Approved by the Board of Trustees

July 22, 2021

21

Board Meeting

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ESTABLISH THE BACHELOR OF SCIENCE IN FINANCE + DATA SCIENCE, GIES COLLEGE OF BUSINESS, URBANA

**Action:** Establish the Bachelor of Science in Finance + Data Science, Gies College

of Business

**Funding:** No increase in faculty within Gies is required, as the college currently has the capacity to accommodate the expected minor increases in enrollments resulting from this program. Students will utilize existing Gies College of Business career and advising services. No additional financial resources are 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 Gies College of Business to establish the Bachelor of Science in Finance + Data Science (B.S. in FIN + DS).

Along with three companion action items, the proposal to establish the B.S. in FIN + DS is part of the University of Illinois Urbana-Champaign’s “X + DS Degree” initiative, with plans for future undergraduate “X + DS” programs in the works.

In 2017, the College of Liberal Arts and Sciences, Grainger College of Engineering, School of Information Sciences, and Gies College of Business formed a collaborative task force to explore opportunities for an undergraduate data science education at the University of Illinois Urbana-Champaign. In 2019, based on recommendations from this task force, the deans of these four academic units agreed to support a shared framework for these “X + DS” programs. The framework includes a set of core competencies with a reference standard set of courses and activities that fulfill the data science portion of these programs. A Data Science Education Committee was formed to review how proposed majors provide the expected competencies and features of “X + DS” programs in a manner that is appropriate for their students. This committee will also keep track of offerings related to data science to facilitate collaboration and reduce redundancy, connect undergraduate data science education resources across the university, advise colleges on matters related to undergraduate data science education, and review “X + DS” degree proposals to provide comment on how they meet expectations for and engage collaboratively and strategically with the university’s resources in data science education.

Specific to the FIN + DS program, explicitly adding a data science component to the Finance undergraduate program will provide more options for undergraduate employment and will better prepare students for graduate work. Currently, state-of-the-art best practice for financial professions includes the data analytic skill sets required to sift through large volumes of data to uncover solutions to business problems and effectively communicate analyses, findings, and conclusions. Accordingly, it is important to formally integrate into the undergraduate curriculum a variety of courses that cultivate and sharpen these skills alongside more traditional content. A recent article in Bloomberg News, for example, reports that in the financial sector, job postings that list big data skills as required grew by 60 percent over the last year. A 2016 survey of 422 European and U.S. executives conducted by the Economist Intelligence Unit reports that analytics and big data will be the most important digital competency for their organizations in the next three years. In response, the Association to Advance Collegiate Schools of Business (AACSB), the primary accreditation authority for business schools, is pushing business schools to respond by adding data analytics to their curricula.

Based on enrollment projections, the courses required for the FIN + DS program have capacity or can be expanded through the use of differential tuition. No new or additional facilities, significant improvements to existing facilities, or additional resources from the University Library are needed.

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.