Department of Computer Science and Information Engineering

Contact Information

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Introduction

The Department of Computer Science and Information Engineering offers Bachelor's, Master's, and Doctoral degree programs with special emphasis in all fields of computer science and engineering. Currently there are approximately 250 undergraduate students and 200 graduate students enrolled. The undergraduate students typically generally score in the top 10% on the National Academic Achievement Examination to be accepted into the program. Our graduate students are generally in the top quarter of their undergraduate classes.

There are 17 full-time faculties in our department. The faculty members are active researchers in their respective research field. Faculty's research falls into three general fields: Computer Systems, Computer Networking, and Multimedia Systems. The department consistently receives many research grants sponsored by the National Science and Technology Council. In addition, there are several industry-sponsored research projects, including collaborative projects with Intel, MediaTek, and Delta.

Our students make good achievements including many research and competition awards. They become researchers, engineers, and educators in the fields related to computer science. Dr. Aja Huang, who is a principal research engineer in Google DeepMind and AlphaGo Project, is one of our PhD graduates.



Instructional Objectives

The department aims to develop students with strong profession, great creativity, and collaboration skills. The courses offered for undergraduate students give them a solid foundation on the basics of Computer Science and Information Engineering (CSIE) with theory of computer science and system implementation ability. In addition to the core courses, the department also offers a wide range of elective courses on many different fields including Deep Learning, Artificial Intelligence (AI), Data Mining & Visualization, Internet of Things (IoTs), Multimedia Processing, Information Security, Computer-Aided Design for VLSI, and many more.

The department has a diverse faculty working in a wide range of research areas. The graduate and PhD programs enhance the individual research ability and prepare students to become scholars and leaders in the computer science related disciplines. Once graduated, our graduate students are able to share their scientific passion and contribute to the community and industries.

Degree Requirements

The department offers a lot of courses for students of different programs, and students have flexible plans for their studies according to their interests and capabilities.

| Undergraduate program | | | | | | |
|-----------------------|----------------------|----------------------------|----------------------------|-----------------------|--------|-------|
| | Course Categories | University Requirements | Department Requirements | Field Requirements | Others | Total |
| | Required Credits | 32 | 33 | 30 | 33 | 128 |

(Students must select courses from five fields, at least one course in each field, to fulfill the 30-course credit field requirement.)

| Master's program | | | | | | | |
|------------------|----------------------|----------------------------|-----------------------|--------|-------|--|--|
| | Course Categories | Department Requirements | Field Requirements | Others | Total | | |
| | Required Credits | 3 | 6 | 18 | 27 | | |

(Students must select two courses from one of the three fields to fulfill the 6-course credit field requirement.)

Ph.D. program

| Course Categories | Department Requirements | Others | Total |
|-------------------|----------------------------|--------|-------|
| Required Credits | 4 | 18 | 22 |

Feature of the Curriculum

- Students have many opportunities to work on industrial/government projects and get internships in international companies.
- Students get research grants and achieve excellent results in the course on special topics of computer science.
- Videos of all required courses are online for students to learn at anytime and anywhere.
- Experienced teaching assistants (TA) provide great help inside and outside the class.
- We have department-to-department exchange student program with Uppsala University, one top university in Sweden.

Career Prospects

MS and BS graduates have mostly become engineers and middle management in the computer and information industries, while some have become K-12 computer teachers, cultivating computer scientists of the next generation. Our Ph.D. graduates have mostly gone on to become faculties in other universities or leading researchers in companies. Notably, our graduates have landed positions at renowned companies such as Google, Amazon, Meta, TSMC, MediaTek, and Microsoft.

