COMPUTER SCIENCE (CS)

CS 115U (3 credit hours)
Introduction to Computer Programming
This course teaches introductory skills in computer programming using a high-level computer programming language. There is an emphasis on both the principles and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments. Lecture: 3.0 credits (45 contact hours).
Attributes: University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

CS 215U (4 credit hours)
Introduction to Program Design, Abstraction, and Problem Solving
The course covers introductory object-oriented problem solving, design, and programming engineering. Fundamentals elements of data structures and algorithm design will be addressed. An equally balanced effort will be devoted to the three main threads in the course: concepts, programming language skills, and rudiments of object-oriented programming and software engineering. Lecture: 4.0 credits (60 contact hours).
Pre-requisite: CS 115, 221 or equivalent.
Attributes: University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

CS 216U (3 credit hours)
Introduction to Software Engineering
Software engineering topics include: life cycles, metrics, requirements specifications, design methodologies, validation and verification, testing, reliability and project planning. Implementation of large programming projects using object-oriented design techniques and software tools in a modern development environment will be stressed. Lecture: 3.0 credits (45 contact hours).
Pre-requisite: CS215.
Attributes: University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

CS 275U (4 credit hours)
Discrete Mathematics
Topics in discrete math aimed at applications in Computer Science. Fundamental principles: set theory, induction, relations, functions, Boolean algebra. Techniques of counting: permutations, combinations, recurrences, algorithms to generate them. Introduction to graphs and trees.
Pre-requisite: MA 113 and CS 115.
Attributes: University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky