# M.S. in Computer Science

## Computer Science

### Program Director

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The Master of Science in Computer Science program at St. Mary's prepare students to manage a software development project from analysis, design, implementation, testing and maintenance to management of quality, budgets, deliverables and deadlines. This program requires two engineering (EG) courses. The program is designed to provide a deep understanding of the hardware and software components of computer systems and the following:

- Hardware organization
- Data communication and databases
- Software requirements analysis
- Software design methodologies
- Software implementation and testing

Professors in these programs have expertise in:

- Artificial intelligence,
- Computer security/cybersecurity,
- Game development and simulation, and
- Programming languages.

*Click on the course number to view course title and description.*

| Code | Title | Semester Hours |
|---|---|---|
| **Computer Science Core** | | |
| CS 6310 | Systems Analysis and Design | 3 |
| CS 6320 | Files and Database | 3 |
| CS 6330 | Advanced Computer Networks | 3 |
| CS 6340 | Advanced Software Engineering | 3 |
| CS 6350 | Hardware & Operating Systems | 3 |
| CS 6395 | Project | 3 |
| **Computer Science Electives** | | |
| Any other graduate computer science course (other than the core courses) for a total of 9 (nine) credit hours. This is typically 3 courses. | | 9 |
| **Engineering Electives** | | |
| Any two 3-credit hour EG classes for which the pre-requisites are met. | | 6 |
| **Total Semester Hours** | | **33** |

| Code | Title | Semester Hours |
|---|---|---|
| Computer Science Core - Thesis Option | | |
| CS 6310 | Systems Analysis and Design | 3 |
| CS 6320 | Files and Database | 3 |
| CS 6330 | Advanced Computer Networks | 3 |
| CS 6340 | Advanced Software Engineering | 3 |
| CS 6350 | Hardware & Operating Systems | 3 |
| **Thesis** | | |
| CS 6391 | Thesis I | 3 |
| CS 6392 | Thesis II | 3 |
| **Computer Science Electives** | | |
| Any other graduate computer science course (other than the core courses) for a total of 6 (six) credit hours. This is typically 2 courses. | | 6 |
| **Engineering Electives** | | |

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|---|---|
| Any two 3-credit hour EG classes for which the pre-requisites are met. | 6 |
| **Total Semester Hours** | **33** |