

Appendix B – Mathematics Requirement

The following lists of courses have been approved for meeting the mathematics requirement.

B.1 Mathematics Courses

Courses numbered MATH 511 and above are acceptable with the exceptions listed below:

1. MATH 519 (STAT 519) is *not* acceptable due to significant overlap with ECE 600
2. MATH 504 is acceptable for students whose primary area is either Automatic Controls or Communications and Signal Processing;
3. MATH 527 is *not* acceptable for Communications and Signal Processing majors.
4. Math education related courses are not acceptable.

B.2 Electrical & Computer Engineering Courses

ECE 580 Optimization Methods for Systems & Control

ECE 595 Foundations of Advanced Engineering I

ECE 600 Random Variables

B.3 Computer Science Courses

CSCI 514 Numerical Analysis

CSCI 515 Numerical Analysis of Linear Systems

CSCI 520 Computational Methods in Analysis

CSCI 614 Numerical Solution of Ordinary Differential Equations

CSCI 615 Numerical Solution of Partial Differential Equations

B.4 Statistics Courses

STAT 528 Introduction to Mathematical Statistics

STAT 529 Applied Decision Theory and Bayesian Statistics

STAT 532 (MATH 532) Elements of Stochastic Processes

STAT 533 Non-Parametric Statistics

STAT 538 (MATH 538) Probability Theory I

STAT 539 (MATH 539) Probability Theory II

STAT 553 Theory of Linear Models and Experimental Designs

STAT 554 Multivariate Test Statistics

STAT 555 Non-Parametric Statistics

STAT 576 Introduction to Statistical Decision Theory

STAT 638 (MATH 638) Stochastic Processes I

STAT 639 (MATH 639) Stochastic Processes II

STAT 657 Theory of Tests, Estimation and Decisions I

STAT 658 Theory of Tests, Estimation and Decisions II

STAT 667 Measure-Theoretic Statistics: Decision Theoretic and Classical

STAT 668 Asymptotic Distribution Theory

B.5 Physics Courses

PHYS 600 Methods of Theoretical Physics I

PHYS 601 Methods of Theoretical Physics II

Please Note: Faculty-initiated requests for changes or exceptions to the above will be considered by the Graduate Committee after approval by the appropriate area. Student-initiated requests must follow the same procedure, with the additional first step of approval by the student's major adviser.