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ESTABLISH THE BACHELOR OF SCIENCE IN DATA SCIENCE, COLLEGE OF ENGINEERING, CHICAGO

Action: Establish the Bachelor of Science in Data Science, College of Engineering

Funding: No New Funding Required

The Chancellor, University of Illinois at Chicago, and Vice President, University of Illinois with the advice of the Chicago Senate and the College of Engineering recommends the establishment of the Bachelor of Science in Data Science.

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms, and systems to extract knowledge and insights from data. The B.S. in Data Science responds to demand for computation for analysis, as opposed to building software artifacts for their own sake. The degree will require 37 hours of general and basic education; 57 hours in the core (i.e., foundational mathematics, statistics, computer science, discrete mathematics, communication and ethics, and business project management); a required concentration; and electives for a total of 120 hours.

The degree will be housed in the Department of Computer Science, with advisory and curricular support from the Department of Information and Decision Sciences (College of Business Administration) and Department of Mathematics,

Statistics, and Computer Science (College of Liberal Arts and Sciences). Further, the degree will make optimal use of the specialized area expertise available in multiple UIC colleges. Nine concentrations are currently proposed, each requiring a minimum of 13 hours: Bioinformatics; Business Analytics; Computer Science; Data Processing, Science, and Engineering; Health Data Science; Industrial Engineering; Social Technology Studies; Statistics; and Urban Planning and Public Affairs. The framework of the degree is designed to facilitate the addition of more disciplines that use data science as concentrations in the future. Forty-five students are anticipated in the first year, growing to 200 students once fully implemented.

The degree core is comprised of existing courses, and only one new course, an elective in the Concentration in Statistics, has been created. This new elective is also open to students in other programs including the B.A. in Liberal Arts and Sciences, Major in Statistics. Current facilities and library resources are adequate to support the program. The Department of Computer Science, which currently has 52 full-time faculty, anticipates hiring an additional 0.5 FTE clinical faculty member in the first five years of the program. Tuition revenue is anticipated to be adequate to cover the costs of the hire, and additional advising resources will be provided if needed by the College of Engineering.

The Board action recommended in this item complies in all material respect 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 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. This action is subject to further review and approval by the Illinois Board of Higher Education.