ACADEMIC ITEM APPROVAL MEMORANDUM

Compiled here are academic items approved since the March Board of Regents Meeting. This memorandum from January, February, March, and April 2021, contains items for which approval authority has been designated by the Board of Regents to the individual institutions or the Commissioner of Higher Education. The items before you have been approved and are now being shared with you for your notification.

- January 2021 Academic Item Memorandum
- February 2021 Academic Item Memorandum
- March 2021 Academic Item Memorandum
- April 2021 Academic Item Memorandum

ACADEMIC ITEMS MEMORANDUM

DATE: February 10, 2021

TO: Chief Academic Officers, Montana University System

FROM: Brock Tessman, Deputy Commissioner for Academic, Research, and Student Affairs

RE: January 2021 Academic Items

Contained within this memorandum are Level II proposals submitted by the institutions of the Montana University System in January 2021. These proposals include items for which approval authority has been designated by the Board of Regents to the individual institutions or the Commissioner of Higher Education. These Level II items are being sent to you for your review. If you have concerns about a particular proposal, you should share those concerns with your colleagues at that institution and try to come to some understanding. If you cannot resolve your concerns, raise them at the Chief Academic Officer's conference call on Wednesday, February 17. Issues not resolved at that meeting should be submitted in writing to OCHE by noon on Friday, February 19. You will be notified of approved proposals by Tuesday, February 23. The Board of Regents will be notified of the approved proposals at their March meeting.

LEVEL II ITEMS:

1. **OCHE Approvals**

   Montana State University Bozeman:
   - Request to Offer an Astronomy and Astrophysics Option Within the Physics B.S.
     Item #2013-LII0121 | Curriculum Form | Fiscal Form | Request to Plan Form

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

March/2021

ITEM 2013-R0321

ITEM TITLE

Institution: **Montana State University** CIP Code: **40.02**

Program/Center/Institute Title: **Physics BS - Astronomy and Astrophysics Option**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: X

Options: _____

Proposal Summary [360 words maximum]

What:
The Astronomy and Astrophysics Option would be one of the four options toward a BS in physics. The three other options are: Professional Option, Interdisciplinary Option, and Teaching Option. The Astronomy and Astrophysics Option is intended primarily as preparation for graduate work in astrophysics or astronomy or for a career in astrophysics or astronomy or space science. The Astronomy and Astrophysics Option offers suggested paths for students who want to emphasize experimental studies or theoretical studies by providing a sound background in both the experimental and theoretical fundamentals of physics, mathematics, astronomy, and astrophysics.

Why:
The Astronomy and Astrophysics program will prepare undergraduate students to get involved in frontier research in astronomy and astrophysics and prepare them for graduate work in astronomy and astrophysics, including graduate work at MSU, as well as prepare students for careers in astronomy, astrophysics, and space science science, as well as careers in Montana's growing tech industry. The interest of our students in pursuing graduate work or careers in astronomy and astrophysics is very strong. A recent poll showed over 33% of our current physics majors are "very interested" in the proposed program. In 2017 and 2018, 67% of students with physics bachelor's degrees went into the private sector (www.aip.org). Of those going into engineering, more than 75% use their knowledge of physics/astronomy weekly, and about 70% use simulations or modeling weekly. The program's emphasis on data analysis and simulations will thus prepare our students well for careers in Montana's growing high technology industry. The program will also foster diversity in the region's workforce, given the higher participation of woman in astronomy/astrophysics.

Resources:
Some faculty time will be needed for development of new ASTR 372 and revised ASTR 373 courses. The resources (~35K in equipment) needed for ASTR 475 will be obtained by a combination of course lab fees, departmental support, and EPAC requests. Teaching assistantships and added staff time needed to support the ASTR 373 and 475 would be incorporated into the annual Physics budgets request to the Dean. Course would be blended until pandemic over, then face-to-face.

ATTACHMENTS

- Approved Request to Plan (Approved September 2020)
- Curriculum Proposal Form
- Fiscal Analysis Form

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ACADEMIC PROPOSAL REQUEST FORM

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ **A. Level I:**

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

____ **3. Establishing a B.A.S./A.A./A.S. area of study**

____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

____ **5. Re-titling an existing postsecondary educational program**

____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

X **B. Level II:**

X **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

____ **5. Re-titling an academic, administrative, or research unit**

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CURRICULUM PROPOSAL FORM

1. **Overview of the request and resulting changes.** Provide a one-paragraph description of the proposed program. Will this program be related or tied to other programs on campus? Describe any changes to existing program(s) that this program will replace or modify. *[100 words]*

   The Astronomy and Astrophysics Option would be one of the four options toward a BS in physics at MSU. The three other options are: Professional Option, Interdisciplinary Option, and Teaching Option. The Astronomy and Astrophysics Option is intended primarily as preparation for graduate work in astrophysics or astronomy or for a career in astrophysics or astronomy or space science. The Astronomy and Astrophysics Option offers suggested paths for students who want to emphasize experimental studies or theoretical studies, while providing a sound background in both the experimental and theoretical fundamentals of physics, mathematics, astronomy, and astrophysics.

2. **Relation to institutional strategic goals.** Describe the nature and purpose of the new program in the context of the institution's mission and core themes. [200 words]

   MSU GOAL 2.3: Strengthen institutional reputation in scholarship;
   The program will increase undergraduate research opportunities, better prepare our students for post-MSU graduate work or careers and will increase the research productivity of MSU. The program will increase enrollment in MUS by enticing the growing number of out-of-state students who are interested in astronomy and astrophysics.

   MSU GOAL 3.3: Metric 5; Diversity & Inclusion Framework: Theme: Access and Success; Goal: Recruit, promote the success of, and foster a sense of security and belonging for a diverse student body, faculty and staff.
   The program will foster increased female participation in physics at MSU, as national astro programs typically have a higher ratio of women to men than do physics-only programs. According to Source: www.aip.org/statistics/reports/women-physics-and-astronomy-2019, in 2017, women earned 21% of physics bachelors' degrees and 20% of physics doctorates, whereas, in that same year, women earned 33% of astronomy bachelors' degrees and 40% of astronomy doctorates. Additionally, in the 2007–2016 Longitudinal Study of Astronomy Graduate Students, the study found no gender differences in salary for astronomy doctoral recipients as of 2015–16. Early and mid-career astronomy salaries (1-8 years after graduation) also had no significant difference between men and women. (Longitudinal study of Astronomy Graduate Students (2007-2016).

3. **Process leading to submission.** Briefly detail the planning, development, and approval process of the program at the institution. *[100 words]*
   The program was in response to interest from undergraduate students. The physics faculty in astronomy and astrophysics at MSU met and initially considered a minor in astronomy, but concluded there was significant demand and sufficient faculty resources to offer an option in astronomy and astrophysics. The astro faculty developed the curriculum and outlined the new courses, working with the physics undergraduate committee. The program was submitted through MSU CIM Program Management workflow. A request to plan was approved by BOR in September 2020.

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CURRICULUM PROPOSAL FORM

4. **Program description.** Please include a complete listing of the proposed new curriculum in Appendix A of this document.

   a. List the program requirements using the following table.

	Credits
Credits in required courses offered by the department offering the program	61
Credits in required courses offered by other departments	26
Credits in institutional general education curriculum	21
Credits of free electives	12
Total credits required to complete the program	120

   b. List the program learning outcomes for the proposed program. Use learner-centered statements that indicate what students will know, be able to do, and/or value or appreciate as a result of completing the program.

   Graduates in the Astronomy and Astrophysics Option will
   1. Effectively communicate scientific concepts related to the field of astronomy and/or astrophysics
   2. Analyze problems in physics and mathematical concepts as they pertain to the field of astronomy and astrophysics.
   3. Develop strategies and solutions to solve those problems as they pertain to the field of astronomy and astrophysics.
   4. Demonstrate critical thinking by applying appropriate mathematical tools and computational methods to physics, astronomy, and astrophysics problems.

5. **Need for the program.** To what specific student, regional, and statewide needs is the institution responding to with the proposed program? How will the proposed program meet those needs? Consider workforce, student, economic, societal, and transfer needs in your response as appropriate. *[250 words]*

   The Astronomy and Astrophysics program will prepare undergraduate students to get involved in frontier research in astronomy and astrophysics and prepare them for graduate work in astronomy and astrophysics, including graduate work at MSU, as well as prepare students for careers in astronomy, astrophysics, and space science. The interest of our students in pursuing graduate work or careers in astronomy and astrophysics is very strong. A recent poll showed over 33% of our current physics majors are "very interested" in the proposed program.

   In 2018, according to datausa.io, there were over 4300 people in the physics sciences workforce in Montana with average salaries over $62K (Workforce number for astronomy are lumped in with the physics sciences). Nationally over 1.1M are in the physics sciences workforce with an annual growth rate of 2.37% and average salaries of $109K. The number of degrees in astronomy and astrophysics awarded in 2015 grew by 15% and in 2017 grew by 20.3% (aip.org). The average out of state tuition paid in this field is $49K.

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In 2017 and 2018, 67% of students with physics bachelor's degrees went into the private sector (www.aip.org). Of those going into engineering, more than 75% use their knowledge of physics/astronomy weekly, and about 70% use simulations or modeling weekly. The program's emphasis on data analysis and simulations will thus prepare our students well for careers in Montana's growing high technology industry. The program will also foster diversity in the region's workforce, given the higher participation of woman in astronomy/astrophysics.

6. **Similar programs.** Use the table below to identify and describe the relationship between any similar programs within the Montana University System.

Institution Name	Degree	Program Title
UM	BS	Physics (with astronomy concentration)

a. If the proposed program substantially duplicates another program offered in the Montana University System, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. *[200 words]*

The program does not substantially duplicate another program.

b. Describe any efforts that were made to collaborate with similar programs at other institutions. If no efforts were made, please explain why. [200 words]

The University of Montana has an astronomy concentration as part of their physics major, but not an astronomy or astrophysics option or major nor an astrophysics concentration. The proposed astronomy and astrophysics option has some overlap with the existing UM astronomy concentration, but the two programs have significant differences in course requirements. UM and MSU have different kinds of expertise in astronomy and astrophysics, and the proposed MSU astronomy option will take advantage of the expertise we have at MSU. We spoke to Andrew Ware, the department chair at UM physics/astronomy, about MSU's proposed option. He was supportive and we discussed possible areas of collaboration that could result from the MSU option and that would benefit the UM physics program. One possibility is to collaboratively development a proposal for a National Science Foundation (NSF) funded Research for Undergraduates (REU) at MSU that UM students could attend. Another possibility is to do distance learning of some of the astronomy courses we will be teaching as part of the option, which could enhance the UM astronomy concentration. The implementation will depend on resources available for development of distance learning capability and proposing and winning a REU grant.

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7. **Implementation of the program.** When will the program be first offered? If implementation will occur in phases, please describe the phased implementation plans. *[100 words]*

   Courses will be developed and updated prior to start of program. ASTR 372 will be developed and first taught Fall 2021. ASTR 373 will be updated, reduced to 3 credits, and first taught Spring 2022. ASTR 475 will be developed (4 credits, 3 lecture/ 1 lab). A reduced version of ASTR 475 was taught Spring 2020 (as a Special Topics Course PHSX 491). What was learned from this offering of PHSX 491 provided the knowledge needed for the request for resources (see below) for ASTR 475, which will be taught in Fall annually starting Fall 2021.

   These new courses would also be popular electives for Physics majors in the professional and interdisciplinary options and for students in the Astrobiology minor. Students will be welcomed in the program in Fall 2021, starting with about 10 students and growing from there.

   a. Complete the following table indicating the projected enrollments in and graduates from the proposed program.

Fall Headcount Enrollment					Graduates				
AY22	AY23	AY24	AY25	AY26	AY___	AY___	AY___	AY___	AY___
25	32	37	43	49					

   b. Describe the methodology and sources for determining the enrollment and graduation projections above. *[200 words]*

      Our strength in astronomy and astrophysics has attracted a large number of graduate school applications (the stated interests of about 50% of applicants to MSU's physics PhD program are in the areas of astronomy or astrophysics). The interest in astronomy is strong in undergraduates. An October 2020 SurveyMonkey poll of current physics majors found the 83% of the respondents (N=35) were very interested in the astronomy and astrophysics option. 89% were very interested in taking the one or more astronomy or astrophysics courses. Student advisors claim that over a quarter of their advisees would like to pursue the astronomy and astrophysics option. The interest extends beyond our majors, to incoming freshman across the spectrum. In the past five years, 4783 students have taken ASTRO 110IN Introduction to Astronomy: Mysteries of the Sky (an average of 950 annually). The program would offer these students the option to pursue their interest with a dedicated program. The program would attract incoming freshman interested in astronomy and astrophysics to MSU, both in- state and out-of-state, when our current program is listed as an astronomy program in college catalogs, which it is not now.

   c. What is the initial capacity for the program?
      About 25 students per year. About 100 total.

8. **Program assessment.** How will success of the program be determined? What action would result if this definition of success is not met? *[150 words]*

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1) Percentage of physics majors that graduate with the Astronomy and Astrophysics Option each year (goal of being greater than 25% of our majors), mostly coming from increase numbers of physics majors.
2) Placement of our graduates in astronomy related graduate programs or careers
3) Increase in undergraduate research activities in astronomy and astrophysics

If numbers are not met, listings in college search resource catalogs and databases will be reviewed and edited to reflect the new opportunities at MSU. The program's presence at college fairs will be enhanced.
If the program in the end is unsuccessful, it will be placed in moratorium and students will be phased back into the other BS physics degree options. Continuation of added astronomy and astrophysics courses will depend on student demand for the individual courses.

a. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program. When will assessment activities occur and at what frequency? *[150 words]*
The physics department has an assessment plan for its current options (Professional option, Interdisciplinary option, and Teaching option). The same assessment plan will assess the Astronomy and Astrophysics option. The plan assesses the courses and options annually, assessing the achievement of learning outcomes on a rotating basis.

b. What direct and indirect measures will be used to assess student learning? *[100 words]*
Data is collected from instructors on incoming students and current students to assess whether they are meeting learning outcomes of prior and current courses. The data is tabulated and evaluated by the Physic Undergraduate Curriculum Committee and reported to the Department Head.

c. How will you ensure that the assessment findings will be used to ensure the quality of the program? *[100 words]*
It is the responsibility of the Department Head to act on the report provided by the Undergraduate Curriculum Committee.

d. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation. *[100 words]*

Physics does not have an individual accreditation. The physics department helps in MSU's Northwest Commission of Colleges and Universities (NWCCU) accreditation. Physics is also a service department for several engineering departments and physics supports the accreditation of these departments.

9. Physical resources.

a. Describe the existing facilities, equipment, space, laboratory instruments, computer(s), or other physical equipment available to support the successful implementation of the program. What will be the impact

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on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated? *[200 words]*

ASTR 475 was taught last year as a special topics course (PHSX 491-001 Sp: Observational Astronomy) to 11 with existing telescope and camera. Additional resources will be needed (as described below) when course is converted to ASTR 475 and taught to approximately 25 students annually.

The program will utilize the Physics Department's extensive optics demo and lab equipment in the MSU Physics Demo Room for demonstration in classroom and labs and for lab equipment for labs in observational astronomy. Students in the program will also take advantage of resources in MSU's Space Science Engineering Lab.

b. List needed facilities, equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. (Enter the costs of those physical resources into the budget sheet.) How will the need for these additional resources be met? [150 words]

The main resources that will be needed are for developing and teaching ASTR 475. Some effort will be needed for the instructors of ASTR 372 and 373 to develop/adapt their courses.
The resources needed for ASTR 475 will be obtained by a combination of course lab fees, departmental support, and EPAC requests.
The resources needed for ASTR 475 include:
Equipment: (~$35K)
-A second telescope + camera, $10k
-Two spectrographs, 2x $10k
-Two clam shell domes for top of AJM, 2x 1$K
-Two laptops for the telescope + camera, 2x $1500, maybe e-waste
-Ability to utilize optics laboratory equipment in the Physics equipment room in AJM

Space and scheduling:
-Utilize AJMs optics laboratory equipment in the MSU Physics Demo Room
-Need schedule room for lab in AJM
-A 2 hour lab session a week, plus 1 hour unscheduled (observing)
-Looking for ways to reduce light pollution on AJM from NAH building to improve observing conditions at AJM or build a new observing facility on top of Cobleigh Hall.

10. Personnel resources.

a. Describe the <u>existing</u> instructional, support, and administrative resources available to support the successful implementation of the program. What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained? *[200 words]*

MSU has strong and internationally recognized research in astronomy and astrophysics currently led by seven tenure track faculty members. The teaching of the astronomy and astrophysics courses in the

option would be taught by this faculty. These faculty also teach non-astro courses as part of their annual teaching load. There is sufficient faculty instructional support within the Physics Department to handle new courses, along with the existing. The new program would have a positive impact on the existing option by providing additional elective courses for student in the other options.

Identify new personnel that must be hired to support the proposed program. (Enter the costs of those personnel resources into the budget sheet.) What are the anticipated sources or plans to secure the needed qualified faculty and staff? *[150 words]*

Teaching assistantship and staff time. These would be incorporated into the annual Physics budgets request to the Dean.
- Additional dedicated TA for the labs plus 3h + grading = ~9-10 hours of TA duties per week
- Additional time of the Physics Instructional Lab Supervisor for getting together demos in AJM lab room
- Support for 1/2 month summer salary for instructor for development time (Summer 2021)
- Funding for grad students and Instructional Lab Supervisor to help develop labs

11. Other resources.

a. Are the available library and information resources adequate for the proposed program? If not, how will adequate resources be obtained? *[100 words]*

Current library resources are adequate, provided they are continued.

b. Do existing student services have the capacity to accommodate the proposed program? What are the implications of the new program on services for the rest of the student body? *[150 words]*

The impact and implications of the new program on student services will be minimal.

12. Revenues and expenditures. Describe the implications of the new program on the financial situation of the institution. *[100 words]*

The new program will have a minor negative financial impact the first year and have a net positive financial impact after the first year. The increased number of out-of-state students attracted to MSU by the program will increase tuition income. Federal research funding in astronomy and astrophysics is also expected to increase as a result of the program, however this income is not included in the fiscal analysis below.

a. Please complete the following table of budget projections using the corresponding information from the fiscal analysis form for the first three years of operation of the new program.

	Year 1	Year 2	Year 3
Revenues	$98,759	$83,438	$98,840
Expenses	103,171	$68,171	$58,671
Net Income/Deficit (revenues-expenses)	-$4,412	$15,267	$40,169

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b. Describe any expenses anticipated with the implementation of the new program. How will these expenses be met? *[200 words]*

The main resources that will be needed are for developing and teaching ASTR 475. Support for will be needed for the instructors of ASTR 372 and 373 to develop/adapt their courses. This will be met by departmental support.
The resources needed for ASTR 475 will be obtained by a combination of course lab fees, departmental support, and EPAC requests.

i. If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs? *[150 words]*

As the program is estimated to be a net income plus from the beginning, the slight reallocation to support it will minimal. The net income will help to support other programs.

ii. If an increase in base funding is required to fund the program, indicate the amount of additional base funding and the fiscal year when the institution plans to include the base funding in the department's budget.

No increase in base funding is anticipated for this program.

iii. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends? *[150 words]*

One-time funding from departmental support and Equipment Fee Allocation Committee (EFAC) requests will supplement lab fees for equipment needed to develop and equip ASTR 475. Once developed and equipped, that funding need not be sustained. Equipment repair and upgrade will be handled with funds from lab fees. Sustained funding for TAs will be supported by the net positive income.

iv. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? *[150 words]*

The main federal support for this program is thru individual and joint faculty research grants that support the undergraduate research experiences in astronomy and astrophysics. The current faculty in astronomy and astrophysics have a strong record in obtaining research funding and that is expected to continue, and likely increase due to the positive impacts of the new program on our department's reputation as now being recognized as having an astronomy and astrophysics degree.

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13. Student fees. If the proposed program intends to impose new course, class, lab, or program fees, please list the type and amount of the fee.

The new ASTR 475 Observational Astronomy course will have a lab fee of $40 to support equipment repair and upgrade.

14. Complete the fiscal analysis form.

See attached.

Signature/Date

College or School Dean: DocuSigned by: Yves Idzerda 8DE4E931C0AE486... 12/16/2020 | 9:07 AM MST

Chief Academic Officer: DocuSigned by: Robert Mokwa 212A28411AC04BD... 12/16/2020 | 9:07 AM MST

Chief Executive Officer: DocuSigned by: 7D6A4CE96C3F415... 12/16/2020 | 9:07 AM MST

Flagship Provost*: DocuSigned by: Robert Mokwa 212A28411AC04BD... 12/16/2020 | 9:07 AM MST

Flagship President*: DocuSigned by: 7D6A4CE96C3F415... 12/16/2020 | 9:07 AM MST

*Not applicable to the Community Colleges.

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Appendix A – Proposed New Curriculum

ASTR-BS : Physics BS - Astronomy and Astrophysics Option

Freshman Year	Credits	
	Fall	Spring
PHSX 240 - Honors Gen & Mod Phys I	4	
M 181Q - Honors Calculus I	4	
University Core and Electives	7	
PHSX 242 - Honors Gen & Mod Phys II		4
M 182Q - Honors Calculus II		4
Biol, Chem, or Earth Science Electives		4
University Core and Electives		3
Year Total:	15	15
Sophomore Year	Credits	
	Fall	Spring
PHSX 200 - Research Programs in Physics	1	
PHSX 224 - Physics III	4	
PHSX 261 - Laboratory Electronics I	3	
M 283Q - Honors Multivariable Calculus	4	
University Core and Electives	3	
PHSX 301 - Introduction to Theoretical Physics		3
M 284 - Honors Introduction to Differential Equations		4
University Core and Electives		8
Year Total:	15	15
Junior Year	Credits	
	Fall	Spring
PHSX 320 - Classical Mechanics	3	
PHSX 331 - Meth of Computational Physics	1	
PHSX 343 - Modern Physics	3	
ASTR 372 – (New Course) Galactic Astronomy	3	
PHSX 490R - Undergraduate Research	1	
Technical Electives	3	

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University Core and Electives	1	
PHSX 423 - Electricity and Magnetism I		3
PHSX 446 - Thermodynamics & Statistical Mechanics		3
ASTR 373 – (Revised course) Extra-Galactic Astronomy)		3
Directed Electives		3
University Core and Electives		3
Year Total:	15	15
Senior Year	Credits	
	Fall	Spring
PHSX 425 - Electricity and Magnetism II	3	
PHSX 461 - Quantum Mechanics I	3	
ASTR 475 – (New Course) Observational Astronomy)	4	
PHSX 490R - Undergraduate Research	1	
Technical Electives	1	
University Core and Electives	3	
PHSX 435 - Astrophysics		3
PHSX 499R - Senior Capstone Seminar		1
Directed Electives		3
Technical Electives		3
University Core and Electives		5
Year Total:	15	15
Total Program Credits:	120	

The 7 credits of Technical Electives are to be selected from PHSX, ASTR, M, STAT, CSCI, ELEE, and EMEC courses numbered 300 and above. The 6 credits of Directed Electives are to be selected from PHSX 262, PHSX 444, PHSX 451, PHSX 462, M 348, STAT 332, STAT 441, STAT 412, CSCI 347. Courses cannot be double counted for Technical Electives and Directed Electives, but extra Directed Electives can be counted as Technical Electives. Technical Electives and Directed Electives elective can include no more than 1 credit of PHSX 494, 3 credits of PHSX 492, or 3 credits of PHSX 490R, Technical Electives and Directed Electives elective can include no more than 4 credits of the combination of PHSX 494, PHSX 492, and PHSX 490R. PHSX 401, PHSX 402, PHSX 403, and PHSX 405 cannot be counted towards Technical Electives and Directed Electives. A minimum of 120 credits is required for graduation; 42 of these credits must be in courses numbered 300 and above. A student changing majors or with unusual circumstances can substitute PHSX 220 for PHSX 240 or PHSX 222 for PHSX 242 with academic advisor's approval.

Academic Degree Program Proposal - Fiscal Analysis Form

CAMPUS:	Bozeman
AWARD LEVEL:	UG
PROGRAM NAME:	BS in Physics, Astronomy and Astrophysics Option
PROGRAM CODE:	

	FY2022	FY2023	FY2024	FY2025	FY2026
ENROLLMENT PROJECTIONS					
Headcount					
annual unduplicated headcount of students with declared major or minor within the program	25	32	37	43	49
Credit Hours					
annual avg. credits hours earned per student in program related curriculum	7	7	7	7	7
Student FTE					
Undergrad: (Headcount x CH)/30 Graduate: (Headcount x CH)/24	5.833333333	7.466666667	8.633333333	10.03333333	11.43333333
Completions					
Annual number of program completers	5	9	10	12	14
REVENUE					
Tuition Revenue (net of waivers)	$62,759	$82,438	$97,840	$116,738	$136,602
Institutional Support					
Other Outside Funds (grants, gifts, etc.)	$35,000				
Program Tuition/Fees	$1,000	$1,000	$1,000	$1,000	$1,000
Total Revenue	**$98,759**	**$83,438**	**$98,840**	**$117,738**	**$137,602**
Total Revenue per Student FTE	**$16,930**	**$11,175**	**$11,449**	**$11,735**	**$12,035**
EXPENDITURES					
Tenure Track Faculty — FTE	0.2	0.2	0.2	0.2	0.2
Tenure Track Faculty — Salary + Benefits	$20,230	$20,230	$20,230	$20,230	$20,230
Non-tenure Track Faculty *Includes Adjunct Instructors — FTE	0.2	0.2	0.2	0.2	0.2
Non-tenure Track Faculty *Includes Adjunct Instructors — Salary + Benefits	$14,280	$14,280	$14,280	$14,280	$14,280
Graduate Teaching Assistants — FTE	1.0	1.0	1.0	1.0	1.0
Graduate Teaching Assistants — Salary + Benefits	$18,059	$18,059	$18,059	$18,059	$18,059
Staff — FTE	0.1	0.1	0.1	0.1	0.1
Staff — Salary + Benefits	$4,102	$4,102	$4,102	$4,102	$4,102
Total Faculty & Staff — FTE	1.5	1.5	1.5	1.5	1.5
Total Faculty & Staff — Salary + Benefits	**$56,671**	**$56,671**	**$56,671**	**$56,671**	**$56,671**
Operations (supplies, travel, rent, etc)	$2,000	$2,000	$2,000	$2,000	$2,000
Start-up Expenses (OTO)	$44,500	$9,500			
Total Expenses	**$103,171**	**$68,171**	**$58,671**	**$58,671**	**$58,671**
Student FTE to Faculty (TT + NTT) Ratio	**14.6**	**18.7**	**21.6**	**25.1**	**28.6**
Net Income/Deficit (Revenue - Expenses)	**-$4,412**	**$15,267**	**$40,169**	**$59,067**	**$78,931**

The signature of the campus Chief Financial Officer signifies that he/she has reviewed and assessed the fiscal soundness of the proposal and provided his/her recommendations to the Chief Academic Officer as necessary.

DocuSigned by:
5302B65C2C4746C...

Campus Chief Financial Officer Signature

Chief Financial Officer Comments

NOTE: Credit hours in program (row 14) are depicting the new credit hours that will be needed to offer this option. Other credits in the curriculum will be taught within existing capacity. This allows alignment between revenue generated for these courses and their expense.
Headcount and program completers are total in the program.

Montana University System

REQUEST TO PLAN FORM

ITEM 190-2003-R0920 **Meeting Date: September 2020**

Item Name

Program/Center/Institute Title: **Physics BS - Astronomy and Astrophysics Option**

Planned 6-digit CIP code: **40.02**

Campus, School/Department: **MSU, Physics**

Expected Final Submission Date: **Nov 2020**

Contact Name/Info: **Wm. Randall Babbitt**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) Provide a description of the program/center/institute.

The Astronomy and Astrophysics Option would be one of the four options toward a BS in physics. The three other options are: Professional Option, Interdisciplinary Option, and Teaching Option.
The Astronomy and Astrophysics Option is intended primarily as preparation for graduate work in astrophysics or astronomy or for a career in astrophysics or astronomy or space science. The Astronomy and Astrophysics Option offers suggested paths for students who want to emphasize experimental studies or theoretical studies, while providing a sound background in both the experimental and theoretical fundamentals of physics, mathematics, astronomy, and astrophysics.

2) Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).

The interest of students nationally in pursuing graduate work or careers in astronomy and astrophysics is very strong. MSU has an internationally recognized strong research program in astronomy and astrophysics, which is currently led by five tenure track faculty members and several research faculty. Our strength in astronomy and astrophysicists has attracted a large number of graduate school applications (the stated interests of about 50% of applicants to MSU's physics PhD program are in the area of astronomy or astrophysics). The interest in astronomy is strong in undergraduates. Advisors claim that over a quarter of their advisees would take like to pursue the astronomy and astrophysicists option. The interest extends beyond our majors, to incoming freshman across the spectrum. In the past five years, 4783 students have taken ASTRO 110IN Introduction to Astronomy: Mysteries of the Sky (an average of 950 annually). Yet, we do not capitalize on this interest, by offering these students the option to pursue their interest with a dedicated program. We would use ASTR 110IN as a recruiting tool for the new option. We also are currently missing the opportunity to attract incoming freshman interested in astronomy and astrophysics to MSU physics, both in-state and out-of-state, as our current program is not listed as an astronomy program in college catalogs. Thus, this program fills the need of our current and prospective undergraduate students desire to get involved in frontier research in astronomy and astrophysics and go on to graduate work or careers in astronomy and astrophysics. The program also enhances the educational opportunities of students involved in MSU's Space Science Engineering Lab (SSEL).

