Course Syllabus

cs215 – Theory of Computation

Winter, 2022

Logistical Information

- **Course Location:** Student Success Center 216 M-W-F 4:00-4:50pm (or online).
- **Textbook:** *Computational Complexity: A Modern Approach* by Sanjeev Arora and Boaz Barak; available at theory.cs.princeton.edu/complexity/book.pdf.
- **Instructor:** Silas Richelson, WCH 330, silas@cs.ucr.edu; office hour – TBA
- **TA:** Parker Newton, pnewt001@ucr.edu; office hour – TBA
- **Course Slack Channel:** cs215winter2022.slack.com; email me for an invitation.

Prerequisites

cs150 (or equivalent), cs141. Additionally, as students will be expected to understand and compose mathematical proofs, some mathematical sophistication would be very helpful. For example, students should be comfortable with basic concepts such as symbolic logic, set theory, graph theory, combinatorics, linear algebra, number theory, and standard proof techniques such as mathematical induction and proof by contradiction.

Evaluation

- **Homework – 40%** Roughly one homework set per week; I will drop your lowest homework grade.
- **Midterm Exam – 20%**
- **Final Exam – 40%**
- **Final Project**] In order to get an A students will have to complete a final project.

Collaboration and Academic Honesty

Students are encouraged to collaborate with one another on the weekly homework assignments. Students must write up their own solutions separately and must list all students with whom they collaborated on the assignment. Each student should be able to reproduce, on his or her own, the solution for every problem he or she turns in.