

Montana University System
2023-2024 PROGRAM REVIEWS – TABLE OF CONTENTS

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

Jake Jabs College of Business and Entrepreneurship – Externally Accredited Programs

- Bachelor of Science in Business
 - Accounting Option
 - Finance Option
 - Management Option
 - Marketing Option
- Minor, Accounting
- Minor, Business Administration
- Minor, Entrepreneurship and Small Business Management
- Minor, Finance
- Minor, International Business
- Business Certificate
- Entrepreneurship Certificate
- Accountancy, Professional Master
- Innovation & Management, Master of Science

Department of Education – Externally Accredited Programs

- BS, Elementary Education
- BS, Secondary Education
- Certificate, Leadership Fellows
- Graduate Certificate, Elementary School
- Graduate Certificate, Curriculum & Instruction, Library Media Certificate
- Graduate Certificate, School Superintendent Certificate
- EDD, Education Leadership
- MA , Teaching Elementary , Teaching Elementary Online
- MA , Teaching Secondary , Teaching Secondary Online
- MED , Educational Leadership
- PhD , Education Leadership

Norm Asbjornson College of Engineering – Graduate Programs

- M.S. Bioengineering
 - M.S. Chemical Engineering
 - M.S. Civil Engineering
 - M.S. Computer Science
 - M.S. Cybersecurity
 - M.S. Electrical Engineering
 - M.S. Environmental Engineering
 - M.S. Industrial and Management Engineering
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- M.S. Mechanical Engineering
- M.S. Optics and Photonics
- M.Eng. Bioengineering
- M.Eng. Chemical Engineering
- M.Eng. Civil Engineering
- M.Eng. Electrical Engineering
- M.Eng. Environmental Engineering
- M. Eng. Mechanical Engineering
- Ph.D. Chemical Engineering
- Ph.D. Computer Science
- Ph.D. Electrical Engineering
- Ph.D. Eng. in Applied Mechanics
- Ph.D. Eng in Civil Engineering
- Ph.D. Eng. in Environmental Engineering
- Ph.D. Eng. in Industrial Engineering
- Ph.D. Mechanical Engineering
- Ph.D. Material Science

Department of English

- Bachelor of Arts in English
 - Writing Option
 - Teaching Option
 - Literature Option
- English, Master of Arts
- English Education, Master of Arts
- English Literature, Minor
- English Writing, Minor

Gallatin College – Workforce Programs

- Aviation
 - Aviation Electronics Technology
 - Bookkeeping
 - Business Management
 - Carpentry
 - CNC Machining Technology
 - Culinary Arts
 - Cybersecurity Information Assurance
 - Drafting and CAD Technology
 - Healthcare Administrative Professional
 - Heating, Ventilation, Air Conditioning and Refrigeration
 - Interior Design
 - IT Network Technology
 - Medical Assistant
 - Phlebotomy
 - Photonics and Laser Technology
 - Welding Technology
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Department of History and Philosophy

- Bachelor of Arts in History
 - History Option
 - History Teaching Option
 - Science, Environment, Technology and Society Option (SETS)
- Bachelor of Arts in Philosophy
- History, Master of Arts
- History, Doctor of Philosophy
- History Minor (Non-Teaching)
- History Minor (Teaching)
- Museum Studies Minor (Non-Teaching)

Interdisciplinary

- Individual Interdisciplinary PhD

Material Science

- MS in Materials Science
- PhD in Material Science

Military Science

- Military Air and Space Studies - Air Force ROTC (non-degree, completion can lead to commissioning)
- Military Science - Army ROTC (non-degree, completion can lead to commissioning)
- Military Studies, Minor

School of Art & School of Film and Photography – Externally Accredited Programs

- School of Art
 - B.A. in Art Education
 - B.A. in Art History
 - B.A. in Liberal Arts Studio
 - B.F.A. in Graphic Design
 - B.F.A. in Studio Arts
 - Art History Minor
 - Art Education K-12 Minor
- School of Film and Photography
 - B.A. in Film Option
 - B.A. Photography Option
 - B.F.A. in Integrated Lens Media
 - Art, Master of Fine Arts
 - Art History, Master of Art
 - Master of Fine Arts in Science and Natural History Filmmaking

School of Architecture – Externally Accredited Programs

- Bachelor of Arts in Environmental Design
- Master of Architecture

School of Music – Externally Accredited Programs

- B.A. in Music
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- B.A. in Music Technology
 - Bachelor of Music Education
 - Music Minor (Non-Teaching)
 - Master of Music in Music Education
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Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

See decisions by department/program on the following pages.

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 rationale and justifications for the decisions by department/program on the following pages.

Montana University System
2023-2024 BUSINESS AND ENTREPRENEURSHIP PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Bachelor of Science in Business
 - Accounting Option
 - Finance Option
 - Management Option
 - Marketing Option
 - Minor, Accounting
 - Minor, Business Administration
 - Minor, Entrepreneurship and Small Business Management
 - Minor, Finance
 - Minor, International Business
 - Business Certificate
 - Entrepreneurship Certificate
 - Accountancy, Professional Master
 - Innovation & Management, Master of Science
-

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

All programs are housed within the Jake Jabs College of Business and Entrepreneurship (JCOBE).

All programs will be retained.

All programs are encouraged to participate in the established program assessment process at MSU to meet the assessment requirements for AACSB standards and bridge to the MSU continuous improvement processes.

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 Association to Advance Collegiate Schools of Business (AACSB) Board of Directors has granted MSU's JCOBE programs accreditation for an additional six years after an on-site continuous improvement review. The next on-site continuous improvement review occurs in the sixth year, 2028-2029. The board of directors noted multiple areas of commendation, including:

- The college focus around themes in its strategic plan. Specifically noted was the theme of retention and the consistent mid-90's percentage of fall to spring retention.
- The college focus on experiential learning including study abroad, a number of programs specific to business students such as the VITA program, and active student organizations are engaging students in extracurricular activities.
- Significant investments supporting "first class" data sets, such as WRDS, Compustat, and CRSP, that are the gold standard in business education. The college deserves commendation for finding the resources and making this a priority.

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The JCOBE has experienced unprecedented growth in the last three years, fueled in part by removal of the pre-Business status for first and second year students. Student perception now is that they are immediately considered part of the college and degree programs rather than waiting for official acceptance into the major. All programs are sustaining or growing in enrollment and graduation numbers are starting to follow growth trends with an expectation of a further increase in degree completions in the next year. Among the growth are three new programs: a certificate of Entrepreneurship, certificate of Business, and a Masters of Science in Innovation and Management. The certificate programs are gaining interest without compromising enrollment in the minors, thus an enhanced group of stakeholders are being served with these new certificate programs.

Recommendations from AACSB are focused on ensuring appropriate continuous self-study and improvement. Reviewers specifically cited the Masters of Science in Innovation and Management program to ensure that the student learning outcomes are aligned with the college's mission and with other graduate program processes, and assessed appropriately. For all Business programs, regular assessment of teaching effectiveness needs to be augmented by appropriate monitoring and measurement in relation to student learning outcomes. Additionally, NWCCU university accreditors have recently recommended, and we concur, that externally accredited programs bridge to the established MSU program assessment and review processes to support the programs in their need for evidence of consistent and continuous improvement.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BS	Business	Accounting	BUAC	238	212	207	205	197	179	216
BS	Business	Finance	BUFN	285	282	290	326	435	455	542
BS	Business	Management	BUMG	577	571	577	546	618	700	816
BS	Business	Marketing	BUMK	422	470	487	470	485	511	589
BS	Business		BUSN				1		95	27
Certificate		Business Certificate	CBUS				7	5	10	30
Certificate		Entrepreneurship Cert	CENT							10
TOTAL UNDERGRADUATE ENROLLMENT:				1543	1551	1574	1608	1819	1951	2230
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
M Prof Accountancy	Professional Accountancy		PACC	38	42	36	29	31	36	19

