

# COURSE SYLLABUS

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**YEAR COURSE OFFERED:** 2022/23

**SEMESTER COURSE OFFERED:** Spring

**DEPARTMENT:** Computer Science

**COURSE NUMBER:** COSC 3340

**NAME OF COURSE:** Introduction to Automata and Computability

**NAME OF INSTRUCTOR:** Ernst L. Leiss

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**The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.**

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## **Learning Objectives**

Introduction to automata theory (finite-state automata, push-down automata, Turing machines); formal systems (regular and context-free languages and grammars); computability, Church-Turing thesis.

## **Major Assignments/Exams**

There will be three tests and one final examination. There will be **no make-up examinations**; missed exams count 0%. There will be no assignments. Here is the tentative (but quite firm!) schedule for the examinations:

Exam 1: Monday, February 20; Exam 2: Monday, March 27; Exam 3: Wednesday, April 19.

Final Exam: **Friday, May 5, 2023, 2 – 5 pm, as stated in the Final Exam Schedule.**

## **Required Reading**

Introduction to Automata Theory Languages, and Computation, Hopcroft, Motwani, and Ullman, Addison-Wesley, ISBN 0-201-44124-1

## **Recommended Reading**

None

## **List of discussion/lecture topics**

# COURSE SYLLABUS

COSC 3340/6309

Sections 10715 / 11737

## **Introduction to Automata and Computability**

Instructor: Ernst L. Leiss

Textbook: Introduction to Automata Theory Languages, and Computation, Hopcroft, Motwani, and Ullman, Addison-Wesley, ISBN 0-201-44124-1

Times: Mo, We **2:30 – 4 pm, in SW 102**

**Exclusively in person**

**I do not record this class. Students enrolled are authorized to make recordings only for their own use or that of an enrolled classmate.**

Prerequisites: COSC 2320 and MATH 3336.

### GRADES, HOMEWORK, ETC.

1. There will be three tests and one final examination. There will be **no make-up examinations**; missed exams count 0%. There will be no assignments. Here is the tentative (but quite firm!) schedule for the examinations:

Exam 1: Monday, February 20; Exam 2: Monday, March 27; Exam 3: Wednesday, April 19.

**Final Exam: Friday, May 5, 2023, 2 – 5 pm, as stated in the Final Exam Schedule.**

2. The course grade will be based exclusively on in-class examinations. Problems **very** representative of the exam questions will be handed out. Students are encouraged to solve these problems in preparation for the exams and ask questions about them in class (see 7.).

3. There will be no curving. All test and exam grades will be in the range of 0 through 100. All averages will be computed with truncation after the second decimal.

The final course grade will be formed as follows:

Each exam 20%

40% Final examination.

4. The translation table from numeric to letter grades is as follows:

<50 F

50-<54 D-

54-<58 D

58-<62 D+

62-<66 C-

66-<70 C

70-<74 C+

74-<78 B-

78-<82 B

82-<86 B+

86-<90 A-

90-100 A

5. Requests for grade adjustments will be considered only during the **three** working day period after the grades are made available to the students. Later requests will not be considered.
6. Students requesting accommodation because of a disability must notify the instructor, in writing if possible, by Wednesday, January 25, 2023, of their request.
7. All **content** questions must be posed, and will only be answered, in class.