# Software

## Master of Engineering: 30 Credits or 10 Courses

Students pursuing this option must complete six courses from the core curriculum. Students must also register for four electives from identified technical areas such as cybersecurity, computer engineering, systems engineering or create an individual plan that meets their specific career goals. There is no research or thesis required for this degree.

### Graduate Certificate in Engineering: 12 credits or 4 courses

Students pursuing a Graduate Certificate in Engineering must complete the following four courses:

- **ENPM611** Software Engineering
- **ENPM612** System and Software Requirements
- **ENPM613** Software Design & Implementation
- **ENPM614** Software Testing & Maintenance

## Software Core (take six):

- **ENPM611** Software Engineering
- **ENPM612** System & Software Requirements
- **ENPM613** Software Design and Implementation
- **ENPM614** Software Testing and Maintenance
- **ENPM696** Reverse Software Engineering
- **ENPM808E** Managing Software Engineering Projects

## Software Technical electives (choose four):

Complete four courses in one technical area below or create an individual plan approved by advisor.

### Computer Engineering (four courses)

- **ENPM607** Computer System Design
- **ENPM609** Microprocessor-Based Design
- **ENPM610** Digital VLSI Design
- **ENPM615** Embedded Systems

### Systems Engineering (four courses)

- **ENPM641** Systems Concepts, Issues, and Processes
- **ENPM642** Systems Req., Design and Trade-Off Analysis
- **ENPM643** Systems Projects, Validation and Verification
- **ENPM644** Human Factors in Systems Engineering

### Cybersecurity (four courses)

- **ENPM686** Information Assurance
- **ENPM691** Hacking of C programs & Unix Binaries
- **ENPM693** Networks and Protocols
- **ENPM695** Secure Operating Systems

### Additional Pre-approved electives

- **ENPM691** Hacking of C programs & Unix Binaries
- **ENPM809R** Software Defined Networking
- **ENPM809W** Security and Software

*Prerequisite Course*
# Preliminary 10-Course Plan

Software

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