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MS	Innovation & Management		MSIM					27	28	16
TOTAL GRADUATE ENROLLMENT:				38	42	36	29	58	64	35
TOTAL ENROLLED:				1581	1593	1610	1637	1877	2015	2265
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Accounting		ACCT/A CTG	25	29	32	23	22	25	29
Minor	Business Administration		BUAD	83	76	81	63	71	60	77
Minor	Entrepreneurship & Small Bus Mgmt		ENTR	143	152	116	97	107	104	154
Minor	Finance		FINM	37	39	36	45	56	62	65
Minor	International Business		INTL	35	46	55	47	41	35	40
TOTAL MINOR ENROLLED:				323	342	320	275	297	286	365
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BS	Business	Accounting	BUAC	38	53	47	37	45	52	35
BS	Business	Finance	BUFN	39	67	54	62	68	58	78
BS	Business	Management	BUMG	86	93	95	101	81	95	96
BS	Business	Marketing	BUMK	76	63	64	100	100	85	79
Certificate		Business Certificate	CBUS					2	2	7
Certificate		Entrepreneurship Cert	CENT	(new program, no graduates yet)						
M Prof Accountancy	Professional Accountancy		PACC	24	22	26	31	25	22	27
MS	Innovation & Management		MSIM						26	28
TOTAL DEGREES AWARDED:				263	298	286	331	321	340	350

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AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Accounting		ACCT ACTG	7	11	12	25	9	9	15
Minor	Business Administration		BUAD	29	29	26	23	32	35	19
Minor	Entrepreneursh ip & Small Bus Mgmt		ENTR	62	60	58	32	40	46	32
Minor	Finance		FINM	14	16	20	18	17	32	26
Minor	International Business		INTL	9	5	15	18	16	18	11
TOTAL MINORS AWARDED:				121	121	131	116	114	140	103

Montana University System
2023-2024 EDUCATION PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- BS, Elementary Education
 - BS, Secondary Education
 - Certificate, Leadership Fellows
 - Graduate Certificate, Elementary School
 - Graduate Certificate, Curriculum & Instruction, Library Media Certificate
 - Graduate Certificate, School Superintendent Certificate
 - EDD, Education Leadership
 - MA , Teaching Elementary , Teaching Elementary Online
 - MA , Teaching Secondary , Teaching Secondary Online
 - MED , Educational Leadership
 - PhD , Education Leadership
-

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

All programs will be retained.

Conduct a revision of programs over the next accreditation cycle with a focus on streamlining curriculum and exploring alternative options for preparing the Educator workforce.

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.

Montana State University's degree programs that prepare teachers and school leaders for Montana's public schools were reviewed by the national Council for the Accreditation of Educator Preparation (CAEP) and state-level accreditor, the Office of Public Instruction (OPI), in a joint virtual site visit in September 2023. The degree programs under review included those associated with initial teacher licensure (the undergraduate Bachelor of Science and the graduate Master of Arts in Teaching, referred to jointly as the teacher education program) and accountable to standards articulated in the Annotated Rules of Montana 10.58.311 and 10.58.315 as well as those associated with advanced licensure (school administrator programs for principal and superintendent) and accountable to standards articulated in the Annotated Rules of Montana 10.58.605 and 10.58.609. Together, these comprise Montana State University's Educator Preparation Program (EPP).

The two accreditation processes proceeded on separate decision-making timelines, with CAEP granting accreditation through Spring 2030 in its memo to Montana State University on May 9, 2024. The final exit report, issued by the OPI on May 21, 2024, noted the standards for initial and advanced licensure were met, with a few areas for improvement or notation identified. OPI presented their recommendations to the Board of Public Education (BPE) during their meeting in July 2024 and the BPE will act on the recommendations in its September 2024 meeting.

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EPP implemented numerous changes immediately to address each identified area for improvement. These changes include revision of the Quality Assurance System that follows a matrix of tracking, feedback/discussions, and action cycle, increasing faculty/staff use of the Data Driven Decisions tracker, establishing an Assessment and Alignment Committee which includes representatives from all MSU Teacher Education Programs as well as a representative from the university content partners, and collaborating state-wide with the Montana Continuous Improvement Consortium to review and revise the state protocol for Employer and Completer surveys at both the Initial Licensure and Advanced Programs levels. Plans are underway to reinstate regular meetings of the University Teacher Education Committee (UTEC) to ensure broad faculty involvement in Teacher Education Program efforts of implementing “evidence-based high quality., high impact teaching and learning practices for every student” ([Choosing Promise](#), Goal 1.3). Ensuring a quality program is highly laudable and MSU commends the Department of Education for their effort to meet accreditation standards for traditional programming pathways. However, MSU’s Educator Prep Programs have not been immune to the national trend of declining interest in the teaching profession leading to declining enrollment of students in teacher education programs. Within the last seven years the MSU Department of Education has incurred a 44% drop in enrollment with enrollment decreases across all Educator Prep programs. Because the Bachelors of Science Education programs are among the highest required course credit loads and the longest time to degree of programs at MSU, barriers are still high for entering a workforce that cannot support extended collegiate costs. In addition, legislative measures aimed at opening pathways to teacher certification to address the teacher shortage are circumventing the traditional program pathways. The time is ripe not only for streamlining traditional collegiate programs and reducing time in the classroom, but also to thinking outside the box for alternative teacher preparation approaches. Over the next accreditation cycle, we are proposing a revision of programs with a focus on streamlining curriculum and exploring alternative options for preparing the Educator workforce.

MSU’s EPP is already considering several initiatives that encourage thinking outside of the box, including more frequent stakeholder events/interactions to garner direct feedback; developing full programmatic matrices aligned to PEPPS/national standards; furthering the use of Proficiency/Competency-based approaches in curriculum mapping; developing credential pathways to enhance teachers’ preparation to work with diverse P12 students and establishing a yearly (or every two years) update to present to the College of Education, Health and Human Development dean regarding systems of data-informed decision making and quality assurance.

Enrollment & Graduation for all Education degrees/majors. This review pertains to the Teaching programs that are externally accredited through CAEP.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BS	Elementary Education		ELCH/ELE D/ELMH/E LSC/ELSP	403	370	318	294	270	242	215

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2023-2024 EDUCATION PROGRAM REVIEW

BS	Secondary Education		EDGS/EDS S	119	124	117	107	100	89	74
Certificate	Leadership Fellows		LFCP							1
TOTAL UNDERGRADUATE ENROLLMENT:				522	494	435	401	370	331	290
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
Certificate	Curriculum & Instruction	Culturally and Linguistically Diverse Education	CLDE	1	5	7	6	2	0	0
Certificate	Adult & Higher Education	College Teaching	COLL	19	18	16	11	10	11	10
Certificate		Educational Leadership	ELCO						2	
Certificate		Elementary School	ELTO	3	1	1	0	1	2	0
Certificate	Curriculum & Instruction	Library Media Certificate	LMCO	49	66	60	54	65	56	39
Certificate		School Superintendent Cert	SUPC	0	4	2	2	0	4	4
EDD	Adult & Higher Education		ADDE	25	18	16	11	7	7	6
EDD	Curriculum & Instruction		CIDE	14	7	8	7	12	6	6
EDD	Education Leadership		ELDE	20	18	23	16	21	15	11
EDS	Adult & Higher Ed Curriculum & Instr									
EDS	Education Leadership	Education Specialist	ADES/CIES /ELES	16	15	2	0	2	0	0
MA	Teaching Elementary	Teaching Elementary (Online modality)	MTEO	na	na	na	14	11	11	12
MA	Teaching Secondary	Teaching Secondary (Online modality)	MTSO	na	na	9	11	11	10	17
MED	Adult & Higher Ed		ADME	12	15	15	15	8	9	9

