

STANDARD TWO: EDUCATIONAL PROGRAM AND ITS EFFECTIVENESS

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STANDARD TWO: EDUCATIONAL PROGRAM AND ITS EFFECTIVENESS

INTRODUCTION

The University of Montana opened formally on September 11, 1895, with five faculty members and fifty students. The legislation establishing The University of Montana provided for both a college of “literature, science and the arts” and “such practical and technical colleges as may, from time, to time, be added thereto or connected therewith.” This mandate has been followed, as The University of Montana continues its mission as a liberal arts University, encompasses several professional schools, and provides occupational, academic, and developmental education opportunities through the College of Technology.

The University of Montana is a comprehensive institution with a broad and well-defined mission and range of programs designed to meet the needs of students from the state of Montana, the United States, and the world. It is composed of 10 large units—the College of Arts and Sciences, the School of Business Administration, the College of Education and Human Sciences, the College of Visual and Performing Arts, the College of Forestry and Conservation, the College of Health Professions and Biomedical Sciences, the School of Journalism, the School of Law, the College of Technology, and the Graduate School – as well as the Davidson Honors College, the Maureen and Mike Mansfield Library, and Continuing Education. Most of these units are located on the Mountain campus, while the College of Technology (COT) is situated on two campuses: the COT main (East) campus approximately 1.5 miles from the Mountain campus and the COT West campus, where the Industrial Technology programs are located.

As indicated by the [Program Inventory](#)ⁱ, the University’s colleges and schools offer a wide array of coursework and programs, from certificates of applied science and associate level degrees in the College of Technology, to baccalaureate and professional programs in the colleges and schools, to graduate programs (certificates, master’s and doctoral degrees) in many of the departments. At the two-year level, students can obtain an associate of arts, associate of applied science degrees and/or certificates in more than 30 programs in five departments, ranging from general education core courses, and including Accounting Technology, Culinary Arts, Nursing, and Welding Technology. At the four-year undergraduate level, students may focus their studies in programs (certificates, minors, options, majors) offered in 38 departments or in one of the interdisciplinary programs, such as Women’s and Gender Studies or International Development Studies. The Graduate School coordinates master’s degree programs in 55 areas, with additional options within those areas, and more than 20 doctoral programs ([Exhibit OSM 2A-01](#)).

Two efforts at The University of Montana, a plan for improving student retention and graduation rates and a plan for expanding and organizing assessment across the University, will be referenced throughout the discussion of *Standard 2: the Educational Program and its Effectiveness*. Given the importance of these efforts, elements 2.A: General Requirements, 2.B: Educational Program Planning and Assessment, and 2.C: The Undergraduate Program, are organized with an eye to how the student retention plan and assessment activities are incorporated in changes to the curriculum and advances in

academic support functions. After a brief discussion of both the retention plan and the annual assessment report, the narrative will address *Standard 2* and its elements.

Partnering for Student Success

The first plan aimed at increasing student retention and graduation rates has been the focus of much campus discussion and effort since 2005. The University of Montana seeks to improve students' success by addressing their preparedness for college-level work, enhancing their transition to college, providing an integrated early curriculum, and increasing student engagement, support, and faculty and staff development. At a Retention Summit in fall 2005, introductory remarks outlined some of the issues:

Introductory Remarks Presented at Retention Summit, October 2005:

Student retention in colleges and universities is a concern across the nation as students' progression and patterns of attendance seem to be undergoing many changes. It is less likely today that a student will enter, complete 15 credits hours per semester, and graduate in precisely four years. There are many factors that influence student retention, including financial issues, students' academic preparedness, students' motivation, the proportion of part-time and nontraditional students, and student-faculty engagement. We will discuss each of these factors today, and we hope that attendees will come up with creative approaches for ameliorating the negative effects of these factors.

The goal of any retention effort is to insure that once a student makes a financial, personal and temporal commitment to attend, an institution will provide resources to ensure that the student continues to enroll. A favorable retention rate speaks to institutional viability and allows the institution to plan and maintain an atmosphere that encourages student persistence.

Where are we today? Over the past several years, the retention rate for first-time, full-time students from fall to fall has averaged approximately 70% (2000-01 = 69.7%, 01-02 = 69.4%, 02-03 = 71.3%, 03-04 = 69.5%). This is about average for institutions of our type and size (moderately selective). Depending on which peer group we compare ourselves to, (research intensive; medium size/moderately selective; matched-for-demographics) the comparison moves around a bit, but overall we fall near the middle. We would, however, like to improve our retention rate for the reasons given above (planning, helping students complete their education, providing educational benefits to the State of Montana). In addition, in the past year or two, the Office of Institutional Research has looked more deeply into the retention statistics and finds that students are not progressing as rapidly as we would like, and that more students are dropping out as they reach upper division status. In the main, this pattern seems to reflect financial exigencies. In any event, we hope to devise ways to improve our retention rate through targeted programs.

Data are available should you have questions about specifics, but many of you have seen these before. Today we will concentrate on the reasons that students tend to drop out or progress more slowly. We have identified these patterns from research on retention and from the patterns in the data from UM.

In response to these concerns discussed at the Retention Summit, Student Affairs and Academic Affairs leadership formed a Retention Task Force (RTF) to explore ways to improve student engagement, retention, and success at The University of Montana. In the first year, members of the RTF collected data to identify impediments to students' progress. In December 2006, a retention consultant was brought to campus to facilitate work on an institutional plan developing key strategies and activities to improve retention and graduation rates. Some strategies are discussed in *Standard 3: Students*, but others directed at academic support and programming are discussed later in this section of the self-report.

Annual Assessment Report

The second effort, an Annual Assessment Report, grew from recommendations made at the last full accreditation visit to The University of Montana in 2000 and recommendations and commendations stemming from the interim accreditation visit in 2005.

Since then, the University has increased efforts and realized progress toward its assessment goals at the institutional level, at the program/department level and for the General Education curriculum. Assessment efforts will be described throughout this section of the self-study. As it addresses the Educational Program at The University of Montana, it will examine improvements made through self-study and evaluation, as well as present information about the challenges in meeting goals and objectives. The narrative is organized by the overarching levels (for example, 2.A, 2.B). When information relevant to another standard is included, a citation is included in the margin.

GENERAL REQUIREMENTS AND UNDERGRADUATE PROGRAM

- Standard 2.A: General Requirements
- Standard 2.B: Educational Program Planning and Assessment
- Standard 2.C: Undergraduate Program

ACADEMIC MISSION AND EDUCATIONAL PROGRAM

The University of Montana has identified six Core Values that inform its academic mission and educational programs. These include:

1. Learning experiences of high quality designed to allow students to realize their full potential with student success as the primary objective;
2. Basic and applied research that contributes to knowledge and meets the needs of the State, region, nation, and world;
3. Diversity and community among students, faculty, and staff;
4. Affordable access to higher education for Montanans;
5. Effective and efficient use of resources, providing full accountability for all funds; and
6. Service to the citizens, communities, regions, business, industry, State, and world.

Therefore, within its instructional mission, The University of Montana intends to provide extraordinary faculty-student interactions and opportunities for students to develop an appreciation of the arts, humanities, and sciences while learning the techniques and skills essential to an increasingly complex, challenging, and technological society; significant enrichment opportunities through scholarly activity, leadership, and extracurricular involvement; educational experiences that nurture the capability to think critically, to communicate effectively, and to understand the world; and program offerings that distinctively reflect human, natural, and social/cultural issues. These aspirations are captured in the Mission Statements for The University of Montana:

The University of Montana-Missoula pursues academic excellence as indicated by the quality of curriculum and instruction, student performance, and faculty professional accomplishments. The University accomplishes this mission, in part, by providing unique educational experiences through the integration of the liberal arts, graduate study, and professional training with international and interdisciplinary emphases. Through its graduates, the University also seeks to educate competent and humane professionals and informed, ethical, and engaged citizens of local and global communities. Through its programs and the activities of faculty, staff, and students, The University of Montana-Missoula provides basic and applied research, technology transfer, cultural outreach, and service benefiting the local community, region, State, nation and the world.

(Proposed) The University of Montana-Missoula College of Technology: Our mission, as the two-year college of The University of Montana, is to provide open access to higher education that expands opportunities for Montana residents. We are a gateway to comprehensive education, delivering high quality, student-centered, professional technical, transfer, and workforce programs and courses.

Structure of the Undergraduate Program

The academic undergraduate program at The University of Montana is structured, as encouraged by the Northwest Commission on Colleges and Universities, as a tripartite curriculum, including:

1. General Education Coursework: Students are required to master a set of competencies and develop foundational knowledge and awareness of the methods and perspectives of a range of disciplines;
2. Major: Students select a major area of study, in which they are expected to attain a specific knowledge base and tools of inquiry; and
3. Enrichment: Students choose electives and activities such as Independent Research or Internships that provide the opportunity for pursuit of a variety of intellectual interests.

Students on the Mountain campus are engaged in studies leading to baccalaureate degrees, while those on the COT campus pursue transfer programs, including associate of arts degrees, associate of applied science degrees, or certificates.

The three areas (General Education, Majors, Electives) will be described in more detail following discussion of elements of Standard 2.A.

Academic Administration

The academic administrative structure at The University of Montana reflects the institutional commitment to the centrality of the academic functions and the importance of collaboration within the academic community. The Provost and Vice President for Academic Affairs is the Chief Academic Officer and represents Academic Affairs among the executive officers.

The Office of Academic Affairs is headed by the Provost and includes the Associate Provost for Undergraduate Education and Policy, Associate Provost for Graduate Education, Associate Provost for International Education, Director of Academic Budget and Personnel, and support staff. The Provost also oversees the academic officers, who meet weekly, and include the Associate Provosts, the deans of the College of Arts and Sciences, School of Business Administration, Continuing Education, College of Education and Human Sciences, College of Forestry and Conservation, College of Health Professions and Biomedical Sciences, Davidson Honors College, School of Journalism, School of Law, Maureen and Mike Mansfield Library, College of Technology, and College of Visual and Performing Arts, and the Registrar.

Resources

High quality education has long been a top priority at The University of Montana. Across departments and schools, faculty have been encouraged in, and rewarded for, teaching lower division coursework, teaching in the General Education curriculum, contributing to courses offered at the Davidson Honors College, and providing advising and mentoring of undergraduate students. Faculty involvement is strong, even though the number of students at The University of Montana and the number of budgeted faculty have both grown in recent years. In 2005, enrollment was 13,602 (COT 1,276; undergraduate 10,451; graduate 1,875). In fall 2008 enrollment increased to 14,207 students (COT 1,641; undergraduate 10,780; graduate 1,786). The number of budgeted faculty increased from 617.26 FTE to 651.15 FTE in that same period. Therefore, the student-to-faculty ratio now averages 16:1 for the Mountain campus and 20:1 at the COT, decreasing the average class size for lower division courses from 35 to 32. Upper division class sizes have averaged 22 students during that span and graduate-level classes have averaged 13 to 14.

2.A.1

2.C.7

Academic trend data collected and published by the Office of Planning, Budgeting, and Analysis are compared to national norms generated from the National Study of Instructional Costs and Productivity (NSICP, commonly referred to as the “Delaware Study”), in order to determine whether instructional funds are being used wisely, as well as to identify areas in which “over performance” is an issue. With respect to student credit hours per faculty FTE, organized class sections per faculty FTE, and direct instructional expenditures per student FTE, University departments and programs consistently outperform national benchmarks for productivity. Departments and programs that exceed benchmarks by 10% or more in productivity are identified as well, to determine whether they are under-resourced.

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The amount of General Funds provided to The University of Montana has increased from \$82,474,305 in 2000 to \$134,962,549 in 2009. The distribution of funds across programs for 2009 is 50% for Instruction and 12% for Academic Support.

Since the Commission's interim visit in 2005, The University of Montana has added new programs, modified coursework, and refocused its General Education requirements in response to growth and development of content knowledge, the results of institutional and program-level assessments, and a commitment to maintaining academic excellence.

Across the University within the past five years, a number of structural changes were instituted as part of strategic planning in those units:

- The [College of Health Professions and Biomedical Sciences](#)ⁱⁱ replaced the School of Pharmacy and Allied Health Sciences, with additional changes to the names of the sub-units (from Departments of Biomedical and Pharmaceutical Sciences, Pharmacy Practice, Social Work, and Physical Therapy to the Skaggs School of Pharmacy, School of Social Work, and School of Physical Therapy and Rehabilitation Science.
- The School of Fine Arts was renamed the [College of Visual and Performing Arts](#)ⁱⁱⁱ; and the departments of Art, Drama/Dance, Media Arts, and Music were also renamed to Schools in response to the enrollment growth in these areas and to better represent their organization.
- The School of Education was renamed the [College of Education and Human Sciences](#)^{iv} to better reflect its mission and activities, and divisions within the college were renamed as well, from the Division of Educational Research and Services to the Institute for Educational Research and Services; and from Western Montana RiteCare Language and Literacy Clinic to The University of Montana RiteCare Speech, Language and Hearing Clinic.

Similarly, five new Centers were established:

- [Paleontology Center and Field Station](#)^v
- [Center for Biomolecular Structure and Dynamics](#)^{vi}
- [Montana Safe Schools Center](#)^{vii}
- [Osher Lifelong Learning Institute of The University of Montana](#)^{viii}
- [Montana Center for Work Physiology and Exercise Metabolism](#)^{ix}

In addition, programs or departments were created and/or renamed:

- Women's Studies program (in Liberal Studies Department) renamed [Women's and Gender Studies program](#)^x
- Department of Chemistry (in College of Arts and Sciences) renamed [Department of Chemistry and Biochemistry](#)^{xi}
- Department of Geology (in College of Arts and Sciences) renamed [Department of Geosciences](#)^{xii}

- Department of Computing and Electronics (in the College of Technology) renamed [Department of Applied Computing and Electronics](#)^{xiii}
- Department of Information Systems and Technology (in the School of Business Administration) renamed [Department of Management Information Systems](#)^{xiv}
- [Department of Educational Leadership and Counseling](#)^{xv} (in the College of Education and Human Sciences) divided into the Department of Educational Leadership; and the Department of Counselor Education
- New [Department of Communicative Sciences and Disorders](#)^{xvi} created (in the College of Education and Human Sciences)

In each case, proposals were submitted first to department faculty, if applicable, then to relevant dean(s), faculty governance bodies, the Provost, the President, and the Board of Regents. The proposals specified the reasons for the creation of the new entity or name change.

At the undergraduate and graduate levels, curricular changes were approved and implemented. As part of the ongoing curriculum revision process, each year the relevant bodies (described below) act on as many as 500 proposals for new courses, modifications to courses, elimination of courses that have not been offered in the past three years, as well as proposals to add or terminate majors, minors, options and certificates, change the names of departments, degrees, majors, minors, options and certificates, and other curriculum issues. An annual report for the number of proposals submitted and approved is available on the [Faculty Senate Approved Curriculum](#)^{xvii} website. Finally, changes in General Education course requirements and the structure of Writing, Mathematics, and Information Literacy were instituted. Following a description of the process by which curriculum changes are approved, examples will be given to illustrate how assessment and evaluation have guided changes in the undergraduate curriculum, academic support services, and graduate programs. [Exhibit RD 2A-03](#) includes a [list of programs that were added or terminated since Academic Year 2005](#).

MECHANISMS FOR DEVELOPMENT, APPROVAL, AND EVALUATION OF THE CURRICULUM

The responsibility for curricular change, from initiative to decision making, to implementation, is assigned to faculty. [Article I, Section 2 of the Articles of Faculty Organization](#)^{xviii} specifies that:

2.A.7

The faculty possess those prerogatives concerning the prescription of the curriculum, the granting of degrees and other related matters which it exercises subject to the reserved powers of the Board of Regents of Higher Education and the President. The faculty holds the further prerogative of thorough and timely before-the-fact consultation with the administration in the development of policy, the administration of the University, and the selection of academic administrators. It is the purpose of these articles to provide the means by which the faculty may exercise its prerogatives and further the welfare of The University of Montana—Missoula in consultation and cooperation with the President.

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Faculty members propose modifications, new programs, and new instructional formats. These proposals are approved by department curriculum committees and then are forwarded to the relevant chairs, to the relevant deans, to the Dean of Libraries, and to the Provost's Office for preliminary approval and/or comment. The chairs of the affected departments are asked to attest that faculty members in their units have reviewed the proposal and do not anticipate areas of overlap or other concerns. Similarly, the relevant deans evaluate the proposal with respect to resources, duplication, and other unit-specific concerns. The Dean of Libraries evaluates proposals to appraise the impact of all new program proposals and new Center proposals on library resources and services. The Faculty Library Committee submitted a Resolution to the Faculty Senate in spring of 2006 to ensure this level of review.

Once departments, deans, and the Provost's signatures are obtained, proposals are submitted to one of several faculty bodies: the Academic Standards and Curriculum Review Committee (ASCRC) for undergraduate proposals, the Writing Committee (a subcommittee of the ASCRC) for proposed courses that satisfy writing requirements, the General Education Committee, the Graduate Council for graduate proposals, or the Executive Committee of the Faculty Senate (ECOS) for policy or organizational change proposals. ASCRC, ECOS, and Graduate Council meet weekly to review and discuss curricular items; the Writing Committee, General Education Committee, and Faculty Senate meet monthly. Once a proposal is approved by the appropriate committees, it is considered by ECOS as an agenda item, and a week later submitted as a seconded motion to the Faculty Senate for final campus approval. Each committee contains faculty and student representatives. Administrators meet with the committees as *ex officio* members, per the [Bylaws of the Faculty Senate](#)^{xix}.

Two new programs that were approved recently and one that is in the planning stages merit further discussion, because they were in response to requests from the community beyond The University of Montana are as follows:

- **Communicative Sciences and Disorders:** In 1989, in response to state-wide budget cuts, The University of Montana's Communication Sciences and Disorders program was eliminated. Since that termination, without the infusion of new professionally prepared speech and language pathology graduates, the dearth of qualified professionals in Montana became a critical issue for schools and clinics throughout the state. In response to requests from the public schools, the Montana Speech-Language-Hearing Association (MSHA), and parents, the College of Education and Human Sciences invited Dr. James Blair from Utah State University to serve as a consultant to investigate the possibility of offering a doctorate in Audiology (Au.D.), a Master's in Speech-Language Pathology (SLP) that would include pre-requisite courses without an SLP undergraduate degree, and a combination of both a Master's degree in SLP and an Au.D.. His report indicated that both a baccalaureate-level and master's-level SLP degree were feasible. In response, faculty in the College of Education and Human Sciences proposed a baccalaureate degree program in Communicative Sciences and Disorders and a Master's of Science in Speech-Language Pathology, which were approved by the Board of Regents in 2006. In addition, the Montana State Legislature allocated one-time-only funding in 2007 to provide resources for new faculty and equipment, with the understanding that tuition revenue would support the program in the long term. Since the establishment of the department, more

than 100 individual students have enrolled in the undergraduate level classes. Communicative Sciences and Disorders faculty have submitted an Application for Candidacy to the Council on Academic Accreditation (CAA) through the American Speech-Language-Hearing Association (ASHA). The site visit took place on June 8-9, 2009.

- **Climate Change Studies^{xx}**: A new minor in Climate Studies was approved by the faculty and the Board of Regents in 2009, in response to needs expressed in many different venues. Reflecting a global trend, students across the nation are increasingly expressing interest in and concern about global climate change. At the state level, a Climate Change Advisory Council was formed to identify a number of strategies for meeting the challenge of climate change. Its report (CCAC, 2007) listed 54 recommendations including consumer education, marketing, technical and practical outreach and education to farms and businesses, performance monitoring, expanded agricultural extension related to climate change, and urban and transportation planning. In addition, the American Colleges and University Presidents Climate Commitment, signed by the President in spring 2007, called for “Students with the knowledge and skills needed to address the critical, systemic challenges faced by global climate change will benefit from the economic opportunities that will arise as a result of solutions they develop” (ACUPCC, 2007). On campus, participation in Focus the Nation in January 2008, which focused on global warming solutions, involved over 1,600 students and 35 faculty members from departments, including Modern and Classical Languages, Chemistry and Biochemistry, Geography, English, Business Technology, Applied Computing and Electronics, Wildlife Biology and more. A student group, UM Climate Action Now (UM CAN) was formed in spring 2008. In response to these developments, 29 faculty members from 18 departments volunteered to take part in the creation of a new minor focused on Climate Change. The approved minor brings together a comprehensive interdisciplinary focus at the undergraduate level on addressing climate change and includes a broad spectrum of courses and opportunities for undergraduate research. On the national level, the only similar interdisciplinary degrees include an undergraduate Global Change Minor at the University of Michigan and graduate degrees at Columbia University and the University of Maine.
- **Arabic Language Studies**: A proposal under development owes its existence to requests from students at The University of Montana. Undergraduates taking Arabic language courses approached the Provost and the Associate Provost for International Studies during the academic year, asking that the number of Arabic courses be expanded and that a certificate or minor be established for students interested in pursuing proficiency in Arabic. In order to meet this request, the University terminated its membership in a distance-learning program that offers two years of instruction in Modern Standard Arabic, and is now offering the introductory courses on campus. The membership fee will be used instead to support development of an Arabic program on campus.

TANGENTS TO THE OVAL...

**UM LAUNCHES NEW CLIMATE CHANGE STUDIES
MINOR**

In fall 2009, with unprecedented campus-wide collaboration, The University of Montana developed one of the nation's first formal academic programs in climate change. The Climate Change Studies minor integrates studies of science, society, and solutions to provide students with an interdisciplinary understanding of climate change and the practical skills to make change.

UM's Climate Change Studies minor draws students from across campus. Since launching fall 2009, students from 13 different majors have registered for the minor, including geography, environmental studies, journalism, business administration, ecology, applied sciences, philosophy, and wildlife biology.

The Climate Change Studies program was developed by a task force of twenty-nine faculty from eighteen departments and is directed by Dr. Steven Running, UM Regents Professor of Ecology and a lead author on the Nobel Prize winning Intergovernmental Panel on Climate Change. For more information, visit: www.cfc.umt.edu/CCS/.



Photo by Dave Morris

UM Students Studying Climate Change in Glacier National Park

<p>Proposals endorsed by the Faculty Senate are forwarded to the BOR for final approval, depending on the scope and level of the proposal. For example, new courses need only campus approval^{xxi}. New degrees, majors, options, and minors require BOR approval^{xxii}. New program proposals must include an overview of the proposed program; a needs assessment; a description of institutional and system fit, including its relation to other programs at the University and in the Montana University System; details about the program, including curriculum, implementation plans, and estimated student enrollment; resources, including faculty needs and other institutional needs with information about how these resources will be obtained; an assessment plan; and the development and approval process that was followed. Once a proposal is approved by the BOR, it is implemented immediately. BOR policy requires that appropriate arrangements be made for enrolled students to complete programs in a timely manner with little to no disruption when such programs are eliminated.</p>	<p>2.A.12</p>
<p>Policies, regulations, and procedures for additions and deletions of courses or programs are systematically and periodically reviewed. Board of Regents (BOR) policies provide for the identification of programs that are under-enrolled and also specify procedures for informing students and providing for their completion should a program be terminated. On campus, the bodies that review proposals for courses and programs examine processes as well. For example, in 2008 the ASCRC revised the procedures for adding new courses, created guidelines for approving certificates, approved a new service learning course designation, and established “principles of quality” for evaluating online courses.</p>	<p>2.A.11</p>
<p>Student competencies expected for degrees and certificates in fields of study are delineated and form the basis for program development. The Department/Program Assessment Reports^{xxiii} provide evidence of learning outcomes and assessment for academic programs (Exhibit RD 2A-01). The institution’s curriculum (program and courses) is planned for both optimal learning and accessible scheduling. Prerequisite and co-requisite courses dictate a student’s path through a program of study, and these are used to encourage students to proceed through the curriculum in ways that enhance their learning. General education courses are offered every semester. The catalog includes in each course description how frequently the course is normally taught. Courses that have not been taught for three years must be removed from the catalog unless the home department plans to offer it within the next year. Experimental courses taught more than twice must be reviewed for a permanent number in the catalog.</p>	<p>2.A.9 2.A.3</p>
<p>The Office of the Registrar provides a guiding document to all departments that identifies standard instructional times for programs, in order to build a schedule that makes optimum use of classroom space.</p>	
<p>All degree programs meet credit hour limits^{xxiv} established by the Board of Regents. No credit is given for prior experiential learning. Some leeway in the required number of credit hours is given for “extended majors,” for which accreditation standards may necessitate additional credits, for example, the degree in Elementary Education and licensure requirements (128 credit hours). The University of Montana uses a recognized semester credit hour system for determining the length of academic programs. The Course Catalog specifies that credit is defined in terms of semester hours. In general, one semester hour credit is allowed for one hour of lecture each week of the semester, or an</p>	<p>2.A.10 2.A.4 Policy 2.3 2.A.6</p>

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average of two hours of laboratory each week of the semester, or (at the College of Technology) an average of three hours of clinical experience each week.