In 2018, according to datausa.io, there were over 4300 people in the physics sciences workforce in Montana with average salaries over $62K (Workforce number for astronomy are lumped in with the physics sciences). Nationally

Montana University System
REQUEST TO PLAN FORM

over $1.1M are in the physics sciences workforce with a growth rate of 2.37% and average salaries of $109K. The number of degrees in astronomy and astrophysics awarded in 2015 grew by 15% (aip.org) and in 2017 grew by 20.3%. The average out of state tuition paid in this field is $49K.

According to **https://www.aip.org/statistics/reports/employment-and-careers-physics** , in 2017 and 2018 combined, 67% of students with bachelors degrees in physics went into the private sector. Of those who go into careers in engineering, more than 75% use their knowledge of physics and/or astronomy on a weekly basis, and about 70% use simulations or modeling on a weekly basis. Students in the astronomy option will get strong training in data analysis and some training in simulations, preparing them for careers in the growing tech industry of the Gallatin Valley.

3) Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.

The main resources that will be needed are for developing and teaching ASTR 475. Some time will be needed for the instructors of ASTR 372 and 373 to develop/adapt their courses.

The resources needed for ASTR 475 will be obtained by a combination of course lab fees, departmental support, and EPAF requests.

4) Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).

The University of Montana has an astronomy concentration as part of their physics major, but not an astronomy or astrophysics option or major nor an astrophysics concentration. The proposed astronomy and astrophysics option has some overlap with the existing UM astronomy concentration, but the two programs have significant differences in course requirements. UM and MSU have different kinds of expertise in astronomy and astrophysics, and the proposed MSU astronomy option will take advantage of the expertise we have at MSU. We spoke to Andrew Ware, the department chair at UM physics/astronomy, about MSU's proposed option. He was supportive and we discussed possible areas of collaboration that could result from the MSU option and that would benefit the UM physics program. One possibility is for collaborative development of REU programs at MSU that UM students could attend. Another possibility is to do distance learning of some of the astronomy courses we will be teaching as part of the option, which could enhance the UM astronomy concentration. The implementation will depend on resources available for development of distance learning capability and proposing and winning a REU grant.

5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

The proposed program will increase undergraduate research opportunities, better prepare our students for post-MSU graduate work or careers, and increase the research productivity of MSU. The program will increase enrollment in MUS by enticing the growing number of out-of-state students interested in astronomy and astrophysics.

The option will also increase our female population in physics at MSU, as national astro-programs typically have a higher ratio of women to men than do physics-only programs. According to Source: https://www.aip.org/statistics/reports/women-physics-and-astronomy-2019, in 2017, women earned 21% of physics bachelors' degrees and 20% of physics doctorates, whereas, in that same year, women earned 33% of astronomy bachelors' degrees and 40% of astronomy doctorates. Additionally, in the 2007–2016 Longitudinal Study of Astronomy Graduate Students, the study found no gender differences in salary for astronomy doctoral recipients as of 2015–16.

Montana University System
REQUEST TO PLAN FORM

Early and mid-career astronomy salaries (1-8 years after graduation) also had no significant difference between men and women. (Longitudinal study of Astronomy Graduate Students (2007-2016).

Montana University System

REQUEST TO PLAN FORM

Signature/Date	
Chief Academic Officer: DocuSigned by: Robert Mokwa 212A28411AC04BD...	7/8/2020 | 2:37 PM MDT
Chief Research Officer*:	
Chief Executive Officer: DocuSigned by: 7D6A4CE96C3F415...	7/8/2020 | 2:37 PM MDT
Flagship Provost:** DocuSigned by: Robert Mokwa 212A28411AC04BD...	7/8/2020 | 2:37 PM MDT
Flagship President:** DocuSigned by: 7D6A4CE96C3F415...	7/8/2020 | 2:37 PM MDT
*Center/Institute Proposal only **Not applicable to the Community Colleges.	

FOR OCHE USE	
Labor market outlook	
Related programs / centers / institutes	
CAO discussion and follow-up	
ARSA/BOR comment and direction for Level II proposal	

ACADEMIC ITEMS MEMORANDUM

DATE: March 8, 2021

TO: Chief Academic Officers, Montana University System

FROM: Brock Tessman, Deputy Commissioner for Academic, Research, and Student Affairs

RE: February 2021 Academic Items

Contained within this memorandum are Level I and Level II proposals submitted by the institutions of the Montana University System in February 2021. These proposals include items for which approval authority has been designated by the Board of Regents to the individual institutions or the Commissioner of Higher Education. These Level I and Level II items are being sent to you for your review. If you have concerns about a particular proposal, you should share those concerns with your colleagues at that institution and try to come to some understanding. If you cannot resolve your concerns, raise them at the Chief Academic Officer's conference call on Tuesday, March 16, 2021. Issues not resolved at that meeting should be submitted in writing to OCHE by noon on Friday, March 19, 2021. You will be notified of approved proposals by Tuesday, March 23, 2021. The Board of Regents will be notified of the approved proposals at the May meeting of the Board.

LEVEL I ITEMS:

1. **Campus Approvals**

Flathead Valley Community College:

- Notification of Establishment of a C.T.S. in Biotechnology
  Item #301-LI0221
- Notification of Establishment of a C.T.S. in Social Media Marketing
  Item #302-LI0221

Montana State University – Bozeman:

- Notification of Establishment of Graduate Certificate in Mental Health Support
  Item #2011-LI0221

Great Falls College Montana State University:

- Notification of Placement of the A.A.S. in Renewable Energy Technician into Moratorium
  Item #2901-LI0221 | Moratorium Form | Attachment #1

2. **OCHE Approvals**

University of Montana – Missoula:

- Request for Authorization to Retitle the Organismal Biology, Ecology, and Evolution Ph.D. to Ecology and Evolution
  Item #1001-LI0221
- Request for Authorization to Terminate the Bioinformatics Professional Certificate
  Item #1002-LI0221 | Termination Form

LEVEL II ITEMS:

University of Montana – Missoula:

- Request for Authorization to Establish the Montana Repertory Theatre as a Center
  Item #1003-LII0221 | Research Center and Institute Proposal Form | Request to Plan Form

Montana Technological University:

- Request for Authorization to Establish a M.S. in Geological Engineering and Adjust Options Within M.S. in Geosciences
  Item #1501-LII0221 | Curriculum Proposal Form | Request to Plan Form

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 301-L10221

Notification of the establishment of a C.T.S. in Biotechnology

Institution: **Flathead Valley Community College** CIP Code: **41.0101**

Program/Center/Institute Title: **C.T.S. in Biotechnology**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: The Biotechnology CTS program will offer a hands-on, competency-based instruction to prepare students for entry-level positions in the biosciences industry. Students completing this program will be prepared for the Biosciences Assistant Credentialing Exam (BACE), which is an industry-recognized credential.

Why: Through conversations and meetings with the Kalispell Chamber of Commerce Biosciences Alliance (started in July 2019) and the Montana Bioscience Alliance, there are clear indications that Montana is experiencing growth in a variety of biosciences sectors. In meetings with industry representatives from Montana-based companies, employers in this sector report that they have difficulty finding locally trained personnel and generally recruit employees from outside Montana. Although each specific company has unique requirements for employee training and experience, the industry representatives have generally agreed that an entry-level certificate program would be a first step in providing a path to employment in local and regional bioscience companies.

Resources: No additional resources needed.

ATTACHMENTS

Click or tap here to enter text.

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 302-L10221

Notification of the establishment of a C.T.S. in Social Media Marketing

Institution: **Flathead Valley Community College** CIP Code: **52.1401**

Program/Center/Institute Title: **C.T.S. in Social Media Marketing**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: This certificate of technical studies program is designed to for those who want to learn and/or improve skills in social media marketing and use those skills to enhance a new or existing business. Most courses in this certificate can be applied to the AAS Business Administration and AAS Small Business Management programs.

Why: Employers and advisory members from several different programs inspired this program. The majority of marketing for small businesses is currently performed through social media. These campaigns are very effective; however, also very time intensive. Employers would like to have the technical help to maintain web pages, and social media marketing campaigns.

Resources: No additional resources needed.

ATTACHMENTS

Click or tap here to enter text.

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X **A. Level I:**

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 2011-LI0221

Notification of Establishment of Graduate Certificate in Mental Health Support

Institution: **Montana State University- Bozeman** CIP Code: **51.1508**

Program/Center/Institute Title: **Mental Health Support Certificate, College of Education, Health and Human Development,**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: X Blended Offering: ____

Options: This is an online graduate certificate.

Proposal Summary [360 words maximum]

What: This is a proposal to create a 12-credit graduate certificate in Mental Health Support. Students of this certificate will learn valuable skills to assess, assist and refer individuals who may have concerning behavior in various settings – schools, libraries, non-profits, higher education, etc. This will help anyone who would like to know more about mental health, what support is available, and how to take steps to help individuals that may need it. Currently, this type of curriculum is not being offered in the Montana University System. This program will fill a very important gap to provide these resources, coursework, and training to individuals who could benefit from mental health knowledge and awareness. This certificate can provide a pathway to gain valuable mental health training.

Why: Mental health is a continually growing concern and more professionals in areas that are not counseling focused are reaching out for programming that will give them the tools and skills to assist them in their work with students, faculty, staff, and the general public. MSU and Bozeman K-12 professionals as well as EHHD graduate students have reached out for additional training in these areas. The state of Montana is also rated high for suicide rates across the nation. Because of this, it is important for K-12 teachers, university professionals, and other professionals to have a better understanding of the basics of mental health.

Resources: Costs associated with this program include one-time course development and on-going teaching and program oversight. Courses will be offered in summer and during snowmester. Courses are being developed with funds from an awarded grant. Summer tuition returns will cover costs of instruction and program oversight. No additional resources are being requested for this program.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

x A. Level I:

Campus Approvals

1a. Placing a postsecondary educational program into moratorium (Program Termination and Moratorium Form)

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ **B. Level II:**

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 2901-L10221

Notification of Placement of the A.A.S. in Renewable Energy Technician into Moratorium

Institution: **Great Falls College Montana State University** CIP Code: **15.0503**

Program/Center/Institute Title: **A.A.S. in Renewable Energy Technician**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Great Falls College Montana State University is notifying the Board of Regents of its intent to place in moratorium the Associate of Applied Science in Renewable Energy Technician.

Why: In February 2021 the Great Falls College MSU Executive Team approved placing this program into moratorium (attachment 1). The program is being placed in moratorium due to multiple years of low enrollment. The program director will be working with industry partners to determine what changes may need to be made to make it a more viable program. A teach-out plan is in place for students for AY2021/2022.

Resources: None

ATTACHMENTS

Program Termination/Moratorium Form
Attachment 1

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

X **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

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3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana University System

PROGRAM TERMINATION/MORATORIUM FORM

Please complete the following questionnaire prior to submission of a program for termination or placement into moratorium. Please add additional comments beneath each question where applicable.

Program Title: **Renewable Energy Technician Associate of Applied Science**

Program is being **X** **Placed into moratorium** ____ **Terminated**

1. **Are there currently students enrolled in the program? (If yes, please answer questions a - c below.)** **Y: X N: ____**

   a.) **Have all students currently enrolled in the program been met with and informed of the impending termination/moratorium?** **Y: X N: ____**

   b.) **What is the expected graduation date of all students from the program?**

   Spring 2022

   c.) **Have course offerings been planned to allow for students in the program to complete the degree in a reasonable fashion?** **Y: X N: ____**

2. **Will any faculty layoffs or changes in working conditions occur because of the termination/moratorium? (If yes, please answer questions a - b below.)** **Y: X N: ____**

   a.) **Have the faculty affected by the program termination/moratorium been notified?** **Y: X N: ____**

Montana University System
PROGRAM TERMINATION/MORATORIUM FORM

b.) Please describe any layoffs that will occur including the date expected?

One adjunct instructor may be laid off May 2022.

3. The following parties, where applicable, have been notified of the impending program termination/moratorium. (Please mark X for completed, NA for not applicable):

a.) Internal Curriculum Committees X

b.) Faculty Senate X

c.) Program Public Advisory Committee X

d.) Articulation Partners N/A

4. Has there been any negative feedback received from students, faculty, or other constituents regarding the impending termination/moratorium? (If yes, please explain below.) **Y:** ____ **N:** X

Executive Team Meeting Notes
February 8, 2021 | 9:30-11:00 am | Video Conference

Members:

Dr. Susan J. Wolff, CEO/Dean
Dr. Leanne Frost, Executive Director of Instruction
Ms. Mary Kay Bonilla, Chief Student Affairs and Human Resources Officer
Ms. Lorene Jaynes, Chief of Staff
Ms. Carmen Roberts, Executive Director of Operations
Mr. Scott Thompson, Director of Communications & Marketing

Guests:

Ms. Mandy Wright, Interim Director of Library Services, Assessment, and Teaching & Learning Center
Ms. Jeri Pullum, Special Projects Coordinator

Guests

1. **Approve Assessment Committee-CPBAC Subcommittee**	***Presenter:*** *Ms. Wright, Ms. Pullum, Dr. Frost*	***ET Lead:*** *Dr. Frost*

The Assessment Committee met on Friday. They determined a name change was in order to alleviate confusion with institutional assessment. The Student Learning Assessment Committee's charge will include recommending campus policy, resource allocation recommendations, and supporting faculty through the assessment process and offering peer review of program assessment reports. It will be faculty driven with membership including faculty and staff. The Committee will report to CPBAC rather than Faculty Senate, as its role is more institutionally overarching. The committee is working on defining its charge and membership.

The Executive Team voted unanimously to accept the Student Learning Assessment Committee as an official campus committee.

Standing Items

1. **Healthy Campus Task Force**	***Presenter:*** *Dr. Frost*	***ET Lead:*** *Dr. Frost*

The MUS has announced that campuses will be able to hold some form of in-person commence ceremonies. Great Falls College is still in process of determining how that will happen.

Spring semester is going very well.

2. **CARES Act Funding**	***Presenter:*** *Ms. Bonilla/Ms. Roberts*	***ET Lead:*** *Ms. Bonilla/Ms. Roberts*

Student Emergency Funding: We are still waiting for more guidance on student distribution.

Institutional Funding Distribution: We received authorization from OCHE to spend some of these funds on a server room generator. The focus this round will be on infrastructure to ensure we are prepared if we need to go remote again.

3. **Legislative Report**	***Presenter:*** *Dr. Wolff*	***ET Lead:*** *Dr. Wolff*

Dr. Wolff shared information on a request from a legislative representative regarding programming for prison education. The college will provide baseline information at this time.

Agenda

1. **Safety Protocols – Evening**	***Presenter:*** *Dr. Wolff*	***ET Lead:***

As a reminder, the college has security available in the evenings and to always make sure meetings with the possibility of confrontation are held in a location where there is an easy exit.

2. **Data Requests**	***Presenter:*** *Ms. Bonilla*	***ET Lead:***

As the Research Analyst will be out on leave soon, it will need to be determined who will handle new data requests. Dr. Wolff will get more information and reminded that Tableau is available to find information, as well.

3. **Graduation Plans**	***Presenter:*** *Ms. Bonilla*	***ET Lead:***

Ms. Bonilla shared the beginning stages of planning for the college's May 8 commencement has begun. Event venues are being contacted to determine the safest option. There will be no food or reception held.

4. **Spring Pinning Ceremonies on Campus**	***Presenter:*** *Ms. Roberts*	***ET Lead:***

The nursing students requested to hold their pinning ceremony in Heritage Hall with a live broadcast for family and friends. The Executive Team approved this request for all pinning ceremonies be held in this fashion.

It has also been requested to hold a piano recital for five students in Heritage Hall this spring. They would like to invite two guests each. There will be no refreshments. The Executive Team approved the recital provided guests sign in with their name and a contact phone number upon arrival.

5. Community Events on Campus	***Presenter:*** *Dr. Wolff*	***ET Lead:***
It will be determined this summer whether campus is ready to reopen to community events.		

6. Renewable Energy Technician AAS	***Presenter:*** *Dr. Frost*	***ET Lead:***
Dr. Frost met with the trade's faculty and staff regarding the future of the program. They would like to focus on more short-term credentials, modules, and industry-recognized credentials. At this time, it was requested to place the AAS (only) in moratorium. The Executive Team approved moving the Renewable Energy Technician AAS into moratorium.		

7. Options in Behavioral Science	***Presenter:*** *Dr. Frost*	***ET Lead:***
Following up on a request from admissions for behavioral science degree options, it was discovered that the college is only two classes away from creating a pathway to UM's bachelor's in social work. The addition of these classes would also strengthen agreements already in place with MSU partners. The request was specific to addiction counseling, which could be created as an AS in addiction counseling, which would qualify as CTE as it is a terminal degree. Data supports the addition of this type of a program in central Montana. Dr. Frost will move forward with the process to add the two courses and paperwork to develop the AS degree. *see attached		

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 1001-LI0221

Request for authorization to retitle the Organismal Biology, Ecology, and Evolution PhD to Ecology and Evolution

Institution: **University of Montana – Missoula** CIP Code: **26.1310**

Program/Center/Institute Title: **Division of Biological Sciences, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: ____ Blended Offering: X

Options: ____

Proposal Summary [360 words maximum]

What:
The University of Montana-Missoula requests authorization from the Montana Board of Regents to retitle the Organismal Biology, Ecology, and Evolution doctorate to Ecology and Evolution.

Why:
For several years, faculty within the current program have recognized that, although our current name (Organismal Biology, Ecology, and Evolution) is a relatively complete description, the name simply is clunky and difficult to say or remember. We have encountered confusion among students and faculty when talking about this program, and we believe that the current name does not resonate well with students. The proposed shorter name (Ecology and Evolution) is easier to remember, more approachable, and captures the essence of what we do.

Resources:
No additional resources are required.

ATTACHMENTS
No attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X **A. Level I:**

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

1b. Withdrawing a postsecondary educational program from moratorium

2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

X **5. Re-titling an existing postsecondary educational program**

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 1002-LI0221

Request for authorization to terminate the Bioinformatics Professional certificate

Institution: **University of Montana – Missoula** CIP Code: **11.0104**

Program/Center/Institute Title: **Department of Computer Science, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What:
The University of Montana-Missoula requests authorization from the Montana Board of Regents to terminate the Bioinformatics Professional certificate.

Why:
There is no student interest in this certificate, and the Computer Science department is simplifying its curriculum.

Resources:
No additional resources are required.

ATTACHMENTS

Program Termination and Moratorium form

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X **A. Level I:**

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

X **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana University System

PROGRAM TERMINATION/MORATORIUM FORM

Please complete the following questionnaire prior to submission of a program for termination or placement into moratorium. Please add additional comments beneath each question where applicable.

Program Title: **Bioinformatics Professional certificate**

Program is being ____ **Placed into moratorium** **X** **Terminated**

1. **Are there currently students enrolled in the program? (If yes, please answer questions a - c below.)** **Y:** ____ **N:** **X**

   a.) **Have all students currently enrolled in the program been met with and informed of the impending termination/moratorium?** **Y:** ____ **N:** ____

   b.) **What is the expected graduation date of all students from the program?**

   c.) **Have course offerings been planned to allow for students in the program to complete the degree in a reasonable fashion?** **Y:** ____ **N:** ____

2. **Will any faculty layoffs or changes in working conditions occur because of the termination/moratorium? (If yes, please answer questions a - b below.)** **Y:** ____ **N:** **X**

   a.) **Have the faculty affected by the program termination/moratorium been notified?** **Y:** ____ **N:** ____

   b.) **Please describe any layoffs that will occur including the date expected?**

Montana University System
PROGRAM TERMINATION/MORATORIUM FORM

3. The following parties, where applicable, have been notified of the impending program termination/moratorium. (Please mark X for completed, NA for not applicable):

a.) Internal Curriculum Committees X

b.) Faculty Senate X

c.) Program Public Advisory Committee NA

d.) Articulation Partners NA

4. Has there been any negative feedback received from students, faculty, or other constituents regarding the impending termination/moratorium? (If yes, please explain below.) Y: ____ N: X

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

February 2021

ITEM 1003-LII0221

Request for authorization to establish the Montana Repertory Theatre as a Center

Institution: **University of Montana – Missoula** CIP Code: **24.0199**

Program/Center/Institute Title: **College of the Arts and Media**

Includes (please specify below): Face-to-face Offering: _____ Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What:
The University of Montana-Missoula request authorization from the Montana Board of Regents to establish the Montana Repertory Theatre as a Center.

Why:
Montana Repertory Theatre is seeking designation as a center after 53 years of operations. This designation will aid MT Rep in fundraising, branding and other areas. Becoming a center will strengthen the theatre company and expand the contribution the company can make to UM and its students.

Montana Rep is one of the only Equity theatres in the state of Montana. In addition to offering a full season of professional-caliber theatre on UM's campus and the surrounding community, Montana Rep is also a crucial recruitment tool for UM's Theatre program. The Rep has regularly hired UM students and recent graduates for all facets of production from acting and directing to design and technology. Students can also earn points toward union membership on the Rep's Equity tours.

Resources:
No additional resources are required.

ATTACHMENTS

Research Center/Institute Proposal form
Request to Plan form

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

X B. Level II:

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

X **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

Research Centers and Institutes differ from one another in focus, scope, and staffing, but each contributes in unique ways to the common goals of expanding knowledge, generating new discoveries and/or having a positive impact on society through informing policy and systemic change. Communities of researchers and staff in Research Centers and Institutes provide a stimulating environment that encourages early researchers and challenges experienced researchers. Research Centers and Institutes also contribute to the education and training of the researchers of the future by serving as learning environments for students. Interdisciplinary collaboration is promoted by Research Centers and Institutes both within the Institution and among MUS Institutions. Research Centers and Institutes do not provide didactic coursework, confer academic degrees or academic certificates or require accreditation by external accrediting bodies. Research Centers and Institutes frequently provide a portal for obtaining external funding in response to federal and/or state research priorities. As such, apparent duplication of mission between MUS research centers and institutes is not generally problematic as with academic programs due to the different sources of funding.

1. State the proposed Institute/Center's name and purpose.

Montana Repertory Theatre is the professional theatre in residence at the University of Montana-Missoula.

2. A comprehensive statement of the Institute/Center's mission and its relationship to the University mission.

A. State the Institute/Center's mission.

UM's mission statement places focus on "high quality and accessible education". Montana Rep has produced theatre and arts education featuring some of the top talent in American theatre for over half a century.

B. Identify the Institute/Center's goals and objectives.

Montana Rep stands at the cross-section of educational and professional theatre, producing work that celebrates, engages and challenges the people of Missoula and the state of Montana.

C. What specific need is being responded to in developing the proposed Institute/Center?

Montana Rep is one of the only Equity theatres in the state of Montana. Designation as a Center will improve the Rep's ability to contribute to the wider UM community, and to the entire state and region.

D. Describe how the Institute/Center benefits the department, college, or institution.

In addition to offering a full season of professional-caliber theatre on UM's campus and the surrounding community, Montana Rep is also a crucial recruitment tool for UM's Theatre program. The Rep has regularly hired UM students and recent graduates for all facets of production from acting and directing to design and technology. Students can also earn points toward union membership on the Rep's Equity tours.

E. Describe the Institute/Center's relationship to the University mission.

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

UM's mission prioritizes "world-class research and creative scholarship". Montana Rep has offered a full season of theatrical art to Montanans for over half a century. Our guest artists have included Pulitzer Prize winners, Oscar/Tony/Emmy winners, MacArthur Genius Fellows, and more.

3. Briefly describe the Institute/Center's anticipated activities.

Montana Rep will continue to produce a full season (spring tour, fall tour, summer playwriting intensive and 1-2 local productions) as it has done since its inception in 1967.

A. Identify faculty expertise available for participation in the Institute/Center's activities.

Montana Rep's Artistic Director is Michael Legg, who is also a member of the Acting/Directing Faculty in UM's School of Theatre & Dance. UM Faculty have also been hired by the Rep for artistic positions including acting, directing, and designing.

B. Which departments on campus will be involved and how will the Institute/Center contribute to the academic programs of the institution?

Montana Rep collaborates with other units across campus, and has enjoyed a longstanding partnership with the School of Theatre and Dance. We have also frequently collaborated with students and faculty in the School of Media Arts. We have also collaborated or formed partnerships with the School of Education, the Payne Family Native American Center and more. Students are eligible for UM credit in exchange for working on Rep projects. Perhaps most importantly, the Rep offers professional opportunities to students both during and directly following their time at UM.

4. Identify the organizational structure of the Institute/Center within the institution.

The Rep's organizational structure:
Michael Legg as the Artistic Director is the direct supervisor to Teresa Waldorf (Educational Outreach), Jason McDaniel (Production Manager), and Salina Chatlain (Program Coordinator). Michael Legg reports directly to Laurie Baefsky, Dean of the College of the Arts and Media.

A. Identify all agencies, organizations and/or institutions that will be involved.

Montana Rep is largely self-sufficient. However, we do frequently partner with the School of Theatre and Dance, as well as other partners on campus and in the wider Missoula community (Media Arts, Payne Center, United Way, etc.).

B. Identify advisory council information.

Montana Rep, as a part of the College of the Arts and Media, falls under the purview of the CAM Advisory Board. We are also in the process of creating a board that is specific to Montana Rep, to act in an advisory capacity and assist in fundraising.

5. Identify first year and continuing finances necessary to support the Center/Institute, including the sources of funding.

We operate on a combination of state appropriations, grants, ticket sales, and donations. Our budget is approximately $400,000 per year.

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

A. Will additional faculty and other resources be required to implement this Center/Institute? If yes, please describe the need and indicate the plan for meeting this need.

No additional resources are required.

B. Are other, additional resources required to ensure the success of the proposed Center/Institute? If yes, please describe the need and indicate the plan for meeting this need.

No additional resources are required.

6. Describe other similar Centers/Institutes or research capacities in the state and surrounding region.

Off-campus, the most prominent theatrical entity in Missoula is the Missoula Children's Theater. MCT's local programming is largely musical and intended for young audiences. Montana Rep has offerings in each season for young viewers, but also a great deal of edgier, more obscure work. The Rep also hosts an annual Summer playwriting intensive, the most recent of which featured Martyna Majok, winner of the 2018 Pulitzer Prize for Drama.

A. Describe the relationship between the proposed Center/Institute and any similar Centers/Institutes, programs, or research capacities within the Montana University System.

The Rep's Artistic Director has been cultivating a relationship with the leadership at Montana Shakespeare in the Parks (MSU). It is the Rep's intention to continue building this connection with our MSU sister organization, and we hope to produce work in cooperation with this company in future.

B. In cases of substantial duplication, explain the rationale for the proposed Center/Institute.

Montana Rep is the only Equity (union) theatre in Missoula, and the only Equity theatre in the state to offer a full season of programming. Montana Shakespeare in the Parks is the most similar center in the MUS system. However, because the Rep is dedicated primarily to new works, there is no overlap in programming and the two organizations are in fact a perfect complement to each other.

7. Assessment: How will the success of the center/institute be measured?

Montana Rep celebrated its 50th anniversary in 2017. Under new leadership now for over two years, the Rep is evolving to meet the challenges of the modern professional theatre scene. Our success is measured in the quality of the art that we produce, and the impact it has on our audience. And of course simple attendance numbers are an important metric for determining success.

8. State the internal campus review and approval process which has occurred prior to submission to the Commissioner's Office. Indicate, where appropriate, involvement by faculty, students, community members, professional constituencies, etc.

Montana Rep's application to become a center has received approvals from the Dean of the College of Arts and Media, and the UM Provost. The Request to Plan was approved by the Board of Regents in September 2020.

Montana University System

REQUEST TO PLAN FORM

ITEM 1003-LII0221 **March 2020**

Request for authorization to establish the Montana Repertory Theatre as a center

Program/Center/Institute Title: **Montana Repertory Theatre** Planned 6-digit CIP code: **36.0117**

Campus, School/Department: **University of Montana** Expected Final Submission Date: **March 2021**

Contact Name/Info: **Michael Legg, Artistic Director – michael.legg@montanarep.com**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) Provide a description of the program/center/institute.

Mission Statement

Montana Repertory Theatre stands at the cross-section of educational and professional theatre, producing work that engages, challenges and celebrates Missoula and the state of Montana.

Background and History

Montana Repertory Theatre is the professional theatre-in-residence at the University of Montana. Established in 1967, The Rep has been a cornerstone of the arts in Montana for over half a century and is currently the only full-season Equity Theatre in the entire state. The Rep began its life as a regional touring operation, serving primarily the state of Montana. In the mid-90s, the touring operation underwent a vast expansion, making the annual spring production a national tour. As the market and logistics for theatrical touring evolve, Montana Rep is evolving as well. For most of its existence The Rep placed a focus on the "Great American Canon" with traditional offerings like Death of a Salesman, the Miracle Worker, and To Kill a Mockingbird. Under new leadership since summer 2018, The Rep is refocusing its efforts to benefit the state of Montana, and fast becoming a bastion in this part of the country for new works by a diverse community of artists. The Rep has not forsaken its commitment to great American works, but we have adopted a new mission to strengthen the relevance of our contribution through new works. In the year and a half since its leadership transition, Montana Rep has commissioned works from ten playwrights from all over the country and produced the world premiere of Go. Please. Go. by Emily Feldman. A central tenet of Montana Rep's new philosophy is diversity- in the playwrights we commission, the artists we hire, and the stories we tell. Montana Repertory Theatre is an invaluable institution in the arts landscape of Montana, and the company is newly dedicated to standing at the forefront of modern American Theatre.

2) Describe the need for the program/center/institute.