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MED	Curriculum & Instruction		CIME/CIM O/NPTO	47	43	45	46	50	33	36
MED	Educational Leadership		ELME/ELM O	63	47	31	25	31	36	31
PhD	Education Leadership		EDUC	19	20	26	23	23	25	27
TOTAL GRADUATE ENROLLMENT:				288	277	261	241	254	227	208
TOTAL ENROLLED:				810	771	696	642	624	558	498
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Teaching Minor	Art Education		TART	7	5	7	9	6	3	4
Teaching Minor	Biology		TBIO	4	2	3	4	3	4	3
Teaching Minor	Earth Science		TESC	2	2	2	1	2	1	0
Teaching Minor	Economics		TECN	0	1	1	0	0	0	0
Teaching Minor	Family and Consumer Sciences		TFCS	1	1	3	4	4	1	0
Teaching Minor	French		TFRN	2	2	2	1	1	1	0
Teaching Minor	German		TGRM	2	1	3	2	2	1	1
Teaching Minor	Government		TGOV	15	14	12	7	7	8	7
Teaching Minor	History		THST	47	54	51	50	38	22	23
Teaching Minor	Mathematics		TMTH	2	5	4	5	2	0	1
Teaching Minor	Physics		TPHY	2	2	1	0	0	0	0
Teaching Minor	Reading		TRDG	43	38	24	26	19	9	9
Teaching Minor	Spanish		TSPN	6	8	10	11	11	11	7
Teaching Minor	Technology Education		TTCH	0	0	0	0	2	7	8
TOTAL MINOR ENROLLED:				133	135	123	90	97	68	63
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023

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BS	Elementary Education		ELCH/ELE D/ELMH/E LSC/ELSP	102	78	94	61	80	55	64
BS	Secondary Education		EDGS/EDS S	21	23	24	22	22	24	15
Certificate	Leadership Fellows		LFCP	0	0	0	0	0	0	0
Certificate	Curriculum & Instruction	Culturally and Linguistically Diverse Education	CLDE	0	0	6	14	28	0	0
Certificate	Adult & Higher Education	College Teaching	COLL	2	3	9	7	1	5	4
Certificate		Educational Leadership	ELCO	0	0	0	0	0	0	0
Certificate		Elementary School	ELTO	0	1	0	0	0	0	0
Certificate	Curriculum & Instruction	Library Media Certificate	LMCO	25	28	20	38	37	28	42
Certificate		School Superintendent Cert	SUPC	0	0	3	6	6	4	5
EDD	Adult & Higher Education		ADDE	1	5	3	3	5	5	0
EDD	Curriculum & Instruction		CIDE	10	5	2	2	0	5	1
EDD	Education Leadership		ELDE	1	4	4	1	1	3	2
EDS	Adult & Higher Ed Curriculum & Instr Education Leadership	Education Specialist	ADES/CIES /ELES	0	2	14	3	2	1	3
MA	Teaching Elementary	Teaching Elementary Online	MTEO	na	na	na	na	11	9	11
MA	Teaching Secondary	Teaching Secondary Online	MTSO	na	na	na	8	9	10	10
MED	Adult & Higher Ed		ADME	5	5	6	4	7	3	3
MED	Curriculum & Instruction		CIME/CIM O/NPTO	74	50	15	25	32	26	26

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MED	Educational Leadership		ELME/ELM O	26	30	30	20	15	9	22
PhD	Education Leadership		EDUC	3	4	2	1	2	5	4
TOTAL DEGREES AWARDED:				271	238	232	215	258	192	212
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Teaching Minor	Art Education		TART	0	1	2	1	3	2	0
Teaching Minor	Biology		TBIO	3	1	2	0	2	0	3
Teaching Minor	Earth Science		TESC	1	1	1	0	0	0	0
Teaching Minor	Economics		TECN	0	0	0	0	0	0	0
Teaching Minor	Family and Consumer Sciences		TFCS	1	1	0	0	2	0	0
Teaching Minor	French		TFRN	0	0	0	0	0	0	0
Teaching Minor	German		TGRM	0	1	0	0	0	1	0
Teaching Minor	Government		TGOV	2	4	6	5	1	3	1
Teaching Minor	History		THST	11	9	13	9	13	15	9
Teaching Minor	Mathematics		TMTH	0	0	1	0	3	1	0
Teaching Minor	Physics		TPHY	0	0	1	0	0	0	0
Teaching Minor	Reading		TRDG	19	7	23	8	12	10	3
Teaching Minor	Spanish		TSPN	2	1	2	1	1	2	1
Teaching Minor	Technology Education		TTCH	0	0	1	0	0	2	2
TOTAL MINORS AWARDED:				55	34	59	36	45	41	24

Montana University System
2023-2024 ENGINEERING GRADUATE PROGRAMS PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- M.S. Bioengineering
 - M.S. Chemical Engineering
 - M.S. Civil Engineering
 - M.S. Computer Science
 - M.S. Cybersecurity
 - M.S. Electrical Engineering
 - M.S. Environmental Engineering
 - M.S. Industrial and Management Engineering
 - M.S. Mechanical Engineering
 - M.S. Optics and Photonics
 - M.Eng. Bioengineering
 - M.Eng. Chemical Engineering
 - M.Eng. Civil Engineering
 - M.Eng. Electrical Engineering
 - M.Eng. Environmental Engineering
 - M. Eng. Mechanical Engineering
 - Ph.D. Chemical Engineering
 - Ph.D. Computer Science
 - Ph.D. Electrical Engineering
 - Ph.D. Eng. in Applied Mechanics
 - Ph.D. Eng in Civil Engineering
 - Ph.D. Eng. in Environmental Engineering
 - Ph.D. Eng. in Industrial Engineering
 - Ph.D. Mechanical Engineering
 - Ph.D. Material Science
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Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

The Engineering Graduate Programs, housed within the Norm Asbjornson College of Engineering, offers several engineering options in both research and course-based Masters and PhDs, as well as Computer Science, Cybersecurity. The engineering programs also participate in the Material Science graduate programs.

All degrees will be retained.

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.

On April 4-5, 2024, a three-member team conducted an on-site review of the Norm Asbjornson College of Engineering (NACOE) graduate programs and the programs' self-study. All three reviewers were external to Engineering, and one was external to MSU. Over the course of two days, the review committee met with directors of each program, faculty, students, student services staff, as well as the executive leadership of NACOE. The review committee found both the quality and rigor of the engineering graduate programs to be high and witnessed a strong commitment to continuous improvement of these programs. These achievements can be seen across several areas within the graduate engineering programs including curricular and examination improvements, growth in interdisciplinary and cutting-edge research, mentoring, policies and practices, the creation of new programs, and the addition of new courses related to 21st century workforce needs.

The Masters of Engineering (MENG) degree program was established in 2010 and was intended to provide a coursework-only graduate program option for students that wanted to pursue a credential beyond their initial BS degree, but they did not want to pursue a research-based graduate degree. The ME program initially had 4 options: Bioengineering, Chemical Engineering, Electrical Engineering, and Mechanical Engineering. Options in Civil Engineering and Environmental Engineering were added to the ME degree program starting in 2022. Enrollment in the MENG program was initially small with 4 students in the fall of 2012 and enrollment remained under 15 students until the fall of 2017. The MENG degree program has begun growing recently and currently has 21 students enrolled. The MENG programs are being considered to participate in Shorelight Education for the recruiting of international students.

Enrollment in the 10 different MS degree programs within the NACOE has varied over the last 7 years. Three of the programs have historically had enrollments of over 20 students: MS in Civil Engineering, MS in Computer Science, and the MS in Mechanical Engineering. Four programs have had lower enrollments, averaging 5-10 enrolled students: MS in Chemical Engineering, MS in Electrical Engineering, MS in Environmental Engineering, and the MS in Industrial and Management Systems Engineering. The final three programs are relatively new, all being started during the review period (i.e., since 2016): MS in Bioengineering (approved in 2020), MS in Cybersecurity (approved in 2022), and the MS in Optics & Photonics (approved 2016). Computer Science and Cybersecurity programs are potential candidates to participate in Shorelight Education for the recruiting of international students as the demand is high internationally.

One change that has impacted enrollment in the MS programs during the review period is a growing emphasis on PhD programs. The small declines in enrollment in Civil, Environmental, and Mechanical Engineering MS programs are largely offset by growth in their respective PhD programs.

Relevant Masters degree programs are working with an international recruitment partner to further enhance enrollments.

