

MSU-Bozeman
2007-2008 PROGRAM YEAR

THE MONTANA UNIVERSITY
SYSTEM CAMPUS REPORTS

LIST OF THE PROGRAMS REVIEWED

Department of Cell Biology and Neuroscience

Department of Microbiology

Department of Health and Human Development

Global Studies Minor

School of Architecture

Program Name(s): **Cell Biology and Neuroscience Department**

Bachelor of Science in Cell Biology and Neuroscience

2 options: Biomedical Sciences Option (includes Premedicine, Predentistry, and Preoptometry) and Cell Biology and Neuroscience Option

Programs fall into the category described in Section E. of Policy 303.3:
See Directions Page for additional information to complete this section.
Use blue fields to add text.

Yes Add information here **MS and PhD (Neuroscience or Biological Science)**

No Add information here **BS in Cell Biology and Neuroscience**

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Retain

Rationale or justification for the decision based on the program review process established at the campus. (Note: If the program(s) fall(s) into the category described in Section E, this part of the report must be more complete and detailed if the campus decision is to retain or continue the program.

In the Department of Cell Biology and Neuroscience, 10 faculty FTE serve approximately 250 majors, resulting in a 3-year average of 64 BS degrees per year. In addition, the faculty make a significant contribution to the teaching in the WWAMI medical school program, numbers that do not appear in the graduation statistics for the department. The quality of the undergraduate curriculum is recognized as outstanding, with ongoing support for innovation provided by the Howard Hughes Medical Institute. The graduate numbers are smaller than the department would like; the department continues to seek strategies to grow this program, most of which require identifying additional means of student support. Given that the department is very young (formed in 2000), and the joint Neuroscience PhD with UM is even newer (2006), the reviewers saw no reason to believe that these programs could not grow.

Program Name(s)

Cell Biology and Neuroscience Department

A d d e n d u m

Note: Duplicate this page for program(s) reviewed.

MSU elected to combine the review the Department of Cell Biology & Neuroscience and the Department of Microbiology into a single review using a team of 4 external reviewers:

Dr. James Patrick (Retired)
Senior Vice President & Dean of Research
Baylor College of Medicine

Dr. Stan Falkow
Professor of Microbiology & Immunology
Geographic Medicine, Infectious Diseases
Stanford University School of Medicine

Dr. Richard Goodman
Director Vollum Institute
Oregon Health & Science University

Dr. Samuel I. Miller
Professor of Medicine and Microbiology
University of Washington

The review was conducted in a series of two visits. The first team (Falkow and Patrick) visited campus April 28 and 29. The focus of this interview was on the Department of Microbiology and the Department of Cell Biology and Neuroscience. The reviewers were provided with self study documents prepared by both departments. During the visit, the team met with faculty, staff and students representing these departments, plus other aligned centers and departments, to listen to their opinions and concerns. The reviewers also met with administration officials. One of the issues raised by the first visit was the significant role of the Department of Veterinary Molecular Biology in conducting research closely aligned with that being conducted in the Department of Microbiology. The team therefore recommended that VMB be included on the itinerary for the second team. The head of VMB was asked to prepare a brief self study for the reviewers. The second team (Goodman and Miller) visited the campus on August 25 and 26 and met with all three departments plus other related constituencies. The report represents a consensus report by the full team and covers both departments, which some additional comments about VMB (not formally part of the review).

The reviewers were impressed with the students and the faculty in the department: “The department is fortunate to have a cadre of excellent faculty many of whom are outstanding scientists and appear to be excellent teachers.” The team is deeply concerned that this small faculty is overburdened by the WWAMI teaching responsibilities and recommends MSU revisit some of the division of responsibilities and resources that led the creation of the department in 2000. This review is underway, and any major

restructuring will be reported to the BOR as appropriate. However, any restructuring will be approached cautiously, because, despite the challenges, the reviewers did say that the department “currently is highly functioning and successful with a research focus and a major successful undergraduate teaching program funded through HHMI.” We must be careful not to jeopardize this success.

