## PHD IN COMPUTER SCIENCE

At least 50 hours of graduate coursework is required for the PhD degree in computer science. This must be composed of at least 27 hours of regular graduate coursework, and at least 14 semester hours of dissertation research. Independent study and seminars cannot be used as part of the required 50 hours. The one allowable exception is CS 7930: Colloquium. This course may be taken for one credit hour as part of the Program of Study. Of the required 27 semester hours of regular courses, up to six hours may be graduate-level courses outside of the School of Computing. Up to 20 hours of coursework taken elsewhere or counted toward previous degrees can be counted toward the 27 hour regular course requirement with the approval of the Track director. PhD students must demonstrate core knowledge in computer science by fulfilling the following requirements:

COURSE REQUIREMENTS Required courses:	
CS 6150	Advanced Algorithms
CS 6460	Operating Systems
CS 6810	Computer Architecture

Students must show proficiency in the three fundamental categories: theory, systems and hardware. Students can request approval from the Track director to substitute the required courses with other electives, or more advanced courses offered by the School of Computing in the same or related subject areas. Substitute courses must be regular classes with exams and/or assignments, not seminar, readings, or independent study classes. Each advanced course can be offered as a substitute for only one required course. Additional 6000-level courses and above may be required to reach a 50-credit hour minimum (excluding independent study, seminars, or dissertation research credit hours).