At the start of the review period (2016) the NACOE offered two different PhD degrees: PhD in Computer Science and a PhD in Engineering, which had 7 different options. However, since 2016, some of the programs that were options within the PhD in Engineering have transitioned into engineering discipline-specific PhDs, including: PhD in Electrical Engineering (2017), PhD in Chemical Engineering (2019), and PhD

Montana University System
2023-2024 ENGINEERING GRADUATE PROGRAMS PROGRAM REVIEW

in Mechanical Engineering (2022). As a result of these changes, the NACOE now has five PhD programs and the PhD in Engineering is being adjusted from seven to four options to reduce overlap. Enrollment in the PhD in Computer Science has remained relatively stable during the review period. Enrollment in the new PhD programs: PhD in Chemical Engineering, PhD in Electrical Engineering and PhD in Mechanical Engineering, have all increased significantly during the review period, but this is largely just students shifting from the respective options in the PhD in Engineering, which has had a concomitant decline in enrollment, because students are choosing the discipline specific PhD programs.

Overall, these graduate programs remain high quality and viable with newer programs complementing the existing programs. Retention of graduate students is one area identified for improvement that would further strengthen the programs. The college is nearly achieving the retention goal of 93% retention in the first year for both Masters and PhD students, so subsequent years will be the focus of graduate student retention efforts.

ENROLLMENT										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MENG	Civil Engineering	Civil Engineering	CE						4	9
MENG	Electrical Engineering	Electrical Engineering	EE/ENGR				1	1	3	1
MENG	Bioengineering	Bioengineering	ENGR						4	4
MENG	Chemical Engineering	Chemical Engineering	ENGR	23*	7	4	9	11		
MENG	Environmental Engineering	Environmental Engineering	ENVE						2	3
MENG	Mechanical Engineering	Mechanical Engineering	ME/ENGR						3	4
MS	Bioengineering	Bioengineering	BENG						1	3
MS	Civil Engineering	Civil Engineering	CE/ENGR	30	32	21	24	26	26	19
MS	Chemical Engineering	Chemical Engineering	CHE/ENGR	10	7	4	4	4	9	6
MS	Computer Science	Computer Science	CS	26	22	26	30	20	21	27
MS	Cybersecurity	Cybersecurity	CYBE							6
MS	Electrical Engineering	Electrical Engineering	EE	5	4	5	9	11	12	9
MS	Environmental Engineering	Environmental Engineering	ENVE	9	9	10	8	6	6	3
MS	Industrial and Management Systems Engineering	Industrial and Management Systems Engineering	I&ME/EIMS	12	6	11	13	15	10	12

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MS	Mechanical Engineering	Mechanical Engineering	ME	35	28	32	36	29	22	26
MS	Optics and Photonics	Optics and Photonics	OPT	1		4	4	2	7	8
PhD	Chemical Engineering	Chemical Engineering	CHE/ENGR	21	24	25	23	25	18	21
PhD	Computer Science	Computer Science	CS	19	24	27	25	24	21	18
PhD	Electrical Engineering	Electrical Engineering	EE	1	15	13	18	25	26	30
PhD	Industrial and Management Systems Engineering	Industrial and Management Systems Engineering	EIMS					1	3	4
PhD	Applied Mechanics	Applied Mechanics	ENGR						1	
PhD	Civil Engineering	Civil Engineering	ENGR	3	1	4	6	11	9	
PhD	Engineering	Engineering	ENGR	36	29	30	32	7		
PhD	Environmental Engineering	Environmental Engineering	ENGR						6	16
PhD	Mechanical Engineering	Mechanical Engineering	ME		1	1		26	28	27
PhD	Materials Science	Materials Science	MTSI	6	3	3	3	4	3	2
TOTAL GRADUATE ENROLLMENT:				237	212	220	245	248	245	258
TOTAL ENROLLED:				237	212	220	245	248	245	258
*inaccurate count due to confusion on MENG options and MS options coding										
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MENG	Civil Engineering	Civil Engineering	CE							2
MENG	Electrical Engineering	Electrical Engineering	EE							1
MENG	Engineering		ENGR	2	9	5	1	2	7	2
MENG	Environmental Engineering	Environmental Engineering	ENVE							1
MENG	Mechanical Engineering	Mechanical Engineering	ME							1
MS	Civil Engineering	Civil Engineering	CE	14	13	16	10	8	12	10
MS	Chemical Engineering	Chemical Engineering	CHE	5	2	8	5	3	2	3
MS	Computer Science	Computer Science	CS	13	13	9	9	9	15	8

Montana University System
2023-2024 ENGINEERING GRADUATE PROGRAMS PROGRAM REVIEW

MS	Electrical Engineering	Electrical Engineering	EE	11	5	2	5	5	2	8
MS	Industrial/Management Sys Eng	Industrial/Management Sys Eng	EIMS	4	6	2	3	5	10	6
MS	Environmental Engineering	Environmental Engineering	ENVE	2	7		5	8		3
MS	Mechanical Engineering	Mechanical Engineering	ME	4	11	7	11	7	12	12
MS	Optics and Photonics	Optics and Photonics	OPT	1	1		3	2	2	5
PHD	Chemical Engineering	Chemical Engineering	CHE			3		3	3	5
PHD	Computer Science	Computer Science	CS	6	3	1	3	1	3	5
PHD	Electrical Engineering	Electrical Engineering	EE	2	1	5	1	1	1	1
PHD	Industrial/Management Sys Eng	Industrial/Management Sys Eng	EIMS						2	1
PHD	Engineering		ENGR	8	7	5	2	5	5	
PHD	Mechanical Engineering	Mechanical Engineering	ME						3	4
PHD	Materials Science	Materials Science	MTSI						1	
TOTAL DEGREES AWARDED:				72	78	63	58	59	80	78

Montana University System
2023-2024 ENGLISH PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Bachelor of Arts in English
 - Writing Option
 - Teaching Option
 - Literature Option
 - English, Master of Arts
 - English Education, Master of Arts
 - English Literature, Minor
 - English Writing, Minor
-

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

All programs will be retained.

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.

On April 15-16, 2024 a three-member team conducted an on-site review of the English programs and the programs' self-study. All three reviewers were external to the English Department, and one was external to Montana State University (MSU). Paralleling national trends, enrollment has declined, primarily post-Covid, in most English programs. Enrollment in the English Writing minor remains steady and the fledgling online MA in English Education is working to achieve its target range while serving the State of Montana's teachers. All English programs currently maintain viable student enrollment and quality instruction.

Because enrollment declines are concerning, the Department of English has implemented program changes to be responsive to student learning outcomes assessment, raise graduation and persistence rates, and consider new avenues for growth.

English Teaching Option: During the previous program review period, the English Teaching Option undertook an extensive restructuring of the major, including developing several new courses to enhance students' ability to progress in their attainment of the department learning outcomes throughout their major coursework. Revisions during the current review period include regularizing course rotations to facilitate students' progress through the program's requirements. Course requirements were changed in the curriculum to broaden students' training across aspects of Writing Studies to include creative writing and rhetoric courses.

Literature Option: In response to student demand and faculty commitment, a new 300-level course in African American Literature was developed, which will be offered for the first time in the fall 2023 semester.

Montana University System
2023-2024 ENGLISH PROGRAM REVIEW

Writing Option: The Writing Option faculty undertook a significant curricular redesign in 2021, reshaping the structure of the major to strengthen student attainment of learning outcomes throughout their coursework and improving student preparedness for upper-division research and rhetorical theorizing. Two new 300-level courses were developed to provide students with training in key learning outcomes earlier in their coursework. The addition of these two foundational courses was complemented by increasing the number of elective courses in the option, enhancing students' ability to craft a major that enables them to attain key program learning outcomes along with learning outcomes tailored to their interests and career goals. The option's Creative Writing curriculum was restructured to provide students with introductory, intermediate, and advanced coursework. The new courses developed for this curriculum restructuring also afford students additional opportunities to attain learning outcomes within and/or across creative-writing genres.

