# CSCI 338—Computer Science Theory

Lecture 1

Textbook: Introduction to the theory of computation
by Michael Sipser

# 0. About CSCI 338

- Course home page: http://www.cs.montana.edu/bhz/teaching.htm
  or
  http://www.cs.montana.edu/bhz/classes/spring-2021/csci338.
  Teaching materials will be on D2L.
- Basics (10%)
- Automata Theory (30%)
- Complexity Theory (30%)
- Computability Theory (30%)
- Evaluation (to be finalized):
  6 assignments (42%, the worst one will be replaced by the best one);
  3 in-class tests (30%);
  and optional final exam (22%);
  in addition, Best of Exam Grade (6%, best of the 3 tests and the final)
- This is a theory course (so it's hard for many of us), DON'T SKIP CLASSES SYSTEMATICALLY. If you skip 5-6 lectures in a row, when you come back, do not be surprised that you cannot follow me anymore.

## Rules:

- CSCI 246 is a prerequisite for this course, if you do not have that and there is no critical reason, you should withdraw, take CSCI 246 and come back to take this course in Summer or Fall 2021.
- If you have to take this course without taking CSCI 246, then try to read Chapter 0 intensively in Week 1 (I will also review some contents in Chapter 0 in Week 1, and hope that helps).
- Assignments must be done independently by each student — unless I openly claim that a specific assignment could be a group-assignment. (In the non-group assignment case, discussions between students are allowed, but each student must prepare his/her own solution — similar ideas might lead to slightly different written solutions.)
- In the past, some students resorted to Internet for some assignment solutions. While this is not encouraged, it is allowed. But a clear reference of the source must be given in your assignment solution. Failing to give the reference is subject to a plagiarism charge, which will be processed following the student conduct rules.
- Finally, this is not a programming course. But we might provide some programming opportunities when covering NP-complete problems in April.

## Additional Suggestions for On-line Learning:

- Realize the difference between regular and on-line learning. (*Data from Coursera indicates that after the first month, the drop rate increases; in general with Coursera, for most courses the drop rate is close to %50 and for many math-intensive courses the drop rate could be close to 2/3.*)
- Check course webpage and D2L announcements at least twice a week.
- Make better use of the virtual office hours, ask to clarify places either you feel hard or feel confused. (I will try to summarize the questions asked, and give the answers as well.)
- Try to attend the face-to-face sessions as much as you could, especially for the parts that you have some difficulty. (Certainly, always wear a mask!).
- Everything said, you need to find a way to learn on-line which best fits you — I will try my best to help.