

# Program Introduction

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### ○ Undergraduate Program

In our undergraduate program, we aim to provide students with an overall understanding of the computer science field, a solid grasp of fundamental theory and key concepts, and the skills to apply theory to diverse areas. We expose students to engineering aspects of computer system design and implementation.

The undergraduate curriculum is structured into three tiers: introductory, basic core, and applied courses. Introductory courses are: Introduction to Computer Science, Problem Solving, Discrete Mathematics, Data Structures, Digital Systems and Lab, and System Programming. Basic core courses are: Algorithms, Computer Organization, Programming Languages, Formal Languages and Automata, Operating Systems and Lab, Introduction to Database and Symbolic Programming. Applied courses include Introduction to Logic for Computer Science, Introduction to VLSI design, Compiler Design, Computation Theory, Data Communication, Introduction to Computer Networks, Software Project, Introduction to Software Engineering, Introduction to Artificial Intelligence, and Introduction to Computer Graphics. Seminar courses are also offered to cover latest research topics. That our undergraduate students have won many awards in computing festivals and international programming competitions attests to the strength and depth of our curriculum.

### ○ Graduate Program

The School admitted its first master's students in 1973, and six master's degrees were produced in August, 1975. The first PhD student was admitted in September 1975, and the first PhD was granted in 1979. As of December 2016, the school has produced 2,086 masters and 724 PhDs.

The graduate program targets producing masters and PhDs who are strong in both advanced theory and application, with an emphasis on experimental approaches. Basic courses are categorized into the following three areas: theory, systems, and software. All students are required to take one course from each area, and then take advanced courses in one area of research interest. To actively seek out and expose students to the latest breaking technologies, special topics seminars are offered in artificial intelligence, distributed and parallel processing, next generation computing, software portability, VLSI and computer architectures, multimedia, fuzzy logic,

computer graphics, virtual reality, etc. Our curriculum is flexible enough for a student to consult one's advisor and design a program that suits one's research needs and eventually publish extensively in domestic and international journals and conference proceedings.