USC Viterbi
School of Engineering
Ming Hsieh Department of Electrical Engineering

Area Courses
Signal and Image Processing

Fundamental Courses

EE 441 Applied Linear Algebra for Engineering

CSCI 455x Introduction to Programming Systems Design

EE 483 Introduction to Digital Signal Processing

EE 503 Probability for Electrical and Computer Engineers

Mathematical Foundations

EE 512 Stochastic Processes
EE 441, EE 503

EE 562 Random Processes in Engineering
EE 441, EE 503

Law and Intellectual Property

EE 682 Law and Intellectual Property for Engineers
EE 503

Signal and Image Processing

EE 566 Optical Information Processing

EE 569 Introduction to Digital Image Processing
EE 401, EE 503

EE 574 Computer Vision
CSCI 455x

EE 575 Computational Differential Geometry for Engineers

EE 583 Statistical Signal Processing
EE 503

EE 592 Computational Methods for Inverse Problems
EE 441, EE 483
EE 503

EE 596 Wavelets
EE 441, EE 483
EE 569

Data Analysis and Machine Learning

EE 500 Neural and Fuzzy Systems
EE 503

EE 517 Statistics for Engineers
EE 503

EE 518 Mathematics and Tools for Financial Engineering

EE 559 Mathematical Pattern Recognition
EE 441, EE 503

EE 563 Estimation Theory
EE 503

EE 660 Machine Learning from Signals: Foundations and Methods
EE 441, EE 503
EE 559

EE 669 Multimedia Data Compression
EE 503

Speech, Biomedical, Audio, and Other Applications

EE 519 Speech Recognition and Processing for Multimedia
EE 483

EE 522 Immersive Audio Signal Processing
EE 483

EE 523 Advanced Biomedical Imaging
EE 483

EE 586L Advanced DSP Design Laboratory
EE 583 or EE 569

EE 591 Magnetic Resonance Imaging and Reconstruction
EE 483
EE 401, EE 503

EE 619 Advanced Topics in Automatic Speech Recognition
EE 503, EE 519, CSCI 544

Legend

Grouping

EE 000 Course Title
Prerequisite Courses
Recommended Prep. Corequisite Courses

This chart shows course relationships

Please check the University Catalogue for specific course details including any recommended prepatory courses and Degree Requirements

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