Montana Rep has offered professional theatre and theatre education to Montanans for over 50 years. The Rep's programming reaches at least 10,000 Montanans every year. The Rep has performed and/or taught in almost every county in the state, and most of the state's Indian Reservations. Particularly through our Educational Outreach program, which is free for Montana students and is offered at significant discounts for schools with financial hardship, Montana Rep brings the arts and arts education to the most sparsely populated and underserved areas of the state. The Rep is also

Montana University System
REQUEST TO PLAN FORM

a prime recruiting tool for the University of Montana. The inclusion of a professional theatre company in residence creates a unique opportunity for students searching for a theatre training program. Whether in acting/directing, design or stage management, the potential for landing a professional gig with Montana Rep has drawn hundreds of students to UM's Theatre & Dance program. Each year, dozens of current UM students as well as recent UM graduates are hired for Rep projects. Additionally, our new works initiative has drawn an impressive list of nationally-renowned artists to Missoula to share their work. Most recently, we welcomed Martyna Majok, winner of the 2018 Pulitzer Prize for Drama, to UM for a week of workshops, panel and discussions, and a reading of her new play. The Rep is also in a position to forge unique partnerships with a variety of organizations around the country, including Native Voices at the Autry in Los Angeles and the New York City Children's Theater, and organizations closer to home like the Warren Miller Performing Arts Center in Big Sky and UM's Payne Family Native American Center. Under new leadership for two years, the Rep has been operating under a new commitment to diversity in programming and hiring practices, which is expanding our national profile and aligning the Rep with the important and exciting work being done by the most reputable companies operating in modern American theatre.

3) Describe any significant new resources needed to launch and sustain program/center/institute.

Montana Rep has been operational for over a half century. Although we are always evolving and striving for improvement, the Rep's operation is well-established and functional, and no significant additional resources will be needed to move forward.

4) Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions.

Montana Rep is partnering with UM's Curry Health Center and UM's Social Work program on our upcoming production of "Zombie Thoughts" which explores the issue of severe anxiety in children. The Rep is also collaborating with UM's VETS (Veterans Education and Transition Services) organization on our upcoming production of "Reentry" which is a documentary play about American veterans returning from service in Afghanistan. The Rep is also being advised by the Payne Family Native American Center, which will act as a vital partner in the Rep's developing project to commission and produce an original theatrical work by an indigenous artist. The Rep has also worked closely with UM's Media Arts program on numerous occasions, including our next Educational Outreach production, for which Media Arts students have been contracted to develop video content. The Rep's most important and longstanding relationship is of course with the University of Montana's School of Theatre & Dance, in which the Rep is officially considered the theatre-in-residence. This mutually beneficial partnership has existed for as long as the company itself. Montana Rep intends to strengthen these existing relationships and looks forward to partnering with other UM and MUS organizations in the coming seasons.

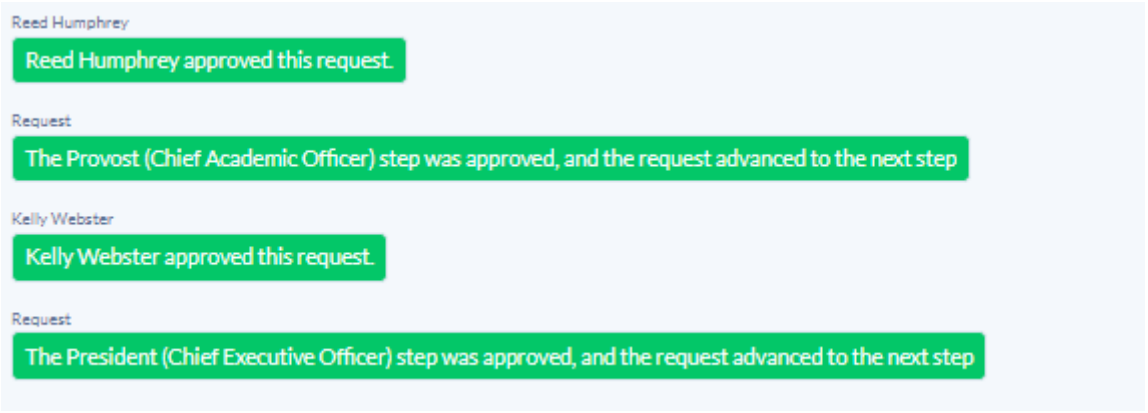
5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

The University of Montana boasts a rare opportunity to potential students through Montana Repertory Theatre. Most state universities do not have a professional theatre-in-residence, and the inclusion of such an entity has been the deciding factor for many who have chosen UM. Students and recent graduates who work with Montana Rep on Equity productions can earn points and achieve Equity (Actors and Stage Managers Labor Union) status by working and touring

Montana University System
REQUEST TO PLAN FORM

with Montana Rep. Touring with Montana Rep requires young artists to take on a variety of responsibilities, whether it's actors hanging lights or stage managers playing cameo roles onstage. Working with Montana Rep during their college experience ensures that UM students will have a more well-rounded, practical, and reality-based education, and also leads to professional connections that are essential to finding work beyond college.

Signature/Date
Chief Academic Officer:
Chief Research Officer*:
Chief Executive Officer:
Flagship Provost: Approved in Coursedog**
Flagship President: Approved in Coursedog**



*Center/Institute Proposal only
**Not applicable to the Community Colleges.

FOR OCHE USE	
Labor market outlook	

Montana University System

REQUEST TO PLAN FORM

Related programs / centers / institutes	
CAO discussion and follow-up	
ARSA/BOR comment and direction for Level II proposal	

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

March 2021

ITEM 190-1501-R0920

Request to establish an M.S. in Geological Engineering and adjust options within the M.S. in Geosciences

Institution: **Montana Technological University** CIP Code: **14.39.01**

Program/Center/Institute Title: **M.S. Geological Engineering**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Montana Technological University requests authorization from the Montana Board of Regents to establish an M.S. in Geological Engineering and adjust options within the M.S. in Geosciences

Why: The M.S. degree in Geoscience has seven options: four in geoscience (engineering geology, geochemistry, geology, and hydrogeology) and three in engineering (geological engineering, geophysical engineering and hydrogeological engineering). This request consists of separating the seven options into two M.S. degrees, changing the name of one option, and adding an additional option. The four geoscience options would remain in the Geoscience M.S. and would be joined by an option in geophysics (renamed from geophysical engineering). The geological engineering option would be elevated to the proposed new M.S. in Geological Engineering, which would include options in hydrogeological engineering (existing) and geotechnical engineering (new).

Resources: No new resources are needed.

ATTACHMENTS

Curriculum Proposal Form
Request to Plan

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

1a. Placing a postsecondary educational program into moratorium (Program Termination and Moratorium Form)

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

1b. Withdrawing a postsecondary educational program from moratorium

2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

X **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

CURRICULUM PROPOSAL FORM

1. **Overview of the request and resulting changes.** Provide a one-paragraph description of the proposed program. Will this program be related or tied to other programs on campus? Describe any changes to existing program(s) that this program will replace or modify. *[100 words]*

The successful master's degree in Geoscience has seven options: four in science (geochemistry, geology, engineering geology, and hydrogeology) and three in engineering (geological engineering, geophysical engineering, and hydrogeological engineering). This proposal would separate the options into two master's degrees: the science options would remain in the Geoscience M.S., while the engineering options would move to a new M.S. in Geological Engineering. A new option in geotechnical engineering would be added to the engineering degree. The option in geophysical engineering would be renamed geophysics and remain in the Geoscience M.S.

2. **Relation to institutional strategic goals.** Describe the nature and purpose of the new program in the context of the institution's mission and core themes. *[200 words]*

The proposed M.S. in Geological Engineering directly fits Montana Tech's mission by providing exemplary graduate-level engineering education that blends theory with practice to prepare graduates equipped to meet the changing needs of society. This discipline contributes especially strongly to the responsible development and use of natural resources and protection from natural hazards. The curriculum exists and is successful, typically enrolling on the order of one third of the students in the Geoscience M.S. This proposal also improves alignment between the degree curriculum and the degree name for students in the engineering options, and it facilitates professional registration for geological engineering graduates.

The proposed new geotechnical engineering option fills an important niche between geological engineering and civil engineering. Changing the name of the geophysical engineering option to the geophysics option aligns with Montana Tech's decision to eliminate the ABET-accredited B.S. program in geophysical engineering and reflects its strong existing science focus. Typically engineering graduate degree programs build on an ABET-accredited undergraduate program, and Montana Tech terminated this degree during program prioritization.

3. **Process leading to submission.** Briefly detail the planning, development, and approval process of the program at the institution. *[100 words]*

Individuals with a M.S. in Geological Engineering and related fields are in high demand, and they are well positioned for professional registration and employment as engineers. Faculty have been discussing and considering separating the geological engineering options into a separate degree for several years. The program proposal was developed by the Geological Engineering Department, which offers all the engineering options, reviewed and coordinated by other faculty and departments involved with the Geoscience M.S., approved by the department, the School of Mines and Engineering, the Graduate Council, Curriculum Review Committee, and Faculty Senate.

4. **Program description.** Please include a complete listing of the proposed new curriculum in Appendix A of this document.

The Geoscience M.S. program offers a thesis track, non-thesis track, and publishable-paper track for seven options: engineering geology, geochemistry, geological engineering, geology, geophysical engineering, hydrogeology, and hydrogeological engineering . The thesis and publishable-paper tracks

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give students deep research experience on a particular topic, and the degree requires 30 credits. The non-thesis option requires 36 credits, including a project that is much smaller than a thesis or publishable paper. The Geoscience M.S. tracks and requirements will not be changed, and the new Geological Engineering M.S. will have the same *tracks and requirements* as the Geoscience M.S. program, but with different specific curricular requirements, reflecting the engineering character.

a. List the program requirements using the following table.

Existing and Continuing MS Geoscience Degree Options	Credits Thesis Track	Credits Nonthesis Track
Credits in required courses offered by the department offering the program	9 to 15	9 to 15
Credits in required courses offered by other departments	2	2
Credits of M.S. Thesis (8 credits) or Project (3 credits)	8	3
Credits of relevant technical advanced electives	5 to 11	16 to 22
Total credits required to complete the program	30	36

Proposed MS Geological Engineering Degree and Proposed Options	Credits Thesis Track	Credits Nonthesis Track
Credits in required courses offered by the department offering the program	6 to 16	6 to 16
Credits in required courses offered by other departments	2	2
Credits of M.S. Thesis (8 credits) or Project (3 credits)	8	3
Credits of relevant technical advanced electives	4 to 14	15 to 25
Total credits required to complete the program	30	36

b. List the program learning outcomes for the proposed program. Use learner-centered statements that indicate what students will know, be able to do, and/or value or appreciate as a result of completing the program.

The learning outcomes for the M.S. Geoscience options will not be changed. Students completing the program will:

1. Acquire up-to-date, advanced knowledge, skills, and understanding of geoscience concepts to meet the changing needs of society;
2. Blend theory with practice to understand, interpret, analyze, design, model, problem solve, and apply geoscience concepts and principles;
3. Be able to communicate technical and scientifically complex material about geoscience orally, in writing, and using various media for a broad range of audiences; and
4. Demonstrate understanding of ethical principles applicable to geoscience as a discipline and profession through in-depth discussion of historical and recent case studies relevant to the option.

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Students completing the proposed M.S. Geological Engineering program will:

1. Acquire up-to-date, advanced knowledge, skills, and understanding of geological engineering concepts to meet the changing needs of society;
2. Blend theory with practice to understand, interpret, analyze, design, model, problem solve, and apply engineering concepts and principles to address geological concerns such as natural hazards and groundwater characterization;
3. Be able to communicate technical and scientifically complex material about geological engineering orally, in writing, and using various media for a broad range of audiences; and
4. Demonstrate understanding of ethical principles applicable to geological engineering as a discipline and profession through in-depth discussion of historical and recent case studies.

5. **Need for the program.** To what specific student, regional, and statewide needs is the institution responding to with the proposed program? How will the proposed program meet those needs? Consider workforce, student, economic, societal, and transfer needs in your response as appropriate. *[250 words]*

Student interest and the continuing need for both geoscientists and geological engineers with deep knowledge and skills by employers in Montana and throughout western North America have shown that these specialties are in high demand, especially in the private and government sectors. Management, development, and sustainability of Montana's distinctive geological resources, natural hazards, hydrogeology, and infrastructure needs require geological engineers with specialized and advanced knowledge in geological, hydrogeological, and geotechnical engineering. Registration programs for Professional Engineers are active in Montana and all western states, as well as in other regions of the country. Yet no graduate-level geological engineering degrees are offered in Montana. Students completing the engineering options in Montana Tech's Geoscience M.S. are disadvantaged in seeking employment and professional registration as engineers, because of the name of their degree, despite the fact that their preparation and qualifications are as rigorous as for engineering graduate degrees available elsewhere. The employer need for these specialties in Southwest Montana is expected to increase more rapidly than national averages, due to the Consent Decrees for the final decades-long clean-up of the Butte and Anaconda Superfund sites.

The proposed separation of the M.S. Geoscience "engineering" options into a M.S. Geological Engineering degree, with the addition of an option in Geotechnical Engineering, will serve these students and their future employers much better than the existing program. The new degree title will accurately reflect the engineering-focused coursework and research projects undertaken by the students in the "engineering" options.

6. **Similar programs.** Use the table below to identify and describe the relationship between any similar programs within the Montana University System.

Institution Name	Degree	Program Title
None		No graduate degrees in geological engineering specialties in Montana.

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a. If the proposed program substantially duplicates another program offered in the Montana University System, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. *[200 words]*

Montana offers no other graduate degrees in geological engineering. Montana Tech has a strong B.S. degree in geological engineering, providing an excellent foundation for this master's degree. The proposed separation of the M.S. Geoscience options, with the science options staying in the Geoscience M.S. and the engineering options moving to the proposed Geological Engineering M.S. will serve students and their employers better. The proposed addition of the geotechnical-engineering option supports the construction and related employment sector. Renaming the geophysical engineering option to geophysics and continuing it in the M.S. Geoscience will keep geophysics available at the graduate level in Montana, serving student and employer demand in this field. This specialty provides key data and interpretation supporting resource exploration and development as well as geological mapping, hazard identification, and earthquake studies.

b. Describe any efforts that were made to collaborate with similar programs at other institutions. If no efforts were made, please explain why. *[200 words]*

Collaborations in geoscience and engineering research are numerous between and among Montana Tech, the University of Montana-Missoula, and Montana State University-Bozeman, as well as with the Montana Bureau of Mines and Geology. No efforts were made to collaborate on this curriculum, because no other campus offers a M.S. degree or degree option in Geological Engineering, Hydrogeological Engineering, Geotechnical Engineering, or Geophysics. The course-sharing options discussed for the Ph.D. programs in earth and geoscience fields will be applicable to the entire M.S. in Geoscience and the proposed M.S. in Geological Engineering. We contacted the Graduate Schools at those institutions, and they either supported the concept of separating the engineering options from the Geoscience M.S. and appropriately renaming them or were neutral.

7. **Implementation of the program.** When will the program be first offered? If implementation will occur in phases, please describe the phased implementation plans. *[100 words]*

The M.S. Geological Engineering program will be first offered in the 2021-22 academic year. The Table below INCLUDES current students in the engineering options.

a. Complete the following table indicating the projected enrollments in and graduates from the proposed program.

Fall Headcount Enrollment					Graduates				
AY21-22	AY22-23	AY23-24	AY24-25	AY25-26	AY22-23	AY23-24	AY24-25	AY25-26	AY26-27
4	6	8	8	8	4	5	6	7	8

b. Describe the methodology and sources for determining the enrollment and graduation projections above. *[200 words]*

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These projections of enrollment in the proposed M.S. Geological Engineering are based on recent and current Geoscience M.S. students pursing the geological engineering and hydrogeological engineering options, expressions of interest of prospective students, mentoring capacity of faculty advisors, and employers, faculty sabbatical eligibility, a time-to-degree in the range of 2 to 2.5 years for full-time students, and some part-time enrollment of local engineers, seeking professional advancement. Some of these students would have currently or previously enrolled in the engineering options in the Geoscience M.S. The total number of graduate students in both M.S. programs together is expected to increase a small amount (perhaps 10%) due to the M.S. Geological Engineering program being more accurately named and, therefore, more attractive to prospective students.

The lower enrollment during AY21/22 reflects faculty sabbaticals, but numbers should quickly increase higher.

c. What is the initial capacity for the program?

The initial capacity of the option is eight students, and it could increase to the range of a dozen over a several years, depending on research activity and grant funding.

8. **Program assessment.** How will success of the program be determined? What action would result if this definition of success is not met? *[150 words]*

The new M.S. program will be assessed per Montana Tech's Graduate School Assessment Plan. It will be assessed along with the Geoscience M.S. and other graduate programs. Key metrics used in graduate program assessment include applications, enrollment, graduates, placements, and impact. Impact includes grant revenues, peer-reviewed publications, student and faculty awards, and fiscal soundness. The Graduate School follows a 2-year assessment cycle. In year 1 of the cycle, the Graduate School and the faculty consider the assessment metrics and use them to guide actions and decisions. In year 2, a formal program review document is prepared and reviewed by faculty, administration, and the department's Industry Advisory Board. When performance falls short, action plans will be developed and implemented. A major assessment of the program will be conducted at the end of the third 2-year cycle to determine whether enrollment, completions, and impact are on track.

a. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program. When will assessment activities occur and at what frequency? *[150 words]*

The assessment data for this option will be collected annually in late spring along with the data for other options and graduate programs. It will be reviewed by the faculty, who will determine any modifications or corrective actions needed to enable students to achieve the learning outcomes, if they are falling short. Every two years a formal assessment report of all graduate programs, including the Geoscience M.S. program, will be prepared by the Graduate School. This report will be reviewed by faculty, deans, provost, other stakeholders, and Montana Tech's Assessment Committee. The overall goal is to ensure that the option (a) is enabling students to meet learning outcomes, (b) is on a sustainable trajectory, and (c) is attracting high quality students and producing high quality graduates to meet the workforce demand.

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b. What direct and indirect measures will be used to assess student learning? *[100 words]*

Direct measures of student learning include performance in coursework; the thesis, publishable paper, or master's project and its defense; placement rates; conference presentations; and the performance of graduates on professional registration exams. Indirect measures include the judgment of graduate committees and the department's Industry Advisory Board, instrumentation proficiency, participation in special experiences (such as software skills, professional development, professional society membership, field experiences, and conference attendance).

c. How will you ensure that the assessment findings will be used to ensure the quality of the program? *[100 words]*

The assessment findings will be reviewed by faculty, department head, Graduate Council, deans, Administration, and Industrial Advisory Board. The deans will hold faculty accountable for using the findings to ensure the quality of the program. The Graduate School's biannual assessment report will be reviewed and evaluated by Montana Tech's Assessment Committee, which will determine whether it and actions taken or proposed are acceptably ensuring the quality of the program.

d. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation. *[100 words]*

Specialized accreditation is not applicable to the Geological Engineering M.S. program or any of its options.

9. Physical resources.

a. Describe the existing facilities, equipment, space, laboratory instruments, computer(s), or other physical equipment available to support the successful implementation of the program. What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated? *[200 words]*

Existing facilities, space, laboratory instruments, computers that support the Geoscience M.S., the Earth Science & Engineering Ph.D., the Geological Engineering and Geophysics bachelor's degrees, the Montana Bureau of Mines and Geology, and the other natural-resource focused degrees and research programs are more than adequate and sufficiently available to support the successful implementation of this new degree. The projected enrollment increase is not expected to exceed capacity.

b. List needed facilities, equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. (Enter the costs of those physical resources into the budget sheet.) How will the need for these additional resources be met? *[150 words]*

None.

10. Personnel resources.

a. Describe the existing instructional, support, and administrative resources available to support the successful implementation of the program. What will be the impact on existing programs of increased

use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained? *[200 words]*

All courses are available through the existing Geoscience M.S. program. Courses offered for other natural-resources-focused M.S. programs, Civil, Mining and/or Environmental Engineering B.S. and M.S. programs, the Ecological Restoration M.S. program, and the Earth Science & Engineering Ph.D. may be attractive electives for some of the students. The addition of the geological engineering M.S. degree may expand the student peer group in some courses, enriching the educational experience for all.

b. Identify <u>new</u> personnel that must be hired to support the proposed program. (Enter the costs of those personnel resources into the budget sheet.) What are the anticipated sources or plans to secure the needed qualified faculty and staff? *[150 words]*

None.

11. Other resources.

a. Are the available library and information resources adequate for the proposed program? If not, how will adequate resources be obtained? *[100 words]*

Library and information resources are adequate to excellent, due to Montana Tech's and the Montana Bureau of Mines and Geology's considerable level of activity and research strengths in the geosciences and geological and environmental engineering.

b. Do existing student services have the capacity to accommodate the proposed program? What are the implications of the new program on services for the rest of the student body? *[150 words]*

The net increase in a small number of graduate students has negligible implications for student services, which recently served 3,000 students and are now serving fewer than 2,400.

12. Revenues and expenditures. Describe the implications of the new program on the financial situation of the institution. *[100 words]*

The addition of a new M.S. has negligible budgetary implications because it is essentially a reorganization of an existing M.S. While we can tally the tuition revenue from the projected student enrollment, the marginal differences in expenses are less clear, because no new faculty or facilities are needed, and these students will take courses that are already in the teaching rotation and therefore already budgeted. At the same time, it would be misleading to show the tuition revenues against zero expenses, which would make the program appear to be net revenue producing.

a. Please complete the following table of budget projections using the corresponding information from the fiscal analysis form for the first three years of operation of the new program.

	Year 1	Year 2	Year 3
Revenues			
Expenses			
Net Income/Deficit (revenues-expenses)			

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b. Describe any expenses anticipated with the implementation of the new program. How will these expenses be met? *[200 words]*

No new expenses are anticipated with the implementation of the new program.

i. If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs? *[150 words]*

N/A

ii. If an increase in base funding is required to fund the program, indicate the amount of additional base funding and the fiscal year when the institution plans to include the base funding in the department's budget.

N/A

iii. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends? *[150 words]*

N/A

iv. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? *[150 words]*

N/A

13. Student fees. If the proposed program intends to impose new course, class, lab, or program fees, please list the type and amount of the fee.

No new student fees will be imposed. Students in this option will be subject to the same fees as other students in the graduate engineering master's degree programs.

14. Complete the fiscal analysis form.

N/A.

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Signature/Date
College or School Dean: 2/12/2021

Chief Academic Officer: 2/12/2021

Chief Executive Officer:

Flagship Provost*:

Flagship President*:
*Not applicable to the Community Colleges.

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Appendix A1 – Proposed Curriculum: MS Geological Engineering (No Option)

The Master of Science in Geological Engineering requires that the admitted student have a degree in geological engineering or a related field. Math through differential equations and a course in mechanics of materials are required, along with a set of classes that demonstrate breadth in fundamentals of engineering.

The Geological Engineering Department, which hosts the proposed option, has excellent facilities and equipment for laboratory, field, and numerical investigations. Opportunities for research projects are plentiful.

Admission Requirements:	B.S. in Geological Engineering or related field. Physical Geology, Mineralogy/Petrology, Field Geology Math through Differential Equations. A course in mechanics of materials (statics is a prerequisite). Demonstrated breadth in fundamentals of engineering (at least 3 of the following: fluid mechanics, dynamics thermodynamics, engineering economics, surveying)
Options:	Thesis (30 credits), Publishable Paper (30 credits), or Non-Thesis (36 credits)
Seminar Requirements (2 credits):	TC 5150 Graduate Writing Seminar or equivalent (1 cr) ENGR 5940 Engineering Seminar (1 cr)
Coursework Requirements *(20 credits for thesis or publishable paper)* *(31 credits for non-thesis)* **Students who have not previously taken courses in hydrogeology and/or structural geology will be required to take them at Montana Tech as part of their graduate program in Geological Engineering.* *No more than half of the minimum course credits can be at the 400 level.*	*Core Courses* (6 to 12 credits): GeoE 440 Geological Engineering (statics is a prerequisite) GeoE 542 Slope Stability Analysis & Design *GeoE 403 Structural Geology for Engineers *GeoE 420 Hydrogeology for Engineers *Electives* (8 to 25 credits): 400 and 500-level GeoE courses or others approved by the student's graduate committee.
Thesis (8 credits) *OR* *Non-Thesis Project (3 credits)*	GEOE 599W Thesis Research Students who select the non-thesis option are required to take GEOE 590W Graduate Research or Design Project (3 cr) as part of their coursework.

Examinations:

The final examination for thesis and publishable paper-option students will consist of an oral presentation and defense of the thesis, or publishable paper. Questions may be asked on any topic related to the thesis/paper or coursework taken as part of the graduate program. The presentation will be open to all interested parties, but the defense following the presentation will be open only to the student's graduate committee.

The final examination for non-thesis option students will consist of a written and/or oral examination formulated by the student's graduate committee. The oral examination will draw questions from the written examination plus any coursework undertaken as part of the graduate program.

Students who have not taken the Fundamentals of Engineering Examination will be required to do so.

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Appendix A2 – Proposed Curriculum: MS Geological Engineering, Geotechnical Option

Graduate students in the Geotechnical option will focus on engineering characterization and behavior of soils.

Admission Requirements:	B.S. in Geological or Civil Engineering or related field. Physical Geology, Mineralogy/Petrology, Field Geology Math through Differential Equations. A course in mechanics of materials (statics is a prerequisite). Demonstrated breadth in fundamentals of engineering (at least 3 of the following: fluid mechanics, dynamics thermodynamics, engineering economics, surveying)
Options:	Thesis (30 credits), Publishable Paper (30 credits), or Non-Thesis (36 credits)
Seminar Requirements (2 credits):	TC 5150 Graduate Writing Seminar or equivalent (1 cr) ENGR 5940 Engineering Seminar (1 cr)
Coursework Requirements *(20 credits for thesis or publishable paper)* *(31 credits for non-thesis)*	*Core Courses* (9 to 16 credits): GeoE 440 Geological Engineering (statics is a prerequisite) GeoE 542 Slope Stability Analysis & Design?? GeoE 548 Geotechnical Modeling
**Students who have not previously taken courses in soil mechanics (with lab) or hydrogeology will be required to take them at Montana Tech as part of their graduate program in Geological Engineering.* *No more than half of the minimum course credits can be at the 400 level.*	*ECiv 486 Soil Mechanics & Foundation Engineering *ECiv 487 Soil Mechanics Lab (or equivalent) *GeoE 420 Hydrogeology for Engineers *Electives* (4 to 22 credits): 400 and 500-level GeoE courses or others approved by the student's graduate committee.
Thesis (8 credits) *OR* *Non-Thesis Project (3 credits)*	GEOE 599W Thesis Research Students who select the non-thesis option are required to take GEOE 590W Graduate Research or Design Project (3 cr) as part of their coursework.

Examinations:
The final examination for thesis and publishable paper-option students will consist of an oral presentation and defense of the thesis, or publishable paper. Questions may be asked on any topic related to the thesis/paper or coursework taken as part of the graduate program. The presentation will be open to all interested parties, but the defense following the presentation will be open only to the student's graduate committee.

The final examination for non-thesis option students will consist of a written and/or oral examination formulated by the student's graduate committee. The oral examination will draw questions from the written examination plus any coursework undertaken as part of the graduate program.

Students who have not taken the Fundamentals of Engineering Examination will be required to do so.

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Appendix A3 – Proposed Curriculum: MS Geological Engineering, Hydrogeological Engineering Option

Graduate students in the Hydrogeological Engineering option will study the occurrence, movement, and chemistry of groundwater with additional engineering emphasis. Typical thesis investigations are related to environmental or supply problems associated with mining or agricultural activities, and frequently involve research participation with the Montana Bureau of Mines and Geology.

Admission Requirements: B.S. in Geological Engineering or a related engineering field, or a science field with adequate engineering make up courses that allows students to take the FE and eventually PE examination.

Admission Requirements:	B.S. in Geology, Geophysics, Chemistry, or Physics.
Options:	Thesis, Publishable Paper, or Non-Thesis
Core Requirements:	*(11 credits)* GEOE 422 - Groundwater Flow Modeling GEOE 429 - Field Hydrogeology GEOE 440 - Geological Engineering And one of the following: GEOE 520 - Advanced Hydrogeology or GEOE 528 – Contaminant Transport *Students in this option are exempt from the following required courses in the geological engineering program:* GEOE 542 Slope Stability Analysis & Design
Seminar Requirements:	T.C. 5150 - Graduate Writing Seminar or equivalent ENGR 5940 - Graduate Seminar (1)

Examinations:
The final examination for thesis-option students will consist of an oral presentation and defense of the thesis. Questions may be asked on any topic related to the thesis or course work taken as part of the graduate program. The presentation will be open to all interested parties, but the defense will be open only to the graduate committee.

The final examination for non-thesis option students will consist of a written and/or oral examination formulated by the student's graduate committee. The oral examination will draw questions from the written examination plus any course work undertaken as part of the graduate program.

Students who have not taken the Fundamentals of Engineering Examination will be required to do so.

