

CS 5813
FORMAL LANGUAGES
Fall 2021

Instructor: Dr. C. Kim, ckim@ou.edu

Class Meetings: TR 1:30PM – 2:45PM, SEC A133

Office Hours: TR 3PM – 4:20PM, On-line Zoom ID: 975 3748 2112, Passcode: 27972559

Prerequisites: CS 3823 (Theory of Computation)

Textbook: Peter Linz, An Introduction to Formal Languages and Automata, 6th Edition (2016), Jones and Bartlett

Course Content: The course covers theory of formal languages, of mathematically modelling natural and artificial objects, events, and phenomena. Example topics include systems for linear objects such as Chomskian grammars, systems for nonlinear multi-dimensional objects such as L-systems, picture/graph grammars, H-systems, and systems of biological/chemical computing. I plan to go over key concepts from the textbook briefly and present additional materials from a select set of technical papers. This is a seminar course in which student participation in the form of oral/written presentation and discussions is required.

Student Activities:

- A midterm exam (40 %)
- An oral presentation (30 %)
- A written paper (30 %)

Remarks:

- The university encourages masking indoors. The university strongly encourages masking for all individuals in high-density settings, such as classrooms and at special events.
- All communications with me other than during the class meeting shall be done through a Zoom meeting during my office hours or by an e-mail. This includes any question or discussion you may have right after a class meeting.
- Students are required to attend all class meetings. This means that a student missing a class meeting during the lecture session will take full responsibility for making up the lecture materials. Missing class meetings during the students' oral presentation session without a valid reason and permission will result in a serious grade penalty.
- All student activities are individual and cheating of any form will result in a formal academic misconduct charge.
- Any student who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

- Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible.
- It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty.
- For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405/325-2215 (8 to 5, M-F) or smo@ou.edu.