Approved by the Board of Trustees

July 22, 2021

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Board Meeting

July 22, 2021

ESTABLISH THE MASTER OF SCIENCE IN CYBERGIS AND GEOSPATIAL DATA SCIENCE, COLLEGE OF LIBERAL ARTS AND SCIENCES AND THE GRADUATE COLLEGE, URBANA

**Action:** Establish the Master of Science in CyberGIS and Geospatial Data Science,

College of Liberal Arts and Sciences and the Graduate College

**Funding:** Start-up funding will be covered by support from the campus’ Investment for Growth Fund. At year four, enrollment and revenue growth from tuition will provide the resources for expansion of staff and infrastructure as needed.

The Chancellor, University of Illinois Urbana-Champaign, and Vice President, University of Illinois System with the advice of the Urbana-Champaign Senate recommends approval of a proposal from the College of Liberal Arts and Sciences and the Graduate College to establish the Master of Science in CyberGIS and Geospatial Data Science (M.S. in CGDS).

The M.S. in CGDS is designed to meet the existing high demand for advanced GIS skills like cyberGIS, geospatial big data analytics, and geospatial visualization, which are needed in many industries. The program will satisfy demand from non-traditional students, including working professionals, who seek to obtain an advanced degree in GIS focused on cyberGIS and geospatial data science. This new program will accommodate remotely located students, building upon existing Department of Geography and Geographic Information Science faculty expertise in innovative online pedagogy. CyberGIS is the latest development in the rapidly growing field of geospatial data science. Combining advances in high-performance and data-intensive computing with developments in geospatial data processing, analysis, and visualization, cyberGIS has rapidly emerged as a major force in private and public sector organizations and in higher education for harnessing the geospatial data revolution. The program will fill a gap in current offerings in this area as the first online program focused on cyberGIS and geospatial data science. The M.S. in CGDS is designed to accommodate a demographic of nontraditional and working learners by offering online coursework, advising, and capstone research. It is expected to be particularly attractive to professionals working fulltime who are looking to enhance their skill set in cyberGIS and geospatial data science.

Multiple specialized faculty members will be employed to develop course content and teach in the new program. These faculty will handle most of the additional instruction and coordination workload. They will also be responsible for general academic advising of students and placement efforts. There is no expectation to increase regular semester teaching loads for current faculty. Some overload or summer teaching is expected to occur on an optional basis. If enrollments are significantly greater than expected, tuition revenue will be used to hire an additional faculty member to teach additional sections or classes. No new or additional facilities, significant improvements to existing facilities, or additional resources from the University Library are needed. The program’s start-up costs for the first three years, which include the hiring of the new specialized faculty members, are supported by the campus’ Investment for Growth Fund. The tuition revenue return to the department will sustain the program at steady-state without additional expenditures by the college. Long-term additional costs will be covered sustainably by tuition return.

The Board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes, The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The Interim Executive Vice President and Vice President for Academic Affairs concurs with this recommendation. The University Senates Conference has indicated that no further Senate jurisdiction is involved.

The President of the University recommends approval. The action is subject to further review by the Illinois Board of Higher Education.