During Summer Session and Wintersession, when courses are held in an abbreviated timeframe, class schedules are modified to meet requirements. For example, in the Summer Session some courses meet for five weeks, some for 10 weeks, but courses are held four or five days a week for longer periods in order to meet credit requirements. Courses with special needs, such as Fieldwork courses, are also scheduled during these sessions. For example:

UM Field Geology – GEOS 429: Based at The University of Montana-Western in Dillon, students travel to surrounding regions to complete exercises in geologic mapping and field interpretation. The study area in southwestern Montana is geologically spectacular and tectonically active. The region contains a wide variety of geological structures that include thin-skinned thrust faults and related folds, basement-involved reverse faults, and various extensional structures. Student activities are focused on recognizing and documenting geological structures through detailed mapping, interpreting geologic history based on field relations, and gaining experience in the use of digital field mapping techniques. (GEOS 429, sec. 80, May 18-June 15, 6 cr.)

The student learning goals for courses taught during Summer Session or Wintersession are the same as those for courses taught during fall or spring. Credits earned during Wintersession count toward full-time spring semester status. For example, students registered for three credits during Wintersession and nine credits during the spring semester are considered full-time students. Students registered for 12 or more credits during the spring semester do not pay additional tuition for courses scheduled during Wintersession.

2.A.5

Academic [Program Reviews](#)^{xxv} occur on a regular cycle and are accomplished through either specialized accreditation reviews by professional accrediting bodies and/or institutional program review mandated by the University and the Board of Regents.

Degree Designators

Degree designators are consistent with program content. For example, an associate of applied science degree is awarded in Paralegal Studies at the College of Technology, and a degree of Juris Doctor (J.D.) at the School of Law. Learning outcomes for each are tailored to the demands of each program. As an illustration, in the legal specialty courses for Paralegal Studies in the College of Technology, practical assignments that develop paralegal job competencies are emphasized, and students are informed that particular assignments are focused on developing skills such as legal research speed and accuracy, case reading, case briefing, issue identification, and practical writing of legal memoranda and briefs. Students are required to enter a selection of these materials into a portfolio for assessment at the end of the Paralegal Studies program. At the School of Law, in a Law Writing course, students apply the knowledge and skills gained in earlier Legal Research and Legal Analysis courses. In small sections and peer groups, students work intensively on outlining, writing rough drafts, editing, and writing final drafts of memoranda and briefs. The course includes both research and writing components. It emphasizes organizational skills, effective problem analysis, research, and effective communication

2.A.4

2.A.6

2.A.5

of legal arguments. Following extensive reading and class discussion, students draft an interoffice research memo which analyzes a legal problem objectively, identifying each party's claim and defenses and the strengths and weaknesses of each; a simple motion with a supporting brief and a proposed order; a summary judgment brief with supporting affidavits; and proposed findings of fact and critiques on each assignment. Both A.A.S. in Paralegal Studies and the J.D. in the School of Law are approved/accredited by the American Bar Association.

Tuition

Tuition for students is approved by the Board of Regents and varies by residency status (resident, nonresident), level (lower division, upper division, graduate), and campus (Mountain campus, College of Technology). Additional program-specific tuition increases have been established for many of the high-cost programs on campus (School of Law, School of Business Administration, College of Health Professions and Biomedical Sciences.). These increases have been reviewed and justified by the University before being presented to the Board of Regents for approval. For example, The University of Montana received permission to [increase tuition](#)^{xxvi} to support technology-enriched curricula at the School of Business Administration in May of 2002. The cost of business programs is high because of the technology incorporated into the Gallagher Business Building and higher salaries paid to business faculty members due to market demand.

Transfer and Articulation Agreements

The University of Montana has a system of [articulation agreements](#)^{xxvii} with college and universities in the state of Montana, as well as colleges and universities in the region and nation. For several years, transfer students were asked to complete a satisfaction survey to determine whether they faced difficulties in transferring coursework. Following a system-wide Transfer Audit by the Montana State Legislature in 2004, additional mechanisms were put into place by the Board of Regents. [BOR Policy 301.5](#)^{xxviii} and [BOR Policy 301.5.1](#)^{xxix} establish a system of controls and decision-making throughout the Montana University System to ensure fair and equitable evaluation of transfer credits for students ([Exhibit RE 2A-07](#)).

2.C.4
Policy
2.5

Common Course Numbering

In 2007, the Board of Regents approved a new policy ([BOR Policy 301.5.5](#)^{xxx}) calling for equivalent course identification and numbering for undergraduate coursework. In response, the Montana University System set up a [Transfer Initiative](#)^{xxxi}, in which faculty members from institutions across Montana met in Faculty Learning Outcomes Councils to identify courses that could be considered equivalent (or not) across the system ([Exhibit RE 2A-07](#)). The equivalent courses are primarily lower level, general education courses such as Introduction to Psychology or English Composition, and it is expected that these will make up only about 20% of the courses taught. The re-numbering system uses “disciplines” rather than departments to categorize the courses. By fall 2009 registration, equivalency matrices were created for 18 disciplines: Accounting, Chemistry, Computer Applications, Economics, Geology, Geography, Earth Systems, Geological Engineering, Geophysical Engineering, History, Literature (English), Languages, Mathematics,

Political Science, Psychology, Sociology, Statistics, and Writing (English). Courses in additional disciplines are expected to be re-numbered in Academic Year 2009-10, including Philosophy/Religion, Anatomy and Physiology, General Biology, Plant Biology, Genetics, Microbiology, Ecology, Wildlife Biology, Biochemistry, Computer Science, Information Systems, Information Technology, Music, Visual Arts, Digital Media Arts, Theatre/Dance, Early Childhood Education, Secondary and Elementary Education, Education Technology, and Special Education. Unique courses have also been identified within each discipline. Because of the variability in rubrics and numbering systems across campuses, an entirely new system is being used to designate common and unique courses.

EVALUATION AND DEVELOPMENT OF GENERAL EDUCATION REQUIREMENTS

The University's General Education program for students on the Mountain campus provides a broad academic base that supports undergraduate learning at the University and provides a strong foundation for continued learning following graduation. Students at the COT are held to a different set of General Education Requirements by Board of Regents policy because of the nature of the 2-year and abbreviated programs available to them. [BOR Policy 301.10^{xxxii}](#) and [BOR Policy 301.12^{xxxiii}](#) address Transfer Policies for General Education programs and Associate Degrees or Certificates of Applied Sciences. The specific requirements will be outlined following discussion of the changes in General Education Requirements that have been instituted since the last accreditation site visit. Students from the COT who continue at the Mountain campus to pursue a bachelor's degree must meet upper division General Education requirements ([Exhibit RD 2A-05](#)).

2.C.1
2.C.3
Policy
2.1

For almost a decade, faculty at The University of Montana have been discussing and implementing changes in the structure of general education requirements on the Mountain campus, as they have debated the rationale and purpose underlying these requirements. A review of the process is given below, beginning with the formation of a Task Force on General Education in 2001.

From its inception, the Task Force on General Education examined how students actually met their General Education Requirements (the transcripts for a randomly selected group of students were analyzed), and whether the requirements met the goals and objectives for general education. The final report of the task force was submitted to the Faculty Senate in April 2004. The final report identified several concerns regarding the General Education Requirements:

- the courses that satisfy the requirements have proliferated;
- students can avoid specific areas (arts, literature, history, either the physical or the biological sciences);
- important issues such as globalization and the environment are not included in the perspectives; and
- only one composition course is required.

The task force report recommended adding a second composition course, revising the list of perspectives, providing guidelines for implementation, and establishing a standing Committee on General Education to oversee program quality. This new committee was created in fall of 2004 to review the work of the task force and recommend alternative

blueprints for a revised General Education program for consideration by the Faculty Senate.

The Committee on General Education met regularly beginning in AY 2004-05. A Preamble was composed and approved by the Faculty Senate in April 2005. The General Education Requirements at The University of Montana in place to that point included Competency Requirements (English Writing Skills, Mathematical Literacy, Foreign Language/Symbolic Systems) and Distributional Requirements (27 credits in six perspectives, each with a set of student learning outcomes). The general framework for a new set of competencies and perspectives was approved by the Faculty Senate on October 11, 2007.

Although the General Education program offers students considerable flexibility in selecting courses, it has a set of common educational objectives for all students, as described in the Preamble:

In accordance with the Mission of The University of Montana—Missoula, these objectives are to develop competent and humane individuals who are informed, ethical, literate, and engaged citizens of local and global communities. Students should become acquainted with issues facing contemporary society, participate in the creative arts, develop an understanding of science and technology, cultivate an appreciation of the humanities, and examine the history of different American and global cultures. Upon completion of the general education requirements, students should be able to articulate ideas orally and in writing, understand and critically evaluate tangible and abstract concepts, and employ mathematical and other related skills appropriate to a technologically focused society. (Approved April 2005)

In summary, the present General Education program is designed to provide a high quality intellectual foundation that accommodates all UM students whether in liberal arts or professional programs. This foundation is reinforced, expanded and refined as students continue through their course of study. Students are encouraged to prepare for productive roles in their chosen fields by cultivating civic awareness vital to the greater community and a democratic society. The acquired skills will allow students to critically examine the human experience and gain confidence in their knowledge and abilities. For the General Education program to accomplish its goals, students must assume primary responsibility for their growth and education. The University of Montana has expanded and elevated the scale of efforts to assess students' learning in specific programs and general education coursework during the past decade as well. Significant progress has been made in the kinds of measures used to assess those learning outcomes, and more importantly, in the use of assessment data to make changes in curriculum and programs across campus. Program-level assessment reports are posted on the [Office of the Provost Department Records](#)^{xxxiv} website ([Exhibit RD 2A-02](#)).

2.B.1
2.B.2

To ensure that all students consistently meet University General Education requirements, the completion of general education is certified by the Registrar rather than by departments and colleges. The Academic Appeals Committee, a subcommittee of the Academic Standards and Curriculum Committee, considers any petitions for substitutions or waivers regarding general education requirements. A summary of petitions considered by Graduation Appeals Committee is available.

STANDARD TWO: PROGRAMS

The new [General Education framework](#)^{xxxv} approved by the Faculty Senate in October 2007 for implementation in fall of 2009 retains much of the prior structure but combines the former Perspectives and Competencies into “groups.” The groups include the following:

- English Writing Skills,
- Mathematics,
- Modern and Classical Languages or Symbolic Systems,
- Expressive Arts,
- Literary and Artistic Studies,
- Historical and Cultural Studies,
- Social Sciences,
- Ethics and Human Values,
- American and European Perspectives,
- Indigenous and Global Perspectives, and
- Natural Sciences.

Revisions to the General Education structure, requirements, and learning outcomes continue, as outlined below.

In addition to establishing groupings for required perspectives and competencies, the approved framework specified that all General Education courses must be worth at least three credits, must be introductory and foundational, and have no more than one pre-requisite (with justification, exceptions can be granted by ASCRC). The faculty members serving on the committee affirmed that General Education coursework should be designed to provide all students, not majors only, foundational knowledge and an introduction to the methods and perspectives of a discipline. The Faculty Senate endorsed this concept and set up the committee structure so that General Education coursework is reviewed on a continuous schedule, thereby ensuring that the framework and courses do not become static. The form for proposing General Education coursework specifies that the

“course must make a connection between material covered in the classroom and ‘real-life’ topics and problems of interest to undergraduates; present a wide range of material, rather than focus in depth on a single topic or a small number of texts; help students learn how to use abstract conceptual knowledge or knowledge of the past to understand and address concrete issues and problems; make students aware that the coursework makes a difference to the people they will become and the lives they will lead after college.”

Faculty members are also asked to explain how the course’s objectives, model of instruction, assessments, and readings are designed to achieve the applicable learning outcomes.

During AY 2007-08, the [General Education Committee](#)^{xxxvi} drafted descriptions for each of the new General Education groups: a description of the group, the criteria for coursework in that group, and a set of Learning Outcomes for each group. These

descriptions were submitted to ASCRC for feedback and approval, and then approved by Faculty Senate on May 1, 2008.

During the ongoing discussions about General Education Requirement revisions, the University initiated a pilot project to assess students' mastery of the learning outcomes already in place for the Perspectives, and to develop procedures for continuing assessment once the new General Education Requirements were adopted. In summer 2006, approximately 35 faculty representatives from each of the current perspectives participated in a retreat. Dr. Gary Brown from Washington State University led a discussion about assessment and designing and using rubrics. The Assessment Advisory Committee worked with faculty to devise mechanisms for assessing whether students were achieving the perspective-specific learning outcomes. Six faculty-level Perspective Committees (one for each perspective) were formed at the retreat. These Perspective Committees subsequently met in fall 2006 to review the learning outcomes and select one of them to be assessed in the spring or following fall semester. [Letters were sent to instructors](#) offering courses in each of the perspectives, requesting them to select an assignment (homework, exam, paper) already included in the course that could be used as a measure of students' achievement of the selected learning goal ([Exhibit RD 2A-05](#)). These Perspective-level Committees also devised scoring rubrics for use by Perspective-level Assessment Committees. Emeritus faculty were contacted and invited to participate on the Perspective-level Assessment Committees. During the fall and spring semesters, participating instructors submitted all or a random sample of the student work to be assessed.

As an example of the outcome of this pilot project, the Ethics and Human Values General Education Perspective-level Assessment Committee comprising three emeritus faculty members (two from Philosophy and one from Education) reviewed 197 students' answers to essay questions applicable to the following student learning outcome:

Understand central ethical norms of society; understand the foundational moral reasoning and historical origins of these norms; are conversant with the treatment of moral issues according to these norms; and understand some of the limits of these norms and are familiar with some alternatives to them.

An answer earning a score of four (excellent) meant the student provided "accurate answers exhibiting analytical ability with a clear grasp of the issues and reasoning with appropriate and fresh examples." This faculty committee determined that 40% of the students demonstrated excellent or good understanding, 33% fair understanding, and 27% poor understanding. The committee made three recommendations for improving the assessment process and the student performance:

- That professors be asked, in advance of the semester, to embed in their assignments, at some stage of the course, questions that directly speak to the assessment criteria;
- That some means be developed to distinguish failure to meet the assessment criteria for a course from failure that reflects the students' initial preparation for college work and willingness to work hard; and
- That consideration be given to reducing the size of the classes, or, at least, to guaranteeing some work in small group settings: "analytical/critical work of this

sort requires, for many students, we believe, direct, individualized help and guidance.”

In response to these recommendations, the General Education Committee included instructions on the [Course Approval form](#)^{xxxvii} used for General Education coursework. Faculty who wish to teach courses that provide General Education credit must complete the Course Approval form and agree to the condition that embedded assessment be put into practice and provide an example of how they intend to obtain student work that addresses specific student learning outcomes. These criteria are addressed within the General Education form and an [example of a completed form](#) is included with [Exhibit RD 2A-05](#). In fall 2008, faculty submitted course proposals for inclusion in the General Education coursework. The General Education Committee reviewed proposals against the criteria established for all General Education coursework and, within groups, the criteria established for that group. Going forward, the General Education committee will review proposals for courses to be included as General Education coursework each fall semester.

During the registration period for fall 2009, students began enrolling in the new General Education coursework, in light of the changes to [General Education requirements](#)^{xxxviii} and with a list of the courses approved to meet each Group. Progress has been made in the assessment of the new General Education learning outcomes for Groups I, II, IIIa, IIIb, and X. The Associate Provost for Undergraduate Education selected two additional Groups to assess in academic year 2009-10, with the plan to expand assessment to all the Groups now that they have been established in the General Education curriculum. Several of the Groups are discussed below to illustrate interactions with State- or BOR-mandated requirements and assessment progress. Others are listed with the criteria that are used to determine whether a course can be considered as satisfying the specific General Education requirements for that Group.

English Writing Skills (Group I)

The expectations for students’ writing have changed during the evaluation and modification of General Education requirements. Deliberations about writing and the assessment of student learning outcomes have also progressed during that time, as described in this section. Prior to AY 2009-10, the learning outcomes and assessment of students’ writing competency as measured by a Writing Proficiency Assessment addressed the following six learning outcomes:

- Communicate a unified message supported by evidence, examples or arguments;
- Develop ideas thoroughly and logically with clear connections among them;
- Have a purposeful organizational plan that befits the message;
- Respond to and use appropriately and effectively new or given information;
- Use language that is clear and precise;
- Possess a voice that is consistent and appropriate to the audience and purpose;
and
- Use correct spelling, punctuation and grammar.

These expectations have been revised, and stronger emphasis has been placed on assessing students’ writing throughout their education. The current learning outcomes follow:

- Use writing to learn and synthesize new concepts;
- Produce focused writing that is developed, logical, and organized;
- Compose written documents that are appropriate for a given audience, purpose, and context;
- Revise written documents based on constructive feedback;
- Develop competence in information literacy, information technology and digital literacy;
- Use discipline-specific style and citation conventions;
- Demonstrate appropriate English language usage.

To ensure that all graduates meet these writing learning outcomes, prior to and including AY 2008-09, most students are required to take a four-part writing program consisting of an [introductory English composition class^{xxxix}](#), an approved writing course, a Writing Proficiency Assessment (WPA), and an upper division writing expectation as required by their major. These requirements are sequenced to scaffold emerging writing abilities and competencies; that is, each requirement builds upon an earlier requirement and is to be completed at a specific point during an undergraduate's educational experience. The four-part writing program is designed to meet the [Montana University System's Learning Outcomes for English Composition \(Exhibit RD 2A-05\)](#). In addition, students who need additional support and preparation when they arrive on campus enroll for WRIT 099 before they go on to the first credit-bearing composition course, WRIT 101.

From 1998 to 2005, a Provost's Writing Committee served as a forum to discuss writing on campus, including development of the WPA, which was implemented for students graduating under the 1999-00 Course Catalog. In March 2005 the Faculty Senate established a [Writing Committee^{xl}](#) including faculty, students and *ex officio* administrators. Members of the Writing Committee are dedicated to improving writing for all undergraduates by crafting writing course criteria to ensure that writing and information literacy are embedded into the curriculum. The charge to the Writing Committee is to review and approve the WPA test vehicle, monitor WPA results, consider appeals to WPA scores, act in an advisory capacity to the Writing Center, review for acceptability all writing and upper division writing course proposals, and develop criteria for the writing courses.

Beginning in AY 2009-10 (approved November 2008), [modifications proposed by the Writing Committee^{xli}](#) to the "Recommended Writing Course Guidelines" went into effect and the Writing Committee communicated its [transition plan](#) to the campus community. New writing course guidelines include a set of learning outcomes for both lower division and upper division courses ([Exhibit RD 2A-05](#)).

In general, the new guidelines reflect the belief that the ability to write effectively is fundamental to a liberal arts education, essential to academic inquiry, and important for student success in academic, professional, and civic endeavors. The Writing Committee devised a set of learning outcomes for both lower division and upper division writing courses. The learning outcomes for lower division writing courses include the following:

- Use writing to learn and synthesize new concepts;
- Formulate and express opinions and ideas in writing;

STANDARD TWO: PROGRAMS

- Compose written documents that are appropriate for a given audience or purpose;
- Revise written work based on constructive feedback;
- Find, evaluate, and use information effectively.
- Begin to use discipline-specific writing conventions.
- Demonstrate appropriate English language usage.

The learning outcomes for upper division writing courses derive from the expectation that students should be more active, confident, and effective contributors to a body of knowledge, and should understand the ethical dimensions of inquiry. Upon completing the upper division writing requirement, the student should be able to:

- Identify and pursue more sophisticated questions for academic inquiry.
- Find, evaluate, analyze, and synthesize information effectively from diverse sources;
- Manage multiple perspectives as appropriate;
- Recognize the purposes and needs of discipline-specific audiences and adopt the academic voice necessary for the chosen discipline.
- Use multiple drafts, revision, and editing in conducting inquiry and preparing written work.
- Follow the conventions of citation, documentation, and formal presentation appropriate to that discipline.
- Develop competence in information technology and digital literacy.

As part of the commitment to ongoing examination and validation of the WPA, the test administrator completed a study of the results from 1999-2007. Initially, the WPA was created as a formative assessment, and contributed positive developments on campus, such as the creation of a Writing Center, the addition of lower division writing courses, and the formation of the Writing Committee. However, the exam in its current form acts as a summative assessment and a mid-career gating mechanism as students move into upper division coursework. The [2009 Assessment of the WPA](#) indicated the average pass rate; the average number of attempts for each student, the average number of attempts for students with Test of English as a Foreign Language (TOEFL) scores; the percent of students who passed on the first, second, third, or more attempts; pass rates by major; mean attempts by major; correlations between scores and number of attempts with grades in English composition; with Writing Placement scores; with cumulative GPA; with grades in writing coursework; and with demographic variables such as ethnicity and gender ([Exhibit RD 2A-02](#)).

The Writing Center staff also analyzed issues hampering success, both for proficient writers and for those students in need of remedial/developmental instruction. Data from previous tests showed that tests with higher passing rates used texts that presented a direct and broadly accessible argument while the tests with lower passing rates used texts that contained only a subtle or implied argument, often combined with a sophisticated literary style. Therefore, an effort was made to eliminate inconsistencies in text selection by more consistently applying the established text selection criteria. In addition, the Writing Center staff began to query the WPA database to produce a report listing the students who failed the WPA more than twice. This report allowed the Writing Center to identify those students and encourage them to engage in one-on-one tutoring. Pass rates since these two interventions have improved.



Writing Center Tutoring Session

The Writing Committee began discussions with the Director of the Writing Center (*ex officio* on the committee) about the recommendations from the WPA report from 1999-2007, the follow up reports from 2007-08 and 2008-09, and how the Writing Center can serve as a resource to faculty in the design of a writing intensive Curriculum. For example, faculty from the department of Sociology recently requested that a Writing Workshop be offered for faculty who teach upper division coursework (held in January 2009).

As The University of Montana reviews and modifies its writing requirements to ensure that writing is embedded into the curriculum and that students improve their competency, the Board of Regents has adopted some policies that have required campus response. Changes in admissions standards and placement led to creation of an *ad hoc* English Placement Committee that proposed changes in the catalog for students who enter the University with high scores on the Montana University System Writing Assessment, SAT or ACT Writing Subscore, SAT Writing Section, or ACT English/Writing. These students are placed in a new Advanced Composition course (WRIT 201, Advanced Composition), unless they opt for English Composition (WRIT 101). This change allows more proficient writers to satisfy their composition and lower division writing course requirement simultaneously, rather than in the sequence described earlier for the majority of undergraduates. The performance of students entering with these higher scores is monitored and assessed to determine whether the change is effective for them.

Quantitative Literacy and Mathematical Competence (now Group II)

Criterion: Any course which satisfies the mathematical literacy requirement must have as its primary goal to teach mathematical reasoning and problem solving at a college level. Department of Mathematical Sciences approval is required.

2.B.3

Undergraduates pursuing a bachelor's degree at The University of Montana are required to possess the ability to accomplish basic algebraic manipulations and achieve mathematical literacy at a level typically presented in college mathematics courses. More specifically, a graduate must meet the following learning outcomes:

- formulate real-world problems quantitatively;
- solve quantitative problems;
- interpret solutions to problems; and
- make critical judgments regarding the validity of competing formulations and solutions.

To meet this objective, students have been encouraged to present a placement score, enroll in an appropriate developmental course(s) in mathematics if needed; complete one of several 100-level courses in mathematical literacy with a grade of C or better; and/or take a [Math Literacy Exam \(Exhibit SM 2A-02\)](#) developed and scored by UM faculty or score 50 or higher on the College Level Examination Program (CLEP) College Algebra Test or College/Algebra/Trigonometry Test.

In spring 2007 UM examined the placement and performance of first year students in introductory math courses at The University of Montana, using data gathered from 2005 forward. The initial analyses examined the performance of 1,044 first year students who enrolled in one of six 100-level math courses, ranging from Intermediate Algebra to Calculus I. Comparisons were made between performance of all students enrolled in these courses, broken out by freshmen and more advanced students, as well as correlations between students' placement exam scores, performance in other introductory coursework (e.g., English Composition), and persistence at the University. The results of these analyses have led to a number of changes to the curriculum as documented by the [Department of Mathematical Sciences 2009 Assessment Report](#), as well as the creation of new programs. Some of these are outlined below:

- UM instated a mathematics tutoring program called Math PiLOT, whose mission is to improve student performance, placement, and persistence in mathematics.
- A third location for mathematics tutoring was opened in the Mansfield Library (in addition to a Mathematics Learning Center in the Mathematics building on the Mountain campus and mathematics tutoring at the COT), focused on service for students in M 095 and M 115 courses.
- The Associate Dean of the College of Arts and Sciences, the Chair of Mathematical Sciences, and the Director of Math PiLOT visited departments on the Mountain campus to determine what learning outcomes were critical to success in the major. Using the information gathered in those visits, the curriculum for M115 (the prerequisite for Statistics) was modified and the faculty

in Mathematical Sciences approved substantive revisions to the 100-level curriculum, adding two new courses, and revising the prerequisite sequencing.