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Appendix A4 – Summary of Requirements for M.S. Geological Engineering all options

	Geological Engineering Options		
	N/A	**Geotechnical Engineering**	**Hydrogeological Engineering**
Core Courses: 6 to 16 credits	GEOE 440 Geolog. Engineering GEOE 542 Slope Stability Analysis *GEOE 403 Structural Geol for Engrs *GEOE 420 Hydrogeology for Engrs	GEOE 440 Geological Engineering GEOE 542 Slope Stability Analysis GEOE 548 Geotechnical Modeling *ECIV 486 Soil Mech & Foundation Engrg *ECIV 487 Soil Mech Lab *GEOE 420 Hydrogeol for Engrs	GEOE 422 Groundwater modeling GEOE 429 Field Hydrogeology GEOE 440 Geological Engineering GEOE 520-Advanced Hydrogeol OR GEOE 528 Contaminant Transport
Relevant advanced technical electives: 4 to 14 credits for thesis track. 15 to 25 credits for non-thesis track.	4xx, 5xx courses in Geological Engineering, Civil Engineering, Hydrogeological Engineering, Environmental Engineering, Mining Engineering, Others, as approved by committee	4xx, 5xx courses in Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Mining Engineering, Restoration, Others, as approved by committee	4xx, 5xx courses in Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Mining Engineering, Restoration, Others, as approved by committee
Seminars (2 cr)	TC 5150 Grad Writing Engr 5940 Grad SME seminar	TC 5150 Grad Writing Engr 5940 Grad SME seminar	TC 5150 Grad Writing Engr 5940 Grad SME seminar
Thesis (8 cr) or Project (3 cr)	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr
TOTAL CREDITS	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)
Admissions Requirements	Bachelor's in Geological or Related Engineering field. Coursework in physical geology, mineralogy and petrology, field geology, Math through differential equations, mechanics of materials, demonstrated breadth in engineering fundamentals (at least three of fluid mechanics, dynamics, thermodynamics, engineering econ, surveying)	Bachelor's in Geological or Civil Engineering or Related engineering field. Coursework in physical geology, mineralogy & petrology, field geology, math through differential equations, mechanics of materials, demonstrated breadth in engineering fundamentals (at least three of fluid mechanics, dynamics, thermodynamics, engineering econ, surveying)	Bachelor's in Geological or Related Engineering Field or in geology, physics, hydrology, or other science field with adequate engineering foundation courses. Coursework in physical geology, mineralogy & petrology, field geology, math through differential equations, mechanics of materials, demonstrated breadth in engineering fundamentals (at least three of fluid mechanics, dynamics, thermodynamics, engineering econ, surveying)
Notes for Each Option:	Some students may opt for no option in hydrogeological or geotechnical engineering. In that case, they would satisfy more core requirements reflective of a broader geological engineering degree	These students would satisfy a geological engineering degree with a special focus on geotechnical engineering	These students would satisfy a geological engineering degree with a special focus on hydrogeological engineering
Notes for All Options	* If not taken previously 4xx courses must be less than half of required course credits Thesis track can be satisfied with publishable paper. Final examination for thesis options consists of an oral presentation and thesis defense Final examination for non-thesis options consists of written and/or oral examination formulated by the graduate committee, including a presentation of the master's project. Students are not allowed to retake a course taken as an undergraduate for graduate credit. If this situation applies to core courses, the student with faculty committee will select some substitute 4xx/5xx courses for the core. Engineering Options require students to have passed the Fundamentals of Engineering (FE) exam prior to admission or during the program.		

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Appendix A5 – Summary of Requirements for M.S. Geoscience All Options

	Geoscience M.S. Options				
	Engineering Geology	**Geochemistry**	**Geology**	**Geophysics**	**Hydrogeology**
Core Courses: 6 to 15 credits	GEOE440-Geological Engrg GEOE541 Adv. Engrg Geology GEOE542 Slope Stability Anal. *GEOE403 Struct Geo for Engr *GEOE420 Hydrogeol for Engr	CHMY 540 Environ. Chem. CHMY 5597 Geochem Modelling GEOE 520 Adv Hydrogeology OR GEOE 420 Hydrogeology for Engineers GEOE 533 Hydro-geochemistry	Courses would depend on student's research focus area (e.g. metallic ore deposits, structural geology, petroleum geology)	At least 9 credits from the following: GEOP 446 Applied Linear Systems GEOP 450 Inversion GEOP 508 Seismic Prospecting GEOP 509 Gravity & Magnetic Prospect. GEOP 510 Electrical Prospecting GEOP 525 Advanced Remote Sensing GEOP 527 Petrophysics GEOP 595 Advanced Topics in Geophys.	GEOE 422 Groundwater modeling GEOE 429 Field Hydrogeology GEOE 520-Advanced Hydrogeol OR GEOE 528 Contaminant Transport
Relevant advanced technical electives: 5 to 14 credits for Thesis track. 16 to 25 credits for non-thesis track.	4xx, 5xx courses in Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Mining Engineering, Restoration, Others, as approved by committee	4xx, 5xx courses in Chemistry, Geology, Geophysics, Geological Engineering, Hydrogeology, Environmental Engineering, Restoration, Others, as approved by committee	4xx, 5xx courses in Chemistry, Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Mining Engineering, Restoration, Others, as approved by committee	4xx, 5xx courses in Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Petroleum Engineering, Restoration, Others, as approved by committee	4xx, 5xx courses in Chemistry, Geology, Geophysics, Geological Engineering, Civil Engineering, Hydrogeology, Environmental Engineering, Mining Engineering, Restoration, Others, as approved by committee
Seminars (2 or 3 cr)	TC 5150 Grad Writing Engr 5940 Grad SME seminar	TCS150 Writing CHMY 594 Geochemistry Additional Technical Seminar	TC 5150 Grad Writing Engr 5940 Grad SME seminar	TC 5150 Grad Writing Engr 5940 Grad SME seminar	TC 5150 Grad Writing Engr 5940 Grad SME seminar
Thesis (8 cr) or Project (3 cr)	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr	599W Thesis 8 cr or 590W Project 3 cr
TOTAL CREDITS	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)	30 (thesis) 36 (Non-Thesis)
Admissions Requirements	Bachelor's in Chemistry or Geology or other science/engineering field. Several courses in geology and chemistry. Math through Calculus II. A course in statics.	Bachelor's in chemistry, biology, or geology or other science/engineering field, with introductory courses in physical geology, mineralogy-petrology, and field geology, and upper-division courses in: physical and analytical chemistry. Math through Calculus II.	Bachelor's in geology, geophysics, or related science or engineering field. Coursework in physical geology, mineralogy, petrology, sedimentology, and introduction to field geology. Math through Calculus I.	Bachelor's in geophysics, geology, physics, mathematics, or related engineering field. Prerequisite coursework depends on student's focus areas (electrical, seismic, potentials, or remote sensing). Math through Differential Equations.	Bachelor's in geology, geophysics, chemistry, physics, environmental science, or related engineering field. Coursework in physical geology, mineralogy, petrology, sedimentology, and introduction to field geology. Math through Calculus I.
Notes for Each Option:	Students in this major will be geologists with no engineering degree, but their focus is in geologic hazards.	Students in this option will have a geoscience degree where they use chemistry as a tool to answer geological questions	Students in this field have a focus on ore deposits, structural geology, or petroleum geology	Students in this option would have a well-rounded Geoscience background, but their focus would teach them geophysics tools and theory on seismic, electrical, gravity & magnetics and remote sensing to solve geological problems	Students in this option would have a well-rounded Geoscience background, but their focus would allow them to solve hydrogeologic problems within the geoscience field
Notes for All Options	* If not taken previously 4xx courses must be less than half of required course credits Thesis track can be satisfied with publishable paper. Final examination for thesis options consists of an oral presentation and thesis defense Final examination for non-thesis options consists of written and/or oral examination formulated by the graduate committee, including a presentation of the master's project. Students are not allowed to retake a course taken as an undergraduate for graduate credit. If this situation applies to core courses, the student with faculty committee will select some substitute 4xx/5xx courses for the core. Engineering Options require students to have passed the Fundamentals of Engineering (FE) exam prior to admission or during the program.				

Montana University System
REQUEST TO PLAN FORM

ITEM 190-1501-R0920 **Meeting Date**

Item Name

Program/Center/Institute Title: **M.S. Geological Engineering** Planned 6-digit CIP code: **14.39.01**

Campus, School/Department: **Montana Technological University** Expected Final Submission Date: **March 2021**

Contact Name/Info: **Mary MacLaughlin mmaclaughlin@mtech.edu, 406-496-4655**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) **Provide a description of the program/center/institute.**

The M.S. degree in Geoscience has seven options: four in geoscience (engineering geology, geochemistry, geology, and hydrogeology) and three in engineering (geological engineering, geophysical engineering, and hydrogeological engineering). This request consists of separating the seven options into two M.S. degrees, changing the name of one option, and adding an additional option. The four geoscience options would remain in the Geoscience M.S. and would be joined by an option in geophysics (renamed from geophysical engineering). The geological engineering option would be elevated to the proposed new M.S. in Geological Engineering, which would include options in hydrogeological engineering (existing) and geotechnical engineering (new).

2) **Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).**

Master's-level expertise in geological engineering, geotechnical engineering, and hydrogeological engineering are in high demand in the private and government sectors. Students and employers are interested in having the word engineering in the degree title on the transcript and diploma for the students who complete an engineering option. Yet no geological engineering master's degree programs are currently available in Montana. Montana Tech's existing degree structure, in which the engineering options are housed within an umbrella M.S. Geoscience degree, creates confusion regarding the engineering content of the programs, and the degree name is a barrier to professional registration for graduates. Moreover, prospective students seeking an M.S. program in geological, geotechnical, or hydrogeological engineering are unlikely to consider Montana Tech's Geoscience M.S. because of the degree name, unless they obtained their bachelor's degrees at Montana Tech and know the strengths of the curriculum. Adding a specific geotechnical option within the MS in Geological Engineering will help prospective students find this area of emphasis. This addition also creates parallelism between the proposed MS in Geological Engineering and three options within Montana Tech's coursework-only Master of Engineering degree (geological engineering, geotechnical engineering, and hydrogeological engineering).

3) **Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.**

None. The curricula, courses, library, faculty, and research infrastructure are in place. The proposal is to separate the engineering options in the Geoscience M.S. and offer them under the degree named M.S. in Geological

Montana University System
REQUEST TO PLAN FORM

Engineering. In addition, a geotechnical track within the geological engineering option would be elevated to a degree option. The geophysical engineering option would be renamed as geophysics and kept in the Geoscience M.S.

4) **Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).**

Collaborations in geoscience and engineering research are numerous between and among Montana Tech departments, the University of Montana-Missoula, Montana State University-Bozeman, and the Montana Bureau of Mines and Geology, and these collaborations will continue. Including the word "engineering" in the degree title for the engineering options is likely to enhance collaboration opportunities with engineering departments at MSU-Bozeman and beyond. There are no other geological engineering master's degree programs in Montana or specific options in geotechnical engineering, geophysics, or hydrogeological engineering. No new courses are required, and existing course sharing and research collaborations are expected to continue.

5) **Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.**

The proposed M.S. in Geological Engineering directly fits Montana Tech's mission by providing exemplary graduate-level engineering education that blends theory with practice to prepare graduates equipped to meet the changing needs of society and especially to contribute to the responsible development and use of natural resources. The curriculum exists and is successful. The engineering options typically enroll and graduate about one third of the students in the Geoscience M.S. This proposal also would improve alignment between the degree curriculum with the degree name for students in the engineering options of the geoscience program, and it would facilitate professional registration for geological engineering graduates.

Signature/Date	
Chief Academic Officer:	8/4/2020
Chief Research Officer*:	
Chief Executive Officer:	8/4/2020
Flagship Provost:**	
Flagship President:**	

*Center/Institute Proposal only
**Not applicable to the Community Colleges.

Montana University System
REQUEST TO PLAN – OCHE ANALYSIS

ITEM 190-1501-R0920

ITEM NAME: M.S. Geological Engineering & amend M.S. Geosciences option titles

OCHE ANALYSIS

Labor market outlook

This proposal does not anticipate developing a wholly new degree program. Rather, it separates existing options in the existing M.S. in Geosciences into separate degrees (M.S. in Geosciences, with options in engineering geology, geochemistry, geology, hydrogeology, and geophysics; M.S. in Geological Engineering with options in hydrogeological engineering and geotechnical engineering). These changes are meant to ensure students degree names correctly reflect their training and expertise.

Occupational demand in Montana, all levels of education			
	Annual Openings	Growth 2018-28	Median Wage
Mining and Geological Engineers	10	-3%	$92,250
Geoscientists	30	+16%	$85,780

Source: O*NET

Related programs / centers / institutes

No other campus in the Montana University System offers a specific graduate degree options in geological engineering, geophysics, or geotechnical engineering. Montana State University offers an M.S. in Earth Sciences with concentrations in Geology and Geography. MSU's M.S. in Civil Engineering could also allow students to accumulate some similar coursework, though in a less focused manner. The University of Montana offers an M.S. in Geosciences.

MUS Geosciences / Earth Science M.S. graduates 2017-2019			
	2019	2018	2017
Montana Technological University	11	12	15
Montana State University	6	9	13
The University of Montana	7	8	4
TOTAL	24	29	32

Source: MUS Student Data Warehouse

Budget Impact						
	X	**LOW** • Only incidental costs		**MEDIUM**		**HIGH** • substantial commitment of resources relative to institutional budget

CAO discussion and follow-up

OCHE requested that Tech, in their final proposal, describe the curriculum of each reconfigured option. Given the number of options across these two degrees, it is important the proposed curriculum provides a distinct enough experience to merit the different option names.

ARSA/BOR comment and direction for Level II proposal

Hartline, Beverly

From: Hartline, Beverly
Sent: Thursday, January 21, 2021 12:37 PM
To: Cassidy, Carleen
Subject: RE: Curriculum proposal fiscal analysis form for splitting off the engineering options in Geoscience into a Geological Engineering M.S.

Thank you, Carleen!

BEVERLY HARTLINE, PH.D.
VC Research & Grad School

OFFICE PHONE (406) 496-4456

From: Cassidy, Carleen <CCassidy@mtech.edu>
Sent: Thursday, January 21, 2021 10:42 AM
To: Hartline, Beverly <BHartline@mtech.edu>
Subject: RE: Curriculum proposal fiscal analysis form for splitting off the engineering options in Geoscience into a Geological Engineering M.S.

Hi Bev,

I have reviewed the information and am in agreement there will be no additional costs with splitting off the engineering option in geoscience. This proposal to split the engineering and the science options in the Geoscience M.S program already have the programs, courses, faculty, infrastructure in place thus requiring no additional costs.

Thank you,
Carleen

CARLEEN CASSIDY
Director of Finance and Budget
406.496.4252 | ccassidy@mtech.edu

MONTANA
TECHNOLOGICAL UNIVERSITY

ACADEMIC ITEMS MEMORANDUM

DATE: April 6, 2021

TO: Chief Academic Officers, Montana University System

FROM: Brock Tessman, Deputy Commissioner for Academic, Research, and Student Affairs

RE: March 2021 Academic Items

Contained within this memorandum are Level I and Level II proposals submitted by the institutions of the Montana University System in March 2021. These proposals include items for which approval authority has been designated by the Board of Regents to the individual institutions or the Commissioner of Higher Education. These Level I and Level II items are being sent to you for your review. If you have concerns about a particular proposal, you should share those concerns with your colleagues at that institution and try to come to some understanding. If you cannot resolve your concerns, raise them at the Chief Academic Officer's conference call on Tuesday, April 20, 2021. Issues not resolved at that meeting should be submitted in writing to OCHE by noon on Friday, April 23, 2021. You will be notified of approved proposals by Tuesday, April 27, 2021. The Board of Regents will be notified of the approved proposals at the May meeting of the Board.

LEVEL I ITEMS:

1. **Campus Approvals**

Montana State University Northern:

- Notification of the Establishment of a Certificate of Technical Studies in Sport Coaching
  Item #2801-LI0321 | Attachment #1

University of Montana – Missoula:

- Notification of the Establishment of a Certificate for English in Academic Strength and Leadership
  Item #1004-LI0321 | Attachment #1
- Notification of the Placement of the Programming and Application Development Option in the Information Technology A.A.S. into Moratorium
  Item #1007-LI0321 | Program Termination/Moratorium Form
- Notification of the Placement of the Hospitality Management Certificate into Moratorium
  Item #1008-LI0321 | Program Termination/Moratorium Form
- Notification of the Placement of the Hospitality Management A.A.S. into Moratorium
  Item #1009-LI0321 | Program Termination/Moratorium Form

2. **OCHE Approvals**

Montana State University – Bozeman:

- Request for Authorization to Establish a Temporary C.A.S. in Heating, Ventilation, Air Conditioning and Refrigeration (HVAC-R) Certificate
  Item #2010-LI0321
- Request for Authorization to Establish a Temporary A.A.S. in Heating, Ventilation, Air Conditioning and Refrigeration (HVAC-R) Certificate
  Item #2011-LI0321

Montana State University Billings:

- Request for Authorization to Retitle Music Business Option B.A. to Commercial Music Option B.A.
  Item #2701-LI0321 | Attachment #1
- Request for Authorization to Retitle Communication Arts Media Studies Option Minor to Communication Arts Minor
  Item #2702-LI0321 | Attachment #1

University of Montana – Missoula:

- Request for Authorization to Establish a Minor in Neuroscience
  Item #1003-LI0321 | Curriculum Proposal Form
- Request for Authorization to Consolidate the Administration Management A.A.S. and Management A.A.S. into the Business Management A.A.S. with an Option in Marketing and Entrepreneurship
  Item #1005-LI0321 | Curriculum Proposal Form
- Request for Authorization to Terminate the Health Information Technology Certificate
  Item #1006-LI0321 | Program Termination/Moratorium Form
- Request for Authorization to Retitle the Fine Arts M.A. with an Option in Integrated Arts and Education to the Integrated Arts and Education M.A.
  Item #1010-LI0321

LEVEL II ITEMS:

University of Montana – Missoula:

- Request for Authorization to Establish a Non-Professional Option in the Pharmaceutical Sciences B.S.
  Item #1001-LII0321 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form
- Request for Authorization to Establish the Big Sky Language Literacy Institute
  Item #1002-LII0321 | Research Center and Institute Proposal Form | Request to Plan Form

Helena College University of Montana:

- Request for Authorization to Establish a Certificate of General Studies
  Item #1903-LII0321 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form
- Request for Authorization to Establish a C.A.S. in Automotive Technology
  Item #1904-LII0321 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form

ACADEMIC ITEMS MEMORANDUM

DATE: April 30, 2021

TO: Chief Academic Officers, Montana University System

FROM: Brock Tessman, Deputy Commissioner for Academic, Research, and Student Affairs

RE: April 2021 Academic Items

Contained within this memorandum are Level I and Level II proposals submitted by the institutions of the Montana University System in April 2021. These proposals include items for which approval authority has been designated by the Board of Regents to the individual institutions or the Commissioner of Higher Education. These Level I and Level II items are being sent to you for your review. If you have concerns about a particular proposal, you should share those concerns with your colleagues at that institution and try to come to some understanding. If you cannot resolve your concerns, raise them at the Chief Academic Officer's conference call on Wednesday, May 5, 2021. Issues not resolved at that meeting should be submitted in writing to OCHE by noon on Friday, May 7, 2021. You will be notified of approved proposals by Tuesday, May 11, 2021. The Board of Regents will be notified of the approved proposals at the May meeting of the Board.

LEVEL I ITEMS:

1. **Campus Approvals**

University of Montana – Missoula:

- Notification of the Offering of the Communication Studies B.A. via Online Delivery
  Item #1001-LI0421

Montana Technological University:

- Notification of the Establishment of Unmanned Aerial Systems (UAS) Certificates at the Bachelor and Graduate Levels
  Item #1502-LI0421 | Attachment #1 | Attachment #2
- Notification of Placement of G.C. and C. in Health Care Informatics into Moratorium
  Item #1503-LI0421 | Program Termination/Moratorium Form | Attachment #1

The University of Montana Western:

- Notification of Establishment of Distance Education Site at Blackfeet Community College
  Item #1600-LI0421
- Notification of Establishment of Distance Education Site at Little Big Horn College
  Item #1601-LI0421

Montana State University – Bozeman:

- Notification of Establishment of Certificate in Crop Breeding and Biotechnology
  Item #2010-LI0421
- Notification of Establishment of Certificate in Plant Diseases
  Item #2011-LI0421

Montana State University Billings:

- Notification of Establishment of Applied Behavior Analysis Certificate Program
  Item #2701-LI0421 | Attachment #1| Attachment #2

2. OCHE Approvals

Dawson Community College:

- Request for Authorization to Establish a Temporary C.A.S. in General Studies
  Item #200-LI0421 | Attachment #1
- Request for Authorization to Establish a Temporary C.A.S. in Human Resources
  Item #201-LI0421 | Attachment #1
- Request for Authorization to Establish a Temporary C.A.S. in Web Development
  Item #202-LI0421 | Attachment #1

University of Montana – Missoula:

- Request for Authorization to Terminate the Rural and Environmental Change Option in the Sociology M.A.
  Item #1002-LI0421 | Program Termination/Moratorium Form
- Request for Authorization to Retitle the Statistics Option in the Mathematical Sciences B.A. to Statistics and Data Science
  Item #1003-LI0421

Montana State University – Bozeman:

- Request for Authorization to Retitle B.S. in Health and Human Performance to B.S. in Kinesiology
  Item #2012-LI0421
- Request for Authorization to Move the Child Development Option from the Early Childhood Education & Child Services B.S. to the Human Development and Family Science B.S.
  Item #2013-LI0421
- Request for Authorization to Retitle the Early Childhood Education & Child Services B.S. to the Early Childhood Education: P3 B.S.
  Item #2014-LI0421

LEVEL II ITEMS:

University of Montana – Missoula:

- Request for Authorization to Establish an Engineering Physics Option in the Physics B.A.
  Item #1004-LII0421 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form
- Request for Authorization to Establish a Certificate of General Studies
  Item #1005-LII0421 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form

Montana Technological University:

- Request for Authorization to Establish a Certificate in General Studies
  Item #1501-LII0421 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form

Montana State University Billings:

- Request for Authorization to Establish an Institute for Neurodiversity and Applied Behavior Analysis
  Item #2702-LII0421 | Curriculum Proposal Form | Fiscal Analysis Form | Request to Plan Form

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1001-LI0421

Notification of the offering of the Communication Studies B.A. via online delivery

Institution: **University of Montana – Missoula** CIP Code: **09.0100**

Program/Center/Institute Title: **Communication Studies Department, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: X Blended Offering: ____

Options: ____

Proposal Summary [360 words maximum]

What:
The University of Montana – Missoula notifies the Montana Board of Regents of the offering of the Communication Studies Bachelor of Arts via online delivery.

Why:
Communication Studies offers a versatile and popular major with few pre-requisites. An online major will help meet the needs of those who have "some college, no degree," as well as students in rural Montana communities who are unable to relocate to Missoula. We now have online versions of all required courses and a sufficient number of electives that a part-time student could complete the degree in approximately four semesters. The Communication Studies B.A. offers students a versatile major that is directly applicable in personal, professional, and public contexts.

Resources:
No new resources are needed.

ATTACHMENTS
No Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

2. **Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

3. **Establishing a B.A.S./A.A./A.S. area of study**

X 4. **Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

5. **Re-titling an existing postsecondary educational program**

6. **Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

7. **Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

8. **Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

9. **Revising a postsecondary educational program** (Curriculum Proposal Form)

10. **Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

B. Level II:

1. **Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

2. **Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

3. **Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

4. **Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. **Re-titling an academic, administrative, or research unit**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1502-LI0421

Notification of the Establishment of Unmanned Aerial Systems (UAS) Certificates at the Bachelor's and Graduate Levels

Institution: **Montana Technological University** CIP Code: **36.0207**

Program/Center/Institute Title: **Unmanned Aerial Systems (UAS) Certificates**

Includes (please specify below): Face-to-face Offering: ✓ Online Offering: _____ Blended Offering: (some)

Options: Applications & Design (BS level), Development & Analytics (Graduate level)

Proposal Summary [360 words maximum]

What: Establish Unmanned Aerial Systems (UAS) Certificates at the Bachelor's and Graduate levels.

Why: The use of UAS technologies is rapidly expanding throughout STEM fields and beyond. Individuals with UAS experience are already in high demand in industry, with continued growth projected. The certificate curricula are designed to be as flexible as possible, allowing students from many programs to integrate a 15-credit UAS certificate into their primary program without extending time to degree.

Resources: Minimal resources will be required to offer the undergraduate and graduate certificates because many of the courses in the certificates are already in the curricula of other programs. Ten new courses are being proposed which contain significant emphasis on UAS technologies. Seven of the 10 new courses proposed are 1-credit courses that will not require any additional instructional resources. Two of the 1-credit courses will be taught be adjunct faculty. A three-credit course that is required for the graduate certificate will require an adjunct or be taught be an electrical engineering faculty.

ATTACHMENTS
Attachment_1
Attachment_2

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

✓ **A. Level I:**

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

1b. Withdrawing a postsecondary educational program from moratorium

✓ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Certificate: Unmanned Aerial Systems (UAS) Applications & Design

This is a 15-credit certificate targeting students in undergraduate degree programs, but is also available to graduate students (note that some of the electives are at the 3xx level or below and consequently can not be part of a student's graduate program).

The curriculum is summarized in the following table. (new courses highlighted in yellow)

Course #	Course Title	# UAS Credits
REQUIRED CORE	*6 credits*	**6**
UAS 401	UAV Regulations, Flight Planning, & Data Collection	(1)
UAS 402	Basic Flight Lab	(1)
GeoE 481	Basic Photogrammetric Modeling	(1)
UAS 494	UAS Seminar (1 credit/semester)	(2)*
*At least one seminar credit must be UAS 494 or UAS 594. Other seminar courses with documented UAS content may be substituted for the second seminar credit.		
UAS 499	UAS Capstone**	(1)
**Capstone requirement can also be satisfied by the following (with UAS content & approval)		
XXX 499W	Senior design or senior thesis course in the major	
XXX 490	Undergraduate research in the major	
ELECTIVES	*Select 9 credits*** from the following:*	**9**
UAS 420	UAS Components & Design	(3)
EELE 317	Electronics (4 credits total with lab)	(1)
EELE 321	Intro to Feedback Controls (3 credits total)	(2)
EELE 421	Feedback and Control II (3 credits)	(3)
EENV 402/502	Surface Water Hydrology (3 credits)	(1)
EENV 404/504	Surface Water Quality (3 credits)	(1)
EENV 414/514	Land and Stream Restoration (3 credits)	(1)
GeoE 449	Field Geotechnical Engineering (w/UAS)	(1-4)
GeoE 581	Advanced Photogrammetric Modeling	(1-3)
GeoE 585	GIS in Natural Resources	(3)
Geop 425 or 525	Remote Sensing for the Earth Sciences or Advanced Remote Sensing	(3)
Gphy 284	Intro to GIS Science Cartography	(3)
NRSM 435/535	Restoration I (3 credits)	(3)
NRSM 494/594	Restoration Seminar (1 credit/semester)	(2)
Srvy 247	Survey-Grade GPS Control Analysis	(3)
XXX 491/591	Special Topics (should have "UAS" in the title)	(varies)
Other electives to be added as they become available		
***Note: some courses with partial UAS content have fewer "UAS credits" than total credits		
Total Credits		**15**

Certificate: Unmanned Aerial Systems (UAS) Development & Analytics

This is a 15-credit certificate targeting students in graduate degree programs, but also open to advanced undergraduates.

The curriculum is summarized in the following table. (new courses highlighted in yellow)

Course #	Course Title	Credits
REQUIRED CORE	*12 credits*	**12**
UAS 401	UAV Regulations, Flight Planning, & Data Collection	(1)
UAS 402 or 502	Basic Flight Lab or Advanced Flight Lab	(1)
UAS 420	UAS Components & Design	(3)
GeoE 481 or 581	Basic or Advanced Photogrammetric Modeling	(1)
GeoE 585	GIS in Natural Resources	(3)
UAS 594	UAS Seminar (1 credit/semester)	(2)*
*At least one seminar credit must be UAS 594. Other seminar courses with documented UAS content may be substituted for the second seminar credit		
UAS 599	UAS Capstone**	(1)
**Capstone requirement may also be satisfied by the following (with UAS content & approval)		
XXX 599W	Graduate Thesis Research in the major	
XXX 590W	Graduate Research or Design Project in the major	
REMOTE SENSING ELECTIVE	*Select 3 credits from the following:*	**3**
Geop 425 or 525	Remote Sensing for the Earth Sciences or Advanced Remote Sensing	(3)
XXX 491/591	Special Topics (with “UAS” & “Remote Sensing” in the title)	
OTHER ELECTIVES	Can be included if the above courses have already been taken***	
EELE 421	Feedback and Control II (3 credits)	(3)
EENV 402/502	Surface Water Hydrology (3 credits)	(1)
EENV 404/504	Surface Water Quality (3 credits)	(1)
EENV 414/514	Land and Stream Restoration (3 credits)	(1)
GeoE 449	Geotechnical Field Camp (w/UAS)	(1-4)
NRSM 435/535	Restoration I (3 credits)	(3)
NRSM 494/594	Restoration Seminar (1 credit/semester)	(2)
XXX 491/591	Special Topics (should have “UAS” in the title)	(varies)
Additional UAS Seminar and/or UAS Capstone credits		
Other electives to be added as they become available		
***Note: some courses with partial UAS content have fewer “UAS credits” than total credits		
Total Credits		**15**

Note: A minimum of 6 coursework credits must be taken at the 5xx level or higher. Seminar and Capstone credits do not count as coursework credits.

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

APRIL 2021

ITEM 1503-LI0421

Notification of Placement of G.C. and C. in Health Care Informatics into Moratorium

Institution: **Montana Technological University** CIP Code: **51.2706**

Program/Center/Institute Title: **Health Care Informatics (GC, C)**

Includes (please specify below): Face-to-face Offering: _____ Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Notification of placing the G.C and C. in Health Care Informatics in moratorium.

Why: This moratorium for the Healthcare Informatics (HCI) certificate has already been approved by the Board of Regents, however, it was never taken through our internal process (CRC and Faculty Senate); therefore, we would like to formalize at this level so that the certificate information can be removed from our catalog and website.

