

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

School of Art
Directed Interdisciplinary Studies
Department of Education
College of Engineering (undergraduate programs)
Department of English
Department of Modern Languages
Department of Music
Department of Physics

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

See Attached

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

See Attached

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BA in Art
BFA in Art
MFA in Art

Internal curricular review was conducted. Full-scale accreditation visit by NASAD in 2014.

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

Retain all programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- Graduates of the School of Art have gone on to work for design studios, advertising agencies and corporations, as well as develop prominent freelance careers or establish design businesses (especially graphic design).
- The Graphic Design component of curriculum was recently reviewed and updated.
- Being a National Association of Schools of Art and Design accredited school guarantees that the program at MSU meets or exceeds the national standards for undergraduate degrees within the arts, thus ensuring that students are offered a comprehensive education.
- Many freshmen students register as BA liberal arts, not knowing what they want to do or be. The first semester is designed to be diagnostic; it enables student to self select. A great deal of effort is given to advising students of their strengths and weaknesses within creative arts. As a result, many students select to register in the second semester of the foundation year as BFA students in either studio disciplines or graphic design.
- The head count for BA changes quite dramatically to BFA registration by the time they move into sophomore year.

	BA Art		BFA Art		MFA Art	
	headcount	graduation	headcount	graduation	headcount	graduation
2009/2010	204	15	189	43	14	0
2008/2009	159	12	199	52	8	2
2007/2008	168	18	185	51	10	5
2006/2007	182	19	198	51	15	5
2005/2006	283	17	153	59	14	2
2004/2005	295	27	158	52	15	7
2003/2004	233	17	247	58	16	6

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BA and BS in Directed Interdisciplinary Studies (DIS)

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

Notice of program termination has been submitted to BOR.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

(quoted directly from termination notice)

The DIS major is an individually customized interdisciplinary curriculum involving a coherent sequence of coursework, seminars, and supervised reading/research projects culminating in a substantial written and/or creative senior year thesis. Students requesting a DIS major must work with a faculty advisor to craft the program and must complete a minimum 9-credit senior project presented to the DIS oversight board.

The program has always had small enrollments, but the introduction of a Liberal Studies major several years ago has further eroded interest because this new program offers an alternative for those seeking a more flexible curriculum. Given this low interest, MSU has decided to eliminate this program.

	BA/BS Directed Inter. Studies	
	headcount	graduation
2009/2010	0	0
2008/2009	15	0
2007/2008	12	0
2006/2007	9	1
2005/2006	0	0
2004/2005	1	1
2003/2004	3	2

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Elementary Education
BS in Secondary Education
BS in Technology Education

Masters of Science in Science Education (MSSE)
MEd in Education
EdD in Education

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

Retain all programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- In 2010, the Teacher Education Program was awarded national accreditation with one weakness and one stipulation by the Teacher Education Accreditation Council (TEAC).
- The Teacher Education Program is guided by a five-point Conceptual Framework in which students: 1) acquire foundational knowledge of their subject matters and the ability to add to their knowledge over the course of their teaching careers; 2) understand the diverse developmental and educational needs of Montana's students, particularly Native American Montanans; 3) implement instruction based on research-based pedagogy and technology; 4) design instructional materials and assessments that promote and measure student learning; and 5) adapt and differentiate their instruction and reflect on their teaching to improve it.
- In addition to the coursework, students participate in carefully structured, graduated, and supervised field experiences. The integration of coursework and field experiences allows students to develop and demonstrate the breadth of knowledge, competencies, and professional commitment that empowers them to contribute to a dynamic professional environment upon graduation.
- In 2010, the Educational Leadership Program was awarded national accreditation with one weakness and one stipulation by the Teacher Education Accreditation Council (TEAC).
- The Educational Leadership Program at MSU is designed around a three-point framework—rigor, relevancy, and relationships—which is designed to produce graduate students who are: knowledgeable of key understandings and best practice principles; capable of applying that knowledge in the unique context of a specific school or school system; and able to cultivate the relational trust needed to build

collaboration among constituents within the school system and partners within the broader community.

	BS Elementary Education		BS Secondary Education		BA Technology Education	
	headcount	graduation	headcount	graduation	headcount	graduation
2009/2010	439	89	86	13	31	8
2008/2009	477	77	24	12	64	7
2007/2008	409	87	62	16	31	12
2006/2007	451	96	92	24	41	10
2005/2006	498	97	102	29	44	14
2004/2005	505	119	114	23	41	9
2003/2004	532	119	133	25	43	8
	MSSE Masters of Sci/Sci Education		MEd Education		EdD Education	
	headcount	graduation	headcount	graduation	headcount	graduation
2009/2010	233	65	115	43	67	9
2008/2009	197	38	161	48	61	9
2007/2008	120	55	161	44	53	5
2006/2007	77	48	120	51	75	12
2005/2006	13	55	78	58	55	9
2004/2005	4	36	92	66	51	10
2003/2004	22	37	97	56	49	9

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Bioengineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- New program.
- Students enrolled include both U.S. students and students in Turkish Dual Degree program.
- High demand and growing.