- The College of Technology Applied Arts and Sciences Director of Mathematics and Director of Developmental Mathematics worked with all department chairs and program directors at the COT to identify program and profession-specific requirements for mathematics courses. Current courses were modified appropriately and additional courses were developed.
- The University of Montana adopted an online placement exam beginning in fall 2008 to help students select the appropriate course for their level of expertise and the requirements of their chosen major. The University selected Assessment and Learning in Knowledge Spaces (ALEKS), a web-based, artificial intelligence assessment and learning system that uses adaptive questioning to quickly and accurately determine a student’s strengths and any weaknesses in mathematics. The results are reported to the student and to the student’s assigned advisor, with a recommendation for the appropriate University of Montana mathematics course. Students needing developmental mathematics courses are referred to the COT, as all developmental coursework is offered by the COT, although classes meet on all of the campuses. In 2008-09, 211 students enrolled in Pre-algebra (M 090) classes and 1,023 in Introductory Algebra (M 095) classes.

Additional analyses and modifications to the mathematics curriculum for non-majors have continued. For example, for fall 2008 the number of Early Alert notices sent to freshmen enrolled in mathematics courses was analyzed. After the third week of class, students (and their assigned advisors) in 100- and 200-level courses were sent an email notice if a faculty member provided a warning that a student’s performance was “deficient” (DEF, meaning poor grades, incomplete homework, poor attendance or other warning signs) on the Early Alert roster. To determine whether the recommended ALEKS placement shows efficacy, the number and percent of DEF grades for students who enrolled appropriately as indicated by their the placement exam score, the number and percent of students receiving DEF grades by placement category (selected appropriate course, selected more advanced course) was analyzed, revealing the following pattern:

Table 2-01 - Percent of DEF Grades on Early Warning Roster by Placement Category

Course		107	117	111	121
DEF all students		24.4	9.3	47.2	26.9
DEF freshmen					
	Incorrect placement	26.7	8.0	46.0	43.8
DEF freshmen					
	Appropriate placement	12.8	4.3	25.8	16.4

Student performance for the full semesters, both fall and spring, is under analysis to determine whether students who select their math courses in accordance with their placement score continue to obtain higher grades than those who do not. This information

will be made available to faculty and professional advisors, as well as to students in future semesters.

Modern and Classical Languages (Group IIIa) or Symbolic Systems (IIIb)

Criteria:

- **Modern and Classical Languages:** Courses must encompass the comprehensive study of a natural language, excluding written, spoken contemporary English, with the aim of achieving at least a basic functional competency in that language. The course should follow a rigorous and pedagogically sound methodology and practice. Language courses proposed outside of the current offerings of the Department of Modern and Classical Languages and Literatures (MCLL) must be approved by the Department. (Students in specific majors may decide to take courses from Group IIIb, Symbolic Systems, rather than a language.)
- **Symbolic Systems:** Courses rigorously present a mapping between a real-world system and a human abstraction of the system; apply analysis, reasoning and creative thinking in the understanding and manipulation of symbolic codes; and utilize alternative methods of communication, perception, and expression in order to encourage rigorous thinking.

The General Education Committee, and subsequently ASCRC, examined the possibility of requiring all undergraduates to demonstrate proficiency in a modern or classical language, with attention to important issues such as: what amount of language study would be necessary to enable students to become proficient in another language; how many credits could be devoted to language study, especially for students already enrolled in majors with high credit demands; and whether language study in and of itself engenders diversity or an appreciation of other cultures. Group III (a) Modern and Classical Languages was selected as the “default” option for satisfying the General Education requirement, with departments given the opportunity to petition for their majors’ substitution of a Group III (b) Symbolic System sequence. Separate student learning goals were fashioned, depending on the language selected for study. That is, students must complete successfully the second semester of a Modern and Classical Language at The University of Montana. Courses encompass the comprehensive study of a natural language other than written or spoken contemporary English. Upon completion of the Modern and Classical Languages sequence, students will have a basic functional knowledge of a second natural language sufficient to meet the following learning outcomes:

- read and write if the language is classical, such as Latin;
- speak and aurally comprehend, if the language does not have a written tradition, such as Salish;
- perform all four skills (speaking, aural comprehension, reading, and writing) if the language is modern and has a written tradition, such as Japanese or French;
- demonstrate both receptive (visual comprehension) and expressive (manual production) proficiency if the language is American Sign Language.

The first students subject to the new General Education Requirements entered The University of Montana in fall 2009, providing the first opportunity to determine whether the number of faculty and course offerings available to students would suffice to meet the demand, as projected.

Information Literacy (embedded in Group I)

Another modification to composition and writing courses at UM is the inclusion of Information Literacy in English Composition and both lower- and upper division writing courses. Specifically, the course guidelines require that the instructor incorporate Information Literacy into learning outcomes, instruction, and assignments for English Composition and lower division courses. For upper division courses, three learning outcomes speak to this requirement:

- find, evaluate, analyze, and synthesize information effectively from diverse sources;
- follow the conventions of citation, documentation, and formal presentation appropriate to that discipline; and
- develop competence in information technology and digital technology.

Faculty members in Mansfield Library are involved, across the curriculum, in helping instructors in writing courses and lower division courses provide the instruction critical to the attainment of information literacy. Specific standards and teaching strategies have been identified for targeted courses to establish quality learning opportunities for first year students. At every opportunity, librarians serve as research consultants and pedagogical guides and facilitate the successful delivery of information literacy content by teaching faculty in the disciplines.

2.A.8

The central mission of library instruction is to create information literate students. Information literate students know how to find, evaluate, and use information effectively and ethically; and the curriculum is based on the Association of College and Research Libraries' (ACRL) Information Literacy Competency Standards for Higher Education. Information literacy provides a foundation for life-long learning, the ultimate goal of education, and is common to all disciplines, learning environments, and levels of education. In the recent report, *College Learning for the New Global Century*^{xlii}, information literacy is discussed as an essential learning outcome students need to prepare for 21st century challenges. As information professionals, librarians are uniquely positioned to guide the process of integrating information literacy within the University curriculum and to ensure that students are prepared for the challenges of a highly competitive, information-rich society.

Curricular integration of information literacy^{xliii} begins with first year initiatives that serve as the basis for information literacy instruction in the disciplines at the junior and senior levels. First year curriculum integration decisions depend on several factors: integration into courses that are a part of the standard University curriculum; integration into courses with a research component, usually smaller enrollment classes; and integration into courses with a large enrollment through participation in the Freshman Interest Group program, which offers the opportunity to provide cross-disciplinary information literacy instruction.

In addition, based on the delivery of lower division information literacy instruction, [liaison librarians](#)^{xliv} work collaboratively with faculty in all the departments, schools, and colleges to tailor advanced information literacy instruction to upper division students in their major studies. Liaison librarians target research and writing courses in all majors, and information literacy is included as a requirement in the Writing Curriculum. At every opportunity, librarians seek to serve as research consultants and pedagogical guides to students and faculty, and to facilitate the successful delivery of information literacy content through collaboration with faculty.

Expressive Arts (Group IV)

Criterion: Courses guide students, whether in individual or group settings, to acquire foundational skills to engage in the creative process and/or in interpretive performance. Through direct experience such as attendance and involvement with live performance, Exhibitions, workshops, and readings, they will engage in critical assessment of their own work and the work of others.

Literary and Artistic Studies (Group V)

Criterion: Courses cover a number of works in one or more of the various forms of artistic representation; they also establish a framework and context for analysis of the structure and significance of these works. In addition, these courses provide mechanisms for students to receive instruction on the methods of analysis and criticism, and to develop arguments about the works from differing critical perspectives.

Assessment plans for the learning outcomes for Group V are discussed along with a parallel process underway for Group XI, Natural Sciences.

Historical and Cultural Studies (Group VI)

Criterion: Courses teach students how to present ideas and information with a view to understanding the causes, development, and consequences of historical events; evaluate texts or artifacts within their historical and/or cultural contexts; and analyze human behavior, ideas, and institutions within their respective historical and/or cultural contexts. The course justification should explain the approach and focus with respect to its chronological, geographical, and/or topical content. A methodological component (e.g. historiography or ethnography) must be apparent.

Social Science (Group VII)

Criterion: Courses systematically study individuals, groups, or social institutions; analyze individuals, groups, or social problems and structures; and/or give considerable attention to ways in which conclusions and generalizations are developed and justified as well as the methods of data collection and analysis.

Ethics and Human Values (Group VIII)

Criterion: Courses focus on one or more of the specific traditions of ethical thought (either Western or non-Western), on basic ethical topics such as justice or the good life as seen through the lens of one or more traditions of ethical thought, or on a professional practice within a particular tradition of ethical thought. They also provide a rigorous analysis of the basic concepts and forms of reasoning which define the traditions, the ethical topics, or the professional practices that are being studied.

American and European Perspectives (Group IX)

Criterion: Courses focus on either area and can be comparative in content or approach. The courses are broad in theme, geography, or chronology. They are foundational and prepare students for further study by raising core questions of an academic discipline.

Indigenous and Global Perspectives (Group X)

Criterion: Indigenous and/or global courses familiarize students with the values, histories, and institutions of two or more societies through the uses of comparative approaches. Indigenous perspective courses address the longstanding tenure of a particular people in a particular geographical region, their histories, cultures, and ways of living as well as their interaction with other groups, indigenous and non-indigenous. Global perspective courses adopt a broad focus with respect to time, place, and subject matter and one that is transnational and/or multi-cultural/ethnic in nature. Whether the cultures or societies under study are primarily historical or contemporary, courses investigate significant linkages or interactions that range across time and space.

Faculty at The University of Montana included a requirement for coursework in indigenous and global perspectives as a critical aspect of the General Education curriculum, in keeping with its Mission:

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...to educate competent and humane professionals and informed, ethical, and engaged citizens of local and global communities. Through its programs and the activities of faculty, staff, and students, The University of Montana-Missoula provides basic and applied research, technology transfer, cultural outreach, and service benefiting the local community, region, state, nation and the world.

Given State-mandated *Indian Education for All* requirements for candidates in Education, students preparing for teaching licensure must complete a minimum of one course in Native American Studies. Throughout their programs of study candidates must meet the following learning outcomes:

- Demonstrate the ability to integrate into their content areas knowledge of the history, cultural heritage, and contemporary status of American Indians and tribes in Montana;
- Demonstrate knowledge of how students within different populations, including Montana American Indians, differ in their approaches to learning; and

STANDARD TWO: PROGRAMS

- Demonstrate the ability to create instructional opportunities that are adapted to diverse learners, including situations where concentrated generational poverty has affected student academic achievement.

Every campus of the Montana University System is expected to comply with [Board of Regents Policy 303.5^{xiv}](#), which requires that each of those institutions must offer a formal course of American Indian study developed with the advice and assistance of Indian people. Fourteen courses in Native American Studies, in combination with courses from Anthropology, Art, Communication Studies, Dance, Economics, Geography, History, Linguistics, Modern and Classical Languages, Political Science, Forestry, and Sociology make up a set of courses used to fulfill the Group X General Education requirement for other students at The University of Montana.

Natural Sciences (Group XI) and Literary and Artistic Studies (Group V)

Faculty members who teach courses that satisfy Groups V and XI met in the late summer of 2009 to discuss assessment of the learning goals established for each of these Groups within the General Education framework.

Criterion: Courses explore a discipline in the natural sciences and demonstrate how the scientific method is used within the discipline to draw scientific conclusions. They also address the concept of analytic uncertainty and the rigorous process required to take an idea to a hypothesis and then to a validated scientific theory. Lab courses engage students in inquiry-based learning activities where they formulate a hypothesis, design an experiment to test the hypothesis, and collect, interpret, and present the data to support their conclusions.

Faculty from the Natural Sciences Group are coordinating an assessment effort in which questions designed to assess several of the learning outcomes will be generated. The focus is on creation of a format that can be used across several disciplines (e.g. Anthropology, Chemistry, Geosciences) to determine whether students are meeting learning goals drawn from the set below:

- Understand the general principles associated with the discipline(s) studied;
- Understand the methodology and activities scientists use to gather, validate and interpret data related to natural processes;
- Detect patterns, draw conclusions, develop conjectures and hypotheses, and test them by appropriate means and experiments;
- Understand how scientific laws and theories are verified by quantitative measurement, scientific observation, and logical/critical reasoning; and
- Understand the means by which analytic uncertainty is quantified and expressed in the natural sciences.

Faculty members teaching coursework in Literary and Artistic Studies will submit results derived from embedded formative and summative assessments already used in their courses to provide evidence about whether students can, after completion of the course(s),

- Analyze works of art with respect to structure and significance within literary and artistic traditions, including emergent movements and forms; and
- Develop coherent arguments that critique these works from a variety of approaches, such as historical, aesthetic, cultural, psychological, political, and philosophical.

Preliminary results from these efforts will be submitted to the Office of the Provost in spring 2010.

ACCOMMODATIONS OR EXCEPTIONS TO GENERAL EDUCATION REQUIREMENTS

Exceptions or special accommodations regarding General Education Requirements are available for certain groups or individuals. Some of these are discussed below in the section on system-wide requirements, but they are identified here.

2.C.4

- **Transfer Students:** Transfer students also complete General Education Requirements, but they may choose to complete the system-wide requirements, using one of three options. These include: completing all of the lower division coursework in a campus-specific general education program and then transferring it as “a block” to another institution in the system; completing a set of courses known as the Montana University System (MUS) Core; or completing an associate of arts or associate of science degree before transferring to the new campus, in which case the student may still be required to take additional general education coursework at the upper division level on the new campus. Should a student select the second option, he or she must complete at least 20 credits from the course list by the time of transfer.
- **Former Students:** Students may choose to graduate according to the regulations in any catalog under which they have attended UM within the past six years. They may also elect to follow regulations in one catalog for their General Education Requirements and another for their program degree requirements. The new General Education Requirements went into effect in fall of 2009, so students entering before that date may choose to complete the prior set of requirements.
- **International Students:** Students from non-English speaking countries may satisfy the Foreign Language/Symbolic Systems group requirement by presenting the appropriate TOEFL score, completing an English-as-a-Second-Language course, or by presenting an approved application for the baccalaureate degree.
- **Baccalaureate Candidates Holding an Associate of Arts Degree:** Students who attained an A.A. degree must complete the system-wide MUS Core (described below). These students must fulfill upper division General Education requirements once they transfer to the UM Mountain campus.
- **Students Earning a Post-Baccalaureate Degree or Seeking Post-Baccalaureate Teacher Licensure:** These students are exempt from General Education Requirements, as they would have completed such requirements in their first degree.

- Students Presenting Advanced Placement (AP) Courses: University of Montana credits may be granted for both General Education and major requirements based on scores for college-level high school courses (AP exams) as well as through the College Level Examination Program. For example, for Mathematical Literacy a CLEP score of 50 or higher on the College Algebra Test or College Algebra/Trigonometry Test satisfies that General Education requirement.

GENERAL EDUCATION REQUIREMENTS: SYSTEM-WIDE

The Montana Board of Regents adopted [BOR Policy 301.10](#) to assist transfer students with the general education requirements of their degree programs. All institutions in the MUS have developed general education programs for their students (as outlined above for UM Mountain campus students). The programs are all different because they reflect the mission and values of the individual institutions, but they all have in common the following: that every student working on a four-year degree will have to complete a general education program; that the general education program may include upper division coursework (which must be completed by any student, including transfers, who receive a bachelor's degree from that campus); that campuses that offer 2-year degrees will have a general education program, although it may not be as extensive as those on 4-year campuses; that on 2-year campuses, the general education component is required only for associate of arts or associate of science degrees; and that a grade of C- or better is required for every course that is used to satisfy a general education requirement.

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[BOR Policy 301.10](#) recognizes that general education is an integral part of every four-year degree in the MUS and establishes three options for transferring students to complete the General Education Requirements, as stated above. Students meeting the 20-credit requirement can complete the MUS Core at the new campus or complete the campus-specific general education program at the new campus. Students with fewer than 20 credits at the time of transfer must complete the general education program unique to the new campus ([Exhibit RD 2A-05](#)).

MUS Core Requirements

The MUS Core described in [BOR Policy 301.10](#) assures the transfer of up to 30 semester credits for those students enrolled in courses prescribed within each of six areas at a participating institution. The six areas are:

- Natural Science (6 credits; at least one course with a laboratory experience),
- Social Sciences/History (6 credits),
- Mathematics (3 credits),
- Communication, Written and Oral (6 credits),
- Humanities/Fine Arts (6 credits), and
- Cultural Diversity (3 credits).

A General Education Council with representatives from the MUS campuses was established in December 2005 to oversee the provisions of the policy. The General Education Council adopted the Association of American Colleges and Universities (AACU) "Essential Learning Outcomes" statement as the rationale for the MUS Core.

The Council also adopted [learning outcomes](#)^{xlvi} for the six areas. These include, for example, statements such as:

Upon completion of the Natural Science core, students will be able to:

- *identify and solve problems using methods of the discipline;*
- *use logical skills to make judgments; demonstrating thinking, comprehension, and expression of subject matter;*
- *communicate effectively using scientific terminology;*
- *use quantitative skills to solve problems;*
- *integrate through analysis;*
- *demonstrate the relationship between actions and consequences; and*
- *discuss the role of science in the development of modern technological civilization.*

Courses that meet these learning outcomes for all areas are identified at each campus. In addition, Operational Rules have been established for the MUS Core that require students to complete at least one course that includes significant content related to the cultural heritage of American Indians; earn the minimum number of credits in each of the six areas; use coursework once only to satisfy the requirements of the MUS Core (no “double-dipping”); complete a combination of courses that includes significant content in both written and oral communication in order to satisfy the Communications area; and satisfy the minimum grade requirements established by BOR policy.



A Music Student Practicing

MAJORS AND ELECTIVE STUDY

Undergraduates on the Mountain campus of The University of Montana are given a “tripartite structure” for their degree programs, comprising a general education component (discussed above), a major in which they are required to achieve a knowledge base in a specific area of concentration, and electives in which they have an opportunity to pursue other intellectual interests. Undergraduates can select from a large number of majors, with options, and minors. For example, a student may select a major in Geography, choosing to pursue a B.A., with an option in Cartography and Geographic Information Systems (GIS) or Community and Environmental Planning, or a B.S. with an option in Physical Geography. Students may also pursue a Certificate in GIS Sciences and Technologies, or a minor in Geography, or one in Mountain Studies.

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Departments establish learning outcomes for their students in the programs available for study. These are reported annually to the Assessment Advisory Committee via the Office of the Provost and the entire assessment plan for a department or program is posted on the [Office of the Provost Department Records](#) website. Degree and certificate programs demonstrate “clarity and order,” as required, and model curricula are provided in the Course Catalog to guide students and their advisors. As one illustration, recent changes in programs offered by the Department of Geography demonstrate the care with which faculty modify curricula and establish clear learning goals and assessment plans for their students, as well as an example of how Program Review is used by departments for strategic planning. Another example comes from the Department of Mathematical Sciences. As the assessment and revision of learning outcomes for quantitative literacy (in General Education) progressed, the department identified issues in the learning outcomes in place for mathematics majors. Finally, the Management Information Systems Department in the School of Business Administration modified its curriculum in response to questions raised by student performance on a licensure exam.

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Example 1, Geography

An external review of the Department of Geography was conducted in fall of 2005, as part of the mandated program review cycle. The outside reviewer commented on the strong sense of faculty collegiality and dedication to academic excellence, spoke to the contemporary geography curricula, and called for advancing the department in creative ways by focusing more at the graduate and undergraduate levels and emphasizing outcomes based learning. In response, the department drafted a strategic plan in December 2008 and modified its curriculum. The department eliminated some of the undergraduate Options within the B.A. degree, proposed a new minor in Mountain Studies (an area highlighted by the external reviewer as a unique strength of the faculty), and proposed new B.S. and M.S. degrees in Geography. Greater weight was placed on diversifying the learning outcomes for each of the undergraduate degrees.

Prior to design of a B.S. in Geography, the student learning outcomes established for a degree included:

1. Understand micro-and macro-scale spatial relationships within and between the systems of the physical and cultural environment;
2. Understand the theoretical and practical underpinnings of the discipline of geography and its systematic branches;

3. Be able to engage in basic analysis and research procedures involving the use of spatial or other forms of data;
4. Have the ability to acquire and use spatial and other data within the context of field, laboratory, teaching, and internship experiences;
5. Have the computer, computational, and communication skills required of new professions.

With the creation of a B.S. in Geography (General Geography; or Option in Physical Geography), the faculty considered the relevance of specific learning outcomes and whether they should differ materially for the B.S. and the B.A. (Option in Planning) degrees. The B.S. degree requires students to follow a curriculum similar to that for a B.A., but with the addition of a more rigorous Math requirement, a two-course sequence in Natural Sciences, and either a Senior Thesis or science focused upper-level writing course. For the B.S. Option in Physical Geography, these requirements are more specific: the mathematics course must be Calculus or a senior-level Statistics course, and the selection of Geography courses is more directed. Therefore, the Geography department faculty modified the learning outcomes in order to differentiate between the expectations for B.A. and B.S. students, leading to the following modifications:

1. Understand micro- and macro-scale spatial relationships within and between the systems of the physical and human environments;
 - a. B.A. students will demonstrate special competency in such understanding as applied to the cultural, economic, political, population, and/or urban dimensions of the human environment.
 - b. B.S. students will demonstrate special competency in such understanding as applied to the physical environment and/or geospatial techniques.
2. Have the ability to acquire and use spatial and other data within the context of field, laboratory, teaching and internship experiences;
 - a. B.A. students will demonstrate special competency in analysis of data describing human systems.
 - b. B.S. students will demonstrate special competency in analysis of the physical environment and/or geospatial techniques.

These student learning outcomes were adapted from the National Geography Standards of 1994, which include standards specifically targeted for secondary education, and students' progress is assessed by way of a student portfolio that encompasses work undertaken by all undergraduate majors in Geography and/or a senior thesis.

Example 2, Mathematical Sciences

In response to the assessment and revision of learning outcomes for Quantitative Literacy, the department also scrutinized and reformulated learning outcomes for mathematics majors, as well as their assessment plan. Recognizing the variability in students' trajectories and goals, the department offers a variety of 400-level courses; majors are required to take at least three of these. Therefore, the department's assessment of whether students meet learning outcomes is based on the assessment of all math majors in these advanced courses. The student learning outcomes follow:

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- Calculus: Students will learn the standard results of calculus, and will be able to use them in a variety of applications.
- Proof and logical reasoning: Students will develop clear analytical thinking skills as demonstrated by rigorous reasoning in mathematical arguments.
- Writing and communication: Students will develop the ability to clearly communicate mathematics in writing.
- Specialized knowledge at an advanced level: Students will learn the standard results of one or more specialized area of mathematics at a level appropriate for advanced undergraduates.

Every faculty member teaching one of the advanced courses selects three of the four learning outcomes, and separately assesses the performance of each individual math major in the course with respect to the selected learning outcomes on a scale from zero to 10, using the assessment rubrics developed for each outcome, and submits this information to the departmental Undergraduate Committee. The latter compiles these individual assessment reports in two ways: both by individual math majors (using data from several years, where available) and by individual learning goals (only for the academic year for which the individual assessment reports were written). Based on this, the Undergraduate Committee then assesses the student learning outcomes, and determines, where applicable, which corrective actions need to be taken to improve performance.

Example 3, Management Information Systems

Similarly, faculty use assessment data to inform decisions about curricula and pedagogy. For example, in the Department of Management Information Systems, students' performance on the ETS Major Field Test in Business were compared, with the finding that students in one cohort scored below the national average in one area, specifically finance. Closer inspection of the students' transcripts and reports from faculty teaching the Business Finance course (FIN 322) indicated that many students in this cohort had not completed a required math sequence before enrolling in FIN 322. In this case, ensuring that the relevant material is mastered in advance by incorporating it in the math sequence, requiring satisfaction of the pre-requisites, and improving advising for students resulted in improved performance for students enrolled in the capstone course. Students scored at the 90th percentile, a significant improvement over the 2005 administration of the test.

ASSOCIATE DEGREE PROGRAMS

The College of Technology, as the two-year education unit of The University of Montana, offers courses and programs for students to complete certificates of applied science, associate of arts degrees, an associate of science degree, and associate of applied science degrees.

The certificates and associate degrees are approved by the Board of Regents and are in compliance with [BOR Policy 301.12](#) and related policies. The Academic Affairs committee of the Two-Year Education Council ensures policy compliance by reviewing such programs. Certificates of applied science are awarded to students completing a program, which is structured to be completed within one calendar year. Certificates of applied science programs at the College of Technology include some programs in the

Industrial Technology Department (Heavy Equipment Operation, Recreational Power Equipment), others in the Business Technology Department (Culinary Arts, Customer Relations--a program delivered online, Medical Reception, and Sales and Marketing), and one in the Health Professions department (Pharmacy Technology). In some cases certificates of applied science may be received at the completion of the first year of a two-year associate of applied science degree program.

The associate of arts degree is a general studies degree intended as a transfer degree. Advising of many A.A. degree students includes preparation and planning for completing baccalaureate degrees at The University of Montana. In addition, students who wish to pursue degrees in the College of Technology Health Professions are initially enrolled as A.A. students. Students who are not successful in the competitive application process of the Health Professions programs are further advised toward baccalaureate degrees.

The Associate of Science degree in Registered Nursing is the only A.S. degree offered by the College of Technology. The A.S. degree is by Board of Regents policy identified as a general studies degree with emphasis in sciences leading to a baccalaureate degree. The one exception to that policy is for two-year education institutions in Montana offering a Registered Nursing degree to offer it as an ASRN degree. Students completing the UM ASRN program are required to take and pass a licensing exam in order to pursue employment in Montana. Pass rates for Registered Nursing students, for example, are compared to a national rate and must meet or exceed the national rate. Not meeting this requirement directly affects the status of the nursing program as reviewed by the Montana Board of Nursing. In addition, the passing rates must meet or exceed the national requirements for three years before any change (such as expansion) may be requested for the program.

2.C.8

Associate of applied science degrees are identified as two-year degrees. They are not identified as transfer degrees but rather as degrees intended to lead directly and specifically to employment. The College of Technology offers over thirty approved A.A.S. degrees. At one time the A.A.S. degrees were identified as 'terminal' degrees to recognize the intent of the degree, although this label does not recognize the options available in Montana and elsewhere in the United States for students who wish to obtain a baccalaureate degree at a later date. Options for students completing an A.A.S. degree program and desiring a baccalaureate degree exist (Bachelor of Applied Science as an example), although such options are not available for every baccalaureate degree program offered through The University of Montana.

Program completion and employment rates are identified for most of the A.A.S. degree programs. The UM Career Services Office facilitates employment after program completion. Data analysis completed to meet requirements of a Carl D. Perkins Local Application grant identifies students completing a program and the number of students employed upon completion. Further analyses, through the Office of Planning, Budgeting, and Analysis, are in process to verify the program completion data. Specific program accreditation requires recognition of student retention, completion, and licensing exam pass rates. Licensed Practical Nursing, Respiratory Care, Pharmacy Technology, and Surgical Technology are examples of this type of program. Such pre-baccalaureate vocational programs offered at the COT track State licensing examination pass rates, as applicable, and job placement rates. These data are reported in the department/program

2.C.8

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assessment reports. These are also available through the National Accrediting bodies such as CAAHEP or COARC.

Students completing the Surgical Technology program take an exam during the final week of the program. Results are not only recorded for program accreditation or continued accreditation but also so the students may be identified as Certified Surgical Technologists. The students have been well informed from acceptance into the program of the requirements and competencies required in the profession and by the healthcare institutions. This information is made available through student handbooks, through course syllabi, through professional organization information, and on the [College of Technology](#)^{xlvi} website.

Health Professions programs are known to require certification exams, but other programs, such as Culinary Arts, have similar requirements for program completion. For example, all Culinary professionals must attain a basic safety and sanitation certification before program completion. The American Culinary Federation identifies clearly in its guidelines and requirements for program accreditation the competencies students and faculty must meet. Such information is available at the College of Technology and in the program accreditation report for the Culinary Arts programs.

Board of Regents policies and procedures support development of certificate of applied science and associate of applied science programs within a short timeline if doing so allows the UM College of Technology to respond to an industry or community workforce need. Board of Regents policy also allows for development of short-term credit bearing programs under 30 credits that respond to workforce needs. Currently, the UM College of Technology has one program identified in this category—Laboratory Technician. This particular program responds to a community need by a local research facility (Glaxo-Smith Kline) for community and employee education/training.

DEVELOPMENTAL COURSEWORK

In 2007, the Board of Regents instituted [Policy 301.18](#)^{xlvi} regarding Developmental Education. The purpose of the policy was to ensure that coursework is available for students who need to develop the foundational skills to succeed in rigorous, college-level courses; that these courses were clearly identified; that students were clear about how such coursework fit into their degree programs; and that developmental education be delivered efficiently and effectively. The policy includes definition of developmental courses as those designed for students with ACT scores in mathematics below 22 (or SAT below 520, or an equivalent score on a standardized placement test), or composition courses designed for students with ACT or SAT essay scores below 7, a Montana University System Writing Assessment score below 3.5, or an equivalent score on a standardized placement test. This coursework is considered below college-level and cannot be used in an associate of arts, associate of science, or baccalaureate degree program. Such courses are identified with course numbers that begin with 0 (i.e., 0XX). Students pursuing an associate of applied science degree or certificate may use the developmental coursework toward those credentials if appropriate. For these students, the developmental course numbers may be numbered 1XXD.

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As part of this policy, the Board of Regents also specified that colleges with two-year educational missions shall be the primary providers of developmental education. The 4-

year campuses may admit students with admissions scores just below the proficient level (as specified above) as “provisional;” therefore, the 4-year campuses are expected to work closely with the 2-year institution to meet the needs of those students.

At The University of Montana, students who require developmental coursework enroll in courses offered by the COT, as the two-year campus of the University. They may be students admitted to the COT exclusively, or they may be students admitted to the Mountain campus needing to become proficient in Writing or Mathematics. During 2008-09 1,234 students enrolled in either Pre-Algebra (211) or Introductory Algebra (1,023) courses. Another 511 students enrolled in WTS 100, the developmental composition course. The performance of these students in subsequent coursework will be monitored, as UM addresses questions about the success of developmental coursework, and whether different pedagogies are necessary for students who enter the University without the preparation critical to successful progression in math and writing at the college level.

HONORS COURSEWORK

The Davidson Honors College, established in 1992, offers an array of courses for the approximately 600 students accepted into the college, as well as to any qualified student who wishes to enroll in these highly challenging courses. A wide range of general education courses is offered in a small seminar format that fosters active learning, significant interaction, extensive writing, and, where appropriate, work with original texts. Departmental honors courses at the upper division level introduce advanced concepts, relate the discipline to other disciplines, and engage students in research, fieldwork, and ethical reflection. All honors students are required to enroll in a one-credit Introduction to Honors course, a 3-credit “Ways of Knowing” course, and to complete a rigorous capstone Senior Honors Research Project. The Senior Honors Project includes a significant research component; a written interpretation and analysis, even when the focus of the project is on performance, exhibition, software or media design, creative writing, service learning, practicum, or internship. It must be supervised and approved by a faculty member and conclude with a public presentation of the results. Courses taught through the Honors College are open to all qualified students, but the class size for the majority of honors courses is limited to 20 students or fewer to encourage discussion, extensive writing, and the development of learning communities. In the fall semester of each academic year, two or three Honors Freshman Interest Groups are offered.

EDUCATIONAL ENRICHMENT OPPORTUNITIES

The University of Montana offers students a broad and exciting range of enrichment opportunities that include internships, field work, study abroad, volunteer work, service-learning coursework, and other special programs. Each of these is discussed below.

Internship Services

The Mission of [Internship Services](#)^{xlix} is “to connect students, employers, and faculty in order to provide undergraduate and graduate students a means to integrate academic theories and principles with practical experience, reinforcing and expanding classroom learning while preparing them for post-graduate employment.” Internship Services has been an integral part of Academic Affairs at The University of Montana since 1980.

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Internship Services staff work with faculty to determine credit policies for all x98 internship courses (including a 2006 policy capping x98 courses to six credits that can be counted toward University graduation requirements), develop learning objectives, coordinate evaluations, and assist with the entire student learning process. With faculty, they develop and approve Learning Agreements, provide advising regarding academic department policies and University internship credit limits and assist students from the initial search through the completion of the internship. In addition, the Internship Services staff interacts with nearly 400 employers each year to develop and secure quality working and learning environments, and make random site visits to meet with students and supervisors. The staff (3.18 FTE) assists an average of 36 academic departments and 700 students each year, with interns earning over 2,000 internship credits annually. A number of majors require students to participate in internships (e.g., Environmental Studies—Ecological Food and Farming, Water Resources, Sustainability Studies; Management Information Systems; Management and Marketing; Journalism), and in 2008, Internship Services entered into a partnership to expand the number of international internships available to UM students. Some of these programs are described in more detail below.

Interns as a group earn approximately \$1.3 million each year. With assistance from Institutional Research, Internship Services reports retention and continuation to graduation rates for students who complete internships. The latest figures available (September 2008) indicated a 95.1% retention rate and a 76.8% graduation rate for students who have interned. A survey of former interns (314, approximately 15%, alumni responded) indicated that they found the internship personally rewarding (93.9%) and helpful in finding a job in their area (73.9%). On a 5-point scale, the former interns indicated that leadership (3.43), negotiation (3.26), communication (4.23), time management (4.06), and conflict management (3.48) skills were developed during their internship experience.

- **International Internship Program:** In 2008, The University of Montana entered into partnership with the Oregon University System International Programs Office in their IE3 Program to expand the number of international internships available to UM students. Since the program began in 1995, over 1,300 students have interned in 80 countries, gaining real life work experience in their major while receiving credit at their home institution. Through the IE3 program, students have the opportunity to apply for a variety of internships in a variety of disciplines from around the world. It is also one of the longest-running international internship programs in the United States. IE3 develops relationships with internship sites and relies on strict standards to ensure the quality of the internship experience. IE3 provides support, including a large database of internship opportunities, internship selection and placement, administrative support for financial aid and academic credit, pre-departure orientation, support and mentoring during the placement, and international health insurance. The 3- to 6-month internships (available throughout the academic year and summer) offered through IE3 can range from a Peace-Corps-like development internship in Africa, Latin America or India, to working at the European headquarters of a global business. In its first year at UM, 10 students have enrolled in the program, with several receiving scholarships from IE3 to help offset the costs.

- **School of Business Internship Program:** Since 1980, the School of Business Administration has also sponsored an internship program that works closely with Internship Services. The focus of the program is to provide undergraduate and graduate students with a meaningful work experience and to provide employers with outstanding interns. The students make professional applications of the theory they have learned in the classroom. During their experience students develop an awareness and knowledge of the professional and interpersonal skills and behavior needed to succeed in the workplace, while developing those very skills. They also provide the businesses with enthusiasm, excitement and a strong work ethic while they perform the many tasks asked of them. There are 298-, 498- and 698-level internships available each with its own criteria for acceptance into the Internship program. The Internship program generally has more than 200 students participating in the program each academic year along with approximately 170 employers. The students work in a variety of functional areas such as Accounting, Finance, Management, Marketing and Management Information Systems. The undergraduate students work a minimum of 50 hours per credit and submit written work on their progress for a letter grade. The graduate students are required to obtain approval for their proposed experience from their program directors prior to acceptance into the internship program. Other assessment tools to be added soon include improved student and employer surveys (administered by Internship Services) and School of Business Administration data collection regarding progress toward learning objectives.
- **School of Journalism Internship Program:** The Journalism School requires majors to take at least one credit for a supervised internship; and most take that in the summer between their junior and senior years. For each credit, students must work in a news organization (or another approved organization where they practice journalism skills) for a total of 240 hours. The internship is akin to six full-time weeks working as a journalist. A faculty member in each department oversees the students on their internships, working with their supervisors, setting up blogs, and either posting student work or having students post to the blog, and ensuring that reports from the students and their supervisors are completed. In summer 2009 broadcast interns worked at a variety of locations from Helena to Honolulu for such outfits as KECI television, Soldier Radio and Television, and Fox Sports NW. Print and photojournalism interns worked at such places as the Montana Standard (Butte, MT), Kathmandu Post (Nepal) and the U.S. Senate Finance Committee (Washington, D.C.). Halfway through the internship, students must submit a midterm evaluation to their faculty internship adviser. At the internship's end, students must provide the adviser with an evaluation form completed and signed by their employer. They also must provide three samples of their best work (news clips, tear sheets, video or audio tapes, etc.), which are added to the student's academic advising folder.

Office for Civic Engagement

Since 1992, the Office for Civic Engagement (OCE) has served as a primary resource and coordinating center for campus and community engagement activities including volunteerism, service learning, national service and nonprofit studies education. Its mission is to challenge and improve lives with an ethic of service and investment in community. OCE builds reciprocal partnerships that strengthen both the University and

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the community; empowering individuals and organizations to enhance capacity for strategic growth, program exposure, skill development, and collaboration; and, enhancing professional, academic, and personal experiences through volunteerism and service learning. The OCE Director, program managers, and AmeriCorps team leaders coordinate placements in the campus office and more than 40 community partner organizations locally and statewide.

OCE manages three AmeriCorps programs, the nonprofit minor and certificate programs, academic service learning, a volunteer center, and the Academic Learning Integrated Volunteer Experience (ALIVE), which allows participants in Montana to gain graduate-level course credit in combination with their national service experience. In the last academic year, 708 students participated in extracurricular volunteer service providing 4,985 hours of service to the community. Seventy-eight students participated in the Campus Corps AmeriCorps national service program contributing 334,100 hours of national service and earning \$103,700 in tuition support from education awards. In addition, using the current dollar amount attached to a volunteer hour in Montana (\$14.51), student volunteers contributed the equivalent of \$874,934 to the Missoula community.



Montana Campus Corps Members at a Service Project

Service-Learning

At UM, service learning courses are offered to allow students, faculty, and community partners opportunities to work together to enhance student learning by applying academic knowledge in a community-based setting. Student work addresses the needs of the community as identified through collaboration with community or tribal partners, while meeting instructional objectives through faculty-structured service work and critical

reflection meant to prepare students to be civically responsible members of the community. Courses based on the service learning instructional method are designated as Service Learning courses in each semester's schedule of classes and on the student transcripts. Students may also participate in a self-designed service learning independent study course through the Office for Civic Engagement. The Service Learning designation was approved in 2008. In the last academic year 1141 students engaged in 56 academic service learning courses, providing 30,527 hours of service to the community. Course instructors must demonstrate that the [courses meet strict criteria](#)¹ constructed to ensure that students provide a needed service, that the service experience is directly related to subject matter of the course, that students reflect upon what they learn, that the course offers a method to assess the learning derived from the service, that students perform service activities in a professional manner, and that vulnerable populations are not harmed.

Field Work Opportunities

Students at The University of Montana have opportunities for field work across departments using the “[University omnibus option](#)^{li}” independent study, practica, or other specific courses. For example, to earn a bachelor's degree in Social Work students must enroll in SW 489, a two-semester, 10-credit practicum experience in which students complete 450 hours of social work experience under the supervision of an approved agency field instructor. It is through this experience that students learn about the profession, develop competencies required of the program and of the profession, and become capable of entry-level social work practice. A learning agreement is developed by the student, faculty supervisor, and agency field instructor. At the end of the course, students are required to successfully complete a Competency Examination, a 35 to 50 page paper that addresses seven competency areas (organizational and community context of practice, assessment of existing social policy, problem identification and assessment, development of an intervention plan, implementation of the intervention plan, evaluation and feedback, the profession of social work).



Forestry Student Receiving Instruction

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Courses in disciplines such as Environmental Studies (311, Field Studies in Human/Ecological Communities and Public Land Issues), Forestry Resource Conservation, Geosciences (429, Field Geology), Wildland Restoration (311, Field Studies in Ecological and Human Communities), and Wildlife Biology (e.g., 441, Field Methods in Fishery Biology and Management) provide especially rich prospects for fieldwork because of the location of the University in western Montana. These programs collaborate with other offices, including the U.S. Forest Service Region 1 Headquarters, Forest Service Rocky Mountain Research Station, the National Wildlife Federation, the Nature Conservancy, Rocky Mountain Elk Foundation, The Boone and Crockett Club, and the Outdoor Writers Association of America to provide opportunities for students. The spring 2008 *Montanan* Magazine article “[Leaders in the Field](#)^{liii}” demonstrates one such opportunity in its description of the Wildlife Biology program. Independent work in topics or problems is proposed by the student and approved by the instructor or instructors under whose supervision the work is to be done and by the chairperson of the relevant department. The use of this “omnibus option” is limited to 10 credits for a single topic or problem and a maximum of 15 credit hours of independent work for a bachelor degree and 13 credit hours of independent work for an associate degree.

Research Opportunities

Student participation in undergraduate research has a proven track record in the enhancement of student learning outcomes and improved rates of admission to graduate and professional schools. Through close collaboration with faculty members in the design and execution of a research protocols at the cutting edge of their disciplines, UM undergraduates have made or contributed to significant scientific discoveries, created substantial new works of art and literature, and published papers in peer-reviewed professional journals. Every year since 2000, UM has hosted an annual conference on Undergraduate Research, sponsored by the Vice President for Research and Development and the Provost. The conference offers a professional development opportunity for students, and involves a wider community with the research activities of the University. This year, the National Conference on Undergraduate Research (NCUR) will be held at UM campus during April 15-17, 2010, providing a venue for celebrating and promoting undergraduate student achievement.

At present, many undergraduate research activities are administered by the Davidson Honors College, with faculty oversight provided by the Undergraduate Research Committee. Funding for scholarships in support of undergraduate research has been provided by the Vice President for Research and Development, the Provost, and private donors through the UM Foundation. Funding levels, in aggregate, are not sufficient to support the numerous quality proposals that come before the selection committee. As a result, some students have been discouraged in their pursuit of research. The University is seeking enhanced funding for undergraduate research scholarships to increase the program’s capacity and create incentives for faculty to participate as mentors. One goal is to increase the number of campus-wide undergraduate research scholarships from 35 for FY 2007 to twice that in FY 2011.

International Experiences/Study Abroad

Students have opportunities to become informed members of a global society by studying abroad in many different countries through [several programs](#)^{liii}: Partner University

Exchange, the International Student Exchange Program (ISEP), and Faculty-Directed Study Abroad Programs (in addition to the IE3 internships described earlier). The Partner University Exchange Program allows students to spend a semester or year at one of UM's 50 exchange partner institutions, while continuing to pay tuition to UM. Some partner schools also offer a program in which students pay tuition at a discounted rate to the host school instead. The International Studies Exchange program provides students a semester, year, or summer abroad at one of ISEP's 137 member institutions in 38 foreign countries. Through Faculty-Directed Study Abroad programs, small groups of students led by UM professors explore the cultures, languages, literatures, and history of other countries, in most cases earning credit toward their degrees at UM as they do so. Cost and length of these programs vary, depending on location and time of year. Students also have the option of studying abroad on non-UM sponsored programs. Approximately 250 students take advantage of these opportunities each year, but the University needs to expand the programs if it is to meet its Mission to "educate competent and humane professionals and informed, ethical, and engaged citizens of local and global communities." A proposal to increase student participation in Study Abroad by 60% (to 400 students) by FY 2011 has been written, with requests for funds to be used to hire a Coordinator of International Initiatives, provide additional student support for travel and living expenses, and to provide tuition waivers for students.

PARTNERING FOR STUDENT SUCCESS

Academic Planning and Advising

The new *Partnering for Student Success*^{liv} plan, adopted in August 2008, responds to several challenges faced by The University of Montana and the State of Montana. These challenges include: a 28% retention rate from the first to second year, with significantly higher attrition for students who have yet to declare a major; a six-year graduation rate of 43%; a decrease in the projected number of high school graduates in the State of Montana who will enroll in higher education; and the necessity of increasing the proportion of Montanans who have a college degree by 2020 in order to remain competitive, ensure Montanans have a good standard of living, and contribute to the reputation and viability of the state as a place to live and work.

2.B.3
2.C.5

The plan resulted from a collaborative effort among faculty, staff, and administrators from across the campuses. It reflects the work of the Retention Task Force (RTF), led by the Associate Provost for Undergraduate Education and Policy and the Vice President for Student Affairs, with critical support from the Office for Administration and Finance. Many retention initiatives have been put into place over the past decade and these efforts have helped The University of Montana maintain its reputation as an excellent, student-oriented institution. The present plan builds on those endeavors and proposes new programs and initiatives. Over a two-year period the RTF, with the support of a Retention Consultant, devised an informal institutional plan that involved targeting specific student populations, and developing key strategies and activities to improve retention rates. To accomplish this task the RTF formed implementation teams (one for each target population): First Year Implementation Team, Undeclared and Pre-Majors Team, Students of Color Team, Nontraditional Students Team, and two teams to address the concerns of students in general: Advising Task Force and Early Intervention Team. The teams were responsible for looking at data and creating action plans to support the

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strategies. In addition, the consultant met with faculty and staff from the colleges and schools to engage participants in thinking about the experiences of students in their respective programs. Those program-level efforts have complemented the work of the RTF. Because promoting student success requires all sectors of the campus to collaborate, the responsibilities shown under Implementation Steps are often shared.

The approach taken in the plan recognizes that student success is multifaceted and begins well before a student arrives at college. Therefore, the plan for Improving Student Achievement and Success is organized around six issues associated with student success, including K-12 preparation, the transition to college, an integrated early curriculum in college, student engagement, student support, and faculty and staff development.

As part of the plan, an academic success center, the Office for Student Success, was created January 2009. Tasks assigned to the Office for Student Success include support of the development of an integrated early curriculum, coordination of academic services (such as advising, tutoring, developmental coursework), special programming for at-risk students, provision of technological support for advising and tutoring, assessment and evaluation of advising and academic support services, expansion of the early alert system, provision of training to staff and faculty to enhance advising and to ensure appropriate referrals, and management of a fund for innovations in teaching and learning.

The call to create the Office for Student Success emerged from several reports: a self-study from the Undergraduate Advising Center, an external evaluation of the Undergraduate Advising Center, recommendations from an Advising Task force, and the *Partnering for Student Success* plan. These reports demonstrate a sustained effort on the part of the University to assess and evaluate advising and academic support services across campus. They are reviewed below to provide an illustration of the organization of advising and academic support and the implementation of changes beginning in 2008.

The self-study for the Undergraduate Advising Center (submitted May 2007) underscored the fact that advising is “intimately related to student success and retention” (Habley, 2004), and maintained that, according to developmental theory, first year students need the most intensive advising assistance. As of 2007, the largest group of students in the Undergraduate Advising Center advising population were freshmen, about 1574 for Fall 2006. Academic advising for a large population of at-risk students is at the center of the [Undergraduate Advising Center] mission, as well as the education and supervision of a large number of student advisors who staff the walk-in advising program that is available to all undergraduates. At the beginning of 2008, the Undergraduate Advising Center was staffed by eight professional advisors with about 7.3 FTE, including a director. In addition, approximately 80 Peer Advisors, 16 to 20 faculty volunteers, three TRIO-SSS staff, three Davidson Honors College staff, and paid students contributed to advising on campus.

An external evaluation of the Undergraduate Advising Center was conducted by Dr. Cheryl Torsney (then Associate Provost at West Virginia University) in December 2007. Dr. Torsney concluded that “advising efficiency could be impacted by changes in organization structure and technology.” Recommendations from the report included modifications to the peer advising program, changes in orientation, implementation of online placement exams, investments in technology to support advising, creation of group

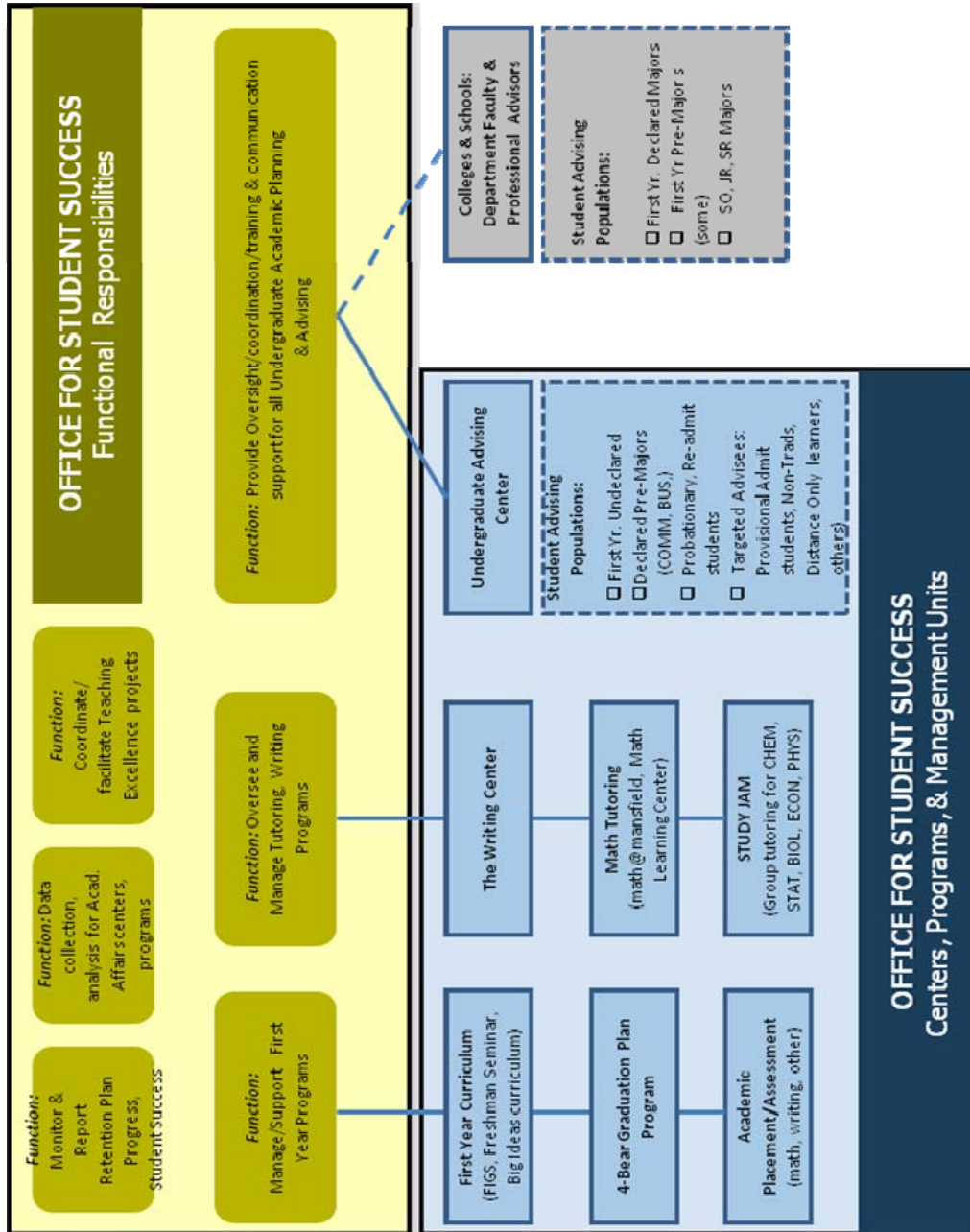
advising opportunities, expansion of the advising period, and additional support for faculty advising.

The Advising Task Force, an advisory committee to the Associate Provost, submitted a report in spring 2008. At a subsequent meeting on July 1, 2008, the Advising Task Force suggested revisions to the emerging plan for student success. Members of the Task Force suggested upgrading technological support for advising and tutoring and gathering quantitative data for assessment. They also suggested investigating the cost/benefits of adding graduate students to the mix of advisors, investigating the cost/benefits of expanding the advance registration period, adopting the philosophy of proactive advising (especially for probationary and reinstated students), and creating the position of Director of Student Success to coordinate all advising and retention programs.

The Office for Student Success, therefore, has been created to enhance student learning, academic success, and personal growth through inclusive engagement with The University of Montana community. The overall organization for advising for students continues to be a “split model” in which undeclared students are advised primarily by advisors in the Undergraduate Advising Center, along with other pre-majors such as first year pre-Business, pre-Communication Studies, pre-Nursing, and pre-Psychology. Approximately 1,600 students are classified as Undeclared or Pre-majors. Professional staff advisors at the Undergraduate Advising Center, their peer assistants, faculty volunteers, and staff advisors at the Davidson Honors College and TRIO-SSS meet with these students for advising. Students who have declared a major are advised by staff and/or faculty in their respective units. Reinstated students are advised either by staff advisors at the Undergraduate Advising Center or faculty/administrators in department or Dean’s offices. The Office for Student Success:

- Coordinates the activities of the Undergraduate Advising Office and those of faculty and other staff advisors in other units on campus;
- Oversees First Year programs such as FIGS, and Math PiLOT;
- Coordinates tutoring programs such as the Mathematics Learning Centers, The Writing Center, STUDY JAM;
- Collaborates with TRIO-Student Support Services
- Facilitates communication and cooperation between its own reporting units and other offices in Academic Affairs, such as the Registrar’s Office Early Alert warning program; and
- Collaborates with units reporting to Student Affairs, such as Enrollment Services, Residence Life, and Career Services.

The Executive Director in charge of the Office for Student Success has the important responsibility of assessing and evaluating advising and academic support, with access to data from Institutional Research and the Office of the Registrar as needed.



Professional advisors at The University of Montana in the Undergraduate Advising Center are conscious that advising is more than assisting students in selecting and registering for classes. Current theory and practice on campus goes beyond the developmental model and identifies advising with teaching, which requires professional judgment, training, and maturity. Students are required to meet with an adviser at least once per academic term. Students meet with their advisors to review academic progress, educational goals, and career options, as well as to determine course schedules for the next semester or next two semesters. Once an adviser approves a course schedule, a student receives his/her Advising Personal Identification Number (PIN) required for access to the online registration system. Each undergraduate student's Advising PIN changes each academic term; the advising numbers are centrally generated, delivered to

departments, and distributed to students by their advisors. Advising PINs are not required for access to Summer School or for post-baccalaureate or graduate students.

In January 2009, a modification was made to this procedure, on an experimental basis, to encourage students who had not pre-registered for spring semester to register even though they had left for winter break. Students were sent a postcard indicating that they had not pre-registered and that they could still register by contacting their adviser or, if the adviser was absent during the break, Griz Central (the one-stop office staffed with representatives from the Office of the Registrar, Business Services Office, Financial Aid, Admissions, Graduate School, and Residence Life). They would be given a temporary advising PIN for single use, and, once registration was completed, that record would be forwarded to their advisor(s) for approval. The adviser could subsequently meet with the student to make adjustments, as appropriate. More than 30 students contacted the Griz Central/Registrar's Office and substantially more contacted the Undergraduate Advising Center.

Beginning in 2008, advances have been initiated to enable professional advisors to spend two-thirds of their time in face-to-face advising, including group advising, as a way to increase student's engagement with advisors. Several programs (Four Bear, Students Tutoring Students) were reassigned to other offices and the Peer Advising program was modified. An interim Peer Advising program is in place to allow outstanding, motivated students to provide assistance to professional advisors (especially at group advising sessions), conduct pre-advising preparation for advisees, contact students for follow up clarification, and other duties. Peer Advising students receive credit for their work, and may in the future qualify for stipends for community service.

In addition, opportunities for professional development and career ladder prospects are critical to the development of advisors. Several advisors and advising administrators have attended and presented at meetings of the National Academic Advising Association (Summer Institute in Austin, Texas, 2008; Technology Seminar in Florida, February 2009; Region 8 meeting in Missoula, MT, April 2009).

Advising for majors is handled primarily by faculty advisers, although the School of Business, College of Education and Human Sciences, College of Forestry and Conservation; and some departments such as English and the Division of Biological Sciences, also employ professional advisers to assist faculty. Advising, as an extension of teaching, is the responsibility of tenure-track faculty members and is delineated in the [Collective Bargaining Agreement](#)^{lv} and in the respective [unit standards](#)^{lvi} as one of the general activities to be taken into consideration in decisions about faculty promotion, tenure, salary increment, or retention. Advising is addressed in all programmatic Unit Standards and is to be assessed for effectiveness by Student Evaluation Committees. It is expected that faculty will be accessible to students, will serve as mentors, and will assist students in their exploration of the discipline and profession. Several incentives are available to recognize outstanding advising activity, including the annual Outstanding Faculty Advising Award (\$1,500 stipend) and the Outstanding Service to Students Award for staff (\$1,500).

ACADEMIC SUPPORT

Many programs are in place to assist students with academic issues, especially for freshmen. Many of these programs have a long history at The University of Montana (such as Freshmen Interest Groups), and others have been established or enhanced as part of the *Partnering for Student Success* plan.

Early Alert

In fall 2007 the University instituted an Early Alert process to identify students who might be having academic difficulty and provide assistance so that these students could have a successful semester. Although it might appear that the Early Alert process is a monitoring system, the critical aspect is that students and their advisers receive timely notification, which allows advisers to contact students and provide academic assistance and/or referral. Instructors in 100- and 200-level courses use the midterm grade function in BANNER to assign students with a DEF (deficient) grade after the third week of classes. The DEF may be used to signal that the student is not attending the class, that he/she did poorly on an exam, that the student did not complete homework, or other indication of a problem. Advisers are also provided a guide that outlines many of the reasons that students may be struggling, such as inadequate preparation for the course content and requirements (e.g., lack of the math background to succeed in Inorganic Chemistry), financial considerations, mental health issues, learning disabilities, and/or lack of motivation. Contact information for referrals is included in the guide. The number of DEF grades submitted by instructors has increased over the two years the Early Alert program has been in place, primarily because more instructors are participating. Analyses of the Early Alert system have been conducted in specific areas such as its relationship to math placement compliance and the types of courses in which DEF grades are common, in order to maximize students' access to helpful support options.

An analysis completed in fall 2007 focused on outcomes for students who received DEF grades in a host of courses ([Exhibit RE 2A-10](#)). The analysis calculated a DEF grade Recovery Index (DRI), which is the ratio of the successful completion rates for students who received a DEF grade and those who did not (NO-DEF students). For example, if NO-DEF students in a course have a successful completion rate of 75%, and DEF students have a successful completion rate of 25%, then the course has a DRI value of 3.0. The analysis revealed a broad array of DRI values, ranging from a low of 1.1 to greater than 20. Those courses with a high DRI frequently were in Mathematical Sciences or for a class in which advanced math proficiency is required. Intermediate Algebra, for example, surfaced as a course in which a poor beginning (as indexed by a DEF grade) predicted poor performance. In response, a number of interventions were put into place, including the opportunity to switch from a traditional letter grade to credit/no credit, referral to STUDY JAM, and greater emphasis on advising students to follow placement recommendations. In some classes, such as Introduction to American Government or International Relations, the early alert was sufficient. Students were able to catch up or apply greater effort and succeed in the course.

Freshman Seminar

Seven or eight sections of Freshman Seminar are offered each fall semester, serving approximately 130 entering students. Freshman Seminar, UNC 101, is a two-credit, 10-week course offered each autumn ([Exhibit OSM 2A-03](#)). UNC 101 teaches fundamentals of critical thinking through analytic readings, discussion, library research, and both formal and informal writing. Freshman Seminar offers small sections, and utilizes academic bootstrapping to demystify the transition into college for new students. The class is taught by instructors with master's degrees, at minimum, in a variety of disciplines. Characteristics of Freshman Seminar that make it particularly useful for entering students include: small class size (no more than 16 students per section); instructors who are genuinely interested in mentoring new college students; an opportunity to gain necessary college survival skills (e.g., library research, group collaboration, critical analysis); shorter course time frame, allowing students additional time to study as the final exam period approaches; opportunity to hone writing skills; and student-led discussions of student-selected topics. The College of Technology offers a comparable course, AASC 100, Introduction to the University Experience.

While Freshman Seminar embodies many important characteristics, as part of the *Partnering for Student Success* plan, discussions are underway about whether to restructure or add to Freshman Seminar offerings, especially in light of larger campus discussions of an integrated “big ideas” curriculum. Advising literacy and other academic planning issues are under consideration as added offerings. More faculty involvement will be critical if theme-specific sections of the Freshman Seminar are adopted to conform to a new “big ideas” curriculum.

Learning Strategies Coursework

Fourteen or more sections of Curriculum and Instruction (C&I) 160, “Learning Strategies for Higher Education,” are offered each year. Ten of these are funded by and available only to students eligible for the TRIO-SSS program. These serve 250 students. The other four sections of this course are available to the general student body and serve about 100 students annually. In addition, the COT offers two such courses, AASC 100 (Introduction to the University Experience) and AASC 105 (Deciding Majors and Careers). These courses are offered primarily for A.A. majors, but other students are eligible for enrollment.

First Year Interest Groups

First Year Interest Groups (FIGs) have been a part of introducing new students to campus since 1993. A FIG consists of up to 20 first year students who are co-enrolled in three to four courses loosely related around a common theme, and also in a one-credit seminar. The foundational courses in the FIG are existing University courses that include students at other levels and may be quite large. The seminar course, however, is limited to FIG students and it is led by an undergraduate senior known as a FIG Leader. There are FIGs to suit students with different interests. Some are designed for students with specific majors or careers in mind; most are intended to introduce students to general education subject areas that interest them. The three to four general education courses in each FIG are selected because they fit together conceptually. The program has also begun to branch

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out and offer FIGs for students at the College of Technology Campus, and FIGs designed to address “big ideas,” in addition to traditional academic disciplines. For example, the fall 2009 semester saw the introduction of a “Global Climate Change” FIG.

The FIG program has undergone some significant changes since spring 2008, growing in number and in academic focus. A total of 37 FIGs were offered in fall 2009, compared with 21 for fall 2007. Although FIGs are not mandatory, about one-quarter of entering first year students now choose to join one. Initially, the role of the FIG seminar was primarily social; to help FIG students get to know one another and be introduced to campus resources (e.g., Career Services, student organizations and clubs) by the FIG Leader who served as an organizer of social activities outside of class. Since spring 2008, the academic rigor of FIGs has increased because of stronger and better-trained student leaders and cultural change throughout the program. That is, the original FIG program had a positive effect on student retention, but it had the potential to play a more significant role in introducing students to the academy. The program was remodeled to introduce more academic rigor and intellectual challenge to the FIG program. To accomplish this, the role of the FIG Leader changed markedly. The FIG Leaders are trained in a seminar in the spring semester. The director of the FIG program and a faculty librarian co-teach the seminar, and preparation for both academic and social leadership is woven into the course, with particular attention given to effective pedagogy. Each FIG Leader must develop a well-articulated course theme, a detailed syllabus, a battery of lesson plans, a semester plan that includes class visits from the FIG program director, and mentorship by a senior faculty member. When the fall semester begins, the FIG Leaders have a clear course structure and specific outcomes to accomplish. The FIG seminar is intended to help first year students by:

- Introducing them to foundational academic skills, such as critical reading, critical thinking, collaborative learning, and effective participation in class discussion;
- Offering early exposure to the principles of information literacy that UM and the Mansfield Library have identified as keys for student success;
- Inspiring them to plan ahead for both their college and career options; and
- Building social and intellectual relationships, as well as academic support systems.

Collaboration with the Mansfield Library has improved the FIG Leaders’ ability to facilitate productive discussion and to introduce first year students to substantive library investigation. All of the FIG Leaders also arrange out-of-class activities that help new students become better acquainted with each other, the faculty, and campus resources. Departmental collaboration with the program varies across campus, but many faculty and academic programs are intimately involved with the design and execution of the FIGs, and Faculty provide tremendous mentorship and support for FIG Leaders.

Assessment of students’ progression at UM reveals that FIG students are also more likely than non-FIG students to return the following year (8 percentage points higher for the 2000 cohort). The University is in the process of tracking retention in subsequent years, as well as graduation rates and GPA, for each of these groups.

Athletic Academic Services

In a cooperative effort between Intercollegiate Athletics and Academic Affairs, the Athletic Academic Services program provides support to student-athletes as they pursue degrees at UM. The Athletic Academic Services program is within the Department of Intercollegiate Athletics but is housed in the Undergraduate Advising Center to maintain cooperation with campus advising. A major priority of staff is academic advising, which involves course selection to fulfill UM's general education and graduation requirements, while working closely with faculty members. In addition to meeting UM's academic requirements, student-athletes must fulfill academic requirements mandated by the Big Sky Conference and the NCAA. Monitoring this involves routine checks of student-athlete's cumulative GPA, credit hours successfully completed, and work towards a specified degree program. Some of the other services available to UM's student athletes are fully funded tutoring to enhance their academic success and referrals to other campus resources such as Disability Services, Career Services, multicultural offices, and health and counseling services. The Jacobson Academic Center provides student-athletes with computer access, study space, and free printing Monday through Friday, 7:30 a.m. to 6:00 p.m. Assistance is also provided with team travel and priority registration.

Athletic Academic Services also provides workshops for all new student-athletes during their first year to help ease the transition to college. These workshops cover a variety of topics including time management, academic goal setting, study skills, writing and reading skills, and an introduction to other campus resources. For upperclassmen, career workshops are offered on various topics such as writing effective resumes, pursuing graduate degrees, interviewing techniques, and networking. A user-friendly website is maintained by [Athletic Academic Services](#)^{lvii} to provide student athletes with up-to-date information such as academic and career related events, deadlines, and Griz in the Community.

Four-Bear Program

The Four-Bear program was initiated at The University of Montana in 1995. This four-year graduation plan is designed for students committed to eight consecutive semesters of full-time study at The University of Montana. It gives the student registration priority beginning his or her first registration period after signing the Four-Bear contract and pays incidental and mandatory fees past the planned graduation time provided the student has met all conditions. If a student is not meeting the conditions as set forth in the Four-Bear contract, he or she is dropped from the program, but no other penalties are incurred.

Since inception of the program, more than 7,000 students have registered for Four-Bear. In recent years, about 500 to 600 students enroll in Four-Bear in the fall. Approximately 55% of the students who enrolled in Four-Bear have graduated in four to six years, although only about 10% of the students maintain their membership in the program through to graduation. As students progress in their major, the need for priority registration is not as critical for access to particular courses.

Overall, the Four-Bear program contributes to progress and graduation among students at The University of Montana. Students elect to participate in the program, so it is not surprising that the graduation rate for students who enroll in Four-Bear is higher than that

of students who do not participate. However, even when students do not maintain enrollment in the Four-Bear program, there are lasting effects. Because such students maintained full-time status during their first several semesters or years at UM, they are in excellent position to complete their course of study in a timely fashion. Entering the Four-Bear program serves to propel students along the trajectory for persistence and completion.

International Student Advising

The University of Montana enrolls a diverse group of students, with students from more than 72 different countries. The foreign student enrollment is over 500 students. The Foreign Student and Scholar Services Office (FSSS) provides advising on government regulations and a wealth of services. In addition, an adviser at the Undergraduate Advising Center is responsible for cultural transition counseling and academic advising for foreign and U.S. minority students. A cross-cultural class, Anthropology 104, is offered as part of the spectrum of services for students who are interested in examination cultural differences, dissonance, and resolution in greater depth. The multicultural adviser may arrange for extended test-taking or use of non-discipline-specific dictionaries during testing, advising assistance and orientation training to FSSS and the Office of International Programs' English Language students, and cross-cultural training for UM Advocates and students who intend to study abroad.

The Writing Center

The Writing Center (TWC) exists both to help students become more proficient, flexible writers as they move through the curriculum and to promote writing across-the-curriculum activities by consulting with faculty, visiting classes, providing discipline-specific workshops, and partnering with various programs on campus. In effect, TWC is poised to bolster student retention efforts and to effect significant improvement in student performance across their academic tenure. The main activities TWC performs include:

- Face-to-face tutoring
- Online tutoring
- Upper Division Writing Proficiency Assessment tutoring
- Upper Division Writing Proficiency Assessment administration
- Writing workshops across the curriculum
- Faculty workshops and consultations
- TRIO mentorship workshops and tutoring
- Writing course instruction

The Writing Center offers free one-one-one tutoring and workshops to undergraduate and graduate students. Since TWC's inception, student use of the center has grown from 1,599 student appointments during AY 2002-03 to approximately 4,000 student appointments during AY 2008-09. The Director of the Writing Center and seven professional writing tutors help students plan, execute, revise, and edit any piece of writing at any stage of the writing process. Because dialogue is at the heart of social learning behaviors and because tutoring is an enactment of the social nature of learning, the tutorial setting in the face-to-face meetings is centered on evolving one-on-one conversation that invites students to rehearse the strategies that will make them successful

writers. Through dialogue, the tutor guides the student to develop strategic knowledge of how to compose a piece of writing within the constraints of a particular writing task and within the parameters of the student's own contributions to the conversation. This "tutorial talk" affords the student a unique and non-evaluative space in which to explore ideas and rehearse strategies. In effect, students are led to become more independent writers capable of using writing as a tool to learn and communicate in courses across the curriculum. [The Writing Center's Annual Report for AY 2008-09](#) is included in [Exhibit RD 2A-02](#).

During AY 2008-09, The Writing Center offered face-to-face tutoring in the Liberal Arts Building, the Mansfield Library, and at the COT east and west campuses. The Writing Center also expanded its services to include a peer writing tutoring at STUDY JAM, staffed by undergraduate peer tutors who were enrolled in an Honors course taught by the Center Director. The undergraduate peer tutors are the first of their kind at UM and some will continue to work during Academic Year 2009-10 under the supervision of the Director.

During spring 2009, in an effort to keep pace of national trends and evolving student needs, TWC launched an online tutoring forum. Funded by a Montana University System grant, this new online tutoring forum aims to preserve the social, dialogic nature of the tutoring session through a synchronous online tutoring experience. By using an appointment-based system that invites students into a virtual tutoring session, TWC engages online students in real-time conversations about their writing, helping them to become more effective and versatile writers. Synchronous tutorial delivery marks UM's Writing Center as one of the few writing centers across the country embarking on a form of online tutoring that preserves the live nature of the dialogue. In partnership with UOnline, TWC will continue to provide online tutoring to all students during the 2009 Summer Session and to online students during Academic Year 2009-10.

In addition to facilitating writing tutoring and instruction across the curriculum, The Writing Center administers the Upper division Writing Proficiency Assessment exam, offering and scoring the exam six times each year. Students make appointments with writing tutors in order to prepare for the exam during the two weeks prior to each exam.

STUDY JAM

In fall 2008, an analysis of the peer tutoring program, Students Tutoring Students (STS), was initiated. The model used by STS required students to pay a small fee (\$4.50 per hour) for individual tutoring sessions, with the STS program paying the difference in tutor wages. In Academic Year 2007-08 more than 47 tutors were available for more than 100 courses, with approximately 650 students seeking the service. The quantitative analysis focused on the number of students using STS, the number of peer tutors and their earnings, whether students benefited from tutoring sessions, and whether the funds and personnel resources were being used effectively and efficiently. The analysis revealed that although a large number of students sought tutoring the average tutee received only 5.1 hours of tutoring, individual peer tutors realized only 12 hours of tutoring opportunities on average, and the overhead expenses required to organize tutoring (e.g., sales of redeemable tutoring tickets, tutor training, record keeping) were disproportionate. Therefore, in October 2008 a new program, STUDY JAM, was created to take the place of STS. The Division of Student Affairs provided space in the University Center three

evenings a week for the use of students and tutors. Study tables are set up for specific courses (e.g. Chemistry – CHMY 141N), based on student and/or faculty requests. In the first semester, more than 1,100 students used the new tutoring service for the 10 weeks it was in session. In spring 2009, student use remained at those levels. The Writing Center added a Writing Table to the constellation in March 2009 to expand their outreach. An analysis of students' completion of courses and their grades in those courses will be undertaken once the first year of the program is completed.

Math PiLOT

A program called Math PiLOT was established in 2007, in response to analysis of students' placement, performance, and persistence in introductory math courses. The program is funded jointly by the Office of the Provost, the College of Arts and Sciences, and the Department of Mathematical Sciences. Organized under this program are the Mathematics Learning Centers, Math Skills Refresher Workshops, outreach to mathematics "abstainers," and special advising for students with problems in mathematics coursework. One of the first accomplishments of this new program was expanding the Mathematics Learning Center by providing a second location in the Mansfield Library with expanded hours for students in developmental mathematics and non-calculus track tutoring. In AY 2007-08, more than 450 students visited the Math PiLOT advising office seeking a variety of advising services. Many of these students are nontraditional students and students with disabilities. Counseling interventions have included: informing students of services and tutoring; administering gateway exams to students who missed the in-class assessment; recommending resources for brushing up on mathematics skills; and helping students add or drop a mathematics course. Students seek advising on their own, or are referred by faculty, departmental and professional advisers, or fellow students.