Resources: n/a

ATTACHMENTS

Original Academic Proposal Request Form - April 2019

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

X **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana University System

PROGRAM TERMINATION/MORATORIUM FORM

Please complete the following questionnaire prior to submission of a program for termination or placement into moratorium. Please add additional comments beneath each question where applicable.

Program Title: **Health Care Informatics (GC, C)**

Program is being **X** **Placed into moratorium** ____ **Terminated**

1. **Are there currently students enrolled in the program? (If yes, please answer questions a - c below.)** **Y:** ____ **N:** **X**

   a.) **Have all students currently enrolled in the program been met with and informed of the impending termination/moratorium?** **Y:** ____ **N:** ____

   b.) **What is the expected graduation date of all students from the program?**

   c.) **Have course offerings been planned to allow for students in the program to complete the degree in a reasonable fashion?** **Y:** ____ **N:** ____

2. **Will any faculty layoffs or changes in working conditions occur because of the termination/moratorium? (If yes, please answer questions a - b below.)** **Y:** ____ **N:** **X**

   a.) **Have the faculty affected by the program termination/moratorium been notified?** **Y:** ____ **N:** ____

   b.) **Please describe any layoffs that will occur including the date expected?**

Montana University System
PROGRAM TERMINATION/MORATORIUM FORM

3. The following parties, where applicable, have been notified of the impending program termination/moratorium. (Please mark X for completed, NA for not applicable):

a.) Internal Curriculum Committees X

b.) Faculty Senate X

c.) Program Public Advisory Committee X

d.) Articulation Partners X

4. Has there been any negative feedback received from students, faculty, or other constituents regarding the impending termination/moratorium? (If yes, please explain below.) **Y:** ____ **N:** X

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

ITEM **1503-LI0421** Submission Month or Meeting: **April 2021**

Institution: **Montana Technological University** CIP Code: **51.2706**

Program/Center/Institute Title: **Health Care Informatics (All Degrees: BS, GC, AAS, C)**

Includes (please specify below): Online Offering _____ Options _____

Please mark the appropriate type of request and submit with an Item Template and any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

X **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

B. Level II:

1. **Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Intent to Plan Form)

2. **Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Intent to Plan Form)

3. **Exceeding the 120 credit maximum for baccalaureate degrees** *Exception to policy 301.11*

4. **Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and Completed Intent to Plan Form, except when eliminating or consolidating)

5. **Re-titling an academic, administrative, or research unit**

Proposal Summary [360 words maximum]

What – Notification of placing the Bachelor of Science in Health Care Informatics, Associate of Applied Health Care Informatics Degree Programs in moratorium.

Why – The decision to place the HCI degrees into moratorium was one of the recommendations that resulted from Montana Tech's campus-wide Program Prioritization effort.

Resources – N/A

Relationship to similar MUS programs – N/A

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1600-LI0421

Notification of Establishment of Distance Education Site at Blackfeet Community College – The University of Montana Western

Institution: **The University of Montana Western** CIP Code: **n/a**

Program/Center/Institute Title: **Distance Education Site at Blackfeet Community College in Browning, MT**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: n/a

Proposal Summary [360 words maximum]

What: The University of Montana Western is establishing a distance education site at Blackfeet Community College in Browning, MT.

Why: For several years UMW has partnered with Blackfeet Community College in co-delivering degrees, endorsements, and certification related to education, early childhood and PreK3, and post baccalaureate special education and secondary education through Montana Western's extension programs. This request is to officially establish Blackfeet Community college as a distance education site in order to support and continue to maintain this relationship. In addition UMW is in the process of transitioning some of these extension programs to state side FTE. Establishing a distance education site will further support this transition.

Resources: Resources are already established through grants.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

_____ **A. Level I:**

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

2. **Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

3. **Establishing a B.A.S./A.A./A.S. area of study**

X 4. **Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

5. **Re-titling an existing postsecondary educational program**

6. **Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

7. **Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

8. **Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

9. **Revising a postsecondary educational program** (Curriculum Proposal Form)

10. **Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

B. Level II:

1. **Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

2. **Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

3. **Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

4. **Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. **Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1601-LI0421

Notification of Establishment of Distance Education Site at Little Big Horn College – The University of Montana Western

Institution: **The University of Montana Western** CIP Code: **n/a**

Program/Center/Institute Title: **Distance Education Site at Little Big Horn College in Crow Agency, MT**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: n/a

Proposal Summary [360 words maximum]

What: The University of Montana Western is establishing a distance education site at Little Big Horn College in Crow Agency, MT

Why: For the last year UMW has partnered with Little Big Horn College in co-delivering degrees, endorsements, and certification related to education, early childhood, PreK3, and post baccalaureate special education and secondary education through Montana Western's extension programs. This request is to officially establish Little Big Horn College as a distance education site in order to support and continue to maintain this relationship. In addition UMW is in the process of transitioning some of these extension programs to state side FTE. Establishing a distance education site will further support this transition.

Resources: Resources are already established through grants.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

2. **Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

3. **Establishing a B.A.S./A.A./A.S. area of study**

X 4. **Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

5. **Re-titling an existing postsecondary educational program**

6. **Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

7. **Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

8. **Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

9. **Revising a postsecondary educational program** (Curriculum Proposal Form)

10. **Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

B. Level II:

1. **Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

2. **Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

3. **Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

4. **Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. **Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April, 2021

ITEM 2010-LI0421

Notification of Establishment of Certificate in Crop Breeding and Biotechnology

Institution: **Montana State University - Bozeman** CIP Code: **01.1104**

Program/Center/Institute Title: **College of Agriculture – Plant Sciences & Plant Pathology Department**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Certificate in Crop Breeding and Biotechnology and Certificate in Plant Diseases
Why: The Department of Plant Sciences and Plant Pathology seeks approval for a graduate certificate designed to increase employment opportunities in the crop breeding and biotechnology industry for our students. Undergraduate students earning degrees in Plant Sciences have strong interests in obtaining additional job-related training, but many do not have the interest to do research based graduate degrees in plant sciences. One of the most common areas in which additional training is needed is crop breeding and biotechnology. The benefit to students is enhanced job prospects while the benefit to the university is increased enrollment in our upper division and graduate classes. This proposal is for a 15 credit, post-baccalaureate graduate certificate that would provide in class and lab training to students and working professionals focused on crop breeding and biotechnology. The certificate would be administered by the Department of Plant Sciences and Plant Pathology and would utilize senior level and graduate courses not normally taken by Plant Science undergraduates. Qualified and approved students are able to join the certificate program after graduation or in the final year of their undergraduate program. The undergraduate majors most likely to be interested in this graduate certificate are Plant Biotechnology, Plant Biology, Horticulture, and Crop Science. The students obtaining this certificate will have enhanced job prospects in plant breeding and plant biotechnology industries.

Resources: No additional resources are needed, and the courses and faculty advisors are available and in place.

ATTACHMENTS
Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

____ **3. Establishing a B.A.S./A.A./A.S. area of study**

____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

____ **5. Re-titling an existing postsecondary educational program**

____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

____ **B. Level II:**

____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April, 2021

ITEM 2011-LI0421

Notification of Establishment of a Certificate in Plant Diseases

Institution: **Montana State University - Bozeman** CIP Code: **01.1105**

Program/Center/Institute Title: **College of Agriculture – Plant Sciences & Plant Pathology Department**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Certificate in Crop Breeding and Biotechnology and Certificate in Plant Diseases

Why: The Department of Plant Sciences and Plant Pathology seeks approval for a graduate certificate designed to enhance on-farm disease management and increase employment opportunities in crop protection services for our students. Undergraduate students earning degrees in Plant Sciences have strong interests in obtaining additional job-related training, but many do not have the interest to do research based graduate degrees in plant sciences. One of the most common areas in which additional training is needed is plant disease control. The benefits to students are enhanced job prospects and improved farm management, while the benefit to the university is increased enrollment in our upper division and graduate classes. This proposal is for 15 credit, post-baccalaureate graduate certificate that would provide training to students and working professionals focused on plant diseases and plant disease management. This certificate would be administered by the Department of Plant Sciences and Plant Pathology. Qualified and approved students are able to join the certificate program after graduation or in the final year of their undergraduate program.

Resources: No additional resources are needed, and the courses and faculty advisors are available and in place.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

____ **1b. Withdrawing a postsecondary educational program from moratorium**

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

____ **3. Establishing a B.A.S./A.A./A.S. area of study**

____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

____ **5. Re-titling an existing postsecondary educational program**

____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

____ **B. Level II:**

____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

SUBMISSION April/2021

ITEM 2701-L10421

ITEM TITLE Notification of the establishment of a Applied Behavior Analysis certificate program

Institution: **MSU Billings** CIP Code: **42.2814**

Program/Center/Institute Title: **Applied Behavior Analysis Certificate Program**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: X Blended Offering: ____

Options: NA

Proposal Summary [360 words maximum]

What: MSU Billings will establish a certificate program in Applied Behavior Analysis for the courses currently in the Applied Behavior Analysis Track.
Why: This set of courses (21 credits without internships) are required for the Behavior Analysis Certification Board exam. Students must have a qualifying Master's degree in Education, Psychology, or Applied Behavior Analysis. This certificate will formalize this course sequence and is a recommendation listed by the ABAI accrediting organization.

Resources: This requires no resources. The existing 21 credits in the track (without internships) will become a certificate.

ATTACHMENTS

A1_2701-L10421_List of courses from MSU Billings catalog
A2_2701-L10421_Proposed Catalog Changes

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X **A. Level I:**

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

X **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

____ **3. Establishing a B.A.S./A.A./A.S. area of study**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

APPLIED BEHAVIOR ANALYSIS TRACK

Verified Course Sequence for BCBA Only

For Non-Degree Seeking Students

MSU Billings offers a Verified Course Sequence with or without Experience sanctioned by the Behavior Analyst Certification Board (www.bacb.com (http://www.bacb.com)). Coursework covers content from the 5th Edition Task List involving 315 hours of study in 7 courses. Students also have the option of completing their experience hours in our University Intensive Practicum.

Courses in the VCS and UIP require students to have a cleared Criminal Background Report on file in the College of Education Licensure Office. Students must submit complete applications for SPED 590 in ABA by November 15 for Spring, or April 15 for Fall.

In order to apply for this option, students must already possess a qualifying Master's Degree (in education, psychology, or applied behavior analysis). Qualifying degrees can be determined by contacting the Behavior Analyst Certification Board directly at www.bacb.com (http://www.bacb.com). Applicants wishing to take the behavior analyst exams are encouraged to contact the BACB. The information is provided to assist students who wish to benefit from BACB courses.

All students seeking a degree or post baccalaureate program through the Department of Educational Theory & Practice must obtain criminal background reports by submitting fingerprints to the Licensure Office upon application to Graduate Studies.

Required Courses

Code	Title	Credits
Applied Behavior Analysis Courses:		
SPED 502	Research in Special Programs	3
SPED 515	Ethics in Educ & Human Svcs	3
SPED 520	Applied Behavior Analysis	3
SPED 551	Assessment & Planning	3
SPED 574	Data-Based Instruction	3
SPED 586	Cncptl Iss in Radical Behvrism	3
Competency Elective		
Select one of the following:		3
SPED 550	Tchng Stdnts w Emtnl/Bhvrl Dis	
SPED 580	Autism Spctr Dis: Char & Intrv	
Total Minimum Credits		21

To complete experience hours in the University Intensive Practicum:

Code	Title	Credits
SPED 590	Internship (Fall)	5
SPED 590	Internship (Spring)	5
SPED 590	Internship (Mini-Thesis)	5
Total Minimum Credits		15

Note: Only one "C" grade can be counted in coursework for the BCBA option.

APPLIED BEHAVIOR ANALYSIS CERTIFICATE

Verified Course Sequence for BCBA Only

For Non-Degree Seeking Students

MSU Billings offers a Verified Course Sequence sanctioned by the Behavior Analyst Certification Board (www.bacb.com (http:// www.bacb.com)). Coursework covers content from the 5th Edition Task List involving 315 hours of study in 7 courses.

Courses in the VCS require students to have a cleared Criminal Background Report on file in the College of Education Licensure Office.

In order to apply for this option, students must already possess a qualifying Master's Degree. Qualifying degrees can be determined by contacting the Behavior Analyst Certification Board directly at www.bacb.com (http://www.bacb.com). Applicants wishing to take the behavior analyst exams are encouraged to contact the BACB. The information is provided to assist students who wish to benefit from BACB courses.

All students seeking a degree or post baccalaureate program through the Department of Educational Theory & Practice must obtain criminal background reports by submitting fingerprints to the Licensure Office upon application to Graduate Studies.

Required Courses

Code	Title	Credits
Applied Behavior Analysis Courses:		
SPED 502	Research in Special Programs	3
SPED 515	Ethics in Educ & Human Svcs	3
SPED 520	Applied Behavior Analysis	3
SPED 551	Assessment & Planning	3
SPED 574	Data-Based Instruction	3
SPED 586	Cncptl Iss in Radical Behvrism	3
Competency Elective		
Select one of the following:		3
SPED 550	Tchng Stdnts w Emtnl/Bhvrl Dis	
SPED 580	Autism Spctr Dis: Char & Intrv	
Total Minimum Credits		21

Note: Only one “C” grade can be counted in coursework for the BCBA option.

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

APRIL 2021

ITEM 200-LI0421

Request for Authorization to Establish Temporary C.A.S. in General Studies

Institution: **Dawson Community College** CIP Code: **24.0102**

Program/Center/Institute Title: **C.A.S. General Studies**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: ____ Blended Offering: X

Options: ____

Proposal Summary [360 words maximum]

What: This is a proposal to create a Temporary Certificate in General Studies. Dawson Community College will offer 35-36 credits to achieve a C.A.S. in General Studies. This certificate will provide the opportunity for students to earn a certificate that demonstrates the student has successfully completed the MUS core that will transfer within the system.

Why: Dawson Community College is a 2 year institution, with a high percentage of graduates transferring on to a 4 year institution. A certificate in general studies will aid in a smoother transition, especially within the MUS. A certificate in general studies will also aid in ensuring our early-start and/or dual-credit students can work towards the appropriate courses and earn a certificate that will aid in their future collegiate choice and encourage Montana residents to stay in a MUS when furthering their education.

Resources: No additional resources needed.

ATTACHMENTS

Attachments: Plan of Study Attached

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

x A. Level I:

Campus Approvals

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

X **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ B. Level II:

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

CAS: General Studies

Fall Semester: 19 (20) Credits		
CRN	**Course**	**Credits**
DCC 101	College Success	1
WRIT 101	College Writing I	3
CAPP 131	Basic MS Office	3
	Mathmatics Core Requirement	3(4)
	Humanities Core Requirement	3
	Social Science Core Requirement	3
	Science Core Requirement	3
Spring Semester: 16 Credits		
CRN	**Course**	**Credits**
	Communications Core Elective	3
	Humanities Core Requirement	3
	Science Core Requirement with Lab	4
	Social Sciene History Core Requirement	3
	Cultural Diversity Core Requirement	3
Total Credits		35(36)

Communications Elective

COMX 111	Intro to Public Speaking	3
COMX 115	Interpersonal Communications	3

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

APRIL 2021

ITEM 200-LI0421

Request for Authorization to Establish Temporary C.A.S. in Human Resources

Institution: **Dawson Community College** CIP Code: **52.1005**

Program/Center/Institute Title: **C.A.S. Human Resources**

Includes (please specify below): Face-to-face Offering: _____ Online Offering: _____ Blended Offering: X

Options: This will be an online option.

Proposal Summary [360 words maximum]

What: Notification for the establishment of a Temporary C.A.S. in Human Resources. Dawson Community College will offer 35-36 credits to achieve a C.A.S. in Human Relations.

Why: Currently, at DCC, there is an A.A.S. in Rural Organization Employee Management (ROEM) and we would like to diversify our offerings and expand more options into the Human Resources realm for current and future employees in the industry. This certificate could be a pathway for a student to navigate further into the ROEM program or it will serve as an added certification on top of the students regular studies.

The current economic and political situation of the world, industry employers need to effectively manage their resources and their resources are those they employ. This certificate will aid in the proper management, from a Human Resources perspective, of employees. Participants that earn this certificate will be able to properly demonstrate knowledge and use of available resources which answer legal, ethical, process and practice questions encountered as they lead their organizations.

Resources: No additional resources needed.

ATTACHMENTS

Attachments: Plan of Study Attached.

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

x A. Level I:

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

X **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ B. Level II:

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____

_____ **5. Re-titling an academic, administrative, or research unit**

CAS: Human Resources		
Fall Semester: 17(18) Credits		
CRN	**Course**	**Credits**
DCC 101	College Success	1
CAPP 131	Basic MS Office	3
BMGT 225	Employee Staffing and Selection	3
BMGT 227	Admin Compensation/Benefits	3
BMGT 237	Human Relations in Business	3
MATH	M105 or Higher	3(4)
Spring Semester: 18 Credits		
CRN	**Course**	**Credits**
WRIT 122	Technical Writing	3
COMX 111	Intro to Public Speaking	3
BMGT 215	Human Resources Management	3
BMGT 226	Employee Management and Success	3
BMGT 228	Ethical, Social and Legal Issues for HR	3
ACTG	ACTG 101 or Higher	3
Total Credits		35(36)

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

APRIL 2021

ITEM 202-LI0421

Request for Authorization to Establish Temporary C.A.S. in Web Development

Institution: **Dawson Community College** CIP Code: **11.1004**

Program/Center/Institute Title: **C.A.S. Web Development**

Includes (please specify below): Face-to-face Offering: ____ Online Offering: X Blended Offering: X

Options: This will be an online certificate option.

Proposal Summary [360 words maximum]

What: Notification for the establishment of a temporary Certificate of Applied Science degree in Web Development intended for the training of web developers. Dawson Community College will offer 37-38 credits CAS-Web Development. Dawson Community College will offer a combination of fundamental and advanced instruction in web development theory and practices. In addition to technical courses, the program will include human relations, computation and communication.

Why:

Currently, DCC offers a C.T.S. in Full Stack Web Development which has proven to be successful. With COVID promoting remote working, DCC has received requests for a web development certificate that better aligns with the needs of the students.

Resources: No additional resources needed.

ATTACHMENTS

Attachments: Plan of Study is attached.

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

X **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ B. Level II:

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____

_____ **5. Re-titling an academic, administrative, or research unit**

CAS: Web Development		
Fall Semester: 19(20) Credits		
CRN	**Course**	**Credits**
DCC 101	College Success	1
BMGT 237	Human Relations in Business	3
CSCI 101	Computational Thinking	3
CSCI 194	Intro to Coding	3
CSCI 221	System Analysis Design	3
CSCI 240	Databases and SQL	3
MATH	M105 or Higher	3(4)
Spring Semester: 18 Credits		
CRN	**Course**	**Credits**
COMM	Communications Elective	3
CSCI 258	Web App Development	3
CSCI 260	Object Orientated Programming	3
CSCI 262	Front End Foundations	3
CSCI 268	Adv. Web App Development	3
CSCI 270	Adv. Object Orientation Program	3
Total Credits		37(38)

Waive:

CAPP 131	Basic MS Office	3

Communications Elective:

COMX 111	Intro to Public Speaking	3
COMX 115	Interpersonal Communications	3

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1002-LI0421

Request for Authorization to Terminate the Rural and Environmental Change Option in the Sociology M.A.

Institution: **University of Montana – Missoula** CIP Code: **45.1103**

Program/Center/Institute Title: **Sociology Department, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: Rural and Environmental Change

Proposal Summary [360 words maximum]

What:
The University of Montana – Missoula requests authorization from the Montana Board of Regents to terminate the Rural and Environmental Change option in the Sociology Master of Arts.

Why:
The option is being terminated because we do not have the faculty capacity to offer the required courses. We do not expect to have a faculty member who could deliver these courses in the future. While this option is being terminated, the Sociology department at UM will continue to offer robust curriculum in other related areas, including at the Master's level.

Resources:
No additional resources are required.

ATTACHMENTS

Program Termination/Moratorium Form

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

X **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana University System

PROGRAM TERMINATION/MORATORIUM FORM

Please complete the following questionnaire prior to submission of a program for termination or placement into moratorium. Please add additional comments beneath each question where applicable.

Program Title: **Rural and Environmental Change option, Sociology M.A.**

Program is being ____ **Placed into moratorium** **X** **Terminated**

1. **Are there currently students enrolled in the program? (If yes, please answer questions a - c below.)** **Y:** ____ **N:** **X**

   a.) **Have all students currently enrolled in the program been met with and informed of the impending termination/moratorium?** **Y:** ____ **N:** ____

   b.) **What is the expected graduation date of all students from the program?**

   c.) **Have course offerings been planned to allow for students in the program to complete the degree in a reasonable fashion?** **Y:** ____ **N:** ____

2. **Will any faculty layoffs or changes in working conditions occur because of the termination/moratorium? (If yes, please answer questions a - b below.)** **Y:** ____ **N:** **X**

   a.) **Have the faculty affected by the program termination/moratorium been notified?** **Y:** ____ **N:** ____

   b.) **Please describe any layoffs that will occur including the date expected?**

Montana University System
PROGRAM TERMINATION/MORATORIUM FORM

3. The following parties, where applicable, have been notified of the impending program termination/moratorium. (Please mark X for completed, NA for not applicable):

a.) Internal Curriculum Committees X

b.) Faculty Senate X

c.) Program Public Advisory Committee NA

d.) Articulation Partners NA

4. Has there been any negative feedback received from students, faculty, or other constituents regarding the impending termination/moratorium? (If yes, please explain below.) Y: ____ N: X

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1003-LI0421

Request for Authorization to Retitle the Statistics Option in the Mathematical Sciences B.A. to Statistics and Data Science

Institution: **University of Montana – Missoula** CIP Code: **27.0599**

Program/Center/Institute Title: **Mathematical Sciences Department, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: Statistics and Data

Proposal Summary [360 words maximum]

What:
The University of Montana – Missoula requests authorization to retitle the Statistics option in the Mathematical Sciences Bachelor of Arts to Statistics and Data.

Why:

The new option title, Statistics and Data, more accurately reflects the content of the curriculum. Our Data Science courses are a core part of one of our Masters offerings, and we have incorporated these courses into the undergraduate offerings.

Resources:
No additional resources are required.

ATTACHMENTS
No Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

x A. Level I:

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

X **5. Re-titling an existing postsecondary educational program**

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 2012-LI0421

Request for Authorization to Retitle B.S. in Health and Human Performance to B.S. in Kinesiology

Institution: Montana State University - Bozeman CIP Code: 31.0505

Program/Center/Institute Title: College of Education, Health and Human Development. Department of Health and Human Development

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: Exercise Science and Kinesiology

Proposal Summary [360 words maximum]

What: We are requesting two naming modifications associated with the existing BS in Health and Human Performance. First, we request renaming the BS in Health and Human Performance to the BS in Kinesiology. The current BS in Health and Human Performance has two options: Exercise Science and Kinesiology. The Exercise Science option would continue as one option under the newly named BS in Kinesiology. The second renaming request is to change the name of the Kinesiology option to the Health and Fitness option.

Why: The use of the program title Kinesiology for the BS degree is more recognizable within the profession and changing the name will increase the visibility of our program to potential students. Many other institutions of higher education use the program title Kinesiology. Additionally, the use of the program title Kinesiology better represents the programming offered at the undergraduate level.

Requesting the change of the program name to Kinesiology will necessitate a name change of the Kinesiology option within the program, the name of the Kinesiology option will be changed to Health and Fitness Option. This name better represents the content of this option because students are being trained to work in the health and fitness industry.

Resources: No additional resources are needed.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

X **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ **B. Level II:**

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 2013-LI0421

Request for Authorization to Move the Child Development Option from the Early Childhood Education & Child Services B.S. to the Human Development and Family Science B.S.

Institution: Montana State University - Bozeman CIP Code: 13.1210 to 19.0701

Program/Center/Institute Title: College of Education, Health and Human Development. Department of Health and Human Development

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: Child Development option

Proposal Summary [360 words maximum]

What: Move the Child Development option from the Early Childhood Education & Child Services degree (ECECS-BS) to the Human Development & Family Science (HDFS-BS) degree. This would add Child Development as a third option to the two existing options in the HDFS degree: Family and Consumer Sciences Education and Human Development and Family Science. This structure is consistent with plans of study recognized by the National Council on Family Relations. This would leave the Preschool-Grade 3 teaching option within the Early Childhood Education & Child Services degree and allow it to clearly focus on teacher education. The CIP code for the Child Development option in Human Development & Family Science is also being changed to reflect the realignment.

Why: The Child Development option appeals to students with professional interests including parent education, early intervention, resource and referral, advocacy, and childcare administration. A majority of required, supporting, and directed elective coursework in the Child Development option already comes from HDFS. Moving the Child Development option to the HDFS degree will further enhance students' professional preparation and provide a more meaningful sequence of course and field work experiences.

Resources: The HDFS and ECE&CS degrees are housed in the Department of Health & Human Development (HHD). No new resources are needed. The Child Development option will simply move from one major to another within HHD.

ATTACHMENTS
Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

X **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form) Curriculum Proposal Form not needed per attached correspondence with Joe Thiel.

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

_____ **B. Level II:**

_____ **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 2014-LI0421

Request for Authorization to Retitle the Early Childhood Education & Child Services B.S. to the Early Childhood Education: P3 B.S.

Institution: Montana State University - Bozeman CIP Code: 13.1210

Program/Center/Institute Title: College of Education, Health and Human Development. Department of Health and Human Development

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: Retitle the Early Childhood Education & Child Services degree to Early Childhood Education: P3 BS degree

Why: The Early Childhood Education & Child Services degree has two options. There is a pending request to move one option, the Early Childhood Education & Child Services degree (ECECS-BS), to be an option in the Human Development & Family Science (HDFS-BS) degree. This move would leave the Early Childhood Education & Child Services degree with only one option, the Preschool-Grade (P3) option (ECCD-PT). The retitling of the Early Childhood Education & Child Services degree to Early Childhood Education: P3 would more accurately describe the degree and eliminate having a degree with a single option. This retitling ensures more consistency of the degree name across the MUS.

Resources: No new resources are needed.

ATTACHMENTS

Attachments

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

X A. Level I:

Campus Approvals

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

1b. Withdrawing a postsecondary educational program from moratorium

2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

X **5. Re-titling an existing postsecondary educational program**

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form) Curriculum Proposal Form

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

B. Level II:

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

4. Forming, eliminating or consolidating an academic, administrative, or research unit (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1004-LII0421

Request for Authorization to Establish an Engineering Physics Option in the Physics B.A.

Institution: **University of Montana – Missoula** CIP Code: **14.1201**

Program/Center/Institute Title: **Physics and Astronomy, College of Humanities and Sciences**

Includes (please specify below): Face-to-face Offering: X Online Offering: _____ Blended Offering: _____

Options: Engineering Physics

Proposal Summary [360 words maximum]

What:
The University of Montana – Missoula requests authorization from the Montana Board of Regents to establish an Engineering Physics option in the Physics Bachelor of Arts.

Why:

An option in Engineering Physics in the B.A. in Physics will provide students interested in engineering and physics a pathway to obtain a degree in physics with a solid foundation in engineering content.

A number of graduates from UM's Department of Physics and Astronomy obtain jobs with engineering companies that are willing to hire either engineers or physicists. This degree will help make our graduates even more desirable for these companies and it will also raise awareness among potential students that this is a career path for students obtaining a degree from our department. In addition, it will help strengthen our existing pre-engineering program by increasing enrollment in UM's engineering courses.

Resources:
No additional resources are required.

ATTACHMENTS

Curriculum Proposal form
Fiscal Analysis form
Request to Plan form

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

X B. Level II:

X **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

CURRICULUM PROPOSAL FORM

1. **Overview of the request and resulting changes.** Provide a one-paragraph description of the proposed program. Will this program be related or tied to other programs on campus? Describe any changes to existing program(s) that this program will replace or modify. *[100 words]*

   The option in Engineering Physics in the B.A. in Physics will provide students interested in engineering and physics a pathway to obtain a degree in physics with some engineering content. This proposal leverages existing courses in engineering offered as part of our Pre-engineering program to provide a new pathway for students.

2. **Relation to institutional strategic goals.** Describe the nature and purpose of the new program in the context of the institution's mission and core themes. *[200 words]*

   This program would advance the goal of Innovation by providing students with 21st Century skills. Physicists and engineers are at the forefront of solving problems through working with teams and developing creative methods for approaching and providing solutions for highly complex tasks. These tasks are highly interdisciplinary and have multiple solutions that foster creativity and a hands-on approach in a team environment. Engineering Physics bridges the gap between the applied, practical approach of engineering and the scientific method of physics. This program would contribute to our Community of Excellence in Science & Technology.

3. **Process leading to submission.** Briefly detail the planning, development, and approval process of the program at the institution. *[100 words]*

   This program has been under discussion at the University of Montana for several years. Noting that a number of our physics alumni go directly into engineering positions and noting the interest among our physics majors in engineering, we began to develop an Engineering Physics option. We currently offer a Pre-Engineering program in which students take two years of courses from UM before transferring to an engineering school. We currently offer five engineering courses, an introductory engineering course, an engineering statics course, an engineering dynamics course, and circuits I & II. This new option would allow us to leverage on the Pre-Engineering courses by offering students an option to obtain a degree with a blend of physics and engineering.

4. **Program description.** Please include a complete listing of the proposed new curriculum in Appendix A of this document.

   a. List the program requirements using the following table.

	Credits
Credits in required courses offered by the department offering the program	50
Credits in required courses offered by other departments	18
Credits in institutional general education curriculum	27
Credits of free electives	25
Total credits required to complete the program	120

Montana Board of Regents
CURRICULUM PROPOSAL FORM

b. List the program learning outcomes for the proposed program. Use learner-centered statements that indicate what students will know, be able to do, and/or value or appreciate as a result of completing the program.

