# Computational Sciences and Robotics

<table>
<thead>
<tr>
<th>Thesis</th>
<th>Minimum of 30 total credits</th>
<th></th>
<th>Non-Thesis</th>
<th>Minimum of 33 total credits</th>
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<tr>
<td><strong>Required Classes</strong></td>
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<tr>
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<td>CSC 798 Thesis</td>
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<td>CSC 798 Master’s Project</td>
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**At most 3 credits in Professional Electives**

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<th>Professional Elective</th>
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<td><strong>Subtotal</strong></td>
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**Program Notes**

1. CSR Electives come from an approved list or they are approved by the program committee. See back for list of approved CSR electives.
2. At least 12 credits must be in graduate level CSC courses (thesis credits do not count).
3. Students in the thesis track cannot count CP credit in their program of study.
4. Students in the thesis track cannot count CSC 788 towards their program of study.
5. Students in the non-thesis track can count at most 3 credits of CP as part of a professional elective. (All CP credit must be approved by the MCS dept. CO-OP coordinator.)
Computational Science & Robotics Checklist of Requirements
For Students Declaring Their Major Fall 2018. 8/28/2018

CSR Electives

CSC Courses
- CSC 510 - Parallel Computing
- CSC 512 - Cryptography
- CSC 514 - Computer Vision
- CSC 516 – Adv. Algo for Robotics
- CSC 526 – Cybersecurity
- CSC 533 - Computer Graphics
- CSC 541 – Networking & Data Comm.
- CSC 542 - Image Processing
- CSC 545 - Theory of Computation
- CSC 547 - Artificial Intelligence
- CSC 549 – Adv. Artificial Intelligence
- CSC 554 – Data Mining Theory
- CSC 576 – Mobile Computing Dev.

EE/CENG Courses
- CENG 514 - Computer Vision
- CENG 544 - Computer Networks
- CENG 547 - Embedded Systems
- CENG 548 – Real Time Operating Systems

Mechanical Engineering Courses
- ME 683 - Advanced Mechanical System Control
- ME 673 – Appl. Engineering Analysis I
- ME 773 – Appl. Engineering Analysis II
- ME 781 - Robotics

Mathematics Courses
- Math 543 - Data Analysis
- Math 547 - Design of Experiments
- Math 551 - Mathematical Modeling
- Math 552 – Advanced Studies in Math

CSR Professional Electives

Professional Electives are meant to enhance professional development and complement the program of study.

CP 697 – Cooperative Education

Non-Thesis students can count at most 3 credits of CP 697. (Any CP credit must meet department policies on CP credit.)

ENG 620 – Quality Management
ENG 625- Innovation and Commercialization
ENG 745 – Forecasting for Business Technology

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From USD
ACCT 520 – Foundations of Accounting
BADM 505 – Foundations of Finance
BADM 525 – Production Operations Management
BADM 580 – Foundations of Marketing & Organizational Behavior