

APPLIED DATA SCIENCE

Overview

PROGRAM INFORMATION

The Master of Science with a major in Applied Data Science degree will provide students with a working knowledge of techniques and software commonly used in Data Science. The degree is designed for engineering students and working professional engineers with a B.S. degree in a non-computing engineering field, that is, for engineering students and professional engineers who have engineering degrees other than Computer Science or Computer Engineering and possibly Industrial and Systems Engineering. The degree will prepare engineering students to work as data scientists in industry and can also be used by engineering students working towards a Ph.D. degree in non-computing focused engineering degree programs.

Degrees Offered

DEGREES OFFERED WITH A MAJOR IN applied data science

- Master of Science

Courses

applied data SCIENCE PROGRAM COURSES

Core/Required Courses:

Code	Title	Credits
CAP 5771	Introduction to Data Science	3
COT 5615	Mathematics for Intelligent Systems	3
EEE 5776	Applied Machine Learning	3
EEE 6778	Applied Machine Learning II	3
EGN 6446	Mathematical Foundations for Applied Data Science	3
EGN 5442	Programming for Applied Data Science	3
EGN 6933	Special Topics	1-3
LAW 6930	Selected Legal Probs	1-4

Example Specialization Courses:

Code	Title	Credits
ABE 5038	Recent Developments and Applications in Biosensors	3
ABE 5643C	Biological Systems Modeling	3
ABE 6035	Advanced Remote Sensing: Science and Sensors	3
ABE 6649C	Advanced Biological Systems Modeling	3
ABE 6840	Data Diagnostics	3
BME 6522	Biomedical Multivariate Signal Processing	3
BME 6938	Special Topics in Biomedical Engineering	1-4
BME 6938	Special Topics in Biomedical Engineering	1-4
EIN 6905	Special Problems	1-6
OCP 6168	Data Analysis Techniques for Coastal and Ocean Engineers	3
TTE 6505	Discrete Choice Analysis	3

Student Learning Outcomes

Applied data SCIENCE

SLO 1 Knowledge

To analyze, design, implement, and evaluate Data Science systems solution to meet a given set of system requirements.

SLO 2 Skills

To recognize professional responsibilities and make informed decisions when developing Data Science systems based on legal, ethical, and policy principles.

SLO 3 Professional Behavior

To function effectively as a member of a team engaged to develop a Data Science systems solution.