IAI – CS 915, IAI – M1 905

3 Hours

Prerequisites: MAT 108 or MAT 111 either with a grade of "C" or higher or assessment

3 hours weekly (3-0)

This course is a general education mathematics course which fulfills 3 hours of the core curriculum mathematics requirement. Topics include number systems, sets, relations and functions, logic, Boolean algebra, elementary matrix operations, combinations, permutations, counting techniques, and basic concepts of probability, graphs, and trees.

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IAI – CS 911

4 Hours

Prerequisites: MAT 111 Pre-Calculus with a grade of "C" or higher

5 hours weekly (3-2)

The first in a sequence of courses for majors in Computer Science, Mathematics, and Engineering. Introduces a disciplined approach to problem-solving and algorithm development in addition to an introduction to procedural and data abstraction. Covers: selection, repetition, and sequence control structures; program design, testing, and documentation using good programming style; block-structured high-level programming languages; and arrays, records, and files utilizing a popular, high-level programming language.

IAI – CS 912

4 Hours

Prerequisites: CPS 206 with a grade of "C" or higher or consent of instructor

5 hours weekly (3-2)

The second in a sequence of courses for majors in Computer Science. Covers: design and implementation of large-scale problems; abstract data types; data structures (files, sets, pointers, lists, stacks, queues, trees, graphs; program verification and complexity; recursion; dynamic concepts (memory, scope, block structures); text processing; and an introduction to searching and sorting algorithms utilizing a popular, high-level programming language.

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