# Department of Computer Science and Engineering
## PhD Program

# ELECTIVES
### Approved by GRADCOM

**The following courses have been pre-approved to be used toward Elective requirements ONLY: (NOT Breadth requirements)**

## DSC
- DSC 291 Topics in Data Science

## ECE
- ECE 228 Machine Learning for Physical Applications
- ECE 255A Information Theory
- ECE 257A Modern Communication Networks
- ECE 269 Linear Algebra & Applications
- ECE 271A Statistical Learning I
- ECE 271B Statistical Learning II
- ECE 271C Deep Learning & Applications
- ECE 273 Convex Optimization & Applications
- ECE 276A Sensing & Estimation in Robotics
- ECE 276B Planning & Learning in Robotics
- ECE 276C Robot Manipulation & Control
- ECE 285 Signal & Image Processing/Robotics & Control Systems

## GPPA
- GPPA 477 Cyber Security Policy

## MATH
- MATH 216A Mathematical Methods in Data Science I
- MATH 216B Mathematical Methods in Data Science II
- MATH 216C Mathematical Methods in Data Science III
- MATH 261A Probabilistic Combinatorics & Algorithms I
- MATH 261B Probabilistic Combinatorics & Algorithms II
- MATH 261C Probabilistic Combinatorics & Algorithms III
- MATH 264A-B-C Combinatorics
- MATH 280A Probability Theory I
- MATH 280B Probability Theory II
- MATH 280C Probability Theory III
- MATH 285 Stochastic Processes