Graduation Rates (3-year averages)

BS in Cell Biology and Neuroscience: 64 /year

MS in Biological Sciences/Neuroscience: 1.33/year

PhD in Biological Sciences/Neuroscience: 1.33/year

Program Name(s): **Microbiology Department**

Bachelor of Science in Microbiology

3 Options: Environmental Health Option, Medical Laboratory Science Option, and Microbiology Option

1 Minor: Microbiology Minor (Non-Teaching)

Master of Science in Microbiology

Doctor of Philosophy in Microbiology

Programs fall into the category described in Section E. of Policy 303.3:
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Yes Add information here **MS**

No Add information here **BS in Microbiology; PhD in Microbiology**

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Retain

Rationale or justification for the decision based on the program review process established at the campus. (Note: If the program(s) fall(s) into the category described in Section E, this part of the report must be more complete and detailed if the campus decision is to retain or continue the program.

With 8.5 tenure/tenure-track faculty, the department graduates an average of 19 BS students per year, well above the BOR minimum to trigger further review. In its self study, the department explains that its low number of MS degrees is because “the department primarily focuses on doctoral students as each graduate student works in a specific investigator’s laboratory. Masters candidates are occasionally accepted by the Individual Investigators and approved by the department’s graduate curriculum committee. In other cases, talented students who for a variety of reasons are unable to complete their doctoral studies, but are judged capable of completing a masters degree by both their major advisor and by our graduate curriculum committee, are allowed to switch to an MS degree option.” Therefore, though not widely utilized, the authorization for the department to continue to grant the MS degree serves an important need. The PhD program has a strong graduation rate.

Program Name(s)

Microbiology Department

A d d e n d u m

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Senior Vice President & Dean of Research
Baylor College of Medicine**

**Dr. Stan Falkow
Professor of Microbiology & Immunology
Geographic Medicine, Infectious Diseases
Stanford University School of Medicine**

**Dr. Richard Goodman
Director Vollum Institute
Oregon Health & Science University**

**Dr. Samuel I. Miller
Professor of Medicine and Microbiology
University of Washington**

The review was conducted in a series of two visits. The first team (Falkow and Patrick) visited campus April 28 and 29. The focus of this interview was on the Department of Microbiology and the Department of Cell Biology and Neuroscience. The reviewers were provided with self study documents prepared by both departments. During the visit, the team met with faculty, staff and students representing these departments, plus other aligned centers and departments, to listen to their opinions and concerns. The reviewers also met with administration officials. One of the issues raised by the first visit was the significant role of the Department of Veterinary Molecular Biology in conducting research closely aligned with that being conducted in the Department of Microbiology. The team therefore recommended that VMB be included on the itinerary for the second team. The head of VMB was asked to prepare a brief self study for the reviewers. The second team (Goodman and Miller) visited the campus on August 25 and 26 and met with all three departments plus other related constituencies. The report represents a consensus report by the full team and covers both departments, which some additional comments about VMB (not formally part of the review).

The review of the Department of Microbiology did identify and highlight a number of difficulties faced by the department, not the least of which is the lack of a permanent department head (with Tim Ford's departure in spring 2008). The focus of the criticism, however, is on the research productivity and not on the educational mission. Indeed, the reviewers commented that the visit with the "extraordinary" undergraduate students was "the highlight of their visit." Their major recommendation with the respect to

the undergraduate curriculum is to provide more demanding undergraduate courses (perhaps honors sections) and further increase access to research experiences. They have urged MSU leadership to consider the enterprise of microbiology across the entire campus and consider ways to foster additional collaborations and leverage the many pockets of excellence that exist across multiple units in the university.

