Montana University System
INTENT TO PLAN FORM

Program/Center/Institute Title: Master of Science of Innovation and Management

Campus, School/Department: MSU Bozeman, Jake Jabs College of Business and Entrepreneurship

Expected Submission Date: 

Contact Name/Info: Mark Ranalli

To increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process, please complete this form not more than 18 months in advance of the anticipated date of submission of the proposed program/center/institute to the Board of Regents for approval. The completed form should not be more than 2-3 pages. For more information regarding the Intent to Plan process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) Provide a description of the program.

The Master of Science in Innovation and Management (MSIM) is a one-year, graduate program, designed specifically for recent Engineering and STEM (Science, Technology, Engineering and Mathematics) graduates, with most students enrolling immediately following their undergraduate degree and others with 1 to 3 years of work experience. The goal of the program is to provide these young professionals with a set of skills that will enable them to be more effective leaders, innovators, and team members in their respective careers.

Our belief is that these STEM graduates represent some of our brightest young adults, yet their college education is inadequately preparing them to have immediate impact and success in their early careers. Undergraduate focus on STEM curricula provides little opportunity for these students to learn the plethora of ‘soft skills’ and innovation skills that are imperative to successful careers. We believe that the MSIM program will arm these students with the tools and skills necessary to achieve early career success, help set them on accelerated career paths, and prepare them for future leadership roles.

The program will be designed around multiple ‘innovation sprints’ which will require teams of students to collaborate on the creation and advancement of a business plan. While the students are advancing their business plans, the curriculum will support their efforts – with classes that include financial analysis and valuation, competitive analysis, strategy, leadership, and marketing, as well as softer management skills. Each sprint will allow student teams to evaluate the viability of their business concept and provided them the opportunity to continue advancing that concept or begin anew with an alternative idea. This iterative approach will allow the students to build on their previous experience.

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

A 2013 study by the National Science Foundation (NSF) suggests a disconnect between skills desired by employers and professional development provided in STEM programs [National Science Foundation (NSF), 2013a]. Employers from diverse sectors expect STEM degree holders to have expert content knowledge, strong communication skills,
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a multidisciplinary focus, entrepreneurial and project management skills, a sense of professionalism, and the ability to apply knowledge across a broad context [Council of Graduate Schools and Educational Testing Service, 2012].


Despite employer expectations and projected increase in available opportunities, the NSF study indicates that today’s STEM programs still leave critical gaps in skills focused on science communication, preparation for nonacademic careers, broadening the societal relevance of research (e.g., engaging non-science audiences, policymakers, and stakeholders through outreach), and entrepreneurship.

The genesis of the MSIM program relates to the current challenges faced by many young STEM professionals, as they enter the workforce. The rigors of their undergraduate programs often leave these recent graduates with strong technical and analytical skills but underprepared for many of the managerial, organizational, and entrepreneurial challenges that they face as they enter the workforce.

3) Describe how the program fits with the institutional mission, strategic plan, and existing institutional program array.

The MSIM is fully aligned with MSU’s mission and strategic plan and is complementary to our existing undergraduate entrepreneurship programs. MSU’s new strategic plan, ‘Choosing Promise’, calls for an expansion of our overall graduate footprint, while also setting goals for the University to have greater impact on our Montana economy. We believe that by providing an immersive educational and experiential innovation-centric program to our STEM students we will be arming them with the necessary skills to build new Montana businesses and grow our economy.

As the Jake Jabs college of Business and Entrepreneurship we view this new Master’s in Science in Innovation and Management program as being fully aligned with our strategic mission of Innovation, Creativity, and Growth.

4) Describe how the program, complements, or duplicates existing efforts in the MUS. Describe efforts that will be made to collaborate with similar programs at other institutions. If no efforts will be made, please explain why.

The MSIM program complements the engineering and broader STEM undergraduate programs across the entire MUS system. Not only do we see a significant demand from STEM students at MSU-Bozeman, we believe this program will be of interest to many other STEM students across the MUS and UM systems who currently choose similar programs out of state because of the lack of availability of a program in Montana. We also expect to draw students from the broader Northwest region.

Furthermore, the proposed program complements the efforts of the University of Montana system which has recently added a Master of Science in Business Analytics (MSBA) to its Master in Business Administration (MBA) and Master of Accountancy (MAcc) offerings. The addition of a MSBA is commendable and in direct response to specific discipline needs and opportunities and the fact that business knowledge and skills are too diverse in the
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21st century to be captured only with the rubric of a MBA program. The proposed MSIM program focuses on addressing the innovation and management educational needs of a very specific niche of incoming students that are not addressed in the business-related graduate programs in the MUS system: the general management skills as taught in the UM MBA, accounting theory and skills as taught in UM's MAcc or MSU's own Master of Professional Accountancy (MPAc), or the business analytics as taught in UM's MSBA program.

Our proposed offering will add yet another reason for students from both within the state as well as from out-of-state and even internationally, to choose Montana as a destination for specialized higher education in Innovation and Management following a STEM undergraduate degree.

Signature/Date

College/School Dean: [Signature] 5/10/19

Chief Academic Officer: [Signature] 6/4/19

Chief Executive Officer: [Signature] June 4, 2019

Flagship Provost: [Signature] 6/4/19

Flagship President: [Signature] June 4, 2019

Date of Final Review:

When submitting the proposal to the BOR, include this signed form with the Level II request.