COMPUTER ENGINEERING (PH.D.)

Admission to these programs is contingent upon admission to the Graduate School (http://bulletins.wayne.edu/graduate/general-information/admission/). Applicants must have an overall grade point average of 3.6 in a Master of Science degree program,. It is possible for outstanding students to enter the Ph.D program with only a Bachelor of Science degree. All applicants whose B.S. degree is not from an ABET-accredited college or university are required to submit additional pertinent information, including results of the general test of the Graduate Record Examination (GRE), publications, and/or inventions.

PhD in Computer Engineering

Graduation Requirements

To earn the PhD degree in Computer Engineering, a student must

1) complete at least 42 credits of didactic studies

2) complete at least 18 credits of dissertation research

3) successfully defend the PhD dissertation

1) Didactic credits:

Didactic credits must include at least 15 credits in advanced graduate classes at the level 7000 or higher, out of which at least 12 credits must be in classes in the student's major (Computer Engineering).

The requirement for credits in major must be satisfied by taking at least 3 classes from an approved list of level 7000+ lecture-type classes offered by ECE Department and at least 2 ECE 9997 1-credit seminar courses. If applicable, the ECE 8999 Master's Thesis course is counted towards the requirements in major. The Directed Study ECE 7990 and Research ECE 7996 courses are not counted towards the requirements in major.

The requirement for total number of credits in level-7000+ classes is satisfied by completing the in-major requirements supplemented by taking other upper level courses, including Directed Study, Research, as well as upper level courses from other programs.

Other didactic credits may be earned by taking any graduate classes at the level 5000 and above in the disciplines related to Computer Engineering.

PhD students who completed MS degree at WSU have their records rolled to the PhD program. All graduate classes taken while in the MS program contribute, as appropriate, to the PhD graduation requirements.

PhD students who completed MS degree elsewhere may transfer graduate classes from earlier studies to their current PhD program. By default, eligible graduate classes from institutions elsewhere are transferred as ECE 5xxx classes without indicating the equivalent ECE class. If the graduate program from which the classes are transferred formally defines introductory and upper-level classes, the upper-level classes can be transferred as ECE 7xxx.

To transfer a class as an equivalent to a specific 5000-7000 level class offered by ECE Department, the equivalency of the courses must be established by comparing the syllabi. A professor in charge of the class offered by ECE Department makes the final judgement if the course from student's earlier studies is equivalent to the specific ECE course.

2) Dissertation Research credits

Total of at least 18 credits must be earned in combined ECE 9991 and ECE 9992 Dissertation Research courses.

ECE 9991 is a variable-credit course, from 3 to 9 credits, repeatable up to 9 credits.

ECE 9992 is a variable-credit course, from 1 to 18 credits, repeatable up to 18 credits.

A PhD student must file the Prospectus of future dissertation research before starting the ECE 9991/9992 sequence. As an exception, upon approval by Program Director, the Prospectus can be filed during the term when ECE 9991 course is taken.

3) PhD dissertation defense

At the time of applying for final defense, PhD students in ECE Department must have publications listed in the ORCID database under their ORCID ID. There must be at least one publication in a high-impact journal or conference proceedings reporting research completed while in the ECE graduate program.

Other Program Requirements

Details of the Program that are not specifically outlined above follow general guidance of Graduate School.

Upper-level graduate courses in major – Computer Engineering

The list of 7000+ level graduate classes in major includes upper-level classes listed as primary or recommended in the description of the areas of graduate specialization in Computer Engineering.

Code	Title	Credits
ECE 7425	Robotics Systems II	4
ECE 7500	Artificial Intelligence for Natural Language Processing	3
ECE 7530	Advanced Digital VLSI Design	4
ECE 7610	Advanced Parallel and Distributed Systems	3
ECE 7640	Online and Adaptive Methods for Machine Learning	3
ECE 7650	Scalable and Secure Internet Services and Architecture	3
ECE 7680	Advanced Digital Image Processing and Applications	4
ECE 7995	Special Topics in Electrical and Computer Engineering II *	1-4
ECE 8999	Master's Thesis Research and Direction **	1-6
ECE 9997	Doctoral Seminar (Repeatable up to 4 credits)	1

*Must be a topic in Computer Engineering; Approval by Graduate Director required.

**MS Thesis must be in Computer Engineering; Approval by Graduate Director required.