

COMPUTER SCIENCE, MASTER OF SCIENCE (117)

Program Coordinator

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This program is designed to provide post-graduate education for individuals seeking professional careers in computer science. Areas of emphasis are information systems, systems programming, computer networking, and algorithms.

Concentration(s)

- Net-centric (CSNC)

Joint Undergraduate Master's Program (JUMP)

This degree offers a Joint Undergraduate Master's Program (JUMP) which provides academically outstanding students the opportunity to complete both an undergraduate and graduate degree in an accelerated timeframe. Contact the graduate program coordinator for additional information.

Program Admission

Admission requirements include a minimum 3.0/4.0 undergraduate grade point average. Applicants must have a Bachelor's degree in computer science, mathematics, engineering, and other related fields. Minimum requirements include knowledge of programming in a high-level language and data structures. Prior course work or experiences in database applications, software engineering, and operating systems are preferred. Applicants who do not meet these criteria will be evaluated on a case-by-case basis.

Graduate Studies Admission

Please refer to the admission section (<http://catalog.wku.edu/graduate/admission/>) of this catalog for Graduate Studies admission requirements.

Program Requirements (33 hours)

A minimum of 30 semester hours of course work is required, plus the research tool. Both thesis and non-thesis options are available. A minimum of six 500-level computer science courses is required. If any of the required courses have been completed for undergraduate credit, approved electives will be substituted. The research tool, under both options, must be met by successful completion of CS 500.

| Code | Title | Hours |
|-------------------------|---|-------|
| Required Courses | | |
| CS 445G | Operating Systems II | 3 |
| CS 500 | Research Methods and Projects | 3 |
| CS 530 | Automata Theory and Compiler Construction | 3 |
| CS 543 | Advanced Database Systems | 3 |
| CS 549 | Analysis of Algorithms | 3 |
| CS 560 | Software Engineering and Project Management | 3 |
| Electives | | |

Computer science courses approved by advisor or Net-Centric Concentration 15

Total Hours 33

Net-Centric Concentration

| Code | Title | Hours |
|------------------------------------|---|-----------|
| CS 450G | Computer Networks | 3 |
| Select 6 hours from the following: | | 6 |
| CS 550 | Advanced Topics in Computer Networks ¹ | |
| CS 570 | Security in Computing | |
| Select 6 hours of CS electives | | 6 |
| Total Hours | | 15 |

¹ Up to 6 credit hours.