MA in English: Since the last program review, the curricular requirements for the MA in English have been changed to lower the number of required courses and increase the number of elective courses. An accelerated option was added for students already majoring in English at the undergraduate level to help grow the MAE program and optimize student time at MSU.

MA in English Education: The development of the new online MA in English Education program led to the creation of five graduate-level courses. This new set of courses provides MAE students training in the central learning outcomes for the degree and provides students in the MA in English. This program is attracting

Under consideration: Due to verbal interest expressed across the state by educators and at MSU by Education advisors, there is consideration for reinstating the English Teaching minor.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	English	Teaching	EGET	77	84	80	74	68	50	41
BA	English	Literature	EGLT	62	60	62	61	49	44	41
BA	English	Writing	EGWR	113	121	133	112	105	97	97
TOTAL UNDERGRADUATE ENROLLMENT:				252	265	275	247	222	191	179
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MA	English	Education (online)	ENEO				2	11	11	6
MA	English	English	ENGL	10	10	16	11	10	4	6
TOTAL GRADUATE ENROLLMENT:				10	10	16	13	21	15	12
TOTAL ENROLLED:				262	275	291	260	243	206	191

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2023-2024 ENGLISH PROGRAM REVIEW

	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	English Writing		ENGW	45	53	48	39	37	42	43
Minor	English Literature		ENLT	21	21	22	20	15	10	10
TOTAL MINOR ENROLLED:				66	74	70	59	52	52	53
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	English	Teaching	EGET	11	14	12	11	19	10	11
BA	English	Literature	EGLT	8	18	15	21	16	18	18
BA	English	Writing	EGWR	24	27	22	25	30	25	27
BA	Interdisciplinary Studies L&S		BILS						1	
MA	English	Education (online)	ENEO						2	8
MA	English	English	ENGL	6	5	4	3	9	5	2
TOTAL DEGREES AWARDED:				49	64	53	60	74	61	66
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	English Writing		ENGW	9	11	13	23	13	7	18
Minor	English Literature		ENLT	5	7	7	9	5	5	10
TOTAL MINORS AWARDED:				14	18	20	32	18	12	28

Montana University System
2023-2024 GALLATIN WORKFORCE PROGRAMS REVIEW

Institution: **Gallatin College**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Aviation
 - Aviation Electronics Technology
 - Bookkeeping
 - Business Management
 - Carpentry
 - CNC Machining Technology
 - Culinary Arts
 - Cybersecurity Information Assurance
 - Drafting and CAD Technology
 - Healthcare Administrative Professional
 - Heating, Ventilation, Air Conditioning and Refrigeration
 - Interior Design
 - IT Network Technology
 - Medical Assistant
 - Phlebotomy
 - Photonics and Laser Technology
 - Welding Technology
-

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

All degrees will be retained with the exception of Aviation Electronics Technology which will be put into moratorium.

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.

On April 1-2, 2024, a three-member team conducted an on-site review of the Gallatin College workforce programs and the programs' self-studies. All three reviewers were external to Gallatin College, and two were external to Montana State University (MSU). Over the course of two days, the review committee met with directors of each program, faculty, students, student services staff, as well as the executive leadership of Gallatin College. Overall, the review committee found good alignment of the Gallatin College's workforce program offerings with current and emerging workforce needs of the community, and an easily identifiable connection to the focus on the broader Montana State University strategic plan.

Overall enrollment continues to grow. In 2017, enrollment was 445 and in AY23 enrollment was 565, a 27% increase. GC experienced the same dip in enrollment in AY21 that most every college experienced. Due to

Montana University System
2023-2024 GALLATIN WORKFORCE PROGRAMS REVIEW

the small size of some workforce programs, enrollment can be sporadic. For instance, losing 3-5 students can highly skew enrollment and graduation percentages.

For this review, the program enrollment review was categorized into three categories.

1. Healthy enrollment and steady growth (may have one year of decline, but recovered the following year): Aviation, Drafting and CAD, HVAC-R (CAS/AAS), Interior Design, IT Networking and Cyber (CAS/AAS), Business Management, Carpentry, Welding, Phlebotomy.
2. Cautionary enrollment growth (watching enrollment after one year of decline and looking at second year enrollment, focused recruiting strategies): Culinary Arts, Photonics, Bookkeeping, and CNC Machining.
3. Problematic enrollment (talking to faculty and industry partners, reviewing content, demand, and future): Aviation Electronics, Healthcare Administrative Professional and Medical Assisting. Medical Coding saw a decline in enrollment from 2017-2021. Because of this data, the Director decided to adjust the curriculum. She received feedback from students and industry to determine the best approach and re-designed the content to include less coding and more front office skills. The new program is titled Health Admin. Professional certificate. This new program has been available for 2 years and is seeing a minimal increase in enrollment after a three-year attempt to run this type of program. Administration and faculty are discussing if the program should be run every other year. Medical Assisting has also struggled with enrollment for the past 4 years. It has lost 63% of its enrollment, previously with 36 students and now down to 13. Gallatin College is addressing this with increased social media recruiting and working with industry partners to improve outreach. Aviation Electronics: The one available industry internship partner for this program can no longer support internships for all students in the program as required to meet student learning outcomes. This program is being placed in moratorium

Due to space constraints, Gallatin College will not be able to grow many new programs. Focus for the next seven-year review period will be on retention, graduation and pedagogy strategies that will improve all the above metrics. A review of the number of degrees awarded shows that completion rates are low in some programs, such as Aviation at 14%, and are as high as 77% and 100% in Carpentry and HVAC-R (CAS).

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
AAS	Culinary Arts		AASC	5	23	25	33	28	26	27
AAS	Aviation Electronics Tech		AVET						7	6
AAS	Aviation		AVTN	118	103	112	104	106	123	134
AAS	Design Drafting Technology		DRFT	40	27	30	29	29	37	45

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AAS	Heating, Vent, AC & Refrig		HVAC					3	11	21
AAS	Interior Design		INDE	90	103	96	78	87	88	103
AAS	IT Cybersecurity		ITCS						4	25
AAS	IT Network Technology		ITNT						2	11
AAS	Photonics and Laser Technology		PLTP	17	19	22	13	5	11	13
C	Business Mgmt Professional		BMGT	45	39	33	50	55	48	44
CAS	Bookkeeping		BOOK	23	17	19	18	11	24	14
CAS	Carpentry		CARP						13	16
CAS	CNC Machining Technology		CNC	22	20	20	22	20	23	17
CAS	Computer Network Technology		CNET	4	8	12	12	18	17	8
CAS	Healthcare Admin Professional		HADP						3	5
CAS	Health Information Coding		HIC	10	17	8	8	7	1	2
CAS	Heating, Ventilation, Air Condition , and Refrigeration CAS		HVAR					3	1	2
CAS	Medical Assistant		MEDI	32	39	37	36	30	13	13
CAS	Welding Technology		WELD	37	27	31	38	34	25	43
CTS	Cybersecurity/Information Assurance		CCIA			1	3	1	9	
CTS	Phlebotomy		PHLB						14	13
ND	Non-Degree Gallatin College		NDGC	2	6	4	4	14	4	3
TOTAL UNDERGRADUATE ENROLLMENT:				445	448	450	448	451	504	565
TOTAL ENROLLED:				445	448	450	448	451	504	565
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
AA	Associate of Arts		AA	21	25	21	31	26	20	23