Demonstrate understanding and competency of the basic concepts of physics and engineering.

Demonstrate an ability to solve quantitative and conceptual technical problems related to engineering physics.

Be able to identify the essential aspects of a problem and formulate a strategy for its solution using mathematical, graphical, and conceptual representations as appropriate.

Be able to critically evaluate a solution for correctness, for example using estimation, examination of limiting cases, and dimensional analysis.

Demonstrate safe laboratory technique and proper use of appropriate equipment.

Be able to analyze experimental data, including identifying sources of statistical and systematic error and quantifying uncertainty.

5. **Need for the program.** To what specific student, regional, and statewide needs is the institution responding to with the proposed program? How will the proposed program meet those needs? Consider workforce, student, economic, societal, and transfer needs in your response as appropriate. *[250 words]*

Engineering is a popular choice among incoming students and our department receives many inquiries about the Pre-Engineering program. Many of these students express a desire to receive a degree from UM but they must leave in order to obtain an engineering degree. This new option will provide the opportunity for some of those pre-engineering students to remain at UM and obtain a degree in physics with an engineering physics concentration. Engineering Physics programs at CU-Boulder and the University of Wisconsin-Madison attract a large number of students. An engineering-physics program at the University of Wisconsin-La Crosse (http://www.aapt.org/Conferences/upload/UW-LaCrosse-Case-Study-Sudha.pdf) helped grow their physics program significantly. This new option could grow the number of majors in Physics at UM and provide a new pathway for students interested in physics and engineering.

6. **Similar programs.** Use the table below to identify and describe the relationship between any similar programs within the Montana University System.

Institution Name	Degree	Program Title
N/A	N/A	N/A

a. If the proposed program substantially duplicates another program offered in the Montana University System, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. *[200 words]*

There are currently no Engineering Physics programs in the MUS system. There is some overlap with both physics programs (at UM-Missoula and MSU-Bozeman) and engineering programs (at MSU-Bozeman and Montana Tech). This program is more of a blend of the two programs.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

b. Describe any efforts that were made to collaborate with similar programs at other institutions. If no efforts were made, please explain why. *[200 words]*

Our collaborative efforts have been working with Montana Tech to strengthen our Pre-engineering program. We know offer a number of engineering courses at UM as part of our efforts to strengthen this program. This new program would increase enrollment in these courses.

7. **Implementation of the program.** When will the program be first offered? If implementation will occur in phases, please describe the phased implementation plans. *[100 words]*

As soon as possible, as early as Fall 2021 if approved in time.

a. Complete the following table indicating the projected enrollments in and graduates from the proposed program.

Fall Headcount Enrollment					Graduates				
AY21	AY22	AY23	AY24	AY25	AY21	AY22	AY23	AY24	AY25
4	8	12	16	20	0	0	1	4	4

b. Describe the methodology and sources for determining the enrollment and graduation projections above. *[200 words]*

This assumes attracting 3 or 4 new students in the first year, along with one or two existing physics majors switching to this option. In future years the estimate is 4 or 5 new students each year with some attrition in the program.

c. What is the initial capacity for the program?

The initial capacity is approximately 10 - 12 new students each year.

8. **Program assessment.** How will success of the program be determined? What action would result if this definition of success is not met? *[150 words]*

The success of this program will be based on attracting new students to this major and the outcomes of the students that complete the program. This would require both students choosing this option and the overall number of physics majors increasing. The outcomes of the students completing the program would be assessed based on their ability to obtain appropriate employment or proceed on to graduate or professional school.

a. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program. When will assessment activities occur and at what frequency? *[150 words]*

Development of understanding, competency and problem-solving skills are assessed throughout the curriculum, especially in the introductory calculus-based physics sequence and in upper-division physics courses. Development of safe and appropriate laboratory technique and analysis of experimental data is assessed in applied engineering courses and laboratory physics courses. Communication of physics is assessed in the senior capstone course.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

b. What direct and indirect measures will be used to assess student learning? *[100 words]*

Direct measures include performance of classes on specific assignments and exam problems, ability to obtain appropriate laboratory measurements, and ability to give appropriate senior capstone presentations. Indirect measurements would include the outcomes of the students who complete the program.

c. How will you ensure that the assessment findings will be used to ensure the quality of the program? *[100 words]*

The use of assessment findings is part of our process at the University of Montana. We would assess the program each year but would be more extensive in year five, after the first students would have graduated from the program and go on to employment in industry or graduate school.

d. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation. *[100 words]*

N/A

9. Physical resources.

a. Describe the existing facilities, equipment, space, laboratory instruments, computer(s), or other physical equipment available to support the successful implementation of the program. What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated? *[200 words]*

Existing facilities include lower and upper division laboratory classrooms, including computers in these classrooms used for data acquisition and analysis. There is currently enough capacity in these spaces to accommodate the additional students expected for this program.

b. List needed facilities, equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. (Enter the costs of those physical resources into the budget sheet.) How will the need for these additional resources be met? *[150 words]*

No new facilities are presently needed.

10. Personnel resources.

a. Describe the existing instructional, support, and administrative resources available to support the successful implementation of the program. What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained? *[200 words]*

This program would be administered in the Department of Physics and Astronomy. The courses described in this program are already offered at UM and no new resources are required.

b. Identify new personnel that must be hired to support the proposed program. (Enter the costs of those personnel resources into the budget sheet.) What are the anticipated sources or plans to secure the needed qualified faculty and staff? *[150 words]*

Montana Board of Regents
CURRICULUM PROPOSAL FORM

No new personnel are required.

11. Other resources.

a. Are the available library and information resources adequate for the proposed program? If not, how will adequate resources be obtained? *[100 words]*

The existing library and information resources are adequate.

b. Do existing student services have the capacity to accommodate the proposed program? What are the implications of the new program on services for the rest of the student body? *[150 words]*

Existing student services have the capacity to accommodate the proposed program.

12. Revenues and expenditures. Describe the implications of the new program on the financial situation of the institution. *[100 words]*

The program would be a small boon to the institution as it would be a small increase in the number of students in our program without additional instructional expenditures.

a. Please complete the following table of budget projections using the corresponding information from the fiscal analysis form for the first three years of operation of the new program.

	Year 1	Year 2	Year 3
Revenues	23000	0	23000
Expenses	46000	0	46000
Net Income/Deficit (revenues-expenses)	69000	0	69000

b. Describe any expenses anticipated with the implementation of the new program. How will these expenses be met? *[200 words]*

Since the courses described are currently part of either the Physics program or the Pre-engineering program, there are no new resources expected for this program.

i. If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs? *[150 words]*

N/A

ii. If an increase in base funding is required to fund the program, indicate the amount of additional base funding and the fiscal year when the institution plans to include the base funding in the department's budget.

N/A

Montana Board of Regents
CURRICULUM PROPOSAL FORM

iii. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends? *[150 words]*

N/A

iv. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? *[150 words]*

N/A

13. Student fees. If the proposed program intends to impose new course, class, lab, or program fees, please list the type and amount of the fee.

N/A

14. Complete the fiscal analysis form.

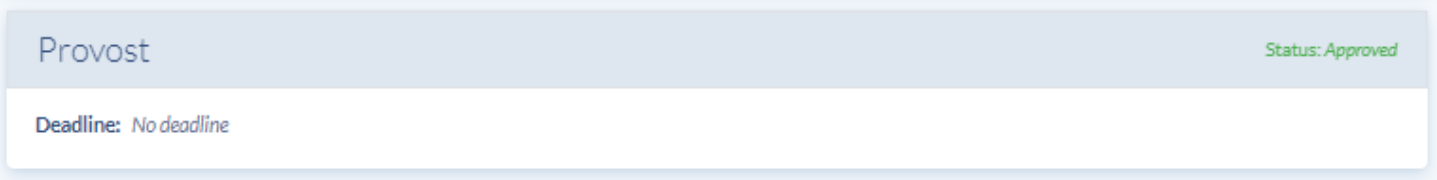
Signature/Date

College or School Dean:

Chief Academic Officer:

Chief Executive Officer:

Flagship Provost*: Approved in Coursedog.



Flagship President*: Approved in Coursedog.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

President — Status: *Approved*

Deadline: *No deadline*

*Not applicable to the Community Colleges.

Appendix A – Proposed New Curriculum

Physics B.A. – Engineering Physics

The engineering physics concentration provides a thorough study of physics and a solid background in engineering and mathematics. Graduates from this program can go on to graduate programs in physics and engineering or seek career opportunities in technical fields.

Bachelor of Arts - Physics; Engineering Physics Concentration

College of Humanities & Sciences

Degree Specific Credits: 71
Required Cumulative GPA: 2.0

Catalog Year: 2021-2022

General Education Requirements

Information regarding these requirements can be found in the General Education Section of the catalog.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

Summary

Lower-Division Physics Core	10
Upper-Division Physics Core	18
Engineering Core	13
Physics and Engineering Electives	9
Math Requirements	15
Computer Science Requirements	3
Advanced College Writing Requirement	3
Total Hours	71

Lower Division Physics Core

Course	Credits
PHSX 215N - Fund of Physics w/Calc I	4 Credits
PHSX 216N - Physics Laboratory I w/Calc	1 Credits
PHSX 217N - Fund of Physics w/Calc II	4 Credits
PHSX 218N - Physics Laboratory II w/Calc	1 Credits
Minimum Required Grade: C-	10 Total Credits Required

Upper Division Physics Core

Course	Credits

Montana Board of Regents
CURRICULUM PROPOSAL FORM

PHSX 301 - Intro Theoretical Physics	3 Credits
PHSX 311 - Oscillations and Waves	2 Credits
PHSX 323 - Intermediate Physics Lab	3 Credits
PHSX 343 - Modern Physics	3 Credits
PHSX 423 – Electricity & Magnetism I	3 Credits
PHSX 446 – Thermodynamics & Stat Mech	3 Credits
PHSX 499 - Senior Capstone Seminar	1 Credits
Minimum Required Grade: C-	18 Total Credits Required

Engineering Core

Course	Credits
EGEN 101 - Intro to Eng Cal & Prob Solv	3 Credits
EGEN 201 - Engineering Mechanics-Statics	3 Credits
EGEN 202 – Engineering Mechanics-Dynamics	3 Credits
EELE 201 – Circuits I for Engineering	4 Credits
Minimum Required Grade: C-	13 Total Credits Required

Physics and Engineering Electives

Rule: Choose 9 additional upper division credits in physics or engineering.

Note: Other physics and engineering courses may be substituted with adviser approval.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

Course	Credits
PHSX 320 - Classical Mechanics	3 Credits
PHSX 327 - Optics	3 Credits
PHSX 330 - Communicating Physics	3 Credits
PHSX 333 - Computational Physics	3 Credits
PHSX 425 - Electricity & Magnetism II	3 Credits
PHSX 444 - Advanced Physics Lab	3 Credits
PHSX 461 - Quantum Mechanics I	3 Credits
PHSX 462 - Quantum Mechanics II	3 Credits
EGEN 335 - Fluid Mechanics	3 Credits
Upper division engineering courses (transferred in)	(up to 9 Credits)
Minimum Required Grade: C-	9 Total Credits Required

Math Requirements

Note: M 317, M 412 and M 418 are recommended as well

Complete all of the following courses:

Course	Credits
M 171 - Calculus I	4 Credits
M 172 - Calculus II	4 Credits

Montana Board of Regents
CURRICULUM PROPOSAL FORM

M 273 - Multivariable Calculus	4 Credits
M 274 – Intro to Diff Equations ***or*** **M 311** - Ordinary Diff Equations/System	3 Credits
	15 Total Credits Required

Computer Science Requirements

Complete one of the following courses:

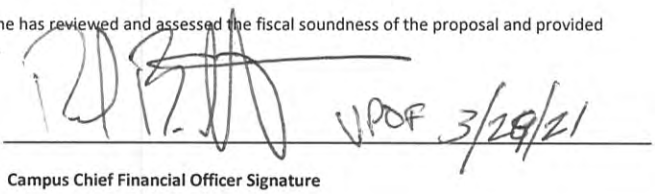
Course	**Credits**
CSCI 151 – Interdisciplinary Computer Science I	3 Credits
PHSX 333 – Computational Physics (strongly recommended)	3 Credits
Minimum Required Grade: C-	3 Total Credits Required

Academic Degree Program Proposal - Fiscal Analysis Form

CAMPUS:	UM-Missoula
AWARD LEVEL:	UG
PROGRAM NAME:	B.A. in Physics; Engineering Physics concentration
PROGRAM CODE:	PHSX

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
ENROLLMENT PROJECTIONS					
Headcount					
annual unduplicated headcount of students with declared major or minor within the program	4	8	12	16	16
Credit Hours					
annual avg. credits hours earned per student in program related curriculum	30	30	30	30	30
Student FTE					
Undergrad: (Headcount x CH)/30 Graduate: (Headcount x CH)/24	4	8	12	16	16
Completions					
Annual number of program completers	0	0	1	4	4
REVENUE					
Tuition Revenue (net of waivers)	$28,728	$57,455	$86,183	$114,910	$114,910
Institutional Support	$0	$0	$0	$0	$0
Other Outside Funds (grants, gifts, etc.)	$0	$0	$0	$0	$0
Program Tuition/Fees	$0	$0	$0	$0	$0
Total Revenue	**$28,728**	**$57,455**	**$86,183**	**$114,910**	**$114,910**
Total Revenue per Student FTE	**$7,182**	**$7,182**	**$7,182**	**$7,182**	**$7,182**
EXPENDITURES					
Tenure Track Faculty — FTE	0.0	0.0	0.0	0.0	0.0
Tenure Track Faculty — Salary + Benefits	$0	$0	$0	$0	$0
Non-tenure Track Faculty *Includes Adjunct Instructors — FTE	0.0	0.0	0.0	0.0	0.0
Non-tenure Track Faculty *Includes Adjunct Instructors — Salary + Benefits	$0	$0	$0	$0	$0
Graduate Teaching Assistants — FTE	0.0	0.0	0.0	0.0	0.0
Graduate Teaching Assistants — Salary + Benefits	$0	$0	$0	$0	$0
Staff — FTE	0.0	0.0	0.0	0.0	0.0
Staff — Salary + Benefits	$0	$0	$0	$0	$0
Total Faculty & Staff — FTE	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Total Faculty & Staff — Salary + Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Operations (supplies, travel, rent, etc)	$0	$0	$0	$0	$0
Start-up Expenses (OTO)	$0	$0	$0	$0	$0
Total Expenses	**$0**	**$0**	**$0**	**$0**	**$0**
Student FTE to Faculty (TT + NTT) Ratio	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Income/Deficit (Revenue - Expenses)	$28,728	$57,455	$86,183	$114,910	$114,910

The signature of the campus Chief Financial Officer signifies that he/she has reviewed and assessed the fiscal soundness of the proposal and provided his/her recommendations to the Chief Academic Officer as necessary.



Campus Chief Financial Officer Signature

Chief Financial Officer Comments

Montana University System

REQUEST TO PLAN FORM

ITEM 1004-LII0421 **April 2021**

Request for authorization to establish an option in Engineering Physics in the Physics B.A.

Program/Center/Institute Title: **Physics BA, Engineering Physics option**

Planned 6-digit CIP code: **14.1201**

Campus, School/Department: **University of Montana-Missoula, College of Humanities and Sciences**

Expected Final Submission Date: **June 2021**

Contact Name/Info: **Andrew Ware, andrew.ware@mso.umt.edu**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) **Provide a description of the program/center/institute.**

   We propose a new option in Engineering Physics in the Physics B.A. This option is sought to provide students interested in engineering and physics a pathway to obtain a degree in physics with some engineering content. This proposal leverages existing courses in engineering offered as part of our Pre-Engineering program to provide a new pathway for students.

2) **Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).**

   A number of graduates from UM's Department of Physics and Astronomy obtain jobs with engineering companies that are willing to hire either engineers or physicists. This degree will help make our graduates even more desirable for these companies and it will also raise awareness among potential students that this is a career path for students obtaining a degree from our department.

3) **Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.**

   No new resources are required for this program. The engineering courses in this proposal are offered as part of our Pre-Engineering program and the physics courses are offered as part of our Physics program.

4) **Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).**

   We have been working with representatives from the engineering program of Montana Tech to strengthen our Pre-Engineering program. We added three additional lower-division engineering courses at UM so our students will be better prepared when they transfer to an engineering school. This proposed new option will allow us to use these courses more effectively as they are required for this option. This option will serve students who are interested in both physics and engineering and it will allow students to obtain a degree in physics with a solid introduction to engineering.

Montana University System

REQUEST TO PLAN FORM

5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

This program would advance the goal of Innovation by providing students with 21st Century skills. Physicists and engineers are at the forefront of solving problems through working with teams and developing creative methods for approaching and providing solutions to highly complex tasks. These tasks are highly interdisciplinary and have multiple solutions that foster creativity and a hands-on approach in a team environment. Engineering Physics bridges the gap between the applied, practical approach of engineering and the scientific method of physics. This program would contribute to and strengthen our Community of Excellence in Science and Technology.

Signature/Date
Chief Academic Officer:
Chief Research Officer*:
Chief Executive Officer:
Flagship Provost: Approved on Coursedog**
Flagship President: Approved on Coursedog**
*Center/Institute Proposal only **Not applicable to the Community Colleges.

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 1005-LII0421

Request for authorization to establish a certificate of General Studies

Institution: **Missoula College** CIP Code: **24.0101**

Program/Center/Institute Title: **Department of Applied Arts and Sciences, Missoula College**

Includes (please specify below): Face-to-face Offering: X Online Offering: X Blended Offering: ____

Options: None

Proposal Summary [360 words maximum]

What:
Missoula College requests authorization from the Montana Board of Regents to establish a certificate of General Studies.

Why:
The purpose of the Certificate of General Studies, which will also fulfill the requirements for the MUS Core, is to recognize students whose primary goal is to complete their general education requirements at Missoula College.

Many of these students move on without completing the 30 required credits of the MUS core needed for smooth transition to another Montana academic unit (BOR 301.10). In addition, as we do not currently have a credential for general education, we are unable to track successful completion for these students.

The Certificate of General Studies recognizes completion of 30 academic credits that fulfill the University of Montana's General Education Requirements as well as the core general education requirements outlined by the Montana University System. As we do not currently have a credential for general education, we are unable to track successful completion for students simply desiring to complete their "generals" at Missoula College.

Students could use this certificate as a milestone toward receiving their Associate of Arts or Associate of Science degree at Missoula College. Alternatively, they could use the certificate to demonstrate completion of core general education courses to facilitate transfer within the Montana University System or accelerate their work in a baccalaureate program on the UM Mountain Campus.

Resources:
No additional resources are required.

ATTACHMENTS

Curriculum Proposal form
Fiscal Analysis form
Request to Plan form

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

____ **3. Establishing a B.A.S./A.A./A.S. area of study**

____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

____ **5. Re-titling an existing postsecondary educational program**

____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

X B. Level II:

X **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

4. **Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. **Re-titling an academic, administrative, or research unit**

Montana Board of Regents

CURRICULUM PROPOSAL FORM

1. **Overview of the request and resulting changes.** Provide a one-paragraph description of the proposed program. Will this program be related or tied to other programs on campus? Describe any changes to existing program(s) that this program will replace or modify. *[100 words]*

The purpose of the Certificate of General Studies, which will also fulfill the requirements for the MUS Core, is to recognize students whose primary goal is to complete their general education requirements at Missoula College.

Many of these students move on without completing the 30 required credits of the MUS core needed for smooth transition to another Montana academic unit (BOR 301.10). In addition, as we do not currently have a credential for general education, we are unable to track successful completion for these students.

The Certificate of General Studies recognizes completion of 30 academic credits that fulfill the University of Montana's General Education Requirements as well as the core general education requirements outlined by the Montana University System. As we do not currently have a credential for general education, we are unable to track successful completion for students simply desiring to complete their "generals" at Missoula College.

2. **Relation to institutional strategic goals.** Describe the nature and purpose of the new program in the context of the institution's mission and core themes. *[200 words]*

UM's first Priority for Action is to "place student success at the center of all we do." Included in this is a call to "renew our intense focus on student retention, persistence, and success through graduation and beyond." This credential would no doubt increased persistence and retention for our students simply desiring to complete their general education credentials as part of their educational journey.

3. **Process leading to submission.** Briefly detail the planning, development, and approval process of the program at the institution. *[100 words]*

This planning and development of this proposal was a result of increasing discussion over the inability for us to track students' successful completion of their general education requirements on their pathway to either a two-year or four-year degree program at another MUS institution or a four-year degree program at the University of Montana. A Request to Plan was approved in November 2020.

4. **Program description.** Please include a complete listing of the proposed new curriculum in Appendix A of this document.

a. List the program requirements using the following table.

	Credits
Credits in required courses offered by the department offering the program	30
Credits in required courses offered by other departments	0
Credits in institutional general education curriculum	30
Credits of free electives	0

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Total credits required to complete the program	30

b. List the program learning outcomes for the proposed program. Use learner-centered statements that indicate what students will know, be able to do, and/or value or appreciate as a result of completing the program.

Because this is a general education transfer certificate, the outcomes parallel those of UM's general education curriculum.

5. **Need for the program.** To what specific student, regional, and statewide needs is the institution responding to with the proposed program? How will the proposed program meet those needs? Consider workforce, student, economic, societal, and transfer needs in your response as appropriate. *[250 words]*

There is a segment of our student population that moves on prior to completing the 30 required credits of the MUS core needed for smooth transition to another Montana academic unit (BOR 301.10). In addition, as we do not currently have a credential for general education, we are unable to track successful completion for these students.

6. **Similar programs.** Use the table below to identify and describe the relationship between any similar programs within the Montana University System.

Institution Name	Degree	Program Title
Great Falls College	Certificate	General Studies
Gallatin College	Certificate	General Studies
Miles City Community College	Certificate	General Studies

a. If the proposed program substantially duplicates another program offered in the Montana University System, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. *[200 words]*

The certificate is collaborative in nature in that it fulfills the requirements of the MUS core that were intended to create smooth transitions to any area of study within the MUS system. These efforts represent the comprehensive two-year goals outlined for two-year colleges within the MUS system.

b. Describe any efforts that were made to collaborate with similar programs at other institutions. If no efforts were made, please explain why. *[200 words]*

As noted above, much like with the general AA or AS transfer degree, duplication of a general studies credential within our two-year colleges is not necessarily an issue. The hope is that it helps us fulfill our comprehensive mission of providing transfer education to any area of study within the MUS system while also opening up doors to create bridges to degree areas we don't offer at UM with two-year and four-year MUS partners.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

7. **Implementation of the program.** When will the program be first offered? If implementation will occur in phases, please describe the phased implementation plans. *[100 words]*

This program will first be offered Fall 2021.

a. Complete the following table indicating the projected enrollments in and graduates from the proposed program.

Fall Headcount Enrollment					Graduates				
AY21	AY22	AY23	AY24	AY25	AY21	AY22	AY23	AY24	AY25
275	275	275	275	275	75	75	75	75	75

b. Describe the methodology and sources for determining the enrollment and graduation projections above. *[200 words]*

These estimates are based upon the last three years of University data for the AA general studies degree.

c. What is the initial capacity for the program?

There is no strict capacity for this program, as we already deliver general education courses to students.

8. **Program assessment.** How will success of the program be determined? What action would result if this definition of success is not met? *[150 words]*

Success will be determined by looking at how enrollment and graduation numbers affect overall retention data for our general studies programs. The goal will be to improve retention efforts in these areas.

a. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program. When will assessment activities occur and at what frequency? *[150 words]*

Assessment will occur on a biennial basis in line with the University of Montana's assessment process. Missoula College regularly considers data on our AA students' matriculation into four-year degree programs. We are in search of ways to collect data on the specifics pathways our students take as they matriculate from our transfer degrees. The Certificate of General Studies would help us collect more specific data related to the pathway our students who are solely completing their general education requirements. Ideal would be to further collaboration with Mountain Campus departments as well as other Montana colleges in developing concentrations/pathways within our two-year or four-year degrees beyond the Certificate of General Studies.

b. What direct and indirect measures will be used to assess student learning? *[100 words]*

In addition to the assessment processes identified above, faculty have started identifying assessment methods as part of general education proposals and rolling review. This as well as the biennial assessment process will enable us to assess student learning in our general education transfer courses.

c. How will you ensure that the assessment findings will be used to ensure the quality of the program? *[100 words]*

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CURRICULUM PROPOSAL FORM

Our hope is that this will help us construct a systemic method for assessing associate and baccalaureate degree completion for students beginning their education at a two-year college.

d. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation. *[100 words]*

No specialized accreditation will take place.

9. Physical resources.

a. Describe the existing facilities, equipment, space, laboratory instruments, computer(s), or other physical equipment available to support the successful implementation of the program. What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated? *[200 words]*

Existing facilities are sufficient. The physical needs of this certificate parallel the AA and AS degree.

b. List needed facilities, equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. (Enter the costs of those physical resources into the budget sheet.) How will the need for these additional resources be met? *[150 words]*

No new resources are needed.

10. Personnel resources.

a. Describe the existing instructional, support, and administrative resources available to support the successful implementation of the program. What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained? *[200 words]*

Sufficient resources are in place for the Certificate of General Studies.

b. Identify new personnel that must be hired to support the proposed program. (Enter the costs of those personnel resources into the budget sheet.) What are the anticipated sources or plans to secure the needed qualified faculty and staff? *[150 words]*

No new resources are needed.

11. Other resources.

a. Are the available library and information resources adequate for the proposed program? If not, how will adequate resources be obtained? *[100 words]*

Available resources are sufficient.

b. Do existing student services have the capacity to accommodate the proposed program? What are the implications of the new program on services for the rest of the student body? *[150 words]*

Montana Board of Regents
CURRICULUM PROPOSAL FORM

The students working toward their Certificate of General Studies would primarily be students who would be already attending Missoula College to work on their general education requirements. Initially, we don't anticipate a need for any new resources.

12. Revenues and expenditures. Describe the implications of the new program on the financial situation of the institution. *[100 words]*

There are no new implications, as we are already delivering these courses.

a. Please complete the following table of budget projections using the corresponding information from the fiscal analysis form for the first three years of operation of the new program.

	Year 1	Year 2	Year 3
Revenues	18,730	37,460	56,190
Expenses	0	0	0
Net Income/Deficit (revenues-expenses)	18,730	37,460	56,190

b. Describe any expenses anticipated with the implementation of the new program. How will these expenses be met? *[200 words]*

N/A

i. If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs? *[150 words]*

N/A

ii. If an increase in base funding is required to fund the program, indicate the amount of additional base funding and the fiscal year when the institution plans to include the base funding in the department's budget.

N/A

iii. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends? *[150 words]*

N/A

iv. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? *[150 words]*

N/A

Montana Board of Regents
CURRICULUM PROPOSAL FORM

13. **Student fees.** If the proposed program intends to impose new course, class, lab, or program fees, please list the type and amount of the fee.

N/A

14. Complete the fiscal analysis form.

Signature/Date

College or School Dean:

Chief Academic Officer:

Chief Executive Officer:

Flagship Provost*: Approved in Coursedog.

Provost — Status: *Approved*

Deadline: *No deadline*

Flagship President*: Approved in Coursedog.

President — Status: *Approved*

Deadline: *No deadline*

*Not applicable to the Community Colleges.

Montana Board of Regents

CURRICULUM PROPOSAL FORM

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CURRICULUM PROPOSAL FORM

Appendix A – Proposed New Curriculum

There is no new curriculum proposed, as the classes are already being delivered.

Academic Degree Program Proposal - Fiscal Analysis Form

CAMPUS:	Missoula College UM
AWARD LEVEL:	UG
PROGRAM NAME:	Certificate of General Studies
PROGRAM CODE:	

ENROLLMENT PROJECTIONS	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Headcount annual unduplicated headcount of students with declared major or minor within the program	0	5	10	15	20
Credit Hours annual avg. credits hours earned per student in program related curriculum	30	30	30	30	30
Student FTE Undergrad: (Headcount x CH)/30 Graduate: (Headcount x CH)/24	0	5	10	15	20
Completions Annual number of program completers	0	25	50	75	100

REVENUE					
Tuition Revenue (net of waivers)	$0	$18,730	$37,460	$56,190	$74,920
Institutional Support					
Other Outside Funds (grants, gifts, etc.)					
Program Tuition/Fees					
Total Revenue	$0	$18,730	$37,460	$56,190	$74,920
Total Revenue per Student FTE	#DIV/0!	$3,746	$3,746	$3,746	$3,746

EXPENDITURES						
Tenure Track Faculty	FTE					
	Salary + Benefits					
Non-tenure Track Faculty *Includes Adjunct Instructors	FTE					
	Salary + Benefits					
Graduate Teaching Assistants	FTE					
	Salary + Benefits					
Staff	FTE					
	Salary + Benefits					
Total Faculty & Staff	FTE					
	Salary + Benefits					
Operations (supplies, travel, rent, etc)						
Start-up Expenses (OTO)						
Total Expenses		$0	$0	$0	$0	$0
Student FTE to Faculty (TT + NTT) Ratio		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Income/Deficit (Revenue - Expenses)		$0	$18,730	$37,460	$56,190	$74,920

The signature of the campus Chief Financial Officer signifies that he/she has reviewed and assessed the fiscal soundness of the proposal and provided his/her recommendations to the Chief Academic Officer as necessary.

