The full Linearity sequence, MATH 525 and MATH 526, may be used to replace the MATH 527, MATH 528, and MATH 645 requirements. MATH 525 may be used to replace the MATH 645 requirement. Applied Mathematics: Economics Option students must take MATH 539 Introduction to Statistical Analysis.
Third Year
Fall
MATH 647 Complex Analysis for Applications 4
MATH 745 Foundations of Applied Mathematics I 4
ME 627 Dynamics 3
Discovery Course 4
Discovery Course 4
Credits 19

Spring
ME 561 Introduction to Materials Science 4
Elective Course 4
Discovery Course 4
Writing Intensive Course 4
Credits 16

Fourth Year
Fall
MATH 753 Introduction to Numerical Methods I 4
Elective Course 4
Discovery Course 4
Writing Intensive Course 4
Credits 16

Spring
MATH 797 or MATH 798 Senior Seminar or Senior Project 4 or MATH 799 Senior Thesis
Elective Course 4
Elective Course 4
Elective Course 4
Credits 16

Total Credits 131

Student Learning Outcomes

• Students recognize common mathematical notations and operations used in mathematics, science and engineering.
• Students can recognize and classify a variety of mathematical models including differential equations, linear and nonlinear systems of algebraic equations, and common probability distributions.
• Students have developed a working knowledge (including notation, terminology, foundational principles of the discipline, and standard mathematical models within the discipline) in at least one discipline outside of mathematics.
• Students are able to extract useful knowledge, both quantitative and qualitative, from mathematical models and can apply that knowledge to the relevant discipline.