

From: Deputy Commissioner Brock Tessman
To: Board of Regents

Please see below for an executive overview of the Request to Plan items that are being proposed for your review and action at the March 2022 meeting of the Board of Regents. These items have been submitted by the campuses and reviewed by the Chief Academic Officers of the Montana University System and community colleges. OCHE staff has reviewed the items and provided a short analysis below relying on information submitted by the campuses. For more information and specific details on each item, please see the supporting documentation included on the Academic, Research, and Student Affairs Committee agenda.

Montana State University - Bozeman

B.S. in Data Science

Montana State University proposes to establish a B.S. in Data Science, to be offered through its School of Computing in collaboration with the Department of Mathematical Sciences. Data science is a quickly growing and well-remunerated field. According to the Bureau of Labor Statistics, data scientists in Montana earn a median annual wage of \$86,060. Employment of data scientists is forecast to grow 31% nationally between 2020 and 2030.

The proposed program would draw on existing coursework from computer science, mathematics, business, English, and the MSU library. Graduates would have an interdisciplinary understanding of how to process, gain insights from, and communicate large and complex data sets. These skills have diverse applications across healthcare, agriculture, business, and engineering. To offer the program, MSU will stand up two new courses. As the program grows, additional faculty and staff may be required to teach additional section of existing courses and to provide advising to Data Science majors.

Both Montana Tech and the University of Montana offer related undergraduate curriculum, Tech through a standalone B.S. in Data Science, and UM through options in its Computer Science B.S. and Mathematical Sciences B.A.

Montana University System
REQUEST TO PLAN – OCHE ANALYSIS

ITEM 199-2010-LI0122**ITEM NAME:** Request for Authorization to Plan a B.S. in Data Science

OCHE ANALYSIS														
Labor market outlook	According to the Bureau of Labor Statistics, data scientists in Montana earn a median annual wage of \$86,060. Employment of data scientists is forecast to grow 31% nationally between 2020 and 2030. Burning Glass data suggest there were 67 job postings for data scientist positions in Montana over the last 12 months.													
Related programs / centers / institutes	<p>The University of Montana offers related undergraduate programming, including:</p> <ul style="list-style-type: none"> • A Data Science option in the B.S. in Computer Science • A Statistics and Data Science option in the B.A. in Mathematics • A Big Data Analytics Certificate <p>Montana Technological University offers a B.S. in Data Science</p> <p>Montana State University offers an M.S. degree in Data Science.</p>													
Budget Impact		LOW • Only incidental costs	X	MEDIUM										
Budget Impact	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;"></th> <th style="background-color: #cccccc;">LOW • Only incidental costs</th> <th style="background-color: #cccccc;">X</th> <th style="background-color: #cccccc;">MEDIUM</th> <th style="background-color: #cccccc;">HIGH • substantial commitment of resources relative to institutional budget</th> </tr> </thead> <tbody> <tr> <td style="background-color: #cccccc;">Budget Impact</td> <td colspan="4">Offering this program will require new course development and, should the major attract sufficient enrollment, additional faculty and staff support to teach additional sections of existing courses and advise majors.</td> </tr> </tbody> </table>					LOW • Only incidental costs	X	MEDIUM	HIGH • substantial commitment of resources relative to institutional budget	Budget Impact	Offering this program will require new course development and, should the major attract sufficient enrollment, additional faculty and staff support to teach additional sections of existing courses and advise majors.			
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CAO discussion and follow-up	CAOs noted that this is an area with very clear statewide demand, but also noted challenges in sourcing enough qualified faculty to offer a fulsome curriculum. Montana Tech and UM expressed interest in collaboration to expand the course options available to students.													
ARSA/BOR comment and direction for Level II proposal														