VP04F 11-16-20

Campus Chief Financial Officer Signature

Chief Financial Officer Comments

There are not specific courses required for this certificate. Rather, much like with our AA and AS Degrees, a student completes UM's lower-division General Education Requirements that also count toward the MUS Core. Initially, we do not expect enrollment to increase significantly. Rather, we expect to see students achieve this certificate as a milestone on their pathway to a two-year or four-year degree program at Missoula College, UM or another institution within the MUS system. Missoula College offers a variety of courses that fulfill UM's lower-division general education requirements and the MUS Core. Our students can also take 6 credits of mountain campus courses a semester. With time, we hope to develop collaborations with two-year or four-year partners to develop degree pathways stemming from the Certificate of General Studies.

There will not be new revenue generated or new expenses created. This is a certificate for existing coursework.

Montana University System

REQUEST TO PLAN FORM

ITEM 1005-LII0421 **April 2021**

Request for authorization to establish a certificate in General Studies

Program/Center/Institute Title: **Certificate of General Studies**

Planned 6-digit CIP code: **24.0199**

Campus, School/Department: **Missoula College, UM/Applied Arts and Sciences**

Expected Final Submission Date: **March 2021**

Contact Name/Info: **Kim Reiser, Department Chair Applied Arts and Sciences**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) **Provide a description of the program/center/institute.**

We are submitting this request to plan for a Certificate of General Studies. The Certificate of General Studies recognizes completion of UM general education requirements that also fulfill the 30 required credits of the MUS Core to allow a student to transfer general education credits to any MUS academic unit.

2) **Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).**

The purpose of the Certificate of General Studies, which will also fulfill the requirements for the MUS Core, is to recognize students whose primary goal is to complete their "generals" at Missoula College. Many of these students move on without completing the 30 required credits of the MUS core needed for smooth transition to another Montana academic unit (BOR 301.10). In addition, as we do not currently have a credential for general education, we are unable to track successful completion for these students. This stackable credential would no doubt increase retention for this population at the college.

In essence, students could use this certificate as a milestone toward receiving their Associate of Arts or Associate of Science degree at Missoula College. Alternatively, they could use the certificate to demonstrate completion of core general education courses to facilitate transfer within the Montana University System or accelerate their work in a baccalaureate program on the UM Mountain Campus. This credential can be completed in a single academic year.

3) **Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.**

As the curriculum for completing general education coursework already exists at Missoula College, there would be no new resources required to launch this certificate.

Montana University System

REQUEST TO PLAN FORM

4) Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).

The Certificate of General Studies is offered at Great Falls College, Gallatin College, and Miles City Community College. The certificate is collaborative in nature in that it fulfills the requirements of the MUS core that were intended to create smooth transitions to any area of study within the MUS system. These efforts represent the comprehensive two-year goals outlined for two-year colleges within the MUS system.

5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

According to BOR Policy 301.10, "The Montana university system (MUS) is committed to facilitating the ease of undergraduate student transfer to its campuses, particularly in the area of general education." The Certificate of General Studies works toward that goal with a credential that can be counted as a success both on a personal level and an institutional level.

In addition, UM's first Priority for Action is to "place student success at the center of all we do." Included in this is a call to "renew our intense focus on student retention, persistence, and success through graduation and beyond." This credential would no doubt increased persistence and retention for our students simply desiring to complete their general education credentials as part of their educational journey.

Signature/Date	
Chief Academic Officer:	**July 23, 2020**
Chief Research Officer*:	
Chief Executive Officer:	
Flagship Provost:**	

Montana University System

REQUEST TO PLAN FORM

Flagship President:**
*Center/Institute Proposal only **Not applicable to the Community Colleges.

FOR OCHE USE	
Labor market outlook	
Related programs / centers / institutes	
CAO discussion and follow-up	
ARSA/BOR comment and direction for Level II proposal	

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

Request to establish a Certificate in General Studies at Montana Technological University

Institution: **Montana Tech, Highlands College/Associate of Science** CIP Code: **30.9999**

Program/Center/Institute Title: **Certificate in General Studies**

Includes (please specify below): Face-to-face Offering: _____ Online Offering: _____ Blended Offering: _____

Options: _____

Proposal Summary [360 words maximum]

What: We are submitting this request to plan for a Certificate of General Studies. Providing students the option to earn a Certificate in General Studies demonstrates completion of the required 30 credits of the Montana Tech and MUS Core should students transfer within the MUS.

Why: The Certificate of General Studies serves to fulfill the requirements of the MUS Core recognizing students may want to complete their generals at Highlands College before transferring to another institution within the MUS. Providing the certificate demonstrates successful completion of the MUS core creating a smoother transition for students post-transfer and delivers a stackable credential in one year for those students who may want to earn the Associate of Science at Highlands College prior to enrolling in their four-year BS program at Tech or another institution within the MUS.

This certificate can also be used by the dual credit program at Montana Tech and Highlands College. Providing the opportunity to earn 30 credits that will count towards their four-year degrees. The Certificate provides a clear guideline of the courses students should be taking for dual-credit that will count directly towards their generals and four-year degrees. Currently many students take any courses that are available for dual-credit which may not go towards a degree increasing their cost and time to a degree.

Resources: None

ATTACHMENTS

Curriculum Proposal Form
Fiscal Analysis Form
Request to Plan

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

_____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

_____ **1b. Withdrawing a postsecondary educational program from moratorium**

_____ **2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less**

_____ **3. Establishing a B.A.S./A.A./A.S. area of study**

_____ **4. Offering an existing postsecondary educational program via distance or online delivery**

OCHE Approvals

_____ **5. Re-titling an existing postsecondary educational program**

_____ **6. Terminating an existing postsecondary educational program** (Program Termination and Moratorium Form)

_____ **7. Consolidating existing postsecondary educational programs** (Curriculum Proposal Form)

_____ **8. Establishing a new minor where there is a major or an option in a major** (Curriculum Proposal Form)

_____ **9. Revising a postsecondary educational program** (Curriculum Proposal Form)

_____ **10. Establishing a temporary C.A.S. or A.A.S. degree program** *Approval limited to 2 years*

X B. Level II:

X **1. Establishing a new postsecondary educational program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **2. Permanent authorization for a temporary C.A.S. or A.A.S degree program** (Curriculum Proposal and Completed Request to Plan Form)

_____ **3. Exceeding the 120-credit maximum for baccalaureate degrees** *Exception to policy 301.11*

_____ **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

_____ **5. Re-titling an academic, administrative, or research unit**

Montana Board of Regents

CURRICULUM PROPOSAL FORM

1. **Overview of the request and resulting changes.** Provide a one-paragraph description of the proposed program. Will this program be related or tied to other programs on campus? Describe any changes to existing program(s) that this program will replace or modify. *[100 words]*

   The Certificate of General Studies Serves to fulfill the requirement of the MUS Core recognizing students may want to complete their general education courses at Highlands College before transferring to another institution within the MUS. The certificate demonstrates successful completion of the MUS Core creating a smoother transition for student post-transfer and delivers a stackable credential in one year. The certificate provides a clear guideline of the courses dual credit students should be taking that will count directly towards their generals and four-year degree requirements as well as a stackable credential towards an Associate of Science at Highlands College.

2. **Relation to institutional strategic goals.** Describe the nature and purpose of the new program in the context of the institution's mission and core themes. *[200 words]*

   Aligning with Montana Technological University's Brand Promise Montana True, the Certificate of General Studies promotes a smart investment for students in Southwest Montana communities surrounding Butte who can stay in their hometowns and complete the MUS Core at the lower two-year tuition level before making the transition to other institutions within the MUS. The Certificate in General Studies would increase retention and completion rates for students who begin their studies either through dual credit or as freshmen by allowing students to earn a credential upon completion of the general education requirements.

3. **Process leading to submission.** Briefly detail the planning, development, and approval process of the program at the institution. *[100 words]*

   Similar programs are offered at most of the two-year institutions within the MUS. The Certificate was developed utilizing the MUS General Education Core as offered at Highlands College/Montana Technological University. The program Request to plan was submitted to OCHE in January and presented to the Board of Regents for approval to move forward in March. The program was reviewed and approved by the Montana Tech Curriculum Review Committee and Faculty Senate in April of 2021.

4. **Program description.** Please include a complete listing of the proposed new curriculum in Appendix A of this document.

   a. List the program requirements using the following table.

	Credits
Credits in required courses offered by the department offering the program	0
Credits in required courses offered by other departments	30/31
Credits in institutional general education curriculum	30/31
Credits of free electives	0
Total credits required to complete the program	30/31

Montana Board of Regents
CURRICULUM PROPOSAL FORM

b. List the program learning outcomes for the proposed program. Use learner-centered statements that indicate what students will know, be able to do, and/or value or appreciate as a result of completing the program.

Upon completion of the Certificate in General Studies students will be able to:

- *Use writing as a means to engage in critical inquiry by exploring ideas, challenging assumptions, and reflecting on and applying the writing process.*
- *Speak with clarity, accuracy, and fluency in public contexts.*
- *Reason analytically and quantitatively at an algebraic level.*
- *Use an understanding of the physical and natural world to identify and solve problems.*
- *Demonstrate an understanding of ethics, cultural endeavors, and legacies of world civilizations.*
- *Describe the biological, social, political, and economic forces that influence human behaviors and attitudes.*
- *Demonstrate the processes and proficiencies involved with creating and/or interpreting creative works.*
- *Demonstrate proficient critical thinking skills.*

5. **Need for the program.** To what specific student, regional, and statewide needs is the institution responding to with the proposed program? How will the proposed program meet those needs? Consider workforce, student, economic, societal, and transfer needs in your response as appropriate. *[250 words]*

The Certificate in General Studies serves to fulfill the requirements of the MUS Core recognizing students may want to complete their Generals through Highlands College/Montana Tech before transferring to another institution within the MUS. Providing the certificate demonstrates successful completion of the MUS Core creating a smoother transition for students post-transfer and delivers a stackable credential in one year. Although this would be open to all current and future students of Highlands College/Montana Tech, the Certificate in General Studies was identified as important to several area high schools who want to work with Highlands College/Montana Tech to provide a robust Dual Enrollment program and as such would be emphasized in the high schools when working with the students, instructors and counselors.

6. **Similar programs.** Use the table below to identify and describe the relationship between any similar programs within the Montana University System.

Institution Name	Degree	Program Title
Gallatin College	Certificate	General Education Core
Great Falls College	Certificate	Certificate in General Studies-Montana University System Core
Miles Community College	Certificate	General Studies
Helena College	Certificate	General Education Core of Helena College

Montana Board of Regents
CURRICULUM PROPOSAL FORM

a. If the proposed program substantially duplicates another program offered in the Montana University System, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. *[200 words]*

Similar programs are offered at most of the two-year institutions within the MUS. The Certificate in General Studies provides SW Montana students the ability to complete the MUS General Education Core utilizing the affordability of Dual-Credit and/or the lower two-year tuition at Highlands College fulfilling the goals of the two-year mission of the MUS.

b. Describe any efforts that were made to collaborate with similar programs at other institutions. If no efforts were made, please explain why. *[200 words]*

The Certificate in General Studies is collaborative in that it fulfills the requirements of the MUS Core thus providing a clear transition between institutions and further fulfills the goals of the two-year mission within the MUS.

7. **Implementation of the program.** When will the program be first offered? If implementation will occur in phases, please describe the phased implementation plans. *[100 words]*

The Certificate in General Studies utilizes existing courses through Highlands College and Montana Tech and does not require course or program development prior to implementation therefore, if approved the Certificate in General Studies could be offered as early as Fall Semester 2021.

a. Complete the following table indicating the projected enrollments in and graduates from the proposed program.

Fall Headcount Enrollment					Graduates				
AY_22	AY_23	AY_24	AY_25	AY_26	AY_22	AY_23	AY_24	AY_25	AY_26
5	10	10	10	10	5	10	10	10	10

b. Describe the methodology and sources for determining the enrollment and graduation projections above. *[200 words]*

The projected degrees were determined based off the MUS average award/FY FTE for the schools awarding certificates in Arts & Humanities. Using the "annual unduplicated headcount of students with declared major or minor within the program"; 0 students will have a major in this program; dual credit are non degree and degree program majors would be assigned to the students. All students would have the ability to utilize the Certificate in General Studies as an opt-out credential as well.

c. What is the initial capacity for the program?

The program utilizes General Education course offerings currently offered through Highlands College/Montana Tech and Dual Enrollment and is therefore driven by the course offerings any given semester.

8. **Program assessment.** How will success of the program be determined? What action would result if this definition of success is not met? *[150 words]*

Montana Board of Regents
CURRICULUM PROPOSAL FORM

Program success will be assessed by the number of program completers as well as the number of completers matriculating to two and four-year institutions both in the MUS and other institutions/states.

a. Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program. When will assessment activities occur and at what frequency? *[150 words]*

The evaluation process and benchmarks will be set by the Program Director and Dean of Highlands College. The program will be reviewed the following academic year to determine if action is required.

b. What direct and indirect measures will be used to assess student learning? *[100 words]*

Indirect measures in the form of program completion and course grades will be assess. The Certificate in General Studies utilizes the General Education courses offered through Highlands College/Montana Tech therefore similar performance indicators will be used with at least 75% of students obtaining C- or higher in General Education courses.

c. How will you ensure that the assessment findings will be used to ensure the quality of the program? *[100 words]*

Findings will be reviewed and if benchmarks are not being met the program director will work with the necessary departments to evaluate what may be occurring and what actions are needed such as increased tutoring, advising, etc.

d. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation. *[100 words]*

The Certificate in General Studies demonstrates completion of the 30 credit MUS General Education Core as applied at Montana Technological University which is already accredited by the Northwest Commission on Colleges and Universities (NWCCU).

9. Physical resources.

a. Describe the existing facilities, equipment, space, laboratory instruments, computer(s), or other physical equipment available to support the successful implementation of the program. What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated? *[200 words]*

All courses are currently offered within the existing programs and will be taken as part of regularly scheduled courses and therefore utilize the existing facilities for those courses.

b. List needed facilities, equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. (Enter the costs of those physical resources into the budget sheet.) How will the need for these additional resources be met? *[150 words]*

All courses are currently offered within the existing programs and will be taken as part of regularly scheduled courses and therefore no additional facilities, space, labs will be needed.

10. Personnel resources.

Montana Board of Regents
CURRICULUM PROPOSAL FORM

a. Describe the existing instructional, support, and administrative resources available to support the successful implementation of the program. What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained? *[200 words]*

All courses are currently offered within the existing programs and will be taken as part of regularly scheduled courses utilizing the existing personnel instructing the courses.

b. Identify new personnel that must be hired to support the proposed program. (Enter the costs of those personnel resources into the budget sheet.) What are the anticipated sources or plans to secure the needed qualified faculty and staff? *[150 words]*

All courses are currently offered within the existing programs and will be taken as part of regularly scheduled courses utilizing existing personnel therefore no new personnel will be needed.

11. Other resources.

a. Are the available library and information resources adequate for the proposed program? If not, how will adequate resources be obtained? *[100 words]*

All courses are currently offered within the existing programs and will be taken as part of regularly scheduled courses the library is already set up to handle the courses in place and resources are adequate.

b. Do existing student services have the capacity to accommodate the proposed program? What are the implications of the new program on services for the rest of the student body? *[150 words]*

The biggest change would be advising the dual-credit students and the support services are already in place to handle the Certificate in General Studies with the addition of the Dual-credit support staff last fall in local high schools.

12. Revenues and expenditures. Describe the implications of the new program on the financial situation of the institution. *[100 words]*

The only fees would be the $79 graduation fee to cover administrative expenses. However, the addition of the Certificate in General Studies could help the institution meet completion goals for PBF.

a. Please complete the following table of budget projections using the corresponding information from the fiscal analysis form for the first three years of operation of the new program.

	Year 1	Year 2	Year 3
Revenues	$395	$790	$790
Expenses	$395	$790	$790
Net Income/Deficit (revenues-expenses)	0	0	0

b. Describe any expenses anticipated with the implementation of the new program. How will these expenses be met? *[200 words]*

Montana Board of Regents
CURRICULUM PROPOSAL FORM

Graduation Fees would be used to cover all administrative expenses for the program. There are no specific faculty or incremental headcount associated with the program. All are currently offered within existing programs.

i. If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs? *[150 words]*

N/A

ii. If an increase in base funding is required to fund the program, indicate the amount of additional base funding and the fiscal year when the institution plans to include the base funding in the department's budget.

N/A

iii. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends? *[150 words]*

N/A

iv. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? *[150 words]*

N/A

13. Student fees. If the proposed program intends to impose new course, class, lab, or program fees, please list the type and amount of the fee.

Total fees are the $79 graduation fee per certificate completion. Assume that the fees are used to cover all administrative expenses for the program.

14. Complete the fiscal analysis form.

Signature/Date

College or School Dean:
Karen VanDamme 4/26/2021

Chief Academic Officer:
4/26/21

Chief Executive Officer:
4/27/2021

Montana Board of Regents
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Flagship Provost*:

n/a

Flagship President*: n/a

*Not applicable to the Community Colleges.

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CURRICULUM PROPOSAL FORM

Appendix A – Proposed New Curriculum

MontanaTech

Certificate of General Studies

Effective 2021-2022

First (Freshman) Year

	Fall Semester Courses		Grade / Term		Spring Semester Courses		Grade / Term
M 1xx	Mathematics Core[1,2]	3	/	P&L Sci 1xx	Physical & Life Science[2]	3	/
P&L Sci 1xx	Physical & Life Science[2]	3	/		Physical & Life Science Lab[2]	1	/
	Physical & Life Science Lab[2]	1	/	HUMN 1xx or 2xx	Humanities Core[3]	3	/
HUMN 1xx or 2xx	Humanities Elective[3]	3	/	SS 1xx or 2xx	Social Science Core[3]	3	/
SS 1xx or 2xx	Social Science Elective[3]	3	/	COMX 111 OR	Intro to Public Speaking		
WRIT 101 OR	College Writing I			COMX 230 OR	Presenting Technical Info		
WRIT 121	Intro to Technical Writing	3	/	WRIT 201	College Writing II	3	/
		15/16		M 1xx OR	Mathematics Core[1,2]		
				STAT	Statistics Course[1,2]	3	/
						15/16	

Completion of Montana Tech and MUS General Education Core[4]

Minimum Credits for Certificate in General Studies 30/31

[1] Students MUST register for math as indicated by college entrance or appropriate Math placement exams and follow the required sequence. This may increase the total degree credits.

[2] Physical & Life Science 1 course with lab required. Choose appropriate courses that will count towards BS in chosen field (Engineering, Biology, Nursing, Business, etc). See program in catalog or work with

[3] See General Education Requirements for acceptable courses.

[4] Upon completion of the 30/31 credits required in the core, students are eligible to receive a Certificate in General Studies from Highlands College/Montana Tech. The Certificate recognizes the completion of the core and is approved by the Montana University System Board of Regents. Students may use the Certificate to demonstrate completion of the core when transferring within the MUS or as a milestone to earning an Associate of Arts or Associate of Science degree at Highlands College/Montana Tech.

Additional Classes

____	_____	_____	__	_____/_____	____	_____	_____	__	_____/_____
____	_____	_____	__	_____/_____	____	_____	_____	__	_____/_____
____	_____	_____	__	_____/_____	____	_____	_____	__	_____/_____

UPDATED 9/19/18

Academic Degree Program Proposal - Fiscal Analysis Form

CAMPUS:	Highlands College
AWARD LEVEL:	UG
PROGRAM NAME:	Certificate of General Studies
PROGRAM CODE:	

ENROLLMENT PROJECTIONS	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Headcount					
annual unduplicated headcount of students with declared major or minor within the program	5	10	10	10	10
Credit Hours					
annual avg. credits hours earned per student in program related curriculum	30	30	30	30	30
Student FTE					
Undergrad: (Headcount x CH)/30 Graduate: (Headcount x CH)/24	5	10	10	10	10
Completions					
Annual number of program completers	5	10	10	10	10

REVENUE					
Tuition Revenue (net of waivers)					
Institutional Support					
Other Outside Funds (grants, gifts, etc.)					
Program Tuition/Fees	$395	$790	$790	$790	$790
Total Revenue	$395	$790	$790	$790	$790
Total Revenue per Student FTE	$79	$79	$79	$79	$79

EXPENDITURES						
Tenure Track Faculty	FTE					
	Salary + Benefits					
Non-tenure Track Faculty *Includes Adjunct Instructors	FTE					
	Salary + Benefits					
Graduate Teaching Assistants	FTE					
	Salary + Benefits					
Staff	FTE					
	Salary + Benefits					
Total Faculty & Staff	FTE					
	Salary + Benefits	$395	$790	$790	$790	$790
Operations (supplies, travel, rent, etc)						
Start-up Expenses (OTO)						
Total Expenses		$395	$790	$790	$790	$790
Student FTE to Faculty (TT + NTT) Ratio		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Income/Deficit (Revenue - Expenses)		$0	$0	$0	$0	$0

The signature of the campus Chief Financial Officer signifies that he/she has reviewed and assessed the fiscal soundness of the proposal and provided his/her recommendations to the Chief Academic Officer as necessary.

Campus Chief Financial Officer Signature

Chief Financial Officer Comments

Total fees are $79 per certificate completion. Assume that the fees are used to cover all administrative expenses for the program.
There are no specific faculty or incremental headcount associated with the program. All classes currently are offered in existing programs.
Student FTE to Faculty ratio is not applicable in this instance.

Montana University System
REQUEST TO PLAN FORM

ITEM 1502-R0321 **Meeting Date March 2021**

Request to establish a Certificate in General Studies at Montana Technological University

Program/Center/Institute Title: **Certificate in General Studies** Planned 6-digit CIP code: **30.9999**

Campus, School/Department: **Montana Tech, Highlands College/Associate of Science** Expected Final Submission Date: **March 2021**

Contact Name/Info: **Michelle Morley, Director Associate of Science**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) **Provide a description of the program/center/institute.**

We are submitting this request to plan for a Certificate of General Studies. Providing students the option to earn a Certificate in General Studies demonstrates completion of the required 30 credits of the Montana Tech and MUS Core should students transfer within the MUS.

2) **Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).**

The Certificate of General Studies serves to fulfill the requirements of the MUS Core recognizing students may want to complete their generals at Highlands College before transferring to another institution within the MUS. Providing the certificate demonstrates successful completion of the MUS core creating a smoother transition for students post-transfer and delivers a stackable credential in one year for those students who may want to earn the Associate of Science at Highlands College prior to enrolling in their four-year BS program at Tech or another institution within the MUS.

This certificate can also be used by the dual credit program at Montana Tech and Highlands College. Providing the opportunity to earn 30 credits that will count towards their four-year degrees. The Certificate provides a clear guideline of the courses students should be taking for dual-credit that will count directly towards their generals and four-year degrees. Currently many students take any courses that are available for dual-credit which may not go towards a degree increasing their cost and time to a degree.

3) **Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.**

There would not be an additional cost or new resources associated with the certificate as the courses are already available through Highlands College/Montana Tech.

4) Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).

Montana University System
REQUEST TO PLAN FORM

The certificate is currently offered at Gallatin College, Great Falls College and Miles Community College. The certificate is collaborative in that it fulfills the requirements for the MUS Core thus providing a clear transition between institutions and further fulfill the goals of the two-year mission within the MUS.

5) Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.

BOR Policy 301.10, "The Montana University System (MUS) is committed to facilitating the ease of undergraduate student transfer to its campuses, particularly in the area of general education." The Certificate of General Studies achieves this goal with a credential that can be counted as successful completion within the institution and for the student.

Aligning with Montana Technological University's Brand Promise Montana True, the Certificate of General Studies promotes a smart investment for students in Southwest Montana communities surrounding Butte who can stay in their hometowns and complete the MUS Core at the lower two-year tuition level before making the transition to other institutions within the MUS. The Certificate in General Studies would increase retention and completion rates for students who begin their studies either through dual-credit or as freshman by allowing students to earn a credential upon completion of the general education requirements.

Signature/Date		
Chief Academic Officer:		1/6/2021
Chief Research Officer*:		
Chief Executive Officer:		1/6/2021
Flagship Provost:**	n/a	
Flagship President:**	n/a	

*Center/Institute Proposal only
**Not applicable to the Community Colleges.

Montana University System
REQUEST TO PLAN FORM

Montana Board of Regents

ACADEMIC PROPOSAL REQUEST FORM

April 2021

ITEM 2702-R0421

ITEM TITLE Request for Authorization to Establish an Institute for Neurodiversity and Applied Behavior Analysis

Institution: **MSU Billings** CIP Code: **NA**

Program/Center/Institute Title: **Institute for Neurodiversity And Applied Behavior Analysis At MSU Billings**

Includes (please specify below): Face-to-face Offering: _____ Online Offering: _____ Blended Offering: _____

Options: NA

Proposal Summary [360 words maximum]

What: MSU Billings will establish an Institute for Neurodiversity and Applied Behavior Analysis. The Institute will serve a threefold purpose: providing neurodiversity clinical services, fostering scholarly activity, and providing continuing professional development. Opportunities will be provided to students, faculty, staff and community members.
Why: The need for services for neurodiverse children continues to escalate as the prevalence of autism and other neurodiverse conditions increases. Applied Behavior Analysis is an evidence-based practice for the treatment of autism. Waitlists for both diagnosis and then treatment of conditions such as autism can be upwards of 6-months in Montana, with few options for services for Medicaid clients in Central and Eastern Montana. The Institute for Neurodiversity and Applied Behavior Analysis will address this need for services, while simultaneously synergizing opportunities for graduate-level scholarship, and community networking, training, and collaboration.
Resources: MSU Billings has secured three years of start-up funding from the MJ Murdock Charitable Trust, additional and sustainable funding will come from the billable clinical services offered by the institute.

ATTACHMENTS

A1 2702-0421_Center/Institute Proposal Form
A2 2702-0421_Fiscal Analysis Form
A3 Signed Request to Plan Form

Please mark the appropriate type of request and submit with any additional materials, including those listed in parentheses following the type of request. For more information pertaining to the types of requests listed below, how to complete an item request, or additional forms please visit http://mus.edu/che/arsa/academicproposals.asp.

____ A. Level I:

Campus Approvals

____ **1a. Placing a postsecondary educational program into moratorium** (Program Termination and Moratorium Form)

____ **1b. Withdrawing a postsecondary educational program from moratorium**

Montana Board of Regents
ACADEMIC PROPOSAL REQUEST FORM

2. Establishing, re-titling, terminating or revising a campus certificate of 29 credits or less

3. Establishing a B.A.S./A.A./A.S. area of study

4. Offering an existing postsecondary educational program via distance or online delivery

OCHE Approvals

5. Re-titling an existing postsecondary educational program

6. Terminating an existing postsecondary educational program (Program Termination and Moratorium Form)

7. Consolidating existing postsecondary educational programs (Curriculum Proposal Form)

8. Establishing a new minor where there is a major or an option in a major (Curriculum Proposal Form)

9. Revising a postsecondary educational program (Curriculum Proposal Form)

10. Establishing a temporary C.A.S. or A.A.S. degree program *Approval limited to 2 years*

X **B. Level II:**

1. Establishing a new postsecondary educational program (Curriculum Proposal and Completed Request to Plan Form)

2. Permanent authorization for a temporary C.A.S. or A.A.S degree program (Curriculum Proposal and Completed Request to Plan Form)

3. Exceeding the 120-credit maximum for baccalaureate degrees *Exception to policy 301.11*

X **4. Forming, eliminating or consolidating an academic, administrative, or research unit** (Curriculum or Center/Institute Proposal and completed Request to Plan, except when eliminating or consolidating)

5. Re-titling an academic, administrative, or research unit

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

Research Centers and Institutes differ from one another in focus, scope, and staffing, but each contributes in unique ways to the common goals of expanding knowledge, generating new discoveries and/or having a positive impact on society through informing policy and systemic change. Communities of researchers and staff in Research Centers and Institutes provide a stimulating environment that encourages early researchers and challenges experienced researchers. Research Centers and Institutes also contribute to the education and training of the researchers of the future by serving as learning environments for students. Interdisciplinary collaboration is promoted by Research Centers and Institutes both within the Institution and among MUS Institutions. Research Centers and Institutes do not provide didactic coursework, confer academic degrees or academic certificates or require accreditation by external accrediting bodies. Research Centers and Institutes frequently provide a portal for obtaining external funding in response to federal and/or state research priorities. As such, apparent duplication of mission between MUS research centers and institutes is not generally problematic as with academic programs due to the different sources of funding.

1. State the proposed Institute/Center's name and purpose.

The Institute for Neurodiversity at Montana State University Billings will serve a threefold purpose: providing clinical services, fostering scholarly activity, and providing continuing professional development.

2. A comprehensive statement of the Institute/Center's mission and its relationship to the University mission.

A. State the Institute/Center's mission.

The *Institute for Neurodiversity and ABA* (INABA) will educate, advocate, support and provide accessible services for children, their families, educators, and community partners through compassionate, innovative, evidence-based practices and research. (The 28-member *INABA* advisory board made up of stakeholders from the university and greater Billings community developed this statement in meetings over the course of one year.)

B. Identify the Institute/Center's goals and objectives.

Goal 1: The MSU Billings Institute for Neurodiversity will serve neurodiverse children and their families with needed clinical services throughout the MSU Billings service region, with a special focus on Applied Behavior Analysis (ABA). The Institute will also incorporate the coordination of services such as the MSU Billings counseling clinic associated with the MSU Billings Clinical Rehabilitation and Mental Health Counseling program.

Objective 1.1: Increase the availability of Applied Behavior Analysis services in Eastern Montana, particularly for individuals using Medicaid funding.

