

**SOUTH DAKOTA BOARD OF REGENTS**

**Academic and Student Affairs**

**AGENDA ITEM: 7 – D (2)**

**DATE: June 28-30, 2016**

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**SUBJECT: New Certificate: NSU Certificate in Geographic Information Sciences**


Northern State University (NSU) requests authorization to offer an undergraduate certificate in Geographic Information Sciences (GIS). NSU expects the certificate would appeal to students majoring in history and political science as it provides a complementary set of skills to acquire, map and analyze spatial data. The proposed curriculum does not require the addition of any new courses and consists of thirteen credit hours. NSU is not requesting new resources.

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**DRAFT MOTION 20160628\_7-D(2):** I move to approve NSU’s undergraduate Certificate in Geographic Information Sciences as described in Attachment I.

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Certificate Request**

This form is to be used to request approval for a new certificate program that includes currently offered courses. A certificate program is not a major or minor. Refer to BOR policy 2:23 Certificate Programs.

NSU	Geography		3/22/16
Institution	Division/Department	Institutional Approval Signature	Date

**1. Name of Program: Geographic Information Sciences (GIS) Certificate**

**2. Provide a justification for the program.**

A broad range of industries and agencies use Geographic Information Sciences (GIS) to map and analyze spatial data in order to recognize trends and relationships and to plan and make decisions. Northern State University (NSU) has been building up toward offering a certificate in Geographic Information Sciences (GIS) since hiring a professor of geography in 2007. NSU began offering Introduction to GIS in 2008 and joined the ESRI Consortium for South Dakota universities at that point. In 2014, NSU hired a biology professor with expertise in GIS, remote sensing, spatial statistics, and biogeography. This faculty member is now offering these courses on regular rotations. The NSU GIS Certificate will integrate courses offered by geography and biology faculty to train our students to both structure and maintain geographic information systems and to perform research and analysis in GIS.

Because the US Department of Labor declared Geospatial Technologies a high growth industry in the United States, it would be prudent for the SDBOR to offer certificates in GIS at more than one institution<sup>1</sup>. SDSM&T offers a Geospatial Technologies certificate, and SDSU offers a GIS certificate. NSU will set its GIS Certificate apart from other SDBOR institutions by stressing the interdisciplinary nature of Geography and spatial thinking and the nearly universal applicability of GIS. The NSU GIS certificate is designed to teach spatial thinking and GIS skills, a combination which I enhance many of the majors at NSU and make students more employable.<sup>2</sup>

**3. Who is the audience for the program?**

Students majoring in history, sociology, criminal justice, political science, biology, environmental science, and business and students minoring in geography can benefit from a Geographic Information

<sup>1</sup> United States Department of Labor, Employment and Training Administration. "High Growth Industry Profile-Geospatial Technology." [https://www.doleta.gov/brg/indprof/geospatial\\_profile.cfm](https://www.doleta.gov/brg/indprof/geospatial_profile.cfm)

<sup>2</sup> Jack Dangermond. "The Future Looks Bright for Spatial Thinkers." Esri Insider. <https://blogs.esri.com/esri/esri-insider/2011/10/03/the-future-looks-bright-for-spatial-thinkers/>

