)	94 papers*				106 papers*
Oral Communication (O)	Developed rubrics*	493 pieces of student work	912 pieces of student work	446 pieces of student work	448 pieces of student work
Cultural Context (C, CH, CS, CA)		Identified best practices*			
Embedded Components	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Information Literacy (L)			1,070 online tutorial tests*		
Writing 3 (WC)	Developed rubrics*	394 papers	231 papers		
Global Awareness (G)		Identified best practices*			

Source: Academic Affairs

\* Assessment grants awarded by the University Assessment Coordinators Committee

workshops in spring and fall 2009 to inform faculty about the process of choosing and evaluating student work and the first round of assessment occurring in fall 2009. (4c)

Table 7.4 shows the current USP assessment schedule.

## College-level assessment

(Core Components 1a, 2c, 3a, 4c, 4d)

Many undergraduate programs of study are guided by additional college-level or program-level requirements put into effect by various accrediting agencies. The College of Engineering and Applied Science's curricula are tightly structured within subdisciplines to ensure the delivery of technical content regarded as essential for effective practice in engineering as well as to satisfy ABET, Inc. accreditation demands. Guided by NCATE criteria, the College of Education develops curricula to meet both national and state standards for teacher preparation. (4d) Similarly, the College of Business is guided by AACSB standards. (2c)

The College of Arts and Sciences has chosen to require additional coursework beyond USP requirements. The additional coursework is in foreign language, science, and non-western culture. In 2007-2008, the Arts and Sciences (A&S) dean's office sponsored assessments of the college-specific requirements through its standing teaching committee. (1a) Assessment of the foreign language requirement utilized data from 483 students.

Table 7.4. University Studies Program Assessment Timetable for New Rubric Implementation

Academic Years 2009-2010 to 2011-2012			
Core Components	2009-2010	2010-2011	2011-2012
Intellectual Community (I)	✓	✓	✓
Writing 1 (WA)	✓	✓	✓
Oral Communication (O)	✓	✓	✓
Quantitative Reasoning 1 (QA)	✓	✓	✓
Quantitative Reasoning 2 (QB)	✓	✓	✓
Integrated Science (S)		✓	
Biological Science (SB)	✓		
Earth Science (SE)		✓	
Physical Science (SP)			✓
Integrated Cultural Context (C)	✓		
Humanities (CH)	✓		
Social & Behavioral Science (CS)		✓	
Fine Arts (CA)			✓
U.S. and Wyoming Constitutions (V)			✓
Physical Activity and Health (P)			✓
Embedded Components	2009-2010	2010-2011	2011-2012
Information Literacy (L)	✓	✓	✓
Writing 2 (WB)	✓	✓	✓
Writing 3 (WC)	✓	✓	✓
Global Awareness (G)		✓	
U.S. Diversity (D)	✓		

Source: University Studies Program Committee

Students self-reported about both their levels of ability and also problems with the transition between high school and college foreign language study, data that will inform the college's discussion of the utility and structure of the college's foreign language requirement. Assessment of the A&S science requirement utilized a rubric that assessed understanding of scientific process, mastery of content area, and application of science to decision-making. The committee rated hundreds of examples of student work in each category, discovering that the latter is the most problematic. (3a) Assessment of the non-western requirement involved the scrutiny of 270 examples of student work from seven different classes, revealing partial achievement of learning outcomes. Most students could describe non-western cultural traditions and compare them with their own, but it was not clear that they were acquainted with or understood the cultural tradition as people from within those traditions would. A college committee ultimately decided that each non-western course needs to undergo a comprehensive reauthorization process every three years to ensure that students demonstrate the desired learning outcomes. Assessment of the A&S requirements also addresses concerns by some college faculty and students about the purpose and the outcomes of these requirements, an issue noted in the 2000 site visit report. (4c)

## Department and program-level assessment

(Core Components 1a, 2c, 3a, 4d)

Almost all departments and programs have a clearly established assessment plan, and each reports progress on implementation via the departmental annual report. The University Assessment Coordinators Committee submits specific questions for consideration and asks departments to provide an overview for each degree program. The committee has reviewed these reports for the last five years and has provided formal feedback and suggestions to department chairs. (3a) This process has been extremely helpful in clarifying issues, opening up communication, providing a constant reminder to chairs that assessment should be a priority, clarifying where departments are with assessment, identifying ways to assist departments in need, and documenting the university's assessment progress. (2c)

