COT: Computing Theory Courses

Courses

COT 3100   Discrete Structures
3 sh (may not be repeated for credit)
Prerequisite: (COP 2253 OR COP 2334 OR COP 3014) AND (MAC 2233 OR MAC 2311)

Foundations of Discrete Math with applications to modeling, programming and data structures. Propositional and predicate logic, sets, functions, sequences, summations, algorithms, analysis of algorithms, combinatorics, graphs. Emphasis is on developing programming skills. Can also be taken by CIS majors. Prerequisites: (COP 2253 or COP 2334 or COP 3014) and (MAC 2233 or MAC 2311) minimum grade of C-.

COT 4420   Theory of Computation
3 sh (may not be repeated for credit)
Prerequisite: (COP 3530C OR COP 3530) AND (MHF 3202)
Theoretical foundations of computer science. Classification of formal languages, grammars, and automata. Parsing and recognition of syntactic expressions. Turing Machines and random access machines. Church-Turing thesis. Insolvability of the halting problem. Offered concurrently with COT 5206; graduate students will be assigned additional work. Credit cannot be received in both COT 4420 and COT 5206.

COT 4905   Directed Study
1-12 sh (may be repeated indefinitely for credit)

COT 5205   Theory of Computation
3 sh (may not be repeated for credit)
Theoretical foundations of computer science. Classification of formal languages, grammars and automata. Parsing and recognition of syntactic expressions. Turing Machines and random access machines. Church-Turing thesis. Insolvability of the halting problem. Dual-listed with COT 4420; graduate students will be assigned additional work. Students cannot receive credit for COT 5205 and COT 4420.

COT 5905   Directed Study
1-12 sh (may be repeated indefinitely for credit)

COT 5930   Computer Science Seminar
3 sh (may be repeated for up to 6 sh of credit)
A seminar-style course that provides graduate students with an overview of trends in Computer Science research and development, as well as prepares students for conducting independent research. Specific topics include trends in CS research, software development, and research methods. Permission is required.

COT 6905   Directed Study
1-12 sh (may be repeated indefinitely for credit)

COT 6931   Computer Science Project
3 sh (may be repeated for up to 6 sh of credit)
Prerequisite: COP 5007 AND COP 5725; Completion of 15 hours of college course work is required prior to taking this course.

Capstone course for Masters students who do not elect the thesis option. Normally taken for 3 credits in each of two consecutive semesters. Students will define and carry out a project that shows mastery of some topic in computing and produces some concrete product such as a report or a computer program. Students should not enroll until they have completed at least 15 semester hours of their graduate coursework. Permission is required.