Graduate Certificate in Data Science

The Graduate Certificate in Data Science (DS) requires 4 graduate-level courses and is designed to offer the state-of-the-art Data Science training to a wide range of students who are currently pursuing graduate training in a discipline that is outside EECS or those that are seeking post-baccalaureate training to enhance their skill in Data Science, examples include Masters and Ph.D. students working on computational physics, computational chemistry, quantitative genetics, geoinformatics, or environmental modeling.

Requirements for EECS students entering the program are courses in (a) EECS 268: programming II or experience with object oriented programming and large programs, and (b) MATH 290: linear algebra or equivalent, and (c) MATH 526 or EECS 461: applied mathematical statistics or equivalent; or consent from the instructor.

The target students of this graduate certificate, outside the EECS students, are Lawrence campus graduate students doing research directly related to data science. Examples include Masters and Ph.D. students working on computational physics, computational chemistry, quantitative genetics, geoinformatics, or environmental modeling. The program highly considers those who have strong quantitative training (math and statistics), have some programming experience and prior exposure of large programs through research.

Applicants must complete an application to Graduate Studies (http://graduate.ku.edu/ku-graduate-application/) for admission into the certificate program and submit an application fee along with the following materials:

- Copy of Official Transcripts
- Statement of Purpose
- Resume
- Three Letters of Recommendation

*Unless the applicant's native language is English or the applicant has received a baccalaureate degree or higher from an accredited U.S. institution of higher education, he or she must meet the department's standard for the Test of English as a Foreign Language (TOEFL).

The Graduate Certificate in Data Science requires the completion of one core course and three elective courses (from the specified list) at a total for four courses with a minimum of 11 credit hours. All students must take EECS 731 in their first semester in the program.

Core Courses (1 courses, 3 credit hours required)

Code	Title	Hours
EECS 731	Introduction to Data Science	3
Elective Courses (3 courses, minimum of 8 credit hours required)		
EECS 738	Machine Learning	3
IT 746	Database Systems	3
or EECS 767	Information Retrieval	
EECS 775	Visualization	3
or DSCI 714	Data Visualization	
EECS 837	Data Mining	3
STAT 830	Experimental Design	3
or STAT 871	Mathematical Statistics	
or MATH 728	Statistical Theory	

The completion requirements of the graduate certificate in data science include: (a) students must have a GPA of 3.0 or better on the required courses; (b) The minimum grade for any course to be applied toward the certificate is a grade of C; and (c) no credits may be transferred from another institution for this certificate.