Graduation Rates (3-year averages)

BS in Microbiology: 19/year

MS in Microbiology: 1.6/year

PhD in Microbiology: 3.7/year

Program Name(s): Health and Human Development Department

Bachelor of Science in Community Health

Bachelor of Science in Early Childhood Education and Child Services

Bachelor of Science in Family and Consumer Sciences

2 Options: Non-Teaching, Teaching

Bachelor of Science in Food and Nutrition

2 Options: Dietetics, Nutrition Science

Bachelor of Science in Health Enhancement K-12 (Health & Physical Education)

Bachelor of Science in Health and Human Performance

2 Options: Exercise Science, Kinesiology

2 Minors - Non-Teaching: Coaching, Child Services

Masters of Education in Health and Human Development

5 Options: Counseling, Exercise and Nutrition, Family and Consumer Sciences, Family Financial Planning, Health Promotion and Education

Masters of Education in School Counseling

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Yes Add information here

No Add information here

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Retain

**Rationale or justification for the decision based on the program review process established at the campus.
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In 2007, the department had a total of 565 undergraduate students and 82 graduate students (MS candidates). These numbers have shown steady growth over the last five years. The department has just completed a major restructuring of its undergraduate curriculum, which has resulted in an entirely new set of available majors, designed to better reflect the curricular emphases of the department. The review by the internal team commended the department for its thorough strategic planning efforts, which will likely pay additional dividends in the near future.

Program Name(s)

Health and Human Development Department

A d d e n d u m

Note: Duplicate this page for program(s) reviewed.

The review of Health and Human Development was conducted using an internal team:

Jerry Johnson
Professor and Department Head
Department of Political Science
Montana State University

Jayne Downey
Associate Professor
Department of Education
Montana State University

The Department provided the team with a self-study. The guidelines for departmental self-studies, whether the team is internal or external, are the same and are available upon request. The team met with the Department Head and reviewed the self study. Data gathering was conducted using electronic surveys that were administered to faculty and students. The surveys used a mix of multiple choice and open response questions. The results were compiled by the review team and used as the basis for the final report. Responses were received from 90 students and 15 faculty, which indicate very good participation. With new leadership in the department, HHD has just undergone a significant strategic planning effort, which resulted in, among other things, a major restructuring of its undergraduate curriculum. To quote one of the reviewers: "Your investment in planning, the curriculum revision and your advising efforts are commendable. They will pay off in the long run in terms of creating a more positive experience for students." Overall, the review indicated that "students are generally very satisfied with their experience in the department." The reviewers did suggest that a thorough review of the graduate curriculum, analogous to what was done for the undergraduate curriculum, would ensure that it "remains in step with current disciplines and is focused on specific needs of the workplaces of today's graduate students." This review is underway.

Graduation Rates (3-year averages)
BS in Health and Human Development: 112 /year
MS in Health and Human Development: 33/year

Note: The restructuring will change the names of the majors under which students will graduate in the future, but all indications suggest that the graduation rates in all programs will remain strong.

Program Name(s): **Global Studies Minor**

Programs fall into the category described in Section E. of Policy 303.3:
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Yes Add information here

No Add information here

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Retain with Modifications

Rationale or justification for the decision based on the program review process established at the campus. (Note: If the program(s) fall(s) into the category described in Section E, this part of the report must be more complete and detailed if the campus decision is to retain or continue the program.

The courses for the Global Studies Minor (GSM) are drawn exclusively from existing MSU courses in academic departments. As such, there are no savings to be realized by discontinuing the program. Instead, this review has provided an opportunity for the International Programs Committee to consider minor changes to the curriculum to make it better fit students' needs. Most importunately, the committee recognizes that approach strongly discourages students from studying less commonly taught languages which are not taught at MSU (the opportunities for which do exist during study abroad). They therefore recommend specific changes to the curriculum that would address this. There are also specific recommendations regarding the current capstone requirement, which is difficult to deliver because there are few appropriate courses offered at MSU. These changes would allow more students to complete the program and therefore allow it to be more broadly promoted. Overall, the review committee recommends continuation of the GSM

Program Name(s)

Global Studies Minor

A d d e n d u m

Note: Duplicate this page for program(s) reviewed.

The MSU International Programs Committee established a Global Studies Minor Review Subcommittee in the Spring Semester of 2008.

