Area Courses
Data Science and Engineering

Fundamental Courses
CSCI 455x Introduction to Programming Systems Design
EE 503 Probability for Electrical and Computer Engineers
EE 510 Linear Algebra for Engineering

Data Science Infrastructure
EE 542 Internet and Cloud Computing
EE 450 or EE 457
CSCI 551 Computer Communications
EE 553 Computational Solution of Optimization Problems
EE 565 Information Theory and Compression
CSCI 570 Analysis of Algorithms
CSCI 585 Database Systems

Machine Learning
EE 500 Neural and Fuzzy Systems
EE 503
EE 5XX Mathematics of High-Dimensional Data
EE 503, EE 510
EE 559 Mathematical Pattern Recognition
EE 503, EE 510
EE 660 Machine Learning from Signals: Foundations and Methods
EE 503, EE 510

Statistical Methods for Data Analytics
EE 517 Statistics for Engineers
EE 503
EE 563 Estimation Theory
EE 503
EE 583 Statistical Signal Processing
EE 503

Signal Data Analytics
EE 483 Introduction to Digital Signal Processing
EE 450
EE 596 Wavelets
EE 483, EE 510
EE 5XX Graph Signal Processing
EE 483, EE 510

Visual Data Analytics
EE 569 Introduction to Digital Image Processing
EE 401, EE 503
EE 574 Computer Vision
CSCI 455x

Speech and Language Data Analytics
EE 519 Speech Recognition and Processing for Multimedia
EE 483
EE 619 Advanced Topics in Automatic Speech Recognition
EE 503, EE 519, CSCI 544

Legend
Grouping
Course Title
Prerequisite Courses
Recommended Prep.
Corequisite Courses
indicates a class with a significant computing/design component

This chart shows course relationships
Please check the University Catalogue for specific course details including any recommended preparatory courses and Degree Requirements
Rev. 201708