Montana University System

NOTICE OF INTENT TO PLAN

Program/Institute Title: Computer Science B.A. Degree
Campus, School/Department: MSU-Bz, Gianforte School of Computing
Contact Name/Info: John Paxton, john.paxton@montana.edu
Expected Submission Date: MAR 2017
Mode of Delivery: Face-to-Face

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.

For more information regarding the Intent to Plan process, please visit the Academic and Student Affairs Handbook.

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

The Computer Science Department proposes to offer a B.A. in Computer Science starting in Fall Semester 2017. The B.A. in Computer Science would serve students who also have a strong interest in academic areas such as the arts, the humanities and/or the social sciences. The University of Colorado introduced the B.A. in Computer Science in 2013 and as of 2015, 600 students were pursuing the new major. If a similar phenomenon occurred at Montana State University, there would be 300 students pursuing the new major within three years. In the 2016 State of the Union address, President Obama stated that "In the new economy, computer science isn't an optional skill - it's a basic skill, right along with the three Rs." Offering a B.A. in Computer Science would provide Montana State University students with the opportunity to learn highly relevant problem solving skills in the context of an education that is richer in the liberal arts.

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

According to the Computing Research Association, 49% of the annual projected growth in STEM job openings from 2012-2022 will occur in computing (http://cra.org/govaffairs/wp-content/uploads/sites/6/2014/10/All-STEM-Jobs-Graph-Feb-2014.pdf)
and 65% of the annual projected growth in new STEM jobs from 2012-2022 will occur in computing (http://cra.org/govaffairs/wp-content/uploads/sites/6/2014/10/Newly-Created-STEM-Jobs-Graph-Feb-2014.pdf). A February 2016 study by The University of Montana’s Bureau of Business and Economic Research shows that MHTBA members have the capacity to add 940 net new jobs in 2016 (http://www.bber.umt.edu/pubs/econ/highTechBusAlliance2016.pdf). Yet last year, only 64 students graduated with computer science degrees from Montana State University, the state's largest producer of CS graduates. A Computer Science B.A. would enable more students to graduate with in-demand skills.

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

The new degree helps support the following parts of Montana State University's strategic plan:
(1) Learning. More students will have the opportunity to earn a degree that prepares them for in-demand careers and graduate study.
(2) Discovery. Increasingly, research projects have a need for computational expertise. The B.A. degree will result in more undergraduates being able to contribute to research projects.
(3) Engagement. Because software is pervasive in today's society, more students will be better prepared to engage with and contribute to our local community and state.
(4) Access. The B.A. degree will provide students who do not identify as scientists or engineers with opportunities to gain computational thinking skills and pursue in-demand, flexible, well-paid, meaningful careers.
(5) Stewardship. The B.A. degree can be largely created by leveraging courses that already exist.

4) How does the proposed program/center/institute fit within the MUS system?

There is currently no Computer Science B.A. program in the MUS system. The largest three producers of Computer Science B.S. degrees in the MUS from largest to smallest are Montana State University, the University of Montana and Montana Tech.
Signatures

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Signature/Date

College/School Dean: ___________________________________________________________________ 7/27/2016
Graduate Dean: ________________________________________________________________________
Vice President Research: __________________________________________________________________
Chief Academic Officer: ___________________________________________________________________
Chief Executive Officer: ___________________________________________________________________
Flagship Provost: _________________________________________________________________________
Flagship President: _______________________________________________________________________

Date of Final Review: November 18, 2016

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