CS 171 Discrete Structures II

Spring 2018 28 classes Tentative Schedule

Mon Wed

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| Jan 15  Syllabus, 4.1 Divisibility & modular arithmetic,  4.3 extended Euclidean algorithm | Jan 17  4.4 Solving congruences,  4.6 RSA encryption |
| Jan 22  4.6 RSA encryption | Jan 24  Review Ch 13: Languages & Grammars, Finite State Machines, Language Recognition |
| Jan 29  Language Recognition,  Parsing & Push-Down Automata | Jan 31  Parsing |
| Feb 5  13.5 Turing Machines & Turing's Thesis | Feb 7  Turing Machines & the General Halting Problem |
| Feb 12  Turing Machines and Computability, Church's Thesis  Review | Feb 14  Exam 1 |
| Feb 19  Turing Machines and Complexity | Feb 21  Status of the P = NP Problem, Godel's Incompleteness Theorem, Prolog & Predicate Logic |
| Feb 26  Prolog & Predicate Logic | Feb 28  Prolog & Predicate Logic,  5.5 Proofs of Program Correctness |
| Mar 5  Spring Break  no class | Mar 7  Spring Break  no class |
| Mar 12  5.5 Proofs of Program Correctness | Mar 14  5.5 Proofs of Program Correctness |
| Mar 19  Infinite Sets | Mar 21  Infinite Sets |
| Mar 26  Infinite Sets & Computable Functions,  Review | Mar 28  Exam 2 |
| Apr 2  Easter Break  no class | Apr 4  Travelling Salesperson Problem (TSP) |
| Apr 9  8.1 Recurrences,  8.2 Linear Homogeneous Recurrence Relations | Apr 11  8.2 Linear Homogeneous Recurrence Relations |
| Apr 16  8.3 Linear Nonhomogeneous Recurrence Relations | Apr 18  8.3 Linear Nonhomogeneous Recurrence Relations |
| Apr 23  8.3 Recurrences for Divide-and-Conquer Algorithms | Apr 25  Honors Convocation & Undergraduate Conference  no class |
| Apr 30  8.4 Generating Functions and Recurrences | May 2  8.4 Generating Functions and Recurrences, Review |

Final Exam: Mon, May 7, 4:00 pm – 6:00 pm Last revised: 01/12/18