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AAS	Culinary Arts		AASC			4	3	8	11	7
AAS	Aviation-Track II		AVIA			1				
AAS	Aviation		AVTN	7	15	18	17	18	14	23
AAS	Design Drafting Technology		DRFT	10	6	5	7	7	3	3
AAS	Heating, Vent, AC & Refrig		HVAC							1
AAS	Interior Design		INDE	17	12	21	25	18	23	20
AAS	IT Cybersecurity		ITCS							3
AAS	IT Network Technology		ITNT							2
AAS	Photonics and Laser Technology		PLTP		7	6	7	8	2	2
AS	Associate of Science		AS	26	43	36	41	41	42	40
BS	Aviation		AVTN			2				
C	Business Mgmt Professional		BMGT	8	17	20	9	14	21	18
CAS	Bookkeeping		BOOK	13	11	8	8	7	5	12
CAS	Carpentry		CARP							9
CAS	CNC Machining/Manufacturing		CNC	15	16	16	9	7	8	13
CAS	Computer Network Technology		CNET		2	5	6	4	3	
CAS	Healthcare Admin Professional		HADP							2
CAS	Health Information Coding		HIC	10	2	7	7	2	5	
CAS	Heating, Vent, AC, & Refrig		HVAR						2	3
CAS	Medical Assistant		MEDI	15	14	17	16	12	13	12
CAS	Phlebotomy		PHLB							1
CAS	Welding Technology		WELD	25	23	17	14	27	22	19
CTS	Cyber Security/Information		CCIA				1	1	1	
CTS	Phlebotomy		PHLB						5	9

Montana University System
2023-2024 GALLATIN WORKFORCE PROGRAMS REVIEW

<i>TOTAL DEGREES AWARDED:</i>			<i>167</i>	<i>193</i>	<i>204</i>	<i>201</i>	<i>200</i>	<i>200</i>	<i>222</i>
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Montana University System
2023-2024 HISTORY AND PHILOSOPHY PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Bachelor of Arts in History
 - History Option
 - History Teaching Option
 - Science, Environment, Technology and Society Option (SETS)
 - Bachelor of Arts in Philosophy
 - History, Master of Arts
 - History, Doctor of Philosophy
 - History Minor (Non-Teaching)
 - History Minor (Teaching)
 - Museum Studies Minor (Non-Teaching)
-

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

All degrees will be retained.

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.

On April 18-19, 2024, a three-member team conducted an on-site review of the Department of History and Philosophy programs and the programs' self-study. All three reviewers were external to History and Philosophy, and two were external to MSU. Over the course of two days, the review committee met with directors of each program, faculty, students, student services staff, as well as the executive leadership of the department and the College of Letters and Science. The review team found the History and Philosophy to be in generally strong shape and gave detailed recommendations for further improvement and refinement of the programs to address declining enrollments that are paralleling national trends in the humanities.

History Programs:

Undergraduate - Enrollments in history major options combined have exhibited a slight decline, from 143 in 2017 to 132 in 2023. There has been a slight decline in recent years in the History option, while the Science, Environment, Technology and Society (SETS) option has remained constant, and the Teaching option increased slightly. Both minors, History and Museum Studies, have seen an increase in interest. Challenges for the history program revolve around the ways and means of attracting and retaining history majors, particularly in the current national and world perspectives that stress the importance of STEM-field subjects. The slow decline in history majors—which also reflects national trends—indicates the importance of rethinking ways to present, attract, and retain students in the study of history. The slow decrease in enrollment and degrees conferred indicate that the Department will need to identify solutions to counter these trends, through assessment of curriculum and program learning outcomes, and in helping students

Montana University System
2023-2024 HISTORY AND PHILOSOPHY PROGRAM REVIEW

identify paths to degree in history together with the application of these skills and abilities to their post-university interests and activities.

Graduate – Reviewers noted a strong national reputation of MSU’s graduate programs in environmental history, history of the American West, history of science and technology, and public history. In particular, enrollment has increased in the PhD program while degrees granted remains at 1-2 per year. The PhD program has a laudable placement record given how difficult the academic job market is in history and the humanities more generally. The PhD program will continue to be a priority for the college.

Philosophy:

Of concern, the number of philosophy majors fluctuated over the review period decreasing over 7 years from 58 to 33. A dip in majors in 2018-2020 coincides with the loss of two faculty members. One of those faculty members has been replaced and enrollment briefly recovered but continued to drop again as has degrees awarded. Faculty have responded by revising the curriculum in ways to make it more flexible and more relevant to a more diverse group of students. Regular and substantive program assessment and review of these changes will be critical in the next cycle.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	History	History	HIST/HJPN	100	96	94	80	87	84	83
BA	History	Science, Environment, Technology, and Society	HSET	22	22	22	21	20	16	21
BA	History	Teaching	HTCH	21	30	31	21	30	33	29
BA	Philosophy	Philosophy	POPT/PLGR	58	45	34	30	44	39	33
BA	Religious Studies	Religious Studies	RELS	14	5					
TOTAL UNDERGRADUATE ENROLLMENT:				215	198	181	152	181	172	166
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MA	History		HIST	11	16	15	17	16	12	10
PHD	History		HIST	8	14	11	14	13	15	20
TOTAL GRADUATE ENROLLMENT:				19	30	26	31	29	27	30
TOTAL ENROLLED:				234	228	207	183	210	199	196
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023

Montana University System
2023-2024 HISTORY AND PHILOSOPHY PROGRAM REVIEW

Minor	History		HIST	25	23	44	44	35	32	33
Minor	Museum Studies		MUST	21	23	15	11	11	18	30
Minor	History Teaching		THST	47	54	51	50	38	22	23
TOTAL MINOR ENROLLED:				93	100	110	105	84	72	86
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	History	History	HIST/HJPN	33	26	36	28	22	22	26
BA	History	Science, Environment, Technology, and Society	HSET	7	8	10	5	5	7	6
BA	History	Teaching	HTCH	7	5	4	2	1	5	3
BA	Philosophy	Philosophy	POPT/PLGR	11	15	16	13	5	7	8
BA	Religious Studies	Religious Studies	RELS	9	5	3				
MA	History		HIST	3	4	3	6	8	6	6
PHD	History		HIST	3		1	1	2	2	2
TOTAL DEGREES AWARDED:				73	63	73	55	43	49	51
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	History		HIST	8	13	7	19	14	15	13
Minor	Museum Studies		MUST	4	4	9	7	4	5	4
Minor	History Teaching		THST	11	9	13	9	13	15	9
TOTAL MINORS AWARDED:				23	26	29	35	31	35	26

Montana University System
2023-2024 INDIVIDUAL INTERDISCIPLINARY PHD PROGRAM REVIEW

Institution: Montana State University

Program Years: AY2017-AY2023

List of the programs reviewed:

Doctor of Philosophy in Individual Interdisciplinary

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

This program will be retained.

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.

March 26, 2024, a three-member team conducted an on-site review of the Individual Interdisciplinary PhD (IIP) program and the program’s self-study. Two reviewers were internal to MSU and one was external to MSU. Over the course of one day, the review committee met with faculty, students, program staffer, as well as the leadership of the Graduate School. The review team noted the IIP program fills an important gap in interdisciplinary graduate education and these interactions bring faculty together in unpredictable ways to advance science and education.

The IIP program was established in 2018 and, due to the nature of the program, is administratively housed in the Graduate School. The IIP program awarded its first three degrees in 2022. The retention rate of 83% indicates that the program has been successful in retaining and graduating students. The data on employment for students who have graduated from the program provides evidence that the IIP program is producing scholars who are competitive for employment. It is also important to note that graduates of the program have ended up in diverse careers including academia and non-profits indicating that training through the program is preparing students for a wide range of employment opportunities.

Changes to the IIP program are underway to address areas for improvement, including a template for a student’s degree timeline with milestones and benchmarks, and developing community across the interdisciplinary cohorts.

ENROLLMENT										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023

Montana University System
2023-2024 INDIVIDUAL INTERDISCIPLINARY PHD PROGRAM REVIEW

PHD	Individual Interdisciplinary Program		IIP		2	5	9	11	8	8
TOTAL GRADUATE ENROLLMENT:					2	5	9	11	8	8
TOTAL ENROLLED:					2	5	9	11	8	8
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
PHD	Individual Interdisciplinary Program		IIP						3	2
TOTAL DEGREES AWARDED:									3	2

Montana University System
2023-2024 MATERIAL SCIENCES PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- MS in Materials Science
 - PhD in Material Science
-

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

The Materials Sciences programs are a joint program with Montana State University and Montana Tech. At MSU this program is administratively housed with the Graduate School with faculty and students focused in physics, chemistry, materials engineering, mechanical engineering, electrical engineering, industrial engineering, biological engineering, geology, education, and mathematics.

