Courses in Computer Science

I Csi 101
Elements of Computing (3)
Introduction to the principles and practice of problem solving with computer programming through flowcharting, pseudo-code and ultimately the use of a general purpose programming language such as Visual Basic.NET. Concepts introduced include algorithms, arrays, files, structured programming, top-down design, and objects. Course also includes brief introductions to computer and network technology, applications, and architecture from both a historical and modern perspectives.
(1265) Rajbhandari, Baibhav
4 Week 1: May 23-June 17
MW 6:00p.m.-9:30p.m.
ES-139

I Csi 103
Topics in Computer Literacy (3)
Each offering of this course will address one or more topics that are germane to the use of computers in everyday life. The main emphasis of this course will be on the use of available software packages.
(2370) Zhang, Lin
4 Week 1: May 23-June 17
MTWThF 12:30p.m.-2:50p.m.
BA-130

I Csi 105
Computing and Information (3)
A broad introduction to computer and information sciences and related disciplines. All of these fields study various aspects of information and the modern digital computer. Among the central topics of this course, students will learn basic computer programming because understanding how computers work is a key to understanding their use across all of the disciplines in Computing and Information. The topics include what we can and cannot known through computing, interactions between technology and humans, and a series of contemporary applications of the disciplines. The course includes critical readings, multiple perspectives, formulation and defense of opinions, common themes among diverse topics, and skills and practice of teamwork.
(2371) Agarwala, Ashish
6 Week 2: June 20-July 29
MTWThF 12:30p.m.-1:50p.m.
BA-130

I Csi 107
Web Programming (3)
*This course offered online through the Blackboard Learning System.* This course is designed to introduce students to the ever changing world of Web Programming. Students will develop the ability to write original code in HTML, XML, CSS, Javascript, etc. to create highly customized websites.
(2476) Kolta, Michael
4 Week 2: June 20-July 15
*Online course in Blackboard*

I Csi 124X
Computer Security Basics (3)
*This course offered online through the Blackboard Learning System.* An introduction to security in computers and networks for a general audience. The operation of computers and networks is explained to
show how they are the basis for attacks. The course will confer a basic but comprehensive understanding of how computer and network attacks (e.g., viruses, worms, denial of service) work. Also, how general users of computers can defend themselves from current and future attacks.

(2372) MacDonald, Ian
4 Week 1: May 23-June 17
Online course in Blackboard

I Csi 201
Introduction to Computer Science (4)
Computer algorithms and their representation. The principle of information hiding and its relation to program block structure. File structure and access methods. The efficient use of computational resources. Program development and style.

Students registering for this course must first register for the required Lab (1214).

(1213) Ravishankar, Veena
6 Week 1: May 23-July 1
MTTh 6:00p.m.-9:15p.m.
HU-111

Lab for I Csi 201
(1214) Lee, Jooyeon
6 Week 1: May 23-July 1
TW 4:00p.m.-5:45p.m.
HU-25

I Csi 210
Discrete Structures (4)
Proofs by induction; mathematical reasoning, propositions, predicates and quantifiers; sets; relations, graphs, and trees; functions; counting, permutations and combinations. Prerequisite(s) or corequisite: I Csi 201.

(1222) Hono, Daniel
6 Week 1: May 23-July 1
MTWThF 10:00a.m.-11:45a.m.
BB-362

I Csi 300Z
Social Security, and Privacy Implications of Computing (3)
The ethical and moral implications of using computers to affect the lives of individual and collective members of human society. Material drawn from a variety of topics, including security and privacy in computers, networks, security measures, and human users, data banks vs. rights to privacy, intellectual property, open vs. closed software, software piracy, unauthorized access, and other computer crimes. Prerequisite(s): I Csi 101, I Csi 110, I Csi 201 or other hands-on course in programming.

(1260) Wu, Zeyang
4 Week 3: July 18-August 12
MTWThF 12:30p.m.-2:50p.m.
BB-362

I Csi 310
Data Structures (3)
Commonly used abstract data structures and their implementation. The use of pointers and recursive programming. Stacks, queues, lists and trees, and their application to such problems as sorting and searching. Analysis of algorithms for using these structures. Prerequisite(s): I Csi 201.

Students registering for this course must first register for the required lab (1298).

(1297) Xie, Jingnan
6 Week 3: July 5-August 12
MTWThF 12:30p.m.-1:50p.m.
BB-213
I Csi 405  
Object Oriented Programming Using JAVA (3)  
This course will concentrate on teaching the student Object Oriented Programming using the Java language. Topics will include OO principles, such as polymorphism and abstraction, and how they are realized in Java (Classes, Interfaces, Inheritance). The course will also cover some of the core Java APIs, Java I/O, Threads, Networking, and Exceptions. Throughout the course basic Design Patterns as they apply to the core Java API will be discussed. Students will be required to take exams as well as apply the techniques learned in class on a design project with other classmates. These designs will be presented to the class for review and discussion.  
This is a fast-paced course and not a beginning course on Java. The instructor will provide only a brief review of Java basics (perhaps two or three lectures) before proceeding with the more advanced material. Prior knowledge of Java is highly desirable.  
Students registering for this course must have taken I Csi 310.

I Csi 422  
Introduction to Computer Graphics (3)  
Mathematics, data structures, algorithms, system architecture and programming projects for implementing two and three dimensional computer graphics software. Rasterization, matrices, linear and projective transformations; clipping, removal of hidden lines and surfaces. Devices, event driven user interaction, and an introduction to window systems and visual programming tools. Prerequisite(s): A Mat 220 (linear algebra) and I Csi 310, or permission of the instructor.

(1298) Gorovits, Alexander  
6 Week 3: July 5-August 12  
Th 2:00p.m.-3:20p.m.  
HU-25

(1682) Cortese, Andrew  
4 Week 2: June 20-July 15  
MTWThF 12:30p.m.-2:50p.m.  
HU-19

(2097) Yang, Yueming  
6 Week 2: June 20-July 29  
MTWThF 2:00p.m.-3:20p.m.  
HU-108