Probation and Readmission Advising

If a student's cumulative grade point average falls below 2.00, he/she will be academically suspended at the end of the semester, and will not be reinstated without approval of the academic Dean of his/her school or college. To obtain this approval, the student must complete several steps, including meeting with a reinstatement adviser in his/her major academic department to prepare an Academic Reinstatement Plan that addresses both the academic and out-of-classroom issues that influence student success. Students who have not declared a major meet with the Reinstatement Adviser in the Undergraduate Advising Center. The meeting serves as an opportunity for the student and adviser to explore the reasons for poor performance in the past, and develop strategies to address the identified issues. For example, an Academic Reinstatement Plan often includes referrals to free, drop-in math tutoring, the Financial Aid Office, and study skills courses. A student who is denied reinstatement may appeal this in writing to the University President within 10 days of receiving the notice of denial. If a suspended and reinstated student has not attended UM for more than two years, the student must complete an application for readmission through the Registrar's Office.

TRIO-SSS

TRIO Student Support Services is a federally-funded (U.S. Department of Education) program that provides academic support for eligible UM students. Students are eligible if they are low-income; come from homes in which neither parent completed a four-year college degree; or have a documented disability. Between 35 and 40% of UM's undergraduate students meet at least one of these criteria. The project is funded to serve 375 active participants per year. In Academic Year 2007-08, the project served 390 students, while 536 previously served students were still enrolled at UM pursuing a four-year degree but did not require any services of the program.

Two TRIO-SSS instructors teach 10 sections per year of a study skills course, Learning Strategies for Higher Education. The project requires students to complete this course successfully to be eligible for other project services. Enrollment in each section is limited to 25 students to permit a high level of interaction with the instructor and among students in the class. Primary skills taught include effective use of memory, time management, note taking, reading, understanding learning styles, and exam preparation/test-taking skills. In addition to the Learning Strategies class, the project offers a walk-in tutor center 32 hours per week covering all first year math courses and selected General Education courses based on demand; academic advising for 130 – 145 participants who do not have a declared major; help with financial aid issues; and assistance with academic major choice and career exploration.

The funded objectives of the program since Academic Year 2005-06 include the following: 80% of active participants will be in good academic standing at the end of the academic year and eligible to enroll for the subsequent year; 70% of active participants in any year will enroll for fall semester of the subsequent year; 35% of students who are new to the project each year will graduate within six years of their enrollment in the program. The first two objectives have been met or exceeded for the past three years. The six-year graduation rate for project participants has been 34%, 34%, and 32% for these three years.



Tutoring Session in TRIO Library

ASSESSMENT ACROSS THE INSTITUTION

A second area for emphasis throughout this standard is Assessment. Since the last accreditation visit, The University of Montana has increased efforts and realized progress toward its assessment goals. In 2000, the General Recommendations from the site visitors included one focused on assessment:

Recommendation 2: The Committee found that the University has made a promising start in instituting plans for program assessment. However, the results to date vary significantly from one department to another. Some departments have long standing assessment plans which have been in use long enough to yield assessment data useful in bringing about process improvements on both the program and divisional levels. Other departments have yet to accumulate useful data or to use the assessment data in program improvement. The Committee recommends that the University continue and intensify its efforts in this area, so that the requirement for effective assessment plans can be met in all programs.

The site visit of 2005, therefore, addressed the University assessment program and issued a Commendation and a Recommendation:

Commendation 4: The University has done a commendable job in ensuring that assessment is a continuous activity and integrated into academic programs' educational efforts. It appears that all academic units and programs are engaged in assessment efforts. The process is well articulated and has been streamlined to help in its implementation. Results from national surveys and other assessment activities have resulted in several initiatives to improve student experiences. Curriculum proposals require articulation of student learning outcomes and an assessment plan. Support units, including the Division of Student Affairs and the Library, have developed assessment plans that are an integral component of their programs.

Recommendation 2: While the university has made considerable progress toward consistency in implementation of assessment efforts, additional work is needed in some units to ensure that programs and curriculum are evaluated in the context of assessment results. The university needs to assure that assessment results are monitored over time and articulated back through the curriculum, and that the general education curriculum is assessed as an integrated whole in relationship to the goals of the general education program. Additionally, the university needs to develop a process to communicate program-level objectives and outcomes to students.

In order to make informed decisions, faculty, staff, and administrators at The University of Montana are involved in assessment activities at every level. At the institution level, these activities are organized around seven major assessment categories:

1. Undergraduate Academic Quality and Student Success,
2. Graduate and Professional Programs Quality,
3. Research and Creative Scholarship
4. Contributions to the Community (Local/Regional/National)
5. Institutional Efficiency and Effectiveness

6. Enrollment Management, and
7. Institutional Prominence.

These categories reflect areas identified by the Board of Regents, as well as the University's Mission. Outcome measures for these categories include both direct and indirect tools, such as retention and graduation rates, assessment of learning outcomes, surveys of student engagement, dollar volume of research grants, research-based contributions to societal issues, lifelong learning opportunities, energy savings, tuition comparisons, and rankings and classifications see [Institutional Assessment Matrix \(Exhibit RD 2A-01\)](#).

Individual units that provide academic or social support to students also engage in assessment, as described in *Standard 3: Students* for the divisions within Student Affairs. With regard to the Educational Program and its Effectiveness, assessment of student learning goals in the general education curriculum was described earlier. Those assessment activities continue to be expanded each year to ensure that all of the Groups are assessed regularly. Finally, assessment at program or department level is conducted to determine whether students are meeting established learning outcomes.

PRINCIPLES OF ASSESSMENT

As the University has developed, implemented, and reviewed its assessment goals and procedures, these principles have emerged:

- An assessment plan should be comprehensive in scope, but specific assessment projects should be targeted, allowing for a flexible and dynamic system that can be modified to include new goals and concerns.
- Assessment should combine centralized and decentralized activities. For academic assessment, in general, statements of goals and objectives are to be developed by faculty within units, and activities should maximize the role of faculty in the assessment process. A comprehensive assessment of students' overall performance can be carried out at a more central level.
- Assessment should incorporate multiple measures, including direct and indirect measures. Each unit should develop its own approach to assessment.
- Assessment should be aimed at evaluating programs and identifying areas of excellence and areas for improvement. Neither the performance of individual faculty or individual students is to be evaluated.
- Assessment results should be used recursively so that results are used to improve programs and student success.
- Assessment activities should encompass in their design findings from research, and those responsible for assessment should be knowledgeable about relevant research. Workshops and other presentations and information should be made available for all those planning and implementing assessment activities.

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- Assessment is an evolving process that builds on past practices combined with experimentation and change to yield improved practices. Assessment should be built on the ongoing efforts of faculty and staff to enhance students' learning and experiences at the University and institutional contributions to research and community outreach.

To assess students' academic and personal growth at The University of Montana, assessment objectives have been identified. These include:

- To ascertain the knowledge and skills, values, and expectations of entering students.
- To evaluate growth in students' knowledge and skills from their participation in general education coursework.
- To evaluate growth in students' knowledge and skills from their participation in the coursework and programs offered in their major fields of study.
- To delineate what factors are related to students' progress and graduation.
- To discover how students view their educational experience and to determine how satisfied they are with the adequacy of their preparation for the future.
- To measure students' success in employment and/or further education.

ANNUAL ASSESSMENT REPORT

Beginning in 2009, The University of Montana has committed to producing an annual Institutional Assessment Report annually that evaluates progress on the seven major assessment categories. A summary of assessment outcomes across the institution is presented in the assessment report, as a part of a larger cycle of strategic planning, budgeting, and assessment that is critical to the ongoing success of The University of Montana. The complete 2009 Institutional Assessment Report is posted on the [strategic planning website](#) with an executive summary published and distributed across campus and to the Board of Regents and other bodies. The report and executive summary are also available as [Exhibit RD 2A-01](#).

Voluntary System of Accountability

The University of Montana played an active role in developing and launching the national Voluntary System of Accountability project. The Associate Vice President for Planning, Budgeting, and Analysis, served on the national VSA Project Task Force on Campus Engagement that identified the best instruments to measure student engagement, specifically evaluating the National Survey of Student Engagement and selecting the data points for inclusion in the College Portrait.

2.B.3

[College Portrait](#)^{lviii} is a template for providing information such as statistics on the student body, the costs of college, graduation and retention rates, and results from standardized tests that measure student engagement and learning. The University of

Montana already uses two of the tests adopted by the Voluntary System of Accountability, specifically the Collegiate Learning Assessment (CLA) beginning in AY 2004-05, and the National Survey of Student Engagement beginning in 2000.

Collegiate Learning Assessment: Assessment in Context

The University of Montana participated in the CLA in 2006-07, to assess whether students were attaining strong analytical, quantitative, information, and communication skills; a deep understanding and hands-on experience with the methods of disciplines that explore the natural science, social science, and cultural domains; multicultural knowledge; collaborative problem-solving skills; a proactive sense of responsibility for individual, civic, and social action; integrative thinking, and application of skills across domains. The results of the CLA, included in [Exhibit RD 2A-01](#), indicated that UM freshmen entered college performing “as expected,” given their ACT/SAT scores. The CLA report tabulates the results from the seniors, indicating the following:

“Based on the average SAT scores of freshmen and seniors sampled at your institution, we would expect a difference of 146 points on the CLA. This difference is our estimate of the expected value added at your school. The difference between how your seniors scored (1204) and freshmen scored (1036) was 168 points, which places you in decile group 8. As such, you performed better than 70% of four-year institutions.”

The University will reassess students using either the CLA or other measure of critical thinking skills (CAAP, MAPP) on a schedule determined in the [Institutional Assessment Plan](#) and in accordance with the Voluntary System of Accountability. A test validity study released recently by the Association of Public and Land-Grant Universities (fall 2009) indicates that “across test constructs, response formats, and test publishers—correlations are generally high at the school level, adjusted effect sizes are consistent, and school-level reliabilities are high,” allowing the selection of the instrument that best fits the needs of the University ([Exhibit RD 2A-01](#)).

Assessment of Library Services and Students’ Use

The Maureen and Mike Mansfield Library administered [LibQUAL+ surveys in 2003^{lix}](#) and [2006^{lx}](#). The survey, sponsored by the Association of Research Libraries, is a proven and reliable instrument for assessing academic libraries’ services and resources. The results from this survey, together with other data regularly collected by the library, affirm that the Mansfield Library continues to be valued and relied upon by the campus community. Library use is changing in ways that reflect trends seen in academic libraries across the country.

The [LibQUAL+ survey^{lxi}](#) data indicate that services and collections at the Mansfield Library have shown improvement, both in general satisfaction indicators and in information literacy outcomes. Highlights from the 2006 survey indicate that the Mansfield Library most closely met desired service levels of the campus community in the following categories:

- Convenient service hours;

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- Community space for group learning and study; and
- Employees who deal with users in a caring fashion.

Survey respondents identified the following categories as areas of most importance:

- Print and/or electronic journal collections;
- A library website that makes it simple to locate information; and
- Making electronic resources accessible externally.

A detailed narrative analysis and accompanying tables are available as are the full reports for the 2003 and 2006 surveys provided by the Association of Research Libraries. The Library incorporates these analyses along with other assessment data to inform program decisions and strategic planning. Another LibQUAL+ Survey is planned for spring semester 2010.

National Survey of Student Engagement

The University of Montana participated in the National Survey of Student Engagement (NSSE) project in 2000, 2002, 2004, 2006, and 2009. (The schedule was modified to reflect the recommendations from the Voluntary System of Accountability and to allow consideration of the data and discussion of ways to improve in specific areas, rather than repeated testing with little opportunity to effect change between surveys.) Although the survey does not address questions about *what* students have learned during their college experience, it does explore whether and how often students participate in activities that are important to engagement and student learning. Results from the NSSE instrument, included in [Exhibit RD 2A-01](#), allow the University to enhance the quality of undergraduate programs in the areas of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment.

Data obtained during the 2006 survey were incorporated, in the Voluntary System of Accountability report, in the areas of:

- Group Learning Experiences,
- Active Learning Experiences,
- Institutional Commitment to Student Learning and Success,
- Student Satisfaction,
- Student Interaction with Campus Faculty and Staff, and
- Experiences with Diverse Groups of People and Ideas.

Areas of concern have been identified and members of the Retention Task Force and subcommittees were provided NSSE data for use in construction of the retention plan *Partnering for Student Success*. Attention is paid to overall mean comparisons and to differences between freshmen and seniors in comparison to their peers and one another. For example, in the 2008 NSSE report freshmen were significantly less positive about their academic advising experience compared to those at peer institutions, while seniors' perception of the quality of advising was equivalent to their peers. This pointed, again, to concerns about advising for first year, especially undeclared students.

Statistical comparisons across 2002, 2004, and 2006 were made to determine whether any areas showed consistent improvement across the three surveys. Those areas showing statistically significant improvement trends included: use of technology (using email to communicate with an instructor, using computing and information technology), critical thinking skills (thinking critically and analytically), analyzing quantitative problems, and community engagement (voting in local, state or national elections). Results from the most recent NSSE survey were made available in late 2009. These results and comparisons to earlier surveys were presented to the academic officers at one of their weekly meetings and posted online at the assessment portion of the [strategic planning website](#).

Faculty Survey of Student Engagement

In 2008, faculty at The University of Montana participated in the Faculty Survey of Student Engagement (FSSE). According to the vendor, the FSSE is designed to complement the National Survey of Student Engagement, so it was adopted to replace the Higher Education Research Institute survey that had been used in the past. However, although the combined FSSE-NSSE report presented faculty results side-by-side with student results, allowing institutions to identify areas of correspondence as well as gaps, statistical comparisons are not possible given the variation in questions posed to faculty and to students. The data do allow for summaries regarding how faculty invest their time, what they expect of students, how lower division and upper-division coursework differs, and their perceptions of their students' efforts and engagement. Differences among upper- and lower-division coursework are instructive: for example only 35% of faculty reported that "working on a paper or project that requires integrating ideas or information from various sources" was "very important" at the lower division level, while 54% thought it was "very important" at the upper division level. In contrast, "examine the strengths and weaknesses of their views on a topic or issue" was equivalent across all possible answers (not important, somewhat important, important, very important) at both the upper- and lower-division level. These data have been shared with the academic officers and they will be used to organize discussion at a workshop for department chairs.

Curricular Assessment at the Program/Department Level

In the following sections, assessment will be discussed primarily in relation to academic departments, General Education coursework, and retention efforts. Discussion of broader goals for General Education includes reference to assessment efforts and changes in the curriculum and education practices.

Assessment of students' progress toward their selected majors is primarily conducted at the department (or program) level. Every academic department at The University of Montana submits an assessment report to the Office of the Provost each year for consideration by the Assessment Advisory Committee (comprising faculty members from across the University, the Associate Provost for Undergraduate Education and Policy, and a representative from Student Affairs). The report summarizes assessment activities and provides information about curriculum changes and/or organizational structure adjustments in response to assessment data.

In brief, every department outlines up to five student learning outcomes in response to the question, "What do you want the student who completes your major to know and be able

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to do?” Each department also provides a list of measures used to assess students’ learning and a list of program-level changes that have been made. The Assessment Advisory Committee evaluates these reports using six criteria given below. As part of its ongoing review, in January 2008, the Assessment Advisory Committee considered the Assessment Reports submitted by academic departments in fall 2007. Specifically, the committee scored each department’s report using a four-point rubric (1 = poor, 4 = excellent) on the following questions:

1. Is there a mission statement? Is it well articulated and assessable (measurable)?
2. Does the department report a set of objectives/goals/outcomes? Do these fit the mission of the department and are they measurable? Is there a clear focus (e.g., service, research, student learning)?
3. Does the department use performance-based measures (e.g., pre- and post-tests, essays, oral reports, external data such as GRE scores) specific to the stated student learning goals, in addition to more indirect measures such as students’ self report?
4. Does the department use/report in-class assessment techniques to evaluate students’ progress toward the desired learning goals?
5. What has the department changed (e.g., curriculum, student learning goals, programmatic direction, instructional strategies/delivery) in response to information/data obtained with measures of student learning goals?
6. What are the plans for continued assessment?

Each department received a memo from the committee outlining concerns that were elicited by the review process for all departments, and additional information regarding that particular department. An example of an Assessment Advisory Committee memo of evaluation is included in [Exhibit RD 2A-01](#). 22% of the departments received a score of “good” or “excellent” in all areas; 44% received good or excellent in all but one or two areas, usually in future plans for assessment. 10% of the departments were notified that they needed work in more than four areas. Committee members volunteered to meet with those departments and meetings were scheduled at the request of the department Chair.

Before or during the review process, a number of departments contacted the Associate Provost for help in their assessment activities. Several examples, selected to illustrate how departments have responded to the areas of concern, follow:

Example 1, Liberal Studies Program

The Liberal Studies program received poor or fair scores in five categories. In response to committee feedback, the faculty created a Common Knowledge Quiz, as well as a writing scoring rubric to determine whether students are meeting the program’s second learning outcome: “To write clearly and cogently, with subtlety and accuracy, and to construct arguments with skill.” In the process of assessment, the faculty also discovered that their majors were not a cohesive group of students. Therefore, they are linking a section of an introductory course (Introduction to the

Humanities) to a Freshman Interest Group, and they have modified the curriculum in several significant ways. In particular, they are requiring students to revisit texts studied in the introductory level course by placing such material in a capstone course. Students who read *Hamlet* in Introduction to the Humanities will read it again at the senior level, now in conjunction with the Hindu scripture. The rationale is that “Teaching any novel that some students have already read can offer an opportunity to engage in a more intensely dialogic exercise, for one can coax students to juxtapose the memory of the first reading...with subsequent ones” (Miller, 2007, p. 52).

Example 2, Department of Geosciences

Similarly, the Department of Geosciences, which needed improvements in five areas, launched a strategic planning exercise in fall 2007, before obtaining the recommendations from the Assessment Advisory Committee. They drafted a new mission statement, reconfigured the B.S. degrees, and implemented assessment of the new student learning goals. A joint degree now established in International Field Geosciences with the University of Potsdam in Germany and Cork University in Ireland provides a model for other degree programs. The joint degree program requires hiring an independent assessment specialist, and the assessment plan includes formative and summative assessments such as:

- Number of students;
- Number of peer-reviewed publications;
- Scholastic records of degree-seeking students;
- Student persistence; completion rates;
- Scaled survey and free response questionnaires;
- Standardized pre- and post-tests to test proficiency in Geosciences, languages, and cultural competence;
- Entrance and exit interviews; and
- Focus groups.

Beginning in fall 2008, departments and programs were asked to intensify assessment efforts and better document their efforts in this critical area. The Assessment Advisory Committee modified the format of the department [Assessment Report template](#)^{lxii} to allow departments to show more directly the link between performance measures used to assess specific student learning goals, and to provide samples of student performance measures and scoring rubrics ([Exhibit RD 2A-01](#)).

A chairs’ workshop was held on October 1, 2008, with the specific aims of introducing the materials and providing an opportunity for chairs to collaborate when their respective disciplines might share common approaches to assessment. Each year at least one workshop for chairs focuses on assessment (e.g. *Principles and Profiles of Good Practice in Assessment* (online seminar), September 23, 2009).

GRADUATE PROGRAM

OVERVIEW

The University of Montana is one of two doctoral granting institutions authorized by the Montana Board of Regents of Higher Education. It has offered graduate programs across many different disciplines and interdisciplinary areas for many years including areas such as biology, forestry, anthropology, business, and law. Graduate education is clearly recognized within the mission of the University. Currently UM offers 16 Ph.D., three Ed.D., three professional doctorate, 20 M.A., 18 M.S., four M.F.A., two M.Ed., seven professional master's, and two educational specialist degrees, and four graduate certificate programs. Many of these programs have options within them. A complete list of the various programs is on the [Graduate School website](#)^{lxiii}. Over the past several years the number of graduate degrees has been slowly growing as new opportunities have been recognized and implemented. Much of the growth has been in the biomedical sciences as the College of Health Professions and Biomedical Science has expanded its research programs.

Graduate programs at UM are administered through the Graduate School, which is overseen by the Associate Provost for Graduate Education. While the Graduate School provides administrative oversight and basic standards for all graduate programs at UM, individual departments, schools and colleges are responsible for development of objectives, admission standards, curricula, and graduation requirements for individual programs, with all curricular programs and policies reviewed and approved by the [Graduate Council](#)^{lxiv}, a standing committee of the Faculty Senate. Graduate programs are evaluated periodically by outside reviewers, the Graduate Council, the Faculty Senate, and members of the Provost's Office on a [program review schedule](#)^{lxv} administered through the Office of the Provost.

2.D.2

New Programs Since the Last Accreditation

<u>Discipline</u>	<u>Degrees Offered</u>	<u>Year</u>
Neuroscience	M.S., Ph.D.	2000
Social Work	M.S.W.	2000
Environmental and Natural Resources Law	Certificate	2002
Toxicology	M.S., Ph.D.	2002
Public Administration	M.P.A.	2003
History	Ph.D.	2003
Anthropology	Ph.D.	2004
Biomolecular Structure and Dynamics	Ph.D.	2004
Intercultural Youth and Family Development	M.A.	2004
Natural Resources Conflict Resolution	Certificate	2004
Alternative Dispute Resolution	Certificate	2005
Public Health	M.P.H.	2005
Environmental Science and Natural Resource Journalism	M.A.	2009
Medicinal Chemistry	Ph.D.	2009
Communicative Disorders	M.S.	2009
Wilderness Stewardship	Certificate	2009

Student Numbers and Future Targets

Over the past three years the annual average number of graduates per year from the various programs has been 465 master's, 166 professional doctorates, and 50 Ph.D./Ed.D. The average number of enrolled graduate students (headcount) during the same three years was 1,948. The fall 2008 enrollment of 1,896 is just less than 5% lower than three years ago, particularly reflecting decreases in the College of Arts and Sciences, the School of Business Administration, and the College of Education and Human Sciences. The average full-time equivalent (calculated on 12 credits = 1 FTE) was 1,380 and mirrors the approximately 5% decrease in headcount over the three-year period.

Using the five-year period of 2004 through 2008, for which complete statistics are available, this picture can be made a bit more complete. In fall 2008, 1,896 graduate students were enrolled (13.4% of the student body). From 2004 to 2008 the number of graduate students decreased from 1,966 to 1,896 with the high point reached in 2006 at 1,989 students. All of the decrease was recorded as master's students since the number of doctoral students increased.

Over the same period, the percentage of master's students who were women increased from 55.8% to 58.4%, and from 47.4% to 55.9% for doctoral students. The number of ethnic minority students has increased also from 91 to 147, with Native American students making up the largest ethnic group. Both full- and part-time graduate students have increased with about 66% of graduate students classified as full-time (enrolled for at least nine credits) in 2008. Nearly 65% of the graduate students were Montana residents in fall 2008. The majority of graduate students throughout the five years have been between the ages of 25 and 34.

Shifting to fall 2007, due to incomplete 2008 statistics, the average acceptance rate for all graduate students for the Fall 2007 Semester was 43% with an actual matriculation rate of 25% for all those who applied. For master's students, the corresponding rates were 48% and 30%, respectively. At the doctoral level the corresponding rates were 23% and 17% respectively. While a far lower proportion of doctoral applicants were admitted and matriculated, a larger proportion of the admitted doctoral graduate applicants matriculated (63% master's versus 74% of doctoral).

The fall 2008 distribution of graduate students by Academic Unit and the three-year average number of graduates per year ending in 2007 are given in Table 2-02.