	BS Bioengineering	
	headcount	graduation
2009/2010	48	2
2008/2009	11	
2007/2008		
2006/2007		
2005/2006		
2004/2005		
2003/2004		

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Chemical Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Faculty highly productive in research.
- 10% of undergraduates involved in research.
- Strong, mainstream curriculum that focuses on chemical engineering fundamentals.
- Assessment rubrics for the program outcomes are very clear, detailed, and realistic.
- Enrollment and degree production are growing.
- Higher than national average pass rate on Fundamentals of Engineering Examination.

	BS Chemical Engineering	
	headcount	graduation
2009/2010	196	25
2008/2009	189	34
2007/2008	184	30
2006/2007	173	33
2005/2006	146	22
2004/2005	135	19
2003/2004	137	29

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Civil Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Faculty highly productive in research.
- Higher than national average pass rate on Fundamentals of Engineering Examination.
- Enrollments are steady; one of the largest programs on the MSU campus, and one of the largest civil engineering programs in the U.S.

	BS Civil Engineering	
	headcount	graduation
2009/2010	345	57
2008/2009	353	56
2007/2008	373	63
2006/2007	352	46
2005/2006	330	63
2004/2005	323	62
2003/2004	348	45

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Construction Engineering Technology

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited
- Enrollment is steady; one of the largest programs of its type in the U.S.
- Higher than national average pass rate on Fundamentals of Engineering Examination.

	BS Construction Engineering Technology	
	headcount	graduation
2009-2010	262	56
2008-2009	287	56
2007-2008	288	47
2006-2007	264	38
2005-2006	237	52
2004-2005	261	55
2003/2004	254	53

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Computer Science

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Faculty highly productive in research.
- Program has built enrollments in times of national downturn in computer science enrollments.
- Program recently added an Interdisciplinary Option, which has been popular.
- Program has successfully instituted an Industry Affiliates Program that provides external private funding to supplement their budget.

	BS Computer Science	
	headcount	graduation
2009/2010	162	16
2008/2009	142	25
2007/2008	148	25
2006/2007	167	23
2005/2006	201	41
2004/2005	214	29
2003/2004	240	44

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Computer Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Faculty highly productive in research.
- Excellent placement of graduates.
- Higher than national average pass rate on Fundamentals of Engineering Examination.

	BS Computer Engineering	
	headcount	graduation
2009-2010	57	6
2008-2009	61	13
2007-2008	73	14
2006-2007	83	9
2005-2006	90	13
2004-2005	91	13
2003-2004	99	11

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Electrical Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited
- Faculty highly productive in research.
- Faculty create innovative new labs
- Program is student centered and has strong ties to local and regional industry.
- Higher than national average pass rate on Fundamentals of Engineering Examination.
- Enrollments are steady

	BS Electrical Engineering	
	headcount	graduation
2009/2010	159	23
2008/2009	153	21
2007/2008	158	22
2006/2007	171	36
2005/2006	163	24
2004/2005	170	33
2003/2004	151	27

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Industrial Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Faculty highly productive in research.
- Faculty are active in teaching and advising undergraduate majors.
- Program has strong ties with local industry.
- Higher than national average pass rate on Fundamentals of Engineering Examination.

	BS Industrial Engineering	
	headcount	graduation
2009/2010	89	19
2008/2009	105	18
2007/2008	97	18
2006/2007	92	15
2005/2006	106	15
2004/2005	106	16
2003/2004	112	14

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Mechanical Engineering

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited
- Faculty highly productive in research.
- The curriculum is exceptionally rich in technical content, thus enabling students to typically exceed national passing averages on the Fundamentals of Engineering Examination.
- Program's Industrial Advisory Board is very actively involved in supporting the program and is fully engaged in the program's assessment activities.
- Enrollments are growing.

	BS Mechanical Engineering	
	headcount	graduation
2009/2010	415	45
2008/2009	386	73
2007/2008	405	74
2006/2007	402	55
2005/2006	410	58
2004/2005	417	52
2003/2004	400	66

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Mechanical Engineering Technology

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

Retain program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- ABET accredited.
- Enrollment is growing showing increasing demand.
- Higher than national average pass rate on Fundamentals of Engineering Examination.