Most departments are well past the beginning stages of assessment. Almost all departments have clearly defined learning outcomes that are posted on their Web sites as well as the university's assessment Web site. An analysis of the 2009 annual reports, as detailed in Table 7.5, shows that 95 percent of undergraduate programs have established learning outcomes. (1a, 3a) Among undergraduate programs, 78 percent have collected some direct evidence of student learning while 64 percent have collected indirect evidence, with some having substantial information to aid decision-making among the faculty. While not all departments have completed an assessment cycle, 61 percent of the undergraduate programs have documented changes to their programs and curricula with the goal of improving student learning. (4d)

The methods of assessment vary by department and college. The colleges with undergraduate professional programs have well established processes due to other accreditation processes and, in some cases, licensure examinations. These programs often have extensive data collected, including test scores, portfolio performance, clinical and internship performance, student and employer surveys, tracking of students after graduation, etc. They also have clear processes for documenting their progress and making changes based on their assessment results. (2c) For programs not governed by disciplinary accrediting bodies, there is great diversity in assessment, and some of these departments tend to struggle more with assessment. Many departments use rubrics to assess different assignments while some give common exams. Some use portfolios of some type to assess student work, such as e-portfolios. Many also conduct student surveys, with fewer conducting employer surveys because of the difficulties in tracking students once they leave. Overall, the departments are employing a good mix of direct and indirect methods of assessment. (3a)

## Assessment of learning in distance programs and courses

(Core Components 2b, 2c, 3b)

Assessment of student learning in distance courses is the responsibility of the academic departments. The Outreach School is responsible for assessing the quality of the learning environment and technology used to deliver the course or program. Each semester students who take distance courses are surveyed via an online instrument. (3b) To assess the university's efforts to meet the educational needs of students and Wyoming residents

Table 7.5. Summary of Assessment Progress in Undergraduate Programs

	Arts & Sciences	Agriculture & Natural Resources	Business	Education	Engineering & Applied Science	Health Sciences	Inter-disciplinary	UW
	N=30	N=10	N=3	N=3	N=5	N=5	N=3	N=59
Learning outcomes are identified on the department Web page.	100%	90%	100%	100%	100%	80%	33%	95%
The department has collected direct evidence of student learning.	93%	50%	100%	100%	80%	60%	0%	78%
The department has collected indirect evidence of student learning.	60%	50%	100%	100%	80%	60%	33%	64%
The department is using its assessment results and making changes based on results.	60%	30%	100%	100%	80%	60%	33%	61%
The department made progress from the previous year.	97%	50%	100%	100%	80%	60%	0%	81%

Source: University Assessment Coordinators Committee

outside Laramie, the Outreach School also conducts statewide surveys every three years through the Wyoming Survey & Analysis Center to assess educational needs and perceptions of university distance efforts statewide. (2c) A biennial Outreach School Regional Center Survey, first conducted in 2008, is intended to collect data on the effectiveness and quality of service provided by the Outreach School's nine regional centers. Seven of these centers have academic coordinators located on community college campuses. (2b) The Outreach School also periodically surveys students who take its courses to assess the quality of advising received.

### Assessment of academic advising (Core Components 1d, 2c, 3d)

While the mechanisms are in place for a comprehensive academic advising experience, evaluation of the success of academic advising has been sporadic at best. A university-wide advising evaluation was conducted at three-year intervals from 2000 until 2006. The information gained was of limited utility in that differences between departments were rarely significant. However, some colleges did use the results to improve practices of individuals. A variety of advising models are employed, from a centralized academic advising office in the College of Business with faculty engaged in career advising to the individual

faculty advisor model employed in the Colleges of Agriculture and Natural Resources and Arts and Sciences. Students are asked about their academic advising experience during the annual student satisfaction surveys—the ACT Student Opinion Survey, the Noel-Levitz Student Satisfaction Inventory, and the University of Wyoming Student Opinion Survey. (3d) Information from these surveys is generally shared in aggregate form, but breakdowns by college are available.