MSU will propose a name change for both the MS and PhD programs to *Materials Science and Engineering*. Administration of the program will remain with the Graduate School.

The faculty participants will strive to improve program assessment.

All degrees will be retained.

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 numbers of enrolled students in the MSU Material Science PhD program remains strong and is further strengthened by a new corresponding MS program. Effective Fall 2022, an MS degree, with both thesis and coursework options, was added to the doctorate offering at MSU. The MS program allows MSU students who have earned a BS/BA/BE degree in an engineering or physical science discipline to “add on” an advanced degree in a minimum of three semesters. The MS program is likely to be an effective recruiting tool for the Ph.D. program. Some students enrolled in the MS program will likely find the discovery and research-based environment highly appealing and seek to transfer into the PhD program. For those students already enrolled in the Mat Sci PhD. program who choose not to continue their program of study but remain in good standing, the MS option provides an exit ramp so that their work is recognized and rewarded.

Name change: The Montana Collaborative Materials Science (MTSI) program was initiated in 2014 as a statewide PhD program jointly operated by Montana State University (MSU), University of Montana (UM), and Montana Technological University (MTech). In 2019, the University of Montana elected to terminate their participation in the statewide collaborative program. With the UM termination, the program is seeking an originally proposed name to be more reflective of the expansive nature of the program and increase visibility of the program.

Administration of the program: Concerns had emerged regarding student advising support for students in this program as it is not the typical function of the graduate school. However, departments expressed the

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2023-2024 MATERIAL SCIENCES PROGRAM REVIEW

value of the neutral position of a staff person and new staffing has already filled potential gaps identified in the review.

Program Assessment: The initial offering of courses was well planned and designed. In order to keep relevant and continuously improve, the programs need feedback on achievement of student learning outcomes. A proposed faculty advisory committee will take the lead on program assessment. As faculty, they are in the best position to assess the extent that program learning outcomes have been met. The graduate administrator will assist with collating materials for the faculty to review.

ENROLLMENT										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MS	Material Science									1
PhD	Material Science			18	13	31	28	27	25	28
TOTAL GRADUATE ENROLLMENT:				18	13	31	28	27	25	29
TOTAL ENROLLED:				18	13	31	28	27	25	29
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MS	Material Science			0	0	0	0	0	10	3
PhD	Material Science			0	0	1	1	2	2	5
TOTAL DEGREES AWARDED:				0	0	1	1	2	12	8

Montana University System
2023-2024 MILITARY SCIENCE PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Military Air and Space Studies - Air Force ROTC (non-degree, completion can lead to commissioning)
- Military Science - Army ROTC (non-degree, completion can lead to commissioning)
- Military Studies, Minor

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

The minor will be retained and redesigned.

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.

On March 25, 2024, a four-member team conducted an on-site review of the Military programs and reviewed the program's self-study. All four reviewers were internal to MSU and external to the program and the Norm Asbjornson College of Engineering (NACOE) where the programs are housed. Over the course of a day, the review committee met with faculty, students, staff, as well as the leadership of NACOE overseeing the program.

Each ROTC unit operates under a written agreement with Montana State University (Army ROTC 1992, AFROTC 1992; each signed by MSU President Malone). The Minor in Military Studies is essentially a select collection of military related courses that are developed and maintained by the respective services. These course selections give students an in-depth treatment from a single service as well as an upper division course enhancing joint (multi-service) exposure. From a DoD perspective, this is deemed very positive as future Army and Air/Space Force officers receive enhanced exposure to a sister service that they will inevitably encounter in a military career. It is recognized that the minor has the potential to be successful and of value to the students and their program of study. However, the number of student cadet participants has been low since the 2016 program evaluation, as the minor is not required for commissioning. A commitment by the NACOE has been established to make curricular modifications to the minor that will make it more accessible to all army and air force commissioning cadets, with the goal of having nearly all commissioned cadets awarded the minor in the near future.

ENROLLMENT										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Military Studies		MILT	4	9	9	6	7	3	2

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2023-2024 MILITARY SCIENCE PROGRAM REVIEW

TOTAL MINOR ENROLLED:				4	9	9	6	7	3	2
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Military Studies		MILT	4	1	4	2	2	4	1
TOTAL MINORS AWARDED:				4	1	4	2	2	4	1

Montana University System
2023-2024 SCHOOL OF ART & SCHOOL OF FILM AND PHOTOGRAPHY PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

School of Art

- B.A. in Art Education
- B.A. in Art History
- B.A. in Liberal Arts Studio
- B.F.A. in Graphic Design
- B.F.A. in Studio Arts
- Art History Minor
- Art Education K-12 Minor

School of Film and Photography

- B.A. in Film Option
 - B.A. Photography Option
 - B.F.A. in Integrated Lens Media
 - Art, Master of Fine Arts
 - Art History, Master of Art
 - Master of Fine Arts in Science and Natural History Filmmaking
-

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

All programs will be retained.

All programs will demonstrate a more frequent program assessment than the 10 year accreditation cycle of NASAD to document continuous improvement.

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 2023 and 2024 the Schools of Art and Film & Photography proceeded with renewal of the school accreditation from the National Association of Schools of Art and Design (NASAD). The NASAD Commission voted to continue the current membership while MSU addresses the eight points for continuous improvement in the NASAD Commission Action Report. NASAD requires student portfolio reviews as part of accredited programs. Portfolio reviews (student work reviewed by faculty) in art, graphic design, photography, and film, as well as at the graduate level in art and film documented quality student work. MSU requires portfolio reviews in all programs and evidence of student work was readily available for submission. As a part of this review cycle, NASAD accreditation team also reviewed the credentials of non-tenure track faculty hired to teach art education courses. Appropriate lesson plans and student work were reviewed to ensure quality instruction.

Enrollment in and graduation from all programs, excepting minors, in the Schools of Art and Film & Photography remained at a steady level for the last 7 years. Of note is the increase in enrollment in the BFA

Montana University System
2023-2024 SCHOOL OF ART & SCHOOL OF FILM AND PHOTOGRAPHY PROGRAM REVIEW

in Integrated Lens-Based Media, established in 2018. Curriculum streamlining efforts are underway to increase retention and decrease time to degree. Updating of catalog and website language is helping to clarify degree types (BA and BFA) and potential post-graduate pathways.

NASAD is on a ten-year cycle of accreditation. Regular and substantive program assessment is critical to the 10 year review cycle. Additionally, NWCCU has recently recommended, and we concur, that externally accredited programs report on program assessment and review more frequently for evidence of consistent and continuous improvement.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Art Education	Art Education	ARTB	24	39	36	37	36	32	21
BA	Art History	Art History	ARTH	18	16	18	15	17	17	16
BA	Liberal Arts Studio	Liberal Arts Studio	ARTL	8	8	11	6	12	12	14
BFA	Graphic Design	Graphic Design	ARTG	185	183	187	182	167	180	198
BFA	Studio Arts	Studio Arts	ARTS	109	106	100	86	92	73	91
BA	Film	Film	FPPM	126	124	132	150	142	144	135
Non-degree (first year)	Film Foundations	Film	PFLM	97	98	110	73	92	74	83
BA	Photography	Photography	FPPH	91	73	62	65	56	55	54
Non-degree (first year)	Photography Foundations	Photography	PPHT	39	35	37	31	30	33	31
BFA	Integrated Lens Media	Integrated Lens Media	ILBM	na	4	4	5	20	35	43
TOTAL UNDERGRADUATE ENROLLMENT:				697	686	697	650	664	655	686
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
MFA	Art		ART	12	12	10	10	11	11	12
MA	Art History		ARST	4	2	2	4	7	10	5
MFA	Science & Natural History Filmmaking		SNHF	30	30	25	27	30	32	25
TOTAL GRADUATE ENROLLMENT:				46	44	37	41	48	53	42

Montana University System
2023-2024 SCHOOL OF ART & SCHOOL OF FILM AND PHOTOGRAPHY PROGRAM REVIEW

