Graduate Programs

MS and PhD Programs

The department offers degree programs in the Master of Science degree and the Doctor of Philosophy degree. These programs are designed to prepare an individual to pursue a career in either an academic or an industrial setting. In addition to taking a prescribed set of core courses, a student must take sufficient courses in one specialized area. A student must complete a dissertation for a PhD degree. The MS degree program provides a thesis option and a non-thesis option. The non-thesis option requires a student to complete a report.

The core course requirement assures the student of breadth of knowledge in computer science; the freedom to choose an area and additional research provides the student enough depth in some facets of computer science to carry out independent investigations in those areas, and to put concepts and ideas learned to practical use.

For a master’s degree in the thesis option, 30 hours of graduate credit, including a six-credit-hour thesis, are required. For a master’s degree in the non-thesis option, 33 hours of graduate credit, including a two-credit-hour report, are required. A master’s degree student in thesis option is required to pass an oral examination over the thesis. Students pursuing non-thesis option are required to present their work during an end of semester poster session. Students’ advisory committee members may ask questions during the poster session or at another scheduled presentation time.

For the PhD, 60 credit hours beyond a master’s degree or 90 hours beyond a bachelor’s degree are required. A dissertation of 15 to 40 hours (counting towards the maximum) is required. The PhD dissertation must describe original research. PhD students must pass (at an appropriate level) a diagnostic examination, a comprehensive examination, a qualifying examination and a final oral examination.

The candidate’s baccalaureate degree need not be in computer science in order to enter the MS program. Students with degrees in other areas may be admitted provisionally and required to take specified prerequisite courses.

Graduate Certificate Program in Big Data Analytics

The goal of the big data analytics program is to facilitate the capture, curation, storage, search, transfer, and analysis of large and complex data sets that have direct relevance to everyday situations and problems. The program covers core topics such as big data management, machine learning/data analytics and statistics.

The graduate certificate in Big Data Analytics may be completed in conjunction with the master’s degree in Computer Science. To see required courses for this program, please go to: https://cs.okstate.edu/bigdatacert.html.