Table 2-02 - Distribution of Graduate Students by Academic Unit (2008)

<u>Academic Unit</u>	<u>Students</u> <u>(M)</u>	<u>Students</u> <u>(D)</u>	<u>Grads</u> <u>(M)*</u>	<u>Grads</u> <u>(D)*</u>	<u>Notes</u>	<u>Mean Time</u> <u>to Grad</u>
Anthropology	65	29	26		Doc New 2004	M >2.6
Biological Sciences	10	62	5	7		M >2.3 D >4.1
Chemistry	3	32	2	6		D >3.9
Communication Studies	16		7			M >1.9
Computer Science	18		6			M >2.2
Economics	10		2			M >1.9

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<u>Academic Unit</u>	<u>Students (M)</u>	<u>Students (D)</u>	<u>Grads (M)*</u>	<u>Grads (D)*</u>	<u>Notes</u>	<u>Mean Time to Grad</u>
English	78		35			M >1.9
Environmental Studies	76		29			M >2.5
Geography	45		10			M >3.3
Geosciences	21	11	11	2		M >2.4 D >4.7
History	16	11	4		Doc New 2003	M >2.0
Mathematics	15	19	6	2		M >1.5 D >5.2
Modern and Classical Languages and Literatures	6		3			M >1.7
Philosophy	9		4			M >2.3
Political Science	70		25			M >1.4
Psychology		42	12	6		M >4.8
Sociology	9		5			M >2.4
Forestry and Conservation	75	57	28	9		M >2.8 D >4.3
Pharmacy		26	2	4	Docs New 2002, 2004, 2009	D >4.7
Physical Therapy		98	1	29		D >3.5
Public Health	24				Master's New 2005	
Social Work	62		23			M >3.0
Accounting	23		20			M >2.5
Business Administration	79		54			
Counselor Education	30	5	19	1		M >2.8
Curriculum and Instruction	114	15	47	2		M >2.2 D >2.7
Educational Leadership and Counseling	49	51	19	8		M >1.1
Health and Human Performance	19		10			M >2.4
Intercultural Youth and Family Development	16		5		Master's New 2004	
Art	13		19			M >2.4
Theatre and Dance	9		3			
Media Arts	12		5			
Music	20		3			M >1.7
Journalism	26		9			M >2.3
Law		248		76		
Interdisciplinary master's	12		4			M >1.9
Interdisciplinary doctorate		9		3		D >4.7
*Average number of graduates per year for the three-year period ending in 2007						

Given these modestly declining graduate student numbers, the University has embarked on a program to increase substantially the number of graduate students at UM over the next 10 to 12 years. It is anticipated that new programs will be added, many existing programs will be strengthened, stipend levels will be raised, and other actions will be taken to stimulate growth in graduate student numbers. Within the [Academic Strategic Plan \(Exhibit RE 1-01\)](#), under the graduate education initiative, four broad goals are identified:

1. Enhance graduate education to transform the intellectual atmosphere at UM and create significant cultural and economic benefits to Montana.
2. Create a stimulating and supportive environment for graduate students that facilitates learning and positive outcomes for Montana.
3. Increase the proportion of graduate students enrolled to between 25% and 30% of all students at UM (currently 13%).
4. Increase regional, national, and international awareness of UM graduate programs.

Within each of these goals the Academic Strategic Plan addresses strategies to meet the goals and how progress toward those goals will be measured.

Quality of Students

Fall 2008 graduate student enrollment data depict the quality of the entering class. Overall, 37% of those who applied to the graduate school were admitted, but the proportion of admitted students to applicants varies widely among the programs. Programs such as Creative Writing (M.F.A.) and Wildlife Biology (M.S.) were quite selective at 11% and 13%, respectively, while Geography (M.A.) and Curriculum and Instruction (MEd), both at 63%, were less selective.

2.D.1

The average Graduate Record Examination (GRE) scores also vary among the programs, with an overall average of 523 verbal and 595 quantitative (1118 combined). The highest combined scores were for applicants to the doctorates in Biomolecular Structure and Dynamics (1345) and Fish and Wildlife Biology (1320), while the lowest combined scores were for applicants to the Master's of Accounting (900) and Biomedical Sciences doctorate (900 for one applicant).

ADMINISTRATION

Persistence and Graduation

Most graduate students persist to graduation. Over the past 16 years (1992 to 2007) the combined retention and graduation of master's students was 78% after three years and 80% after 10 years with graduation rates increasing over the last decade. For example, the four-year graduate rate for cohorts beginning between 2001 and 2004 all exceeded 80%, whereas the cohort average beginning with the 1992 cohort through the 2004 cohort was 75%.

Ph.D. and Ed.D. students have completed programs at a lesser rate than master's students with 30% completing after five years and 64% completing after 10 years. Both the

complexity and length of these doctoral programs provide barriers to completion. In contrast, the professional doctoral programs in law and pharmacy have completion rates in excess of 90%.

Employment and Continuing Education

Statistics for graduates from the [2008 Graduation Survey](#) conducted by the Office of Career Services show that 87% of master's degree graduates and 90% of doctoral degree graduates (including Juris Doctorates) were employed during the year after graduation. 64% of master's degree graduates and 65% of doctoral degree graduates were employed in Montana. 11% of master's degree graduates and 8% of doctoral degree graduates were pursuing further education during the year following graduation. Thus, well over 90% of master's degree graduates and nearly 100% of doctoral graduates were either employed or pursuing further education ([Exhibit RD 2B-03](#)).

Level of Course Work

The nature of graduate programs at UM is such that coursework is expected to be pursued at advanced levels and that research, professional analyses, or creative activities are expected of each graduate. Even where a graduate student enrolls in a course normally for upper division undergraduate students, there is a requirement for a significant graduate component for the course. In addition, theses, professional papers, performances, and creative works are evaluated by faculty committees, not simply a single instructor.

2.D.1
2.D.2
2.D.3

GRADUATE FACULTY AND RELATED RESOURCES

Resources

The primary resources for graduate education consist of faculty members, class and seminar facilities, laboratories, studios, performance spaces, financial support, and infrastructure (including the library) to support relevant research and creative activities (both on and off campus). While an increase in available resources would be advantageous, most programs have adequate resources to offer high quality programs.

2.E.1

Institutional financial support for graduate students is limited and comes in four different forms:

1. Institutionally supported teaching assistantships
2. Sponsored programs supported research assistantships
3. Sponsored programs-supported student employment positions
4. Institutionally supported scholarships and fellowships

In fall 2008, the Graduate School provided 191 teaching assistantships (112 master's and 79 doctoral). Each of these came with a full tuition waiver. The College of Arts and Sciences awarded an additional 81 assistantships and other schools and colleges had the option of creating additional teaching assistantships. The stipend for these assistantships was \$9,000 for non-science master's, \$9,927 for science masters, and \$14,000 for doctoral students. In several areas, but the sciences specifically, these stipend levels are

well below national averages and render UM less competitive than many institutions. In addition, since UM students pay both resident and nonresident tuition, even when supported on research and teaching assistantships, UM is less competitive given that most state universities classify research and teaching assistants as residents for tuition purposes, if tuition is assessed at all.

The number of sponsored programs research assistantships varies from year to year. For fall 2009, 65 masters and 65 doctoral students were supported by grant and other external resources. Graduate programs administered within the schools and colleges often supplement the institutional stipend levels to make the stipends more competitive nationally within individual disciplines.

Many graduate students also seek and are supported with wage positions. These are most common for students taking a reduced credit course load (below nine credits/semester) and for students outside of the sciences.

The University also maintains a small number of institutionally supported scholarships and fellowships, as do individual schools and colleges. These usually range from awards of \$1,000 to \$5,000. The Bertha Morton Fellowships and Scholarships, at \$3,000 and \$2,000, respectively, are the most prominent institutionally supported scholarships and fellowships. Twenty-eight Bertha Morton scholarships and one fellowship were awarded in spring 2009 for use beginning in fall 2009.

Graduate students are also supported academically and socially by the [Graduate Student Association](#)^{lxvi} and by similar associations within some graduate programs.

Maintaining Currency

There are many different sources of information for maintaining currency of Graduate programs. All of the schools and colleges and some individual programs have Advisory Boards or Boards of Visitors that help them keep in touch with activities and trends outside the University. The University conducts regular program reviews of all curricular programs that help departments and schools assess program relevancy. Most individual programs maintain standing curriculum and graduate committees that periodically review curricula. The University's Faculty Senate has a standing Graduate Council that reviews all curricular policy and programs. And, many of the schools and departments in the University have developed new curricula to specifically address 21st century needs. Overall, curricula are kept current through faculty initiative and an awareness and interest in the many sources of information.

2.E.2

Research and Creative Activities

Graduate students are intimately involved in the research and creative activities of the University. They are particularly important in providing the creative workforce for a growing research enterprise that combines the discovery of knowledge and the development of new technologies with the education of a future cadre of scientists, health, environmental, and business leaders, and educators.

2.D.3

In the natural and social sciences nearly all graduate students prepare research-based theses and dissertations. In the humanities and some other areas, they develop portfolios

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of creative works and/or conduct research. For example, in the research arena, graduate students are engaged in activities as diverse as studying bark beetle biology related to major outbreaks leading to dead and dying forest trees to studies of famous literary authors and the impact of their work. In the area of creative works, graduate students direct theater productions on campus and display their talents in shows, readings, recitals, newspaper and magazine series, and documentaries. All of these activities enhance the intellectual and cultural vitality of the campus, support a growing program of research and creative activity at the University, and contribute to the economy of Montana. Without active participation of graduate students the ability of the University to serve the people, economy, and culture of Montana would be sorely compromised

Faculty

The faculty members engaged in graduate instruction (courses and committee memberships) all hold appropriate terminal degrees for the level of students being taught, except in rare cases where extensive and outstanding experience might be substituted. The faculty of The University of Montana represents experience from many different universities and from many work environments outside of universities. Some are accomplished writers and theater directors, others have managed businesses, others have been employed by major news media, and still others have worked for government agencies such as the USDA Forest Service. Through a process of hiring appropriate faculty members and through review of individual student graduate committees by the Graduate School, assurance is given that all persons directly involved in graduate education are fully qualified to ensure high quality.

2.E.3
2.E.4
2.E.6

With more than 500 tenure-track, and many more research, faculty members at The University of Montana, overall there are adequate numbers of faculty members to offer high quality graduate programs. Among the doctoral programs, for example, the following numbers of faculty members are available to participate:

<u>Program/Department</u>	<u># of Faculty Members Available to Participate</u>
Anthropology	16
Biology	51
Biomedical & Pharm. Sciences	29
Chemistry & Biochemistry	17
Counselor Education	4
Curriculum and Instruction	18
Educational Leadership	6
Forestry	41
Fish and Wildlife Biology	23
Geosciences	14
History	18
Mathematical Sciences	25
Psychology	24

Faculty members associated with each department of the University are listed on each [department's website](#)^{lxvii} and in the [Course Catalog](#)^{lxviii}.

Off Campus Education

Several programs deliver off campus educational opportunities through organized programs across Montana and through distance education modalities. The School of Business Administration and the College of Education and Human Sciences are the most prominent in these activities. They, and others offering off campus educational opportunities, work in close cooperation with the Division of Continuing Education (CE) to utilize the best available technology while the schools and colleges ensure the quality of the programming.

2.E.5

For example, the School of Business MBA program is offered off campus over electronic media and with face-to-face weekend classes in Missoula, Billings, Bozeman, Butte Great Falls, Helena, and Kalispell. A Master's of Public Administration is offered entirely online and a M.Ed. in Curriculum Studies is offered entirely online. The list of programs available as extended degree programs is on the [Graduate School website](#).

GRADUATE RECORDS AND ACADEMIC CREDIT

Policies

[Graduate policies](#)^{lxix} and regulations are posted on the Graduate School website. The Graduate Council, a standing committee of the Faculty Senate, evaluates all graduate policies that deal with academic matters. Policies are approved for implementation by the Faculty Senate and the Provost, and where appropriate, by the Board of Regents. For other policies and procedures, as appropriate, the Provost or the President has the approving authority.

2.F.1

Admissions and Faculty Engagement

[Graduate admissions policies and procedures](#)^{lxx} are posted on the Graduate School website. Specific admissions procedures or requirements pertaining to individual programs also are posted under the program description. In general, applicants must provide evidence of undergraduate performance (minimum of 3.0 GPA on a 4.0 scale), GRE or other pertinent standardized test scores, TOEFL score for international admissions, statement of interest/intent, and references from people knowledgeable about their academic potential. Some programs, particularly in the fine arts and humanities, require a portfolio of creative works and other evidence of graduate potential.

2.F.2

As noted previously, the Graduate Council, a standing committee of the UM Faculty Senate, is responsible for review of all academic policies regarding graduate education, including admission standards and program proposals. The Faculty Senate takes official action on recommendations of the Graduate Council. In addition, faculty members participating in graduate education through the individual departments and programs are responsible for developing program proposals, including admission standards, and advancing them through the UM academic governance system. Thus, faculty members are intimately involved in the development of programs, admission standards,

2.F.3

2.F.4

2.F.5

2.F.6

performance and graduation standards, applicable credit standards, and development and oversight of elements such as practica and internships.

Opportunities

There are several key areas where graduate student activity is likely to increase over the next few years. The areas of water resources, climate change, restoration ecology, and energy development-environment interaction are emerging as particular environment related opportunities. Key areas of human health understanding in toxicology, neuroscience, and medicinal chemistry are potential growth areas for Montana. Growth in nationally renowned programs in creative writing and fine arts are likely to lead the way in further development of creative activities that will affect the culture and economy of Montana in profound ways. Additionally, the activities of graduate students in areas such as journalism, business, and education will have lasting effects on future generations and on the University's approaches to cultural and economic development.

Although there are several opportunities for graduate education at UM, such opportunities are unlikely to be exploited without changes in the graduate education support provided within the Montana University System. Montana is at a comparative disadvantage given that it has the following issues:

- Below-competitive stipend levels (particularly true for the sciences) for both teaching and research assistants;
- A system that does not recognize graduate students holding research and teaching assistantships as residents for tuition purposes (in contrast to most other universities), thus placing the cost of nonresident tuition directly on central and grant budgets;
- A system that considers full-time equivalents at 12 credits rather than the standard nine credits of most other doctoral level institutions (giving less importance to graduate education than in many other institutions); and
- Central funding for only about 10% of the graduate students.

Overcoming these financial challenges could lead to substantial growth in graduate education, thus transforming the campus and the culture and economy of Montana.

In addition, for some programs there is inadequate or antiquated space for graduate education and in others money for new and modern equipment is lacking. In many cases, but especially in the arts, ensuring safe and adequate space is critical to moving forward with enhancing graduate programs.

While there are weaknesses today and possible threats tomorrow, the changes that have occurred in faculty and facility resources at UM over the past decade put it in a position to expand its graduate education offerings and play a more significant role in the State's economic and cultural development than ever before. The research and graduate education roles of the University are engines for enhancing the economy and culture of Montana and its surrounding region. Strengthening graduate programs would further transform UM into a comprehensive research University that truly enhances the lives of Montanans.

CONTINUING EDUCATION AND SPECIAL LEARNING ACTIVITIES

OFF CAMPUS AND CONTINUING EDUCATION COMPATIBLE WITH MISSION

The mission of Continuing Education (CE) is to provide high quality, innovative outreach programs that serve the lifelong learning needs of the citizens of Montana and beyond through off campus credit and non-credit programs. In addition, CE manages Summer Session, Wintersession, and UMOOnline, programs that serve many on campus and off campus students. The [mission of CE](#)^{lxxi} is consistent with, and supportive of, UM's mission, vision, and strategic plans.

2.G.1

In the recently adopted [Academic Strategic Plan \(Exhibit RE 1-01\)](#), several aspirations were listed that directly affect CE, specifically:

- *UM will be known for having an exciting and stimulating intellectual atmosphere for undergraduates, graduate students, faculty and staff, including:*
 - *Leading the region in online and distance education; and*
 - *Connecting and engaging faculty and students globally.*

Specific goals and strategies in the Academic Strategic Plan underscore these aspirations, and Continuing Education is expected to assist in the creation of more opportunities for distance education in graduate programs; continuing to grow online offerings, including selected degree programs by working across academic units; improving lifelong learning opportunities for older adults through continued growth of the UM Osher Lifelong Learning (MOLLI) program; collaborating with community partners in K-12 and outlying communities to expand programs; and maximizing technological innovations by creating an environment where technology supports student learning, faculty teaching and research, and administrative needs.

Enrollment and faculty participation in online coursework and programs, course supplements, and noncredit programs has grown substantially since 2000, with rapidly accelerated growth in the last three years. To illustrate, in the spring semester of 2010, there were 2,552 unique online students, which is the highest enrollment experienced to date by UMOOnline. 11,130 Student Credit Hours (SCH) were generated, which represented a 25% increase over Spring Semester 2009, and 801.8 FTE were generated, a 24% increase over the same term.

The credit bearing programs administered by CE include Summer Session, Wintersession, UMOOnline, and off campus courses and programs. UM Policy states that any approved academic course that is part of a program must be offered through state support, not self-support. This is a major change from the 2000 accreditation as well as the 2005 interim accreditation. The revenues generated by CE-administered programs have increased in the past five years as has the mix of that revenue. Table 2-03 shows the changes.

Table 2-03 – Funding Sources for CE-Administered Programs (in dollars)

<u>Funding Sources</u>	<u>06-07</u>	<u>07-08</u>	<u>08-09</u>	<u>09-10</u>
State	1,859,768	2,265,947	3,458,680	3,583,680
Designated	2,061,320	2,237,229	1,950,571	2,100,000
Grants, Contracts	600,352	863,450	1,721,009	1,500,000
SPABA	49,357	68,931	144,968	190,000
UM Foundation	100,000	100,000	100,000	25,000
TOTAL	4,670,797	5,535,557	7,375,228	7,398,680

Continuing Education has experienced a number of changes since 2000, not only in program growth but also in significant increases in both funding sources and amounts. In programs, for example, one important development has been a non-credit program for individuals over 50 years of age: [The Osher Lifelong Learning Institute^{lxxii}](#) at The University of Montana. Another was the reorganization of the Educational Outreach Department into [Extended Learning Services^{lxxiii}](#) (XLS). The centralized coordination of faculty, student and administrative support services has resulted in the development of an extensive array of effective aids to assist those engaged in online teaching and learning. These services have been established in close collaboration with the academic units who remain responsible for all aspects of the curricula. The online programs at UM, which are administered by XLS, have experienced significant growth and are discussed in greater depth under 2.E/G 5. Continuing Education is now financially stable when compared to the early 2000s. This occurred through increased commitment of state funding coupled with increased numbers of grants and contracts associated with non-credit activities and training workshops.

Major challenges of the past decade included the loss of designated or self-support funding at a critical juncture in taking ownership of the facility and, more recently experiencing some losses due to the global financial crises that began in 2008.

Current and future initiatives focus on these major areas:

1. Continuing strategic development of online courses and programs coupled with continuous improvement of e-learning delivery and support systems including investing in new technology (hardware, software and training);
2. Selecting and implementing a Learning Management System to serve broad e-learning needs within UM and the UM System;
3. Student access to support systems that enable off campus students to benefit;
4. Ensuring support for faculty related to instructional design and workshops on best practices related to online teaching/learning;
5. Coordinating policies, practices, and services across MUS campuses related to online course/program development and delivery;
6. Continuing a robust set of student services including with the Maureen and Mike Mansfield Library; and
7. Sustaining the overall fiscal viability while returning funding to Academic Affairs.

Institution Solely Responsible for All Programs

Under the direction of the Provost and in close collaboration with the academic deans, Continuing Education works in partnership with the academic units to deliver credit-bearing courses and programs offered through The University of Montana. Continuing Education does not have its own curriculum or faculty members.

2.G.2

Faculty Involved in Planning and Evaluation of Continuing Education

Any courses or programs offered for academic credit through Continuing Education must be approved through the appropriate UM academic department. All administration related to the academic and fiscal elements of these programs is provided by the same offices that service traditional campus programs. Using this model, Continuing Education offers the following credit programs: UMOonline; Summer Session; Wintersession; and Off campus Degree Programs. These programs follow established UM policies guidelines for academic oversight.

2.G.3

Policy
2.6

Administration of Continuing Education Clearly Defined

Continuing Education is an integral part of the Division of Academic Affairs. The dean reports to the Provost and is a member of the academic officers. All activities associated with CE are undertaken within this context. University outreach through educational programs is considered an important function of the unit and Continuing Education takes the lead in ensuring that appropriate measures are taken to ensure success.

2.G.4



The Continuing Education Center in the James E. Todd Building

Adequate Access when Electronic Learning Provided

Delivery of off campus programs has been a part of the mission for The University of Montana and for Continuing Education for more than thirty years. Many changes have

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been experienced during this time; however, the advent of online learning has had the greatest impact of all advances. UM has maintained compliance with accreditation requirements related to distance learning throughout the lifetime of off campus program delivery.

2.G.5
2.E.5
2.G.10

The delivery of off campus programs has a clearly defined purpose congruent with the mission statements for UM, Continuing Education, and Extended Learning Services, of which UOnline is a part ([Exhibit RD 2C-01](#)).

All online program and course offerings have been subjected to rigorous approval through established institutional program review processes, including the faculty governance system. Furthermore, they have been based on guidelines established by the Board of Regents. For example, undergraduate programs and courses go through the [Academic Standards and Curriculum Review Committee](#)^{lxxiv} process; graduate programs and courses go through the [Graduate Council](#) process; and both go to the Faculty Senate. Once approved on campus, proposals must go to the Board of Regents for final approval. An example of a recent program undergoing this process is the UM [Social Work program at Flathead Valley Community College](#) ([Exhibit RE 2C-09](#)).

With regard to curriculum and instruction, all distance-delivered programs and courses from The University of Montana foster interaction between and among students and faculty. The [Blackboard Learning Management System](#) is currently in use for online courses and programs. It supports student-content, student-student, and student-instructor interactions through a suite of communication and learning tools including email, asynchronous threaded discussions, synchronous chat rooms, virtual office hours, and learning units. In programs that use [Montana's Educational Telecommunications Network](#) (METNET) rather than Blackboard, interaction is handled through multi-way video and audio. UM also uses the web conferencing system [Elluminate Live!](#) to support synchronous communication components of online courses. For example, online instructors can use this virtual classroom to conduct virtual office hours, advising sessions with remote advisees, as well as live tutoring sessions. Elluminate Live! also supports the real-time sharing of student's final class projects or reports ([Exhibit OSM 2C-05](#)).

Distance delivered courses and programs offered by The University of Montana are in the complete academic control of faculty, department chairs and deans. In addition, the Faculty Senate has processes in place for review and approval of program and course offerings. In February 2008, the Faculty Senate approved a set of [principles for online course quality](#) to guide the design and delivery of online courses at UM. The principles, similar to the "[Quality Matters](#)"^{lxxv} quality assurance standards, are provided to online course developers at the onset of their development projects and are also used to guide both a peer review process and a final course review by an instructional designer ([Exhibit RD 2C-03](#)).

The currency of materials, programs and courses is primarily the responsibility of the academic units as their role is to evaluate all aspects of courses offered under their control. The academic units identify which courses are taught through Continuing Education, who teaches them, and whether or not they are at a level commensurate with on campus courses.

Several academic units provide off campus educational opportunities across Montana using distance education modalities. For instance, the School of Business Administration and the College of Education and Human Sciences offer off campus educational opportunities, working in close cooperation with Continuing Education. The latter identifies which technology is the most effective while schools and colleges ensure the quality of the programming through the use of their faculty members in program delivery.

The MBA program from the School of Business Administration is offered off campus over electronic media coupled with face-to-face weekend classes in Missoula, Billings, Bozeman, Butte Great Falls, Helena, and Kalispell. A Master of Public Administration and an M.Ed. in Curriculum Studies are offered entirely online. The list of all [distance programs](#)^{lxxvi} through UM is available online. Graduate programs are also listed on the [Graduate School webpage](#)^{lxxvii}.

In early 2007, the Hamilton Higher Education Center (HHEC) was proposed by the President to bring “the opportunity of University of Montana programs into the Bitterroot Valley.” The Board of Regents approved the Center and the first credit courses were offered during Summer Session 2007. The first year of operation, UM provided \$125,000 in base funding support with an additional \$35,000 pledged by the College of Technology to support instruction. Office and classroom space were leased in the Carriage House in downtown Hamilton, and courses were scheduled from 5:00 to 9:30 four evenings a week and, when required, on Saturday mornings. Scholarship funding was available through a generous donation that enabled many students to attend courses who otherwise would have been unable to do so. The College of Education and Human Sciences provided an interactive video suite and the College of Technology provided significant financial and administrative support.

On July 1, 2008, the HHEC was put under the auspices of Continuing Education, the purpose being to place the unit under leadership whose main responsibilities were/are to coordinate and deliver education to students who do not reside on the main campus. This decision was based on the fact that Continuing Education had long-term, successful working relationships with all academic and student support units and that this experience was congruent with HHEC needs. The second and final year of operation was supported by continued base funding coupled with the addition of money from Continuing Education.

Concurrent with the development of the HHEC was an independent, county-wide initiative to establish the Bitterroot Community College. This initiative, which was supported by the voters, was considered by the Board of Regents in late 2008 and by the Montana Legislature in early 2009. Neither body supported funding the initiative, thus The University of Montana was given the responsibility to work with local county leaders to develop a compromise entity. As a result, the Bitterroot College Program of The University of Montana (BCP-UM) became a formal entity effective July 1, 2009. The BCP currently offers [University of Montana College of Technology](#) (UM-COT) courses in Hamilton at the Ravalli County Economic Development Center. While credit offerings are limited for AY 2009-10, the [Bitterroot College Program Steering Committee](#) will make recommendations for expanding programming and student services by August 2010. The committee was formed after the February 2009 Montana State Legislature decided not to establish a community college district in Ravalli County; it is a public board including local stakeholders and state and regional higher education professionals

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with direct supervision from UM. This group is charged with developing a model for the delivery of responsive and sustainable adult and higher education opportunities to the residents of Ravalli County ([Exhibit OSM 2C-06](#)).