TOTAL ENROLLED:				743	730	734	691	712	708	728
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Art History			10	19	14	14	11	9	18
Minor	Art Education K-12			7	5	7	9	6	3	4
TOTAL MINOR ENROLLED:				17	24	21	23	17	12	22
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Art Education	Art Education	ARTB	5	2	3	3	4	9	5
BA	Art History	Art History	ARTH	1	3	4	6	1	2	1
BA	Liberal Arts Studio	Liberal Arts Studio	ARTL	1	1	1	0	0	2	0
BFA	Graphic Design	Graphic Design	ARTG	41	29	28	39	24	34	32
BFA	Studio Arts	Studio Arts	ARTS	15	17	18	14	20	20	9
BA	Film	Film	FPPM	28	27	27	37	31	40	47
BA	Photography	Photography	FPPH	27	22	24	25	23	17	13
BFA	Integrated Lens Media	Integrated Lens Media	ILBM	0	0	0	2	3	0	5
MFA	Art		ART	2	4	5	3	3	3	3
MA	Art History		ARST	1	3	0	1	0	1	3
MFA	Science & Natural History Filmmaking		SNHF	9	3	7	4	8	5	11
TOTAL DEGREES AWARDED:				130	111	117	134	118	135	129
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Art History			4	3	8	5	6	4	2

Montana University System
2023-2024 SCHOOL OF ART & SCHOOL OF FILM AND PHOTOGRAPHY PROGRAM REVIEW

Minor	Art Education K-12			0	1	2	1	3	2	0
TOTAL MINORS AWARDED:				4	4	10	6	9	6	2

Montana University System
2023-2024 SCHOOL OF ARCHITECTURE PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- Bachelor of Arts in Environmental Design
 - Master of Architecture
-

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

All programs will be retained.

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 Master of Architecture program at MSU application for continuing accreditation, including the Visiting Team Report was reviewed during the November 1-4, 2023 Board of Directors meeting of the National Architectural Accrediting Board (NAAB). The program was granted an eight-year term of Continuing Accreditation with a Plan to Correct requiring the program to address the areas of Leadership and Collaboration (curriculum) and Physical Resources. The review for accreditation of the Masters degree includes a review of the Bachelor of Arts curriculum, assessment, and advising, though the BA is not specifically accredited. The School of Architecture leadership, faculty, staff, and students are to be commended for the distinction of being NAAB accredited.

Environmental Design students at Montana State learn how to design the spaces and structures where people live, work and play. Coursework focuses on scientific knowledge, technical expertise and high-level architectural design thinking both inside the studio and in the community at large. The Environmental Design program is specifically designed to prepare all graduates for acceptance into a Master of Architecture program, which licenses that candidate to work as a professional in the field. Enrollment is growing in the Environmental Design program without direct impact on enrollment in the Masters of Architecture.

The faculty are developing ways to meet the criteria requiring “students to understand approaches to leadership in multidisciplinary teams, diverse stakeholder constituents, and dynamic and social contexts, and learn how to apply effective collaboration skills to solve complex problems”. This development includes revising coursework across three current courses to be inclusive of these skills. With the increased enrollment in the Environmental Design program, physical resources are currently being challenged. The School has addressed deficiencies in the near term to meet current growth with additional longer-term space plans for accommodating predicted additional growth.

Montana University System
2023-2024 SCHOOL OF ARCHITECTURE PROGRAM REVIEW

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Environmental Design	Second year plus	ENVD	152	145	143	171	172	194	200
Non-degree (first year)	Environmental Design	Environmental Design Foundations	PEVD	109	124	149	126	144	151	151
TOTAL UNDERGRADUATE ENROLLMENT:				261	269	292	297	316	345	351
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
M Architecture			ARCH	70	71	63	67	68	44	54
TOTAL GRADUATE ENROLLMENT:				70	71	63	67	68	44	54
TOTAL ENROLLED:				70	71	63	67	68	44	54
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Environmental Design			40	36	38	44	50	29	43
M Architecture	Architecture			25	30	36	32	27	39	23
TOTAL DEGREES AWARDED:				65	66	74	76	77	68	67

Montana University System
2023-2024 SCHOOL OF MUSIC PROGRAM REVIEW

Institution: **Montana State University**

Program Years: **AY2017-AY2023**

List of the programs reviewed:

- B.A. in Music
 - B.A. in Music Technology
 - Bachelor of Music Education
 - Music Minor (Non-Teaching)
 - Master of Music in Music Education
-

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

All programs will be retained.

Consider impact of changing the BA in Music to a Bachelor of Musical Arts.

All programs are encouraged to participate in the established program assessment process at MSU to meet the assessment requirements for NASM standards and bridge to the MSU continuous improvement processes.

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 2023 and 2024 the School of Music participated in their National Association of Schools of Music (NASM) accreditation process. The NASM Commission on Accreditation acted on MSU's application for review during their June 2024 meeting. The Commission voted to continue MSU's current membership status and asked MSU to address nine areas before considering the current application for accreditation.

Music technology is the largest music program and is currently adequately staffed. The program is preparing to move into new space in Gianforte Hall (under construction) to strengthen the links between the School of Computing and School of Music programs. The Music minor has been experiencing some decline while enrollment and graduation from the Bachelors of Music Education continues at a steady pace. Of promise for music education in general, the Masters of Music Education Online has seen substantial enrollment in its inaugural two years.

In the NASM report it was noted that students and the school would benefit from changing the Bachelor of Arts in Music (BA Music) to a Bachelor of Musical Arts (BMA). The BMA is considered a more useful degree and more in alignment with the current curriculum at MSU. The School of Music should review the impact on their curriculum and the career demand data to make a proposal for such a degree change. Overall, the School of Music should consider the current lengthy time to degree of their programs and streamline curriculum to improve student retention and reduce student time to degree. Additionally, NWCCU university accreditors have recently recommended, and we concur, that externally accredited programs bridge to the established MSU program assessment and review processes to support the programs in their need for evidence of consistent and continuous improvement.

Montana University System
2023-2024 SCHOOL OF MUSIC PROGRAM REVIEW

Of note, the School of Music is an integral part of MSU as it serves substantially more non-majors than majors through non-major participation in the various bands and choirs, specific instrument and voice courses, and the sizeable inquiry arts courses in the Core curriculum. To bolster their programs and support for non-majors, the school recently added three new tenure-track positions to the faculty, two in the applied music area and one in music technology.

ENROLLMENT										
DEGREE	MAJOR 1, 2, 2nd DEGREE	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Music		MUS	32	31	29	33	37	27	23
BA	Music Technology		MTEC	89	84	82	77	83	66	78
B Music Education	Music Education		MUED	43	38	47	45	47	47	47
TOTAL UNDERGRADUATE ENROLLMENT:				164	153	158	155	167	140	148
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
M Music	Music Education		MUEO						10	18
TOTAL GRADUATE ENROLLMENT:									10	18
TOTAL ENROLLED:				164	153	158	155	167	150	166
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Music (non-teaching)		MUS	29	31	25	26	31	17	17
TOTAL MINOR ENROLLED:				29	31	25	26	31	17	17
AWARDED DEGREES										
DEGREE	MAJOR	CONCENTRATION	CONC	2017	2018	2019	2020	2021	2022	2023
BA	Music		MUS	4	5	7	2	4	6	5

Montana University System
2023-2024 SCHOOL OF MUSIC PROGRAM REVIEW

BA	Music Technology		MTEC	9	13	9	7	8	14	5
B Music Education	Music Education		MUED	3	7	8	6	7	3	7
M Music	Music Education	(no graduates yet, new program)	MUEO						na	na
TOTAL DEGREES AWARDED:				16	25	24	15	19	23	17
AWARDED MINORS										
	MINOR DESCRIPTION		CONC	2017	2018	2019	2020	2021	2022	2023
Minor	Music (non-teaching)		MUS	1	7	7	8	8	7	5
TOTAL MINORS AWARDED:				1	7	7	8	8	7	5