	BS Mechanical Engineering Technology	
	headcount	graduation
2009/2010	147	26
2008/2009	137	27
2007/2008	138	24
2006/2007	134	26
2005/2006	114	16
2004/2005	110	20
2003/2004	114	27

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in English

MS in English

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

Retain both programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

(comments in italics are quoted directly from final report to the Provost):

- *The newly revised undergraduate literature curriculum is innovative and appropriate.*
- *The structure of the M.A. program is quite innovative.*
- *We want to emphasize how impressed we are with the productivity of the faculty in the Department of English. By any measure of professional accomplishment, as a group they are outstanding. They publish frequently and well; they seek external and internal support for their work; and many of them are active participants in professional organizations. Certainly, this professional activity contributes to the high quality of teaching that students comment about, as well as to the national reputation of the department.*
- The review committee was supportive of the department's plan to propose a new writing option in the future, and that curricular proposal is being reviewed at the campus level.

	BA English		MA English	
	headcount	graduation	headcount	graduation
2009/2010	193	40	20	10
2008/2009	223	50	21	7
2007/2008	219	47	15	9
2006/2007	214	56	20	8
2005/2006	236	45	20	9
2004/2005	215	39	15	2
2003/2004	246	61	17	11

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BA in Modern Language and Literatures

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

Retain all programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- The department has increased student credit hours by over 40% in the last ten years.
- In addition to majors, the department also graduates a large number of minors every year and provides required language instruction for multiple majors outside the department.
- The department is involved in a number of interdisciplinary majors and minors that share courses between departments.
- The review committee supports the department's continued planning efforts toward developing a European Studies major, which may replace one or more existing options within the department.
- The committee also recommends continued efforts to work with the Office of International Programs to develop study abroad opportunities for students.

	BA Modern Languages/Literatures	
	headcount	graduation
2009/2010	66	37
2008/2009	66	46
2007/2008	76	41
2006/2007	90	33
2005/2006	99	27
2004/2005	98	41
2003/2004	88	27

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BA in Music
BA in Music Technology
Bachelor of Music Education (BME)

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

Retain all programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

- Strong relationship between all three music degrees: common courses in freshman year plus a major performance area (instrument or voice) in all majors.
- BA in Music Technology was established four years ago, and is now fully fleshed out and enrolled. It is now fully accredited by NASM and is led by an award-winning faculty.
- Need for a new Tenure-Track position in Music Tech to replace the 3-year Adjunct position coming to an end in May 2011.
- Student recruitment to the unique Music Tech curriculum is strong, attracting students from across Montana and the US.
- BME has been the central focus for the MSU Music Department for over 50 years. BME is fully accredited by NASM.
- MSU supplies the majority of music teachers to the public schools in Montana.
- Program review resulted in change in several courses to strengthen student performance on teacher accreditation exams.
- BA in Music students have benefitted from improvements in the careful reviews of the BA-Music Tech and BME degrees.
- BA in Music is fully accredited by NASM.

	BA Music		BA Music Technology		BME Music Education	
	headcount	graduation	headcount	graduation	headcount	graduation
2009/2010	31	6	75	1	50	6
2008/2009	21	2	59	0	47	3
2007/2008	34	4	27	0	53	8
2006/2007	39	8			48	6
2005/2006	37	5			55	7
2004/2005	36	11			52	0
2003/2004	37	4			40	7

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

BS in Physics
MS in Physics
PhD in Physics

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

Retain all programs

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

(comments in italics are quoted directly from final report to the Provost):

- *...this department is excellent in all areas of performance and rates in the top tier of sister departments in land-grant institutions of similar size.*
- *The department supports a standard undergraduate physics curriculum and core graduate curriculum with appropriate elective courses for the focus areas of the departmental program.*
- *The department has high quality undergraduate and outstanding graduate students who are very happy with their educational experience at MSU.*
- The undergraduate graduation rate (15/year) is higher than most physics departments in similar sized institutions, which are typically about five per year. The low number of PhDs in 09/10 will be offset by at least 7 in the next year.
- The physics curriculum supports a number of other majors on campus, including the engineering programs.
- The graduate programs and research have a strong connection with local industry.
- *...the Department of Physics has been successful in developing intellectual property and transferring this to Montana companies. This has resulted in both new start-up companies and the enhancement of established companies. The result has been a major positive impact on economic development in the state. The best example for this is the area of optics. Bozeman has become a hotbed of companies producing optical materials, devices, and systems. This dramatic growth has been a direct result of the optics research program of the MSU Department of Physics.*
- The review team recommends additional faculty positions in the department: *...they have only 17 FTE lines in tenure track positions and one of these has moved into central administration. This is a relatively low number for the productivity of the department....*

	BS Physics		MS Physics		PhD Physics	
	headcount	graduation	headcount	graduation	headcount	graduation
2009/2010	77	17	23	8	37	2
2008/2009	64	17	20	8	39	5
2007/2008	66	13	23	6	35	7
2006/2007	13	19	21	9	35	5
2005/2006	66	8	16	7	37	3
2004/2005	65	13	19	11	28	3
2003/2004	71	16	19	7	26	5

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

Montana University System

PROGRAM REVIEW

Institution: MSU Bozeman

Program Years: 2009-2010

List of the programs reviewed:

XXX

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

XXX

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

XXX