Ownership of Continuing Education materials and copyright issues are delineated in the [CBA](#) and in both the UM and Board of Regents policies, specifically [BOR Policy 401.3^{lxxviii}](#). [Exhibit OSM 2C-01](#) includes an example of a copyright agreement and a memo explaining the faculty compensation options. [BOR Policy 303.7^{lxxix}](#) on distributed learning summarizes much of the policy related to this document.

The quality of instruction has also been enhanced through the [Mansfield Library's Distance Education^{lxxx}](#) Coordinator position. Distance learning students, regardless of their location, have electronic access to the significant resources available, including the holdings of the MUS, coupled with the expertise of the Distance Education Coordinator and their discipline-specific library liaison.

Distance education students are provided extensive research [assistance^{lxxxi}](#) through the "Chat with a Librarian" instant messaging service, via email, and via a toll free number during library hours. Students may also visit the [Research Planner^{lxxxii}](#) for guidance and time management strategies for research papers and projects. Distance Education Reference Services are also available to students currently enrolled in off campus courses, i.e. those whose major instruction occurs away from the campus.

Faculty teaching online courses are afforded full access to the Mansfield Library's Distance Services as well. This includes assistance in using the electronic course review to make core and supplementary reading materials available to online students. The Distance Education Coordinator also provides expertise on [copyright issues^{lxxxiii}](#). Faculty members preparing for online courses are encouraged to arrange for a virtual orientation session with the Distance Education Coordinator regarding access to the Library's electronic research databases as appropriate for their courses.

The responsibility for quality assurance in online programs and courses, including the appropriate use of technology, is shared by the instructional designers within CE, the faculty developers, and their academic department chair(s). Before a course can be developed or offered for distance delivery, the proposed course must be approved at the department level and with the Director of Extended Learning Services. This proposal is submitted through an online database and workflow application called [Maven^{lxxxiv}](#). Upon course approval, the faculty developer participates in a comprehensive, cohort-based course development process. Components of this process include:

- A six-week online course in course design and development for online delivery;
- Small group instruction and online tutorials re: Blackboard training;
- 1:1 instructional design consultation;
- Use of a faculty computer lab with access to software applications such as Photoshop and Camtasia;
- A peer review session; and
- Final review of the online course by an instructional designer.

UMOnline provides an extensive array of [support services](#)^{lxxxv} for both faculty and students engaged in online teaching and learning. The faculty support component includes structures, services, and incentives designed to support faculty members' efforts to design, develop, and implement online courses and programs. Faculty members are compensated \$500 per academic credit to develop courses that meet The University of Montana quality principles for online courses. The development stipend is paid upon successful completion of the development process. Faculty members may apply for an additional \$1,500 to support professional development expenses associated with designing, developing, and improving techniques for online instruction. This could include, among other things, reimbursement of expenses associated with attending a professional conference. Support in the form of Blackboard course and account creation (including student enrollment) is provided to all online course developers, as is account creation for teaching assistants and other support staff by request.

UMOnline and Extended Learning Services offer additional faculty support services beyond those tied directly to the course development process. A series of Technology for Teaching and Learning [workshops and short courses](#)^{lxxxvi} are offered each semester, based on needs identified in the annual [online faculty survey](#)^{lxxxvii}. An electronic [Learning Guide](#)^{lxxxviii} allows online faculty to access targeted information at the moment of need by navigating from a launch page (located in both Blackboard and the UMOonline homepage.) to the performance support content. Beginning in the 2008-09 academic year, Extended Learning Services sponsored an annual professional development institute for faculty, administrators, librarians, staff, and technology personnel at UM and its affiliate campuses. The purpose of the Extended Learning Institute (XLI) is to promote the exchange of knowledge, effective practices, and research relative to online teaching and learning, as well as support services for online students.

UMOnline and Extended Learning Services are currently increasing and enhancing support services for online learners. A full-time Manager of Learner Services position was approved in Spring 2008 and filled in Summer 2008. The manager works proactively with offices and personnel across campus to develop, coordinate, and monitor a highly comprehensive student support system that is responsive to the needs of online and distance students, faculty, and programs. One outcome of this systematic approach to student support is the development of an [Online Writing Center](#)^{lxxxix}, which provides asynchronous support resources and 1:1, real-time tutoring on writing assignments for online students.

The first annual Student Services survey was administered to all UM online students in spring 2009 ([Exhibit OSM 2C-04](#)). Results have guided the redevelopment of the Student tab of the UMOonline website as well as the development of a web-based Online Student Learning Orientation program.

Blackboard and technology support to students has been enhanced through dedicated work-study positions that allow for telephone support, via a toll free number, from 8:00 a.m. to 5:00 p.m. Monday through Friday, email support, and walk-in assistance. An [instant messaging feature](#)^{xc} has been added to the Student tab of the UMOonline website in April 2009. Blackboard orientation sessions are held at the beginning of each semester for local and on campus students enrolled in online courses, and an online Blackboard tutorial (Bb 101) is available to remote students. There is also a student version of the interactive, electronic UMOonline [Learning Guide](#)^{xc}.

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During the first half of 2009, Continuing Education conducted a comprehensive review of Learning Management Systems and by February of 2010 will have determined which LMS will best serve The University of Montana System schools.

The focus of this review process is to gather the evidence necessary to make an informed decision about whether to stay with Blackboard or move to an open-source system. A wide range of additional and related decisions must soon follow that one, such as whether to outsource the hosting or continue to self-host, whether to develop a multi-campus LMS strategy, and so on. Should the decision be made to transition away from Blackboard, it will likely be necessary to extend the Blackboard contract for an extra year to ensure adequate overlap of two systems during the transition. This will be factored into the cost analysis of Blackboard versus an open-source system.

<u>Major Work Steps and Milestones</u>	<u>Timeframe</u>
Formulate an advisory committee to guide and review evaluation process.	February 2009
Initiate structured pilot evaluations of Moodle and Sakai with cross-functional 'alpha' team.	February 2009
Engage Blackboard to get clarity on their product roadmap, business strategy, and additional solutions through Blackboard that UM does not currently use.	February 2009
Orchestrate an <i>LMS Summit</i> with counterparts at UM-Helena, Montana Tech, and UM-Western.	April 2009
Develop and conduct a general survey of current UM LMS users.	October 2009
Collate, analyze, and report on the results of the survey.	November 2009
Coordinate and facilitate focus groups with the objective to flesh out requirements for the LMS.	November 2009
Send out RFI for the LMS	November 2009
Document the results of a cost analysis of different LMS scenarios based on the initial requirements document.	December 2009
Provide summary report to senior academic affairs officials.	December 2009
Determine whether UM moves to Open Source or conducts full LMS RFP.	January 2010
Synthesize all inputs into an LMS transition plan.	January 2010
Send out narrow open source hosting RFP or full LMS RFP	January 2010

Tuition/Fees for credit courses offered through Continuing Education follow similar tuition and fee policies as those in place for traditional on campus students. Individuals classified as "distance students" may not be subject to certain fees that apply to on campus activities. They do have the option, however, of enrolling in student healthcare if they so desire. All admissions, transfer of credits, and other academic matters are the responsibility of the Registrar and the academic units.

Fee Structure and Granting of Credit for Continuing Education

The standard of 15 hours per credit or 45 hours per three-credits or its equivalent is maintained for face-to-face or digitally enhanced instructional programs and courses, and Continuing Education credit courses meet this standard. This has been based on institutional policy and is applied regardless where the course is located. Credit is not measured by outcomes alone, although for-credit courses include such outcomes.

2.G.6
2.G.7
2.G.11

Continuing Education has not conducted independent studies on the comparability of outcomes between traditional and nontraditional instructional formats. Instead, by policy and practice, all courses taught in nontraditional formats must have equivalent syllabi and the same stated learning outcomes as the traditional format counterpart ([Exhibit RE 2C-06](#)). This is overseen by the academic unit to which these courses belong. CE provides the facilitation and support of the courses offered in a nontraditional manner; the academic departments ensure that the subject matter and outcomes are equivalent and that instructor credentials are appropriate. This is true whether the nontraditional format in question is one offered in a concentrated time period, such as during the three-week Wintersession, or online.

With respect specifically to online courses, the efficacy of student learning has been widely studied, with many of these studies readily available. Perhaps the most noteworthy recent study is a [meta-analysis sponsored by the U.S. Department of Education](#)^{xcii}, which found that learner performance in online courses to be better on average than the face-to-face courses, and that blended learning had the best results on learner performance than either purely online or purely face-to-face.

All credit programs and courses are governed by general UM academic curriculum policies, however, in the case of Continuing Education, there are practices in place that require signatures from the department chair, the academic dean, the CE dean and the Provost before a course can be offered or before someone is approved to teach. This ensures that all courses offered as well as instructors have the complete approval of the academic unit. Continuing Education is not responsible for determining outcomes or achievements through nontraditional means, as these are the direct responsibilities of the academic units. All travel/study related to for-credit programs and courses are governed by general UM academic curriculum policies; Continuing Education works with the academic units to facilitate the logistics associated with such programs.

2.G.8
2.G.12

Continuing Education does not give credit for prior learning; if this were requested, the individual would be referred to the relevant academic unit and the Registrar.

2.G.9
Policy
2.3

NON-CREDIT PROGRAMS AND COURSES

Continuing Education at The University of Montana offers a variety of non-credit courses and programs that are often offered in conjunction with the academic units. Academic departments are frequently consulted regarding the creation and development of non-credit programs including reviewing materials and/or curricula and making recommendations for instructors. These programs are self-supporting and are offered contingent upon having sufficient enrollments to cover associated costs. In the case of cancellation, tuition is refunded. Course fees vary by program. CE also collaborates with internal and external agencies to offer sponsored courses which usually have a credit/non-

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credit option. For credit, students pay a minimum of \$80 per course for a “recording fee” regardless of the number of credits and as governed by Board of Regents policy. Registration data for non-credit programs are maintained within an electronic database including general course and student information and are stored for five years.

Non-credit courses may be eligible for either Continuing Education Units and recertification credits for the Office of Public Instruction. These vary depending upon the content and length of courses. These credit programs and courses are consistent with the mission and goals of the institution and are taught by qualified faculty. One Continuing Education Unit requires 10 contact hours and the Office of Public Instruction credits are granted at one credit per hour of instruction.

2.H.1
2.H.2
2.H.3

SUMMARY AND ANALYSIS

The University of Montana demonstrates educational program effectiveness in its teaching and research. The quality of the faculty and students is exhibited in many ways. Nonetheless, in the next decade the University must build on its strengths and address challenges, as outlined below:

Strengths

1. Students and faculty continue to advance knowledge through their research and scholarship. Five recent NSF Career Awards to young faculty members who have demonstrated outstanding research and teaching potential while working with students demonstrate the caliber of faculty and the support provided by the University.
2. The plan, *Partnering for Student Success*, includes components that address identified barriers to student success, emphasizing the importance of engaging students in their own education. The Carnegie Foundation’s selection of the University for Community Engagement Classification in the Curricular Engagement and Outreach & Partnerships category is one marker of success in this area.
3. Improved assessment across the University remains a priority, in order to enhance educational programs and their effectiveness. The Annual Assessment report lays an important foundation for integrated assessment across campus.
4. The University provides instruction in critical languages such as Chinese and Arabic and opportunities for study and internships abroad through some 100 exchange agreements around the world, which have dramatically enhanced student engagement.
5. Student support services such as STUDY JAM and the Writing Center continue to grow and develop, offering more and better services to students.
6. Faculty research and scholarship serve to advance the educational program and provide opportunities to students to become engaged in these activities. The National Conference on Undergraduate Research held at the University

in April 2010 highlights the dedication of UM faculty in promoting undergraduate research.

7. A new Academic Strategic Plan has been adopted to guide decisions and stimulate continuous discussion and action toward improvement in six key areas (Cultivate Learning and Discovery in Undergraduate Education; Cultivate Learning and Discovery at the Graduate Level; Create a Coherent Vision for Research and Creative Scholarship; Build Community through Engagement and Outreach; Embrace Diversity and Global Engagement; Improve the Workplace Environment).
8. Increases in faculty and facility resources over the last decade have positioned the University for expansion of graduate programs and increases in the number of graduate students. Research funding has increased as well and graduate education will continue to be a critical part of success in the research enterprise.
9. Enrollment and faculty participation in online coursework and programs, course supplements, and noncredit programs has grown substantially since 2000, with rapidly accelerated growth in the last three years and a 20% increase in the last year alone. The centralized coordination of faculty, student and administrative support services, in close collaboration with the academic units, has resulted in improved assistance for those engaged in online teaching and learning. The faculty development and training services related to the delivery of effective online instruction are particularly meritorious.

Challenges and Opportunities

1. Fiscal realities for all of higher education affect the University, requiring assiduous attention to planning, budgeting, and assessing progress.
2. The University must attract additional external research funding from both federal/state sources and private donations, in order to increase the number of funded graduate assistantships and provide the space and equipment required for building graduate programs.
3. The University must continue to incorporate new information technology throughout its operations and educational programs, including student recruitment through business services, student life, pedagogy and course management, and curricular innovation.
4. Faculty must give continued attention to undergraduate educational programs and outcomes to make the undergraduate major more relevant to the world students see around them and capitalize on their apparent desire to make a difference. This will require reintegrating general education and the major, making the former explicitly foundational and enabling students to see the relationship between general education competencies and success in the major.

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5. Additional opportunities for student involvement in the community through internships, cooperative education, and community service must be identified and implemented in order to expand student engagement in a global society.
6. The biggest challenges facing graduate education are funding related: achieving competitive stipend levels, covering the non-resident portion of tuition for students on assistantships, and increasing the number of centrally supported assistantships. Further improvements in facilities and continuing acquisition of new equipment also would allow the University to seize new graduate education opportunities.
7. The University must continue to incorporate new information technology throughout its operations and educational programs, including student recruitment through business services, student life, pedagogy and course management, and curricular innovation.
8. The University must acknowledge and support one of the fastest growing areas within Academic Affairs: online learning. This support should focus not only on an appropriate infrastructure but on the continuing emphasis in the overall quality and accessibility of those programs and courses offered online.

WEBSITES REFERENCED

- ⁱ Program Inventory: <http://www.homepage.montana.edu/~mus/drginv/>
- ⁱⁱ Rename to CHPBS: http://www.mus.edu/asa/level_I/March_2005/ITEM126-1004+R0305.pdf
- ⁱⁱⁱ Rename to CVPA: <http://www.mus.edu/board/meetings/2009/Mar09/ASA/LevelIMar2009.pdf>
- ^{iv} Rename to CoEHS: <http://mus.edu/board/meetings/2009/May09/ASA/Level1May2009-finalb.pdf>
- ^v Paleontology Center: <http://www.mus.edu/board/meetings/Archives/ITEM128-1002-R0705PROP.pdf>
- ^{vi} Biomolecular Structure and Dynamics: <http://www.umt.edu/provost/ascdocs/132-1002-R0706Biomolecular.doc>
- ^{vii} Montana Safe Schools: <http://www.umt.edu/provost/ascdocs/132-1004-R0706MTSafe.doc>
- ^{viii} OSHER Lifelong Learning Institute: <http://www.umt.edu/provost/ascdocs/134-1003-R0307Osher.doc>
- ^{ix} Montana Center for Work Physiology and Exercise Metabolism:
http://www.mus.edu/board/meetings/2007/Sept07/ASA/136-1004-R0707_SM.pdf
- ^x Women' and Gender Studies Program: http://www.mus.edu/asa/level_I/Nov_2006/133-1019+R1106Request.pdf
- ^{xi} Department of Chemistry and Biochemistry:
http://mus.edu/asa/level_I/March_2008/Level%201%20March%202008Rollup.pdf
- ^{xii} Department of Geosciences: <http://www.mus.edu/board/meetings/Archives/ITEM130-1003+R0306.pdf>
- ^{xiii} Department of Applied Computing and Electronics:
<http://www.mus.edu/board/meetings/Archives/ITEM127-1005+R0505.pdf>
- ^{xiv} Department of Management Information Systems:
<http://mus.edu/board/meetings/2009/Mar09/ASA/LevelIMar2009.pdf>
- ^{xv} Department of Education Leadership and Counseling divided:
<http://www.umt.edu/provost/ascdocs/136-1003-R0707Ed.doc>

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^{xvi} Department of Communicative Sciences and Disorders:

http://mus.edu/board/meetings/2008/Mar08/ASA/138-1004-R0108_SM.pdf

^{xvii} Faculty Senate Approved Curriculum website:

<http://www.umt.edu/facultysenate/curriculum/approved/default.aspx>

^{xviii} Faculty Senate, Articles of Faculty Organization:

<http://www.umt.edu/facultysenate/articles/default.aspx>

^{xix} Bylaws of Faculty Senate: <http://www.umt.edu/facultysenate/articles/default.aspx#Bylaws>

^{xx} Climate Change Studies: <http://www.umt.edu/provost/ascdocs/142-1004-R0109Climate.doc>

^{xxi} Campus Curriculum Approval: <http://www.umt.edu/provost/curriculum/default.html>

^{xxii} BOR Curriculum Proposals: <http://www.mus.edu/borpol/bor300/303-1.pdf>

^{xxiii} Program/Department Assessment Reports:

<http://www.umt.edu/provost/deptrecords/default.html>

^{xxiv} BOR Policy 309.1, Course Credits: <http://www.mus.edu/borpol/bor300/309-1.pdf>

^{xxv} Academic Program Review: <http://www.umt.edu/provost/progreview/reviewschedule.html>

^{xxvi} School of Business super tuition: <http://www.mus.edu/board/meetings/Archives/ITEM115-1003-R0502.htm>

^{xxvii} Articulation Agreements: https://webprocess.umt.edu/cyberbear/uwskxfer.p_selstate

^{xxviii} BOR Policy 301.5, Transfer of Credits: <http://www.mus.edu/borpol/bor300/301-5-1.pdf>

^{xxix} BOR Policy 301.5.1, System of Controls: <http://www.mus.edu/borpol/bor300/301-5-1.pdf>

^{xxx} BOR Policy 301.5.5, Equivalent Course Identification: <http://mus.edu/borpol/bor300/301-5-5.pdf>

^{xxxi} MUS Transferability Initiative: <http://www.mus.edu/transfer/index2.asp>

^{xxxii} BOR Policy 300.10, General Education Transfer <http://mus.edu/borpol/bor300/301-12.pdf>

^{xxxiii} BOR Policy 300.12, Undergraduate Degree Requirements; Associate Degrees and Certificates of Applied Science: <http://mus.edu/borpol/bor300/301-12.pdf>

^{xxxiv} Office of the Provost Department Records:

<http://www.umt.edu/provost/deptrecords/default.html>

xxxv General Education framework

<http://www.umt.edu/facultysenate/committees/ASCRC/subcommittees/gened/General%20Education%20Framework.docx>

xxxvi General Education Committee:

<http://www.umt.edu/facultysenate/committees/ASCRC/subcommittees/gened/default.aspx>

xxxvii Faculty Senate General Education Course Approval form:

<http://www.umt.edu/facultysenate/documents/forms/GenEdForm.doc>

xxxviii General Education Requirements and Courses:

http://cyberbear.umt.edu/instructions/general_education.htm

xxxix English composition class placement:

<http://www.cas.umt.edu/english/composition/curriculum.htm>

xl Writing Committee:

http://www.umt.edu/facultysenate/committees/ASCRC/subcommittees/writing_committee/default.aspx

xli Writing Committee's Revised Writing Course Guidelines:

http://www.umt.edu/facultysenate/committees/ASCRC/subcommittees/writing_committee/minutes/W11-3-08.aspx

xlii AACU's College Learning for the New Global Century:

http://www.aacu.org/leap/documents/GlobalCentury_final.pdf

xliii Information Literacy Curriculum Tables:

<http://www.lib.umt.edu/informationliteracytables/#Table1>

xliv Mansfield Library Liaison Librarians: <http://www.lib.umt.edu/node/115#instructors>

xlv BOR Policy 303.5, American Indian Study: <http://mus.edu/borpol/bor300/303-5.pdf>

xlvi MUS Core Curriculum: <http://www.mus.edu/transfer/MUScore.asp>

xlvii COT Surgical Technology: <http://www.cte.umt.edu/health/surgicaltech/>

xlviii BOR Policy 301.18, Developmental Education: <http://mus.edu/borpol/bor300/301-18.pdf>

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^{xlix} Internship Services: <http://www.umt.edu/internships/>

^l Service Learning Course Form and Criteria:

<http://www.umt.edu/facultysenate/documents/forms/ServiceLearningFormX.doc>

^{li} University Omnibus Option for Independent Work:

<http://www.umt.edu/catalog/acad/acadpolicy/default.html#omnibus>

^{lii} *Montanan*, “Leaders in the Field”: <http://www.umt.edu/montanan/s08/leaders.asp>

^{liii} International Programs: <http://www.umt.edu/ip/default.html>

^{liv} *Partnering for Student Success* plan: <http://www.umt.edu/partnering/>

^{lv} UFA Collective Bargaining Unit: <http://www.umt.edu/provost/facultyinfo/docs/UFACBA.pdf>

^{lvi} Department Unit Standards: <http://www.umt.edu/provost/deptrecords/default.html>

^{lvii} Athletic Academic Services: <http://www.grizacademics.blogspot.com/>

^{lviii} College Portrait of the Voluntary System of Accountability:

<http://www.collegeportraits.org/mt/um>

^{lix} LibQUAL+ Survey Spring 2003: <http://www.lib.umt.edu/files/UMLQResultsSpring2003.pdf>

^{lx} LibQUAL+ Survey Fall 2006: <http://www.lib.umt.edu/files/UMLQResultsFall2006.pdf>

^{lxi} LibQUAL+ Survey: <http://www.lib.umt.edu/assessment/#LibQUAL>

^{lxii} Assessment Report template: <http://www.umt.edu/provost/assessment/default.html>

^{lxiii} Graduate School Catalog: <http://life.umt.edu/grad/name/programs1>

^{lxiv} Graduate Council: http://www.umt.edu/facultysenate/committees/grad_council/default.aspx

^{lxv} Program Review Schedule: <http://www.umt.edu/provost/progreview/reviewschedule.html>

^{lxvi} Graduate Student Association: <http://life.umt.edu/gsa>

^{lxvii} Department websites: <http://www.umt.edu/academicindex/>

^{lxviii} Course Catalog: <http://www.umt.edu/catalog/>

^{lxix} Graduate Policies: <http://life.umt.edu/grad/name/indexpolicies>

^{lxx} Graduate Admissions Policies: <http://life.umt.edu/grad/name/applyadmission>

^{lxxi} Continuing Education Mission Statement: <http://www.umt.edu/ce/administration/mission.asp>

^{lxxii} The Osher Lifelong Learning Institute: <http://umt.edu/ce/plus50/>

- lxxiii Extended Learning Services: <http://umt.edu/xls/>
- lxxiv Academic Standards and Curriculum Review Committee:
<http://www.umt.edu/facultysenate/committees/ASCRC/default.aspx>
- lxxv Quality Matters: <http://www.qualitymatters.org/>
- lxxvi Distance Programs: <http://umt.edu/xls/offcampus/>
- lxxvii Graduate Programs: <http://life.umt.edu/grad/name/extended>
- lxxviii BOR Policy 401.3, Research and Public Service: <http://mus.edu/borpol/bor400/401-3.pdf>
- lxxix BOR Policy 303.7, Distributed Learning: <http://www.mus.edu/borpol/bor300/303-7.pdf>
- lxxx Mansfield Library Distance Education service: <http://libguides.lib.umt.edu/dels>
- lxxxI Mansfield Library contact information and Library Hours: <http://www.lib.umt.edu/contact>
- lxxxii Mansfield Library Research Planner: <http://weblib.lib.umt.edu/planner/index.shtml>
- lxxxiii Copyright Issues and Resources Guide: <http://libguides.lib.umt.edu/copyright>
- lxxxiv Maven: <https://mcewww.cec.umt.edu/Maven/Development/Proposal-public.php>
- lxxxv XLS Support Services <http://umt.edu/xls/idd/>
- lxxxvi XLS Events and Workshops: <http://umt.edu/xls/idd/events/>
- lxxxvii Survey of online faculty: <http://itoselect.ito.umt.edu/PrintOverview.aspx?SurveyID=713I5pm>
- lxxxviii Electronic Learning Guide for Faculty: <https://mcewww.cec.umt.edu/LearningGuide2.0-Instructor/start/default.htm>
- lxxxix Online Writing Center:
http://www.umt.edu/xls/documents/tips/TipSheet_Student_WritingCenter.pdf
- xc UOnline Tech Support: <http://www.umt.edu/xls/techsupport/>
- xcI Electronic Learning Guide for Students: <http://www.umt.edu/xls/techsupport/>
- xcii Dept of Education Study: <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>