

CMPSC 3000 Formal Languages and Automata

3 hours

Departments/Programs:

Physics, Astronomy, and Computer Science

An overview of formal models of computation and complexity classes. Topics include formal languages (finite automata, regular expressions, push-down automata, context-free grammars, and Turing machines), Church's thesis, computability, non-determinism, and NP-completeness. Same as MATH-3000.

Prerequisite(s): Grade of "C" or better in either *CMPSC 1500 Program Design* or *MATH 2200 Foundations of Modern Mathematics* and junior standing.