University of Oklahoma

College of Engineering

Computer Science 5813

Formal Languages

Fall 2023 Syllabus

General Information

Instructor: Dr. T.O Olorunfemi, temitope.o.olorunfemi-1@ou.edu.

Class Time: Tuesday and Thursday 1:30 pm - 2:45 pm

Location: Sarkeys Energy Ctr (SEC P0207)

Office Hours: TR 10:30am - 12:00pm, (Tuesdays and Thursdays) DEH 205
or https://oklahoma.zoom.us/j/92803905486?pwd=S1FBbXFBbmVYZENjZXJyTVRlNDlqUT09

Prerequisites: CS 3823 (Theory of Computation)

Important Dates: Dec. 12, Final Exam. 1:30 pm - 3:30 pm (Sarkeys Energy Ctr (SEC P0207))

Course Description

The course covers theory of formal languages, of mathematically modelling natural and artificial objects, events, and phenomena. Concept of theory of computation Regular expression, Grammar, Finite Automata, Turing machine etc.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. We will 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.

Course Expectations and Policies

- 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 as-

sault, 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*

Learning Activities and Assessment

- A midterm exam (40 %)

- An oral presentation (30 %)

- A written paper (30 %)

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