

Approved Quantitative Engineering and Science Courses

- Any ES_APPM, especially:
 - ES_APPM 346 – Modeling and Computation in Science and Engineering
 - ES_APPM 370-0 – Introduction to Computational Neuroscience
 - ES_APPM 395-0 – Introduction to Applied Partial Differential Equations
 - ES_APPM 395-0 – Modeling Experiments and Data
 - ES_APPM 411-1,2 – Differential Equations of Mathematical Physics
 - ES_APPM 421-1 – Models in Applied Mathematics
 - ES_APPM 444-0 – High Performance Scientific Computing
 - ES_APPM 446-1 – Numerical Solution of Partial Differential Equations
 - ES_APPM 495-1 – Special Topics: Modeling in Biology

Some require permission from the department and may not be offered every year.
Course numbers are subject to change.

Approved Quantitative Engineering and Science Courses

- BMD_ENG 366-0 – Biomechanics of Movement
- BMD_ENG 377-0 – Intermediate Fluid Mechanics
- BMD_ENG 395-0 – Computational Genomics
- BMD_ENG 463-0 – Neuropathophysiology (expected 2021-2022)
- BMD_ENG 469-0 – Neural Control and Mechanics of Movement
- BMD_ENG 478 – Transport Fundamentals
- BMD_ENG 495 –Special Topics (Prof Bright)
- COMP_SCI 349-0 – Machine Learning
- ELEC_ENG 302-0 – Probabilistic Systems
- ELEC_ENG 332-0 – Introduction to Computer Vision

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Approved Quantitative Engineering and Science Courses

- ELEC_ENG 359-0 – Digital Signal Processing
- ELEC_ENG 418-0 – Advanced Digital Signal Processing
- ELEC_ENG 433-0 – Statistical Pattern Recognition
- ELEC_ENG 435-0 – Deep Learning: FAA
- ELEC_ENG 475 – Machine Learning: Foundations, Applications, and Algorithms
- ELEC_ENG 495-0 – Bioelectric Systems Modeling & Analysis
- ELEC_ENG 495-0 – Optimization Techniques for Machine Learning & Deep Learning
- MECH_ENG 314-0 – Machine Dynamics
- MECH_ENG 327-0 – Finite Elements for Stress Analysis
- MECH_ENG 362-0 – Stress Analysis
- MECH_ENG 390-0 – Introduction to Dynamic Systems

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Approved Quantitative Engineering and Science Courses

- MECH_ENG 414-1 – Mechanics of Composite Materials
- NUIN 441-0 – Biophysical Signal Processing for Movement & Rehabilitation Sciences
 - For students without a signal processing background
- Other courses with approval from Director of MS program (Prof Ankeny)

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