The College of Arts and Sciences instituted a pilot online advising evaluation for students in spring 2009. There had been particular concern expressed about the lack of information about advising information in the reappointment process in the college since advising is a formal component of most job descriptions. Beginning in 2009-2010, the college will utilize online advising forms completed by students for all academic personnel in the third, fourth, fifth, and tenure year and for promotion to full professor. Strengthening advising assessment and benchmark development within colleges is a key area for development in the next five years. (2c)

One recent improvement in the area of academic advising was the formation of a group to improve communication between key advising groups across the university. Instituted in 2005, the advising conversations group includes representation from advisors from each of the colleges and the Center for Advising and Career Services. The 2009 pilot Sure Start program to block-enroll new students into several courses will be assessed for its impact on advising, and current efforts are underway to research best advising practices at other institutions so that improvements can be made at the University of Wyoming. (1d, 3d)

### **Co-curricular assessment**

(Core Components 2c, 3d)

The Division of Student Affairs also engages in the assessment of student learning with an emphasis on the co-curriculum. In 2006, the department directors developed eight division-wide learning outcomes linked to the contributions of student affairs programs and services to student learning. The department directors also identified assessment strategies for one or two learning outcomes. (3d) Each learning outcome was supported by at least one department, as determined by mapping each of the learning outcomes to departmental assessment plans. The next step is to collect data to assess the learning outcomes identified in the existing plans. This more formalized effort dovetails nicely with existing assessment efforts, including comprehensive program reviews, participating in biannual student satisfaction surveys, and the annual review of action items from the university and division support services plans. In addition, two units—Residence Life & Dining Services and the Wyoming Student Union—use the Educational Benchmarking, Inc. assessment instruments. Service satisfaction surveys are also conducted by other individual units. (2c)

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## CONCLUSION AND KEY FINDINGS

The University of Wyoming has employed broad, diverse approaches to enrich the undergraduate learning experience over the last 10 years. These efforts include increasing attention to the University Studies Program (USP), providing a vast array of distinctive learning experiences to students at the university level and within programs and majors, and ongoing implementation and refinement of assessment of student learning processes. While significant progress has been made, the university has identified the following:

- **The results of the USP assessment process should help inform the USP Committee regarding future changes to the USP program.** While current USP content aligns with many of AACU's recommendations, the USP Committee must carefully monitor the currency and relevancy of its course offerings. Assessment results should aid these conversations by providing much needed information about student learning attainment in particular subject areas. (UP 3 Action Item 22)
- **Because the university employs a variety of advising models, further assessment of advising effectiveness and efficiency should be conducted at the college level and for subsets of the student population, especially nontraditional populations.** The university must ensure that advising, across the institution, focuses on student learning and the mastery of skills necessary for success. It is also critical that this guidance and support be offered in a flexible and coherent manner. While assessments at the university level are positive, they do not provide enough detail to fully understand the impacts of the different advising models on subgroups of students.
- **The university needs to develop a consistent, effective model to administer cross-college undergraduate interdisciplinary programs, drawing on the strengths of the colleges and encouraging further program development. The university should also consider allowing cross-college interdisciplinary programs to grant degrees.** In keeping with its mission, this approach capitalizes on the university's small size and helps to develop programs in a more cohesive, systematic manner. (UP 3 Action Items 42, 43, 46, 47, 51, 53, 56, 57, 58, 59, 87, and 91)
- **The university should continue to support initiatives to increase awareness of leadership opportunities and access for students seeking leadership opportunities.** Leadership is developed through internships, civic engagement, capstone research and outreach, volunteerism, and working with the private sector, all of which provide opportunities for faculty, staff, and students to engage with external constituencies. (UP 3 Action Items 106 and 107)

- **The university has made substantial progress to date regarding assessment of student learning, but it needs to continue to develop strategies for enhancing processes and using the results to modify curricula and instructional methods.** Specific issues of concern include using data from multiple levels (course, program, and institutional) to make improvements, determining how to streamline processes and coordinate with other accreditation processes to avoid burnout, and extending and adapting assessment of student learning to distance-delivered courses and programs with attention to special needs and experiences of distance students. (UP 3 Action Items 21 and 22)
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