**ILLINOIS STATE**
**UNIVERSITY**

**BOARD OF TRUSTEES**

**Resolution**

Whereas, the Board of Trustees, as authorized by the Board of Trustees Governing Document, Section A, Government Statutes, Subsection 5, Reservation of Powers, has reserved to itself the final decision-making authority for the establishment of any new unit of instruction requiring approval by the Illinois Board of Higher Education.

Therefore, be it resolved that the Board of Trustees approves the proposal for degree granting authority for the B.S. in Data Science.

Board Action on: _____  Postpone:_____

   Motion by: _____  Amend: _____

   Second by: _____  Disapprove:_____

   Vote:   Yeas:_____Nays:_____  Approve:_____

ATTEST:      Board Action,   May 12, 2023

Secretary / Chairperson

**Board of Trustees**
**Illinois State University**
**Approval of B.S. in Data Science**

The IDS Data Science major prepares students with the technical knowledge and computational skills to meet current and future problem solving and analysis of large data sets. The IDS Data Science major is an interdisciplinary major with three core areas of curricula including: 1) mathematics and statistics, 2) information technology and computer science, and 3) an applied sequence for contextual application in an area linked to the future career path of the student. The sequences include 1) Big Data and Computational Intelligence, 2) Business Analytics, 3) Population Health, 4) Social Demographic/Public Policy analytics, and 5) Individualized Plan of Study.

An increase in employer demand and a large number of relevant job postings indicate strong need for program graduates. In the last 12 months, employers posted a high number of relevant job postings both locally and regionally (i.e., 49,180 and 113,459 job postings, respectively). Between June 2018 and May 2021, employer demand growth for bachelor's-level data science professionals outpaced employer demand growth for all bachelor's-level professionals both locally (i.e., 1.60 percent compared to 0.92 percent), and regionally (i.e., 1.81 percent compared to 0.92 percent). Additionally, local and regional employment is projected to increase faster than average in all top occupations. This indicates a large and growing labor market for program graduates with increasing employment opportunities in the coming years.

The interdisciplinary program will be administered by the Department of Mathematics in the College of Arts and Sciences.

The program proposal has been developed by an ad hoc committee of Illinois State University faculty and administrators from the College of Arts and Sciences, the College of Applied Science and Technology, and the College of Business. The program was developed in response to a high need in the state and many requests for such a program from prospective students. The program is expected to enroll up to 50-60 students each year. Faculty teaching in the program will deliver the new program at its inception, with additional instructional capacity provided by the Office of the Provost as necessitated by enrollment growth. Existing courses can be used to deliver the program.

The core curriculum will include 32 credit hours of Mathematics courses (20 hours basic and 12 hours advanced courses), 14 credit hours of Information Technology courses, one ethics course, one data visualization course, and one capstone/internship course. The capstone course will be an instructor led course to complete an applied data science project from an external partner. As an alternative to the campus-based capstone project course, students may elect to complete an externally based internship for the equivalent of a 3-credit hour course. Each sequence will consist of seven (7) additional courses. Students enrolling in the program will choose between five plans of study: 1) Big Data and Computational Intelligence, 2) Business Analytics, 3) Population Health, 4) Social Demographic/Public Policy analytics, and 5) Individualized Plan of Study.

The proposal was approved by the Academic Senate on April 12, 2023.