



Courses :

ICS 101 Digital Tools for the Information World (4) Fundamental information technology concepts and computing terminology, productivity software for problem solving, computer technology trends and impact on individuals and society. Emphasizes the utilization of operating systems and the production of professional documents, spreadsheets, etc.

ICS 110 (Alpha) Introduction to Computer Programming (3) Basic concepts needed to write computer programs. Simple program design and implementation using a specific programming language; (C) C; (D) through animations; (P) Python. Each alpha repeatable unlimited times, but credit earned one time only.

ICS 111 Introduction to Computer Science I (4) Overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. Pre: Recommended: computer experience.

ICS 141 Discrete Mathematics for Computer Science I (3) Includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, and probability theory. Pre: pre-calculus: MATH 134 or MATH 140 or MATH 161 or MATH assessment exam approval for MATH 215. **FS**

ICS 210 Information Systems in Society (3) Lecture/discussion critically explores sociopolitical dimensions of Information and Communication Technology (ICT), and the information professions. A-F only. Pre: departmental approval. (Once a year)

ICS 211 Introduction to Computer Science II (4) (3 Lec, 1 3-hr. Lab) Reinforce and strengthen problem-solving skills using abstract data types and introduce software development practices. Emphasize the use of searching and sorting algorithms and their complexity, recursion, object-oriented programming, and data structures. Pre: grade of "B" or higher in 111 or consent.

ICS 212 Program Structure (3) Program organization paradigms, programming environments, implementation of a module from specifications, the C and C++ programming languages. Pre: 211 or consent.

ICS 215 Introduction to Scripting (3) Introduction to scripting languages for the integration of applications and systems. Scripting in operating systems, web pages, server-side application integration, regular expressions, and event handling for languages such as Perl, JavaScript, PHP, Python, shell scripting. A-F only. Pre: 211 (or concurrent), or consent. (Once a year)

ICS 222 Basic Concepts of Computer Science (3) What is the subject of computer science? What is a computer? Understand the basic models of computation and the concepts of computability, complexity, and network computation, and learn to use them in practice. A-F only. Pre: 141.