Objective 1.2: Increase coordination and build awareness of evaluation and wrap-around services for neurodiverse children and their families

Goal 2: The MSU Billings Institute for Neurodiversity will coordinate scholarship and research opportunities for graduate students, with a focus on Applied Behavior Analysis but inclusive of other MSU Billings graduate programs such as Clinical Rehabilitation and Mental Health

Counseling and Psychology. The MSU Billings Institute for Neurodiversity will afford graduate students the opportunity to complete their clinical internships, required supervision hours, and conduct scholarship and research. The MSU Billings Institute for Neurodiversity will support the growth and vitality of the science of behavior analysis by providing graduate students and their communities of practice with scientific, socially valid, and reliable research and training opportunities.

Objective 2.1: Create opportunities for graduate students to interact with neurodiverse clients and their families

Objective 2.2: Increase faculty and student scholarly publications

Goal 3: The MSU Billings Institute for Neurodiversity will provide continuing professional development to clinical and non-clinical professionals (e.g., teachers, after school/day care workers, etc. who can integrate neurodiverse children within a community setting).

Objective 3.1: Provide regular opportunities for professional development through workshops, and trainings.

Objective 3.2: Increase interaction among students, faculty, and community members through networking activities such as seminars and conferences.

The *A*dvisory Committee reached out to several key interest groups from around the State of Montana (teachers, parents) and selected 10 *key values* to direct our goals and objectives.

1. Dignity
2. Respect
3. Patience
4. Compassion
5. Acceptance
6. Teamwork
7. Fidelity
8. Commitment
9. Quality
10. Individuality

C. What specific need is being responded to in developing the proposed Institute/Center?

First, the Institute fills a need to support our accredited master's program in Applied Behavior Analysis. It will maintain our accreditation. Next, the Institute will alleviate wait lists for initial autism treatment which causes unnecessary stress for families. The Institute will further provide or coordinate diagnosis, parent training, and ABA treatment all within one clinical site. Other services will be added as program management increases. Most clinical work will be managed by Institute employees, but training for graduates and undergrads will be abundant.

D. Describe how the Institute/Center benefits the department, college, or institution.

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

A successful on-campus institute could predictably increase MSUB's recruitment of high-quality graduate students and clinical interns from across the country. In addition, the Institute would provide unique training opportunities not otherwise available in this region, further leading to potential graduate candidate applications. The Institute would be a positive influence on MSUB helping it to synergize events and opportunities for scholarship among three different colleges (College of Education, College of Health Professions and Science, College of Liberal Arts and Social Sciences) with an emphasis on master's level programs. Additionally, at an institutional-level, both advisory board members and other community stakeholders have stressed the need for greater community-wide interaction and collaboration. The institute will be a space to convene, network, and develop collaborations.

E. Describe the Institute/Center's relationship to the University mission.

The MSU Billings Mission is to deliver a transformative education that empowers students from diverse backgrounds to succeed. The institute supports this mission in both in-ward facing and external facing ways. Beyond the opportunities and supports for MSU Billings students detailed in this proposal, the institute will allow MSU Billings to bring its mission into the community as a regional steward. The institute will directly allow neurodiverse children and their families as well as the health and education communities who support them to succeed through the availability of services, training and networking opportunities. The relationship of the Institute to MSUB's mission will be to offer diverse students an empowering, transformative education and an opportunity for local area medical providers, schools, and families to participate in objective, neutral, evidence-based diagnostics and treatment for youth with neurodiverse conditions from Billings, Eastern Montana, and eventually beyond to the global community.

3. Briefly describe the Institute/Center's anticipated activities.

Clinical Services: Applied Behavior Analysis is an approach that uses many techniques for understanding and changing behavior. ABA is a flexible treatment adapted to meet the needs of each unique person and may focus on improving specific behaviors, (social skills, communication, reading, and academics) as well as adaptive learning skills (such as fine motor dexterity, hygiene, grooming, domestic capabilities, punctuality, and job competence). Applied Behavior Analysis is provided in many different locations (in the home environment, at school, in the community, and at centers). The Institute for Neurodiversity at MSU Billings will coordinate evaluation services, develop, implement, and assess individualized treatment plans using board-certified behavior analysts and registered behavior technicians, as well as promote coordination for wrap-around services available to neurodiverse children and their families across the MSU Billings service region.

Internship/Practicum/Observation Experiences and Master's Thesis Projects: Student teachers and ABA, psychology, and rehabilitation and mental health interns will work with neurodiverse children and their families through internship, practicum and thesis opportunities. Students will work under the supervision of faculty members of the institute, and in collaboration with the institute staff. The supervising behavior analyst, including the program director will develop procedures for training of new behavior technicians and student interns in collaboration with faculty and will directly observe and provide regularly scheduled job performance feedback to the technicians and interns.

Workshops/Trainings: The institute will organize professional development opportunities for clinical and non-clinical professionals. Specific opportunities will be guided by the needs of stakeholders in the MSU Billings service region and the insight of the advisory council. The opportunities for students, faculty/staff and community members will include things such as professional development training for K12 teachers

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RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

in supporting neurodiverse children in the classroom or resources for health professionals in working with neurodiverse children and their families.

Networking Seminars/Conferences: The Institute will organize multiple events each year to bring together academics with community stakeholders such as clinical and non-clinical professionals, educators, policy makers and members of the public to address the complex challenges, regional needs, and opportunities to better serve neurodiverse children and their families. Currently these discussions are part of the advisory committee meetings, and the institute will open these types of conversations to a wider set of constituents.

A. Identify faculty expertise available for participation in the Institute/Center's activities.

The Institute for Neurodiversity will be supported by the expertise of its leadership team in both clinical and operational areas.

1. The clinical area encompasses assessment and intervention to assist neuro-diverse clients (e.g., children) in growing to their full potential without experiencing barriers related to challenging behavior. The current MSU Billings Applied Behavior Analysis faculty (Dr. Cheryl Young-Pelton and Dr. Anna Young) have a combined experience of more than 40 years in the area of assessment and treatment of challenging behavior as well as in skill development and will be able to provide training in the assessment and treatment area to those whom they supervise within the clinic environment e.g., interns, teachers, behavior technicians etc. Behavior interventions will address challenging behavior such as tantrums, food selectivity, and sleep issues. The interventions will focus on strengthening communication, social, play, and adaptive skills. The Institute's clinical program will also include specialized and evidence- based supports for families. These will include training and education programs related to implementation of behavioral interventions across environments, including the home environment. Telehealth services will be explored as an option in order to allow the clinical team to provide remote consultation to families who do not live in the proximity of the Institute. Advocacy workshops, such as those on special education law, will also be offered and delivered by expert presenters who will be invited by the Institute's faculty and staff in context of ongoing collaborative professional relationships. The Institute will also host quarterly professional development and training workshops for professionals and families as well as an annual conference. Institute's staff as well as participating faculty will also use social media, such as Facebook, Twitter, and other digital platforms to disseminate relevant information, such as information on regional service providers, through podcasts and blogs. Institute's staff and faculty will also be available for consultation to settings such as public and private schools and daycares. The above supports and services will involve additional MSU Billings faculty associated with the Clinical Rehabilitation and Mental Health Counseling clinic (Dr. Tom Dell, Dr. Paula McMahon, Dr. Ambrin Masood, Dr. Aaron Mertes). Professional development including training related to implementation of successful behavioral strategies as well as a compassionate, person- centered and open-minded supports for caregivers who care for children with special needs will involve additional faculty stakeholders (Dr. Susan Gregory, Dr. Sarah Keller, Dr. Matthew McMullen, Dr. Doxy Hatch).

The operational side will be overseen by an existing MSU Billings experienced administrator (Dr. Tom Manthey, Director Montana Center for Inclusive Education) who has advanced knowledge in the area of day- to- day supervision and management of the Institute's procedures, finances, and billing for

services. Through start-up funding already secured through the MJ Murdock Charitable Trust, the operational side will be implemented by a full-time program director and part-time medical director. The funding model includes a sustainability plan for support of these positions through the billable and sustainable services of the institute by the end of three years. Supervision also falls under this category and will consist of a collaborative effort between the Institute's administrators and clinical supervisors. The existing MSU Billings Applied Behavior Analysis faculty (Dr. Cheryl Young-Pelton and Dr. Anna Young) possess the knowledge in the area of all national and state certification and licensure supervision requirements for interns and practitioners in the field of applied behavior analysis. The operational side also includes fulfillment of accreditation requirements. The MSU Billings Master's program in Applied Behavior Analysis is fully accredited by the Association for Applied Behavior Analysis and faculty (Dr. Cheryl Young-Pelton and Dr. Anna Young) and staff (Dr. Kathleen Thatcher, Assessment and Accreditation Director) will ensure that all accreditation requirements are being met.

B. Which departments on campus will be involved and how will the Institute/Center contribute to the academic programs of the institution?

Collaboration and scholarly activity will be critical to functioning of the Institute. The success of the Institute and its services will depend on the extent to which it shares a common purpose with the members of local organizations, hospitals, clinics, schools, university programs and regulatory bodies, such as the Office of Public Instruction. An experienced administrator (Dr. Jana Marcette, Director of Graduate Studies) will facilitate communication, teamwork, and partnership with faculty and community members, including with the following departments on campus: College of Education, Psychology, Rehabilitation and Mental Health Counseling. A significant portion of the Institute's activities will involve a training and supervision site for interns in the special education, psychology, and rehabilitation and mental health-counseling students. The Institute will provide a site for students to complete their student teaching and other internship experience. The Institutes faculty (Dr. Young-Pelton and Dr. Young) and staff (the Program Director) will supervise the students according to the individual program requirements. As a university clinic environment, the Institute will provide an opportunity for faculty and students to engage in scholarly activities, developing interventions and technology to address the needs of children with behavioral challenges and their families.

4. Identify the organizational structure of the Institute/Center within the institution.

The institute brings together various campus stakeholders including academic programs and faculty, new clinical staff, and existing community-facing entities such as the Montana Center for Inclusive Education and the Counseling Clinic. The organizational structure for the Institute will be built around shared governance and will be overseen by a committee with both faculty and staff members contributing to developing, implementing, and assessing activities and outcomes. Faculty and staff from academic programs in the mental behavioral health fields will oversee student scholarship and development of networking opportunities. A full-time program director will oversee implementation and coordination of clinical services and professional development. Dr. Tom Manthey, Director of the Montana Center for Inclusive Education, will directly supervise the full- time Program Director and a part- time Medical Director. The Program Director will be an individual who holds behavior analyst (BCBA) credentials at a master's or doctoral level and with assistance from administrators and participating program faculty will develop policies and procedures for clinical activities, including admissions criteria, safety protocols, training, and supervision of student interns and behavior technicians. The Program Director, in consultation and with assistance from program faculty, will also design behavior intervention programs and skills curriculum for children receiving services at the

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

Institute. The Medical Director will coordinate diagnostic and assessment activities that will encompass policies and procedures for delivery of behavioral assessments. The Medical Director will also oversee justification of medically necessary services, such as Applied Behavior Analysis, if such is required by the funding/ insurance source. The Program Director, with assistance from administrative staff, will oversee responsibilities related to billing for services. Participating program faculty will assist in research development and implementation as well as in information dissemination through professional development and educational activities for members of the community and families.

A. Identify all agencies, organizations and/or institutions that will be involved.

The Institute staff and participating faculty will actively collaborate with the community partners in the areas of innovative evidence- based treatments, research, advocacy, and supports for families of children with behavioral needs. The collaboration will be in form of virtual and in- person meetings to discuss ongoing needs of children and families as well as the needs of the community partners. The Institute's staff will draw on the expertise of the community partners in order to host expert presentations in variety of areas relevant to treatment and care of neuro- diverse children. These partners will include agencies that provide services to children with behavioral needs and their families, school districts, hospitals, private clinics, day cares, early intervention programs, the Office of Public Instruction, and parent advocacy groups.

B. Identify advisory council information.

Our advisory council, active since 2019, provides, among other things, technical expertise and advice in specific areas such as billing for services, assessment of demand for services, policy, law, marketing, and public relations. The advisory council may assist with spearheading and fundraising for special projects and be an objective sounding board for the Institute's faculty and staff. Members of the advisory board represent a cross section of important stakeholders: Laura Nicholson, Mariella Herrera, and Eric Arzubi (MDs with pediatric neurodiversity specialties), Adam Liberty, Bill Kennedy (Community Relations/Fundraising Experts), Kathy Kelker, Laura Simonsen, Mel Reinhardt (Policy and Insurance Experts), Alison Harmon, Jody Bartz, Ian Handley (MUS faculty/administrators with neurodiversity and education specialties), Caroline Deigert, Tom Lynaugh (Parent Advocates), Judy Povalaitis, Dwight Von Schriltz (Teachers/Counselors with Special Education or Neurodiversity Expertise)

Additional internal MSU Billings committee members include Cheryl Young-Pelton and Anna Young (MSU Billings ABA faculty), Tom Manthey, Jana Marcette, John Dorr, Christine Shearer, Sue Balter-Reitz, Susan Gregory, Robert Nava (MSU Billings Administrators), Brian Earnest, Doxy Hatch, Paula McMahon (MSU Billings mental/behavioral health faculty)

5. Identify first year and continuing finances necessary to support the Center/Institute, including the sources of funding.

Existing Funding: The implementation team in partnership with the MSUB Foundation secured a three-year grant from the M.J. Murdock Charitable Trust to serve as start-up funding for the Institute.

Future Funding: The Montana Center for Inclusive Education has experience in medical billing and funding of the institute will transfer gradually to medical billing beginning in the second year, with full funding through medical billing beginning in the fourth year of operation in the Fall of 2024. In addition to billing through private insurance, the Neurodiversity Institute will bill Medicaid to support of evidence-based treatments provided to individuals with autism. The link below describes the Autism Treatment

Montana Board of Regents

RESEARCH CENTER AND INSTITUTE PROPOSAL FORM

Services Billing Cycle in the State of Montana that will be utilized to support the Neurodiversity Institute outreach to students with Autism who will receive financial support through Medicaid.

https://dphhs.mt.gov/Portals/85/dsd/documents/DDP/Autism/AutismTreatmentFeeSchedule07012020_508edits_Final.pdf

A. Will additional faculty and other resources be required to implement this Center/Institute? If yes, please describe the need and indicate the plan for meeting this need.

No additional faculty is needed, but existing faculty in mental/behavioral health programs in the College of Education, College of Health Professions and Science, and College of Liberal Arts and Social Sciences will participate in the activities of the Neurodiversity Institute through class instruction, service, and research.

B. Are other, additional resources required to ensure the success of the proposed Center/Institute? If yes, please describe the need and indicate the plan for meeting this need.

The Neurodiversity Institute will use a combination of secured grant funding and medical billed services to support the ongoing institute. Detailed financial projections have been developed with the MSU Billings division of administration and finance using Medicaid allowable expenses and reimbursement rates.

6. Describe other similar Centers/Institutes or research capacities in the state and surrounding region.

There are no other similar centers/institutes or research capacities in the state or in the surrounding region. Nationwide, there exist just 22 accredited programs in ABA and MSU Billings is one of them. To the east, one is St. Cloud State University, to the West the other is Cal State Los Angeles. Salt Lake City and Denver are the nearest University Hospitals with autism centers, but they do not provide specific treatment and/or graduate training programs in ABA.

A. Describe the relationship between the proposed Center/Institute and any similar Centers/Institutes, programs, or research capacities within the Montana University System.

There are no centers, institutes or programs within the MUS with which to compare, however several MUS centers/institutes with an orientation towards disability services and reducing health disparities provide exciting internal and external potential collaboration opportunities. These centers/institutes include the following: MSU Billings Montana Center for Inclusive Education (MCIE), UM Rural Institute for Inclusive Communities (RIIC), MUS Interprofessional education (IPE) and collaborative health care practice (IPE Institute), MSU Center for American Indian and Rural Health Equity (CAIRHE), UM L.S. Skaggs Institute for Health Innovation, MSU Center for Mental Health Research and Recovery.

B. In cases of substantial duplication, explain the rationale for the proposed Center/Institute.

No duplication exists.

7. Assessment: How will the success of the center/institute be measured?

The success of the institute will be assessed with an annual process that includes committee faculty and staff as well as the advisory committee. The Institute leadership committee will generate a report to address progress on goals and objectives and alignment with the University's strategic plan. Data used for the report will include sources such as aggregate data on number of clients served, extent of service region, and insurance source; aggregate data on the availability and dissemination of evaluation and wrap around

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services; scholarly publications and numbers of graduate students engaged in services for neurodiverse children and their families; number and data from evaluations of workshops, trainings, seminars, conferences and other networking and professional development opportunities.

8. **State the internal campus review and approval process which has occurred prior to submission to the Commissioner's Office. Indicate, where appropriate, involvement by faculty, students, community members, professional constituencies, etc.**

MSU Billings engaged in a planning process led by an internal committee consisting of faculty and staff. Student input was also solicited. The work was guided by an advisory committee consisting of community and professional members, who met starting in 2019 to develop the mission and offer guidance regarding both community need and operational details. In addition, feedback was solicited at the 2019 Montana Council for Exceptional Children conference attended by internal committee members, Dr. Cheryl Young-Pelton and Dr. Tom Manthey, and the institute was discussed in internal meetings with each college/department with graduate mental or behavioral health programs at MSUBillings. The institute Request to Plan was shared and discussed by the MSU Billings academic senate, garnered internal administrative review and approval, and was given approval by the Board of Regents in March 2021.

Academic Degree Program Proposal - Fiscal Analysis Form (Applied Behavior Analysis Institute)

CAMPUS:	
AWARD LEVEL:	
PROGRAM NAME:	
PROGRAM CODE:	

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
ENROLLMENT PROJECTIONS					
Headcount					
annual unduplicated headcount of students with declared major or minor within the program	NA	NA	NA	NA	NA
Credit Hours					
annual avg. credits hours earned per student in program related curriculum	NA	NA	NA	NA	NA
Student FTE					
Undergrad: (Headcount x CH)/30 Graduate: (Headcount x CH)/24	NA	NA	NA	NA	NA
Completions					
Annual number of program completers	NA	NA	NA	NA	NA
REVENUE					
Tuition Revenue (net of waivers)	$0	$0	$0	$0	$0
Institutional Support	$0	$0	$0	$0	$0
Other Outside Funds (grants, gifts, etc.)	$326,100	$177,684	$89,266	$0	$0
Meducal Billing Estimates	$156,848	$313, 695	$470,543	$470,543	$470,543
Total Revenue	**$482,948**	**$491,379**	**$559,809**	**$470,543**	**$470,543**
Total Revenue per Student FTE	**$0**	**$0**	**$0**	**$0**	**$0**
EXPENDITURES					
Tenure Track Faculty — FTE	NA	NA	NA	NA	NA
Tenure Track Faculty — Salary + Benefits	NA	NA	NA	NA	NA
Non-tenure Track Faculty *Includes Adjunct Instructors — FTE	NA	NA	NA	NA	NA
Non-tenure Track Faculty *Includes Adjunct Instructors — Salary + Benefits	NA	NA	NA	NA	NA
Graduate Teaching Assistants — FTE	1.0	1.0	1.0	1.0	1.0
Graduate Teaching Assistants — Salary + Benefits	$6,570	$6,570	$6,570	$6,570	$6,570
Staff — FTE	3.75	3.75	3.75	3.75	3.75
Staff — Salary + Benefits	$382,527	$382,527	$382,527	$382,527	$382,527
Total Faculty & Staff — FTE					
Total Faculty & Staff — Salary + Benefits					
Operations (supplies, travel, rent, etc)	$2,000	$2,000	$2,000	$2,000	$2,000
Start-up Expenses (OTO)	$33,050				
Total Expenses	**$424,152**	**$391,102**	391101.8	391101.8	391101.8
Student FTE to Faculty (TT + NTT) Ratio	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net Income/Deficit (Revenue - Expenses)	**$58,796**	**$100,277**	**$168,707**	**$79,441**	**$79,441**

The signature of the campus Chief Financial Officer signifies that he/she has reviewed and assessed the fiscal soundness of the proposal and provided his/her recommendations to the Chief Academic Officer as necessary.

DocuSigned by:
Susan Simmers
0B6335DC43654EF...

4/14/2021

Campus Chief Financial Officer Signature

Chief Financial Officer Comments

Montana University System
REQUEST TO PLAN FORM

ITEM 193-2702-R0321 **Meeting Date** March 2021

Item Name Institute for Neurodiversity and Applied Behavior Analysis

Program/Center/Institute Title: **Institute for Neurodiversity and Applied Behavior Analysis**

Planned 6-digit CIP code: **NA**

Campus, School/Department: **MSU Billings**

Expected Final Submission Date: **May 2021**

Contact Name/Info: **Dr. Jana Marcette, jana.marcette@msubillings.edu, 406-657-2238**

This form is meant to increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process. The completed form should not be more than 2-3 pages. For more information regarding the program/center/institute approval process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) Provide a description of the program/center/institute.

Montana State University Billings proposes to establish an Institute for Neurodiversity and Applied Behavior Analysis. The institute will provide an on-campus demonstration site for socially valid applied behavior analysis programs for children and adolescents with social and behavioral challenges including autism spectrum disorders (ASDs), developmental disabilities, anxiety disorders, and other behavioral disabilities. The Institute will serve both the public and the University, providing direct services to children and families while functioning as a site for University graduate students to complete their clinical internships and supervision requirements for MSUB's Master of Science in Special Education Adv. Studies ABA degree program, recently accredited by the Association for Behavior Analysis International.[i]

In addition to ASD, Students with behavioral issues related to mental health (e.g., opposition, anxiety, disruption) and neurodiversity (e.g., ADHD, OCD, Tourette's Syndrome) have specific needs for behavioral interventions that can be extremely challenging for teachers to implement due to the individualized nature and design of treatment.[ii] TheMSU Billings Institute for Neurodiversity and Applied Behavior Analysis will (a) extend and enhance training opportunities for school and community partners in the science of behavior analysis;(b) increase the number of board certified, licensed behavior analysts in this region; and (c) reduce wait-time for children in the community who are in need of ABA treatment for socially valid behavior change.

The Institute for Neurodiversity and Applied Behavior Analysis will further synergize scholarship efforts at MSU Billings in applied mental/behavioral health fields; including the M.S. Applied Behavior Analysis program in the College of Education, the M.S. Clinical Rehabilitation and Mental Health Counseling program in the College of Health Professions and Science, and the M.S. Psychology program in the College of Liberal Arts and Social Sciences.

2) Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student, state, and workforce demands. (Please cite sources).

In 2018, the Centers for Disease Control[iii] increased the US estimate of autism prevalence by 15 percent, to 1 in 59 children. The CDC and the U.S. Surgeon General support Applied Behavior Analysis (ABA) therapy for autism spectrum disorders (ASD) and to reduce problem behaviors.[iv] ABA has reached the standard of evidence based practice for the treatment of autism.

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A 2019 survey by Centria Autism[v], an ABA provider in 10 states, reported that 99% of parents believed early intervention was important for children with Autism Spectrum Disorder (ASD), but on average it took 15 months to start treatment. Waitlists are commonplace for ABA treatment; in an informal survey, ABA providers in the Billings area reported their waitlists ranged from 5 to 28 children, and, depending on complicated insurance and authorizations, time on the list ranged from six months to two years.

In Montana, ABA treatment is provided by Licensed Behavior Analysts (LBAs) who are Board Certified Behavior Analysts (BCBAs). There are 33 LBAs with only 51% of them listed as Medicaid providers leaving a gap in coverage for low-income clients. In comparison to the whole state, the Billings area has approximately 25 to 30% of the population who could benefit from ABA treatment living in this region.[vi] In addition, due to the rural nature of the eastern part of the state, the number of clinical opportunities for graduate students in ABA are extremely sparse. The need for a clinic to support our graduate ABA practicum is extremely important to maintain accreditation.

The Institute will alleviate long wait lists for children who need ABA services by functioning as both provider of services as well as a clinical training site for graduate students in ABA who will soon enter the labor market as behavior analysts.

The multi-tier system of behavior support which has been adopted by the Office of Public Instruction provides a structure for training schools in effective interventions. A demonstration project through MSU Billings Institute for Neurodiversity and Applied Behavior Analysis would (a) extend and enhance training opportunities for the educational community to proactively reduce problem behavior through social/emotional learning, functional analysis and positive behavior interventions[vii]

3) **Describe any significant new resources (financial, staff, facility, new curricula) needed to launch and sustain the program/center/institute.**

The institute will initially require financial resources to launch but will be supported by billable services through the Applied Behavior Analysis Clinic starting in year two. The MSU Billings Foundation has secured three years of start-up funding through the MJ Murdock Charitable Trust that phases out in defined steps as the clinic ramps up. A sustainability plan and financial projections were developed as a part of the funded proposal. This funding of $593,050.00 is budgeted to support a program director, half-time medical director, compliance specialist, as well as initial supplies/equipment/furniture. Registered Behavioral Technicians will be funded as part of billable services. An existing educational observation space has been identified on campus for immediate use, and the MSU Billings foundation is actively working to secure additional remodeling/infrastructure funds. Existing faculty in the Colleges of Education, Health Professions and Science and Liberal Arts and Social Sciences will be involved in in programming and scholarly activities, and no additional faculty or curricular costs are required to launch the institute.

4) **Describe any efforts or opportunities you have identified for collaboration either within the institution or between MUS institutions (i.e. articulation, course-sharing, research collaboration).**

While other campuses have on-site clinics, lab schools/centers, or professional development institutes, none provide the comprehensive nature of this proposed institute in applied behavior analysis for neurodiversity. Contact has already been initiated with providers in the Billings area, and we have also begun talks with Montana State University in order to best collaborate on this endeavor. The advisory committee includes Dr. Alison Harmon MSU Dean, College of Education, Health and Human Development, Dr. Ian Handley MSU Chair Psychology, and Dr. Jody Bartz MSU Assistant Professor -

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Special Education, Autism and Inclusion. The Institute will provide field and clinical experiences for students, pre-service training for behavior analysts, professional development for school teams, and continuing education for licensed professionals. It provides an opportunity to establish partnerships with organizations in the community (e.g., hospitals, clinics), and is informed by an active advisory committee of 12 community members including Representative Kathy Kelker, Tom Lynaugh, and Dr. Laura Nicholson, as well as Dr. Alison Harmon and faculty from Montana State University. The operation of an on-campus clinic is something that will attract students from the Rocky Mountain and Northern Plains States, as well as Western Canada. Besides Cal State, Los Angeles, MSU Billings is the only accredited Master's program by the Association for Behavior Analysis International in the Western United States. The Institute for Behavior Analysis & Neurodiversity would be a significant resource to communities and other states in this region.

5) **Describe how the program/center/institute fits with the institutional mission, strategic plan, existing institutional program array, and academic priorities as described in the most recent Academic Priorities and Planning Statement.**

As an extension of the Graduate MSSED ABA Program, the Institute aligns with the MSUB and COE mission statements through excellent teaching, support for individual learning, engagement in civic responsibility, and intellectual, cultural, social and economic community enhancement. Further, the ABA program is congruent with these mission statements by emphasizing its dedication to: (a) developing incomparable, caring, and committed professionals for schools and communities in Montana and beyond, (b) conducting socially significant applied research to improve the human condition, (c) providing community service to improve the quality of life in Montana, and (d) providing graduate and continuing education for career-long professional development. The Institute for Neurodiversity is mentioned in the MSU Billings 2020/21 Academic Priorities and Planning Statement and fits within the focus on applied programs and research efforts; it will foster and support collaborative efforts that include faculty and student scholarship while supporting wider health and education communities.

The Institute for Neurodiversity and Applied Behavioral Analysis will be affiliated with the Montana Center for Inclusive Education at Montana State University Billings. The Montana Center has served the disability community of Montana since 1947. In recent decades, with the exception of audiology services, the work of the Montana Center has been focused on educational services. This institute returns the Montana Center to its historic roots of providing therapeutic treatment to children in partnership with the medical community of Billings. The institute will support and promote the Montana Center's mission of serving the diverse population of Montana through providing holistic therapeutic treatment to children in renewed partnerships with the region's extensive medical community.

i https://accreditation.abainternational.org/apply/accredited-programs.aspx
ii Fazel, M., Hoagwood, K., Stephan, S., & Ford, T. (2014). Mental health interventions in schools. Lancet Psychiatry, 1(2014), 377-387.
iii Baio J, Wiggins L, Christensen DL, et al. (2018). Prevalence of Autism Spectrum Disorder Among Children Aged 8, MMWR Surveill Summ 2018;67(No. SS-6), 1–23. DOI: http://dx.doi.org/10.15585/mmwr.ss6706a1.
iv U.S. Surgeon General Report. (1999). Mental Health: A report of the Surgeon General. Retrieved June 2019. https://profiles.nlm.nih.gov/ps/retrieve/ResourceMetadata/NNBBHS#autism
v Wakefield Research. (2019). Centria Autism Survey. Retrieved at https://cdn.buttercms.com/bIfvWjrHQXSvVtTf9UId
vi Comprehensive System of Personnel Development (CSPD Regions) and Childcare Resource and Referral Regions of Montana lists by County compared with 2017 OPI Child Count Data.
vii Recommendation in Oregon Education Association. (2019). A crisis of disrupted learning: Conditions in our schools and recommended solutions. https://www.oregoned.org/images/uploads/blog/DisruptedLearning_Report_2019_v5.pdf

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Signature/Date	
Chief Academic Officer: DocuSigned by: Sue Balter-Reitz 2F7898B9313F45B...	1/7/2021
Chief Research Officer*: DocuSigned by: Cindy Bell 86CF7F1F41B14E7...	1/7/2021
Chief Executive Officer: DocuSigned by: BF3C54894E8F4C6...	1/7/2021
Flagship Provost:**	
Flagship President:**	

*Center/Institute Proposal only
**Not applicable to the Community Colleges.

FOR OCHE USE	
Labor market outlook	
Related programs / centers / institutes	
CAO discussion and follow-up	
ARSA/BOR comment and direction for Level II proposal	