Committee:

Norman Peterson, Vice Provost for International Education (chair)

Martin Frick, Professor, Agricultural Education

Diane Donnelly, Assistant Director, University Studies

Judy Van Andel, Academic Services, Ecology

A final report was provided to the Provost's Office, which included specific recommendations. These recommendations are summarized in the report; "The Review Committee recommends continuation of the GSM. The minor provides valuable guidance to MSU students in shaping their studies to allow them to develop an appropriate set of international and intercultural skills through a package of existing MSU courses and study abroad programs. Although only a limited number of students have completed the minor due to the decision not to promote it to students as discussed above (Edit: 10 students have completed the requirements for the GSM between 2005-2008), this does not pose any concerns regarding inefficient use of instructional resources. The Committee recommends that changes be made regarding the language proficiency requirement and the Capstone Seminar requirement to allow for active promotion of GSM."

Program Name(s): **School of Architecture**

Bachelor of Arts in Environmental Design

Master of Architecture

Programs fall into the category described in Section E. of Policy 303.3:
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Yes Add information here

No Add information here

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Retain

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At the July 2008 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the Visiting Team Report for the Montana State University School of Architecture. As a result, the professional architecture program: Master of Architecture was formally granted a six-year term of accreditation. The accreditation term is effective January 1, 2008.

The visiting team found a program that believes in architecture and design, believes in architecture's engagement as a public art, and is committed to high standards in achieving it. That strong commitment to both design as an art and construction as a discipline has been embraced by the students, which leads them to many avenues by which they can approach architecture, and thus a richer environment for all. These are shared values; the team found a high degree of collegiality that extends from faculty to student to staff, as well as within those groups. This commitment to the discipline of architecture at a high level is clearly valued outside the school as well. We note the recognition of the program and support for it from the highest levels of the university and from the professional community in Montana. In addition, the program has been recognized by its academic peers, in the form of both student and faculty awards.

Program Name(s)

School of Architecture

A d d e n d u m

Note: Duplicate this page for program(s) reviewed.

The School of Architecture is required to undergo an external review process following the standards and procedures outlined by the National Architectural Accrediting Board (NAAB). The National Architectural Accrediting Board (NAAB) is the only agency recognized by registration boards in the United States to accredit professional degree programs in architecture. Because most registration boards require an applicant for licensure to hold an NAAB-accredited degree, obtaining such a degree is an essential part of gaining access to the licensed practice of architecture. The curriculum of an NAAB-accredited degree program includes professional studies, general studies, and electives. To gain and retain accreditation of its degree program, each institution must both develop a program specific to its mission and also educate students to be knowledgeable and capable of producing work that can be measured by, and satisfy, specific performance criteria.

The accreditation review process involves the following steps and was conducted in March 2008:

Step A

In the year prior to the site visit, the School is required to prepare and submit an Architecture Program Report (APR). Each part of the APR serves to describe how the program's unique qualities and its students' achievements satisfy the 13 conditions that all accredited programs must meet.

Step B

Upon receipt and review of the Architecture Program Report, a team of architects and architectural educators visit the school for a four day review of the program. The team consists of representatives from the five collateral organizations: American Institute of Architects (AIA), American Institute of Architects Students (AIAS), Association of Collegiate Schools of Architecture (ACSA), National Council of Architectural Registration Boards (NCARB) and the National Architectural Accrediting Board (NAAB).

Prior to the site visit the School is required to prepare notebooks for each course that contain syllabi, course objectives, assignments, handouts as well as examples of student work—both high-pass and low-pass. Student work from each class is also presented in our exhibit spaces in order to demonstrate the quality of student course work and faculty research that has taken place since the last accreditation visit.

The site team reviews all of the course work and student exhibits in order to determine the accreditation status of the program. In addition, the site team meets with University and College administrators, library faculty, architecture faculty, staff and students as well as professionals from the community. All of these interviews and discussions are used to determine the quality of the program and to assess both the Architecture Program Report and the accreditation status.

Step C

The visiting team prepares its report and a formal recommendation is made by the NAAB national board. In addition to the length of the accreditation term, the board identifies areas within the program that are Well Met as well as areas that are Not Met or Causes of Concern.

Step D

The School is required to submit an annual report to NAAB that addresses progress being made to address the Causes of Concern or Conditions Not Met

3-year averages:

Graduation numbers -

B.A. in Environmental Design 75 students per year (3-year average)

M. Arch 62 students per year (3-year average)