Introduction to Artificial Intelligence

CS 123 Syllabus for Summer 2024

<u>Class</u>		Instructor	
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Day & Time	Tu, Th 10:00-11:50	Office Hours	Drop in! Tu—Th 10:00–11:50
Room	Building 19, Room 128 Zoom meeting	Room	Building 19, Room 152 Zoom meeting

For the location of building 19, the classroom and the instructor's office see <u>Campus Location and Maps</u>

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Course Description

This course provides an overview of the field of Artificial Intelligence. Students will learn what AI is and how machine learning works. There will be a focus on generative AI and its practical applications in the workplace such as prompt engineering and creating custom GPT chatbots. The risks and dangers of AI will be explored along with the potential benefits.

Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1. Explain what AI is.
- 2. Discuss the potential dangers and benefits of AI to society.
- 3. Describe how neural networks are used in deep machine learning.
- 4. Decide what uses of AI are appropriate in education and work settings.
- 5. Use prompt engineering to get more effective results from generative Al.
- 6. Create a custom chatbot.

Online Resources

Course Materials

There is no textbook for this class. In place of a textbook you will read online tutorials and chapters in the free online course <u>Elements of AI</u>, a high-quality course provided by the The University of Helsinki.

Learning Management System

Moodle is the Learning Management System (LMS) used for this course. LCC's Moodle site is at: classes.lanecc.edu.

Software

All of the software required for this class is free. You can use any operating system: Windows, Mac OS, or Linux.

Software Required for Course Work

See the <u>Getting Started Guide</u> for a list of the software needed for this class.

You will need to download and install any software you don't already have on your computer. The software has already been installed on the computers in the classroom and in the CIT computer lab.

Free and Discounted Software for Students

None of the software provided in these offers is required for this class, but you may want to take advantage of the free and discounted software offers.

- Azure Dev Tools for Teaching (previously known as Microsoft Imagine Premium, Dream Spark, and MSDNAA) is a subscription-based offering, paid for by the LCC CIT department, providing access to professional development and design tools, software, and services from Microsoft.
- Microsoft Office 365 LCC students and staff can get a free subscription to Office 365, which includes
 Microsoft Word, Excel, PowerPoint, Access, and more.
- On The Hub has partnered with Microsoft, Adobe, IBM, Symantec, VMware and other software publishers to offer discounted and free software for students and faculty.

Computer Lab and Tutoring

CIT Computer Lab and In-Person Tutoring

The CIT Main lab (Building 19, room 135) is equipped with computers and software which are available exclusively for students in the CIT department. There are tutors available in the lab to help you with your lab work. The schedule for when the lab will be open and when in-person tutors are available is available on the <u>lab</u> web site.

Online Tutoring

See the LCC Tutoring Services web page for information.

Assessment and Grading

Points for Each Graded Activity

The table below summarizes the possible points for each assessment task as well as the course as a whole:

Assessment Tasks	Number	Each	Total
Exercises	6	40	220
Quizzes	6	20	120
Participation	8	10	80
Team projects	3	50, 80, 150	280
Midterm and Final Quizzes	2	Midterm: 100, Final: 200	300
Course Total			1000

Letter Grade Scale

Letter grades for the course will be determined by the following percentages:

	+		-
Α	100 to 98	97 to 92	91 to 90
В	89 to 88	87 to 82	81 to 80
С	79 to 78	77 to 72	71 to 70
D	69 to 68	67 to 62	61 to 60
F	Below 60		

Exercises

Weekly (except midterm an final quiz weeks) exercises give you practice with concepts learned during each week.

Quizzes

Weekly (except midterm an final quiz weeks) quizzes are given that cover learning material for that week. These quizzes are "open book".

Participation

Participation is assessed differently depending on whether you are taking the class online, on Zoom or in person.

- In person and on Zoom (synchronous): Your grade is based on class attendance and participation in class discussions.
- Online (asynchronous): You grade is based on participation in the Moodle forums and on Discord.

Team Projects

You will work together with your team to either make a presentation or create an AI solution. Each team member will have a specific part to contribute and will be individually graded.

Midterm and Final Quizzes

The midterm and final quizzes are given in weeks 4 and 8. See Moodle for exact dates and times. Quizzes are "closed book", but students may prepare a 8 1/2 x 11 sheet of notes to refer to during the quiz. These quizzes may be taken either:

- On-campus students (hybrid modality) will take the quiz In the classroom during the normal class time.
- online students will take the quiz In the Instructional Testing Center in the Center Building, room 311. See the <u>Instructional Testing Services</u> web site for testing times and procedures.

Students who live outside the Eugene/Springfield area can send an email to <u>online@lanecc.edu</u> well in advance of the test dates to arrange for your midterm and final to be proctored at a location near you.

Academic Honesty

While students are encouraged to discuss assignments and to use each other as resources, each student is responsible for his/her own work. In other words you can help each other, but you can't copy any part of someone else's work. The end product must be each student's own individual work.

Use of Al

Generative AI tools such as GitHub Copilot or ChatGPT are useful resources and you are encouraged to use them, but don't use them to give you quiz answers or do your assignments for you. Use them to help you learn, to come up with ideas, or for drafts of text you write.

Attendance

See the participation and attendance section under <u>Assessment and Grading</u> for grading criteria.

No Show Drop

The college's "no show, drop" policy requires that: during the first week students must complete at least one activity (a quiz or assignment) otherwise the student will be dropped from the class.

Late Work

- Grades for assignments submitted after the due date will be reduced by 10%.
- No late assignments accepted after Friday of week 8 (the last week of summer term).
- Quizzes and exams cannot be taken after the due date.
 Plan ahead! Exceptions will only be made for illness or emergency situations.

Accessibility and Campus Navigation

Center for Accessible Resources

Lane Community College (LCC) is dedicated to providing inclusive learning environments. The Center for Accessible Resources (CAR) coordinates all academic accommodations for students at LCC. If you anticipate or experience academic barriers due to a disability, to request assistance or accommodations, contact the Center for Accessible Resources.

In-Person Services: Monday and Thursday, 9:00am - 12:30 and 1:30pm - 3:00pm.

Location: Main Campus, Building 19, Room 263A

Remote Support through Support Hub: Monday - Thursday 9:00am–12:30 and 1:30pm–3:00pm. Enter the Support Hub by going to <u>lanecc.edu/hub</u>. Wait for a Lane staff to let you into the Zoom.

Phone: Voice, (541) 463-5150 TTY: 711, Monday—Friday 9:00am-12:30pm and 1:30pm-3:00pm.

Email: AccessibleResources@lanecc.edu

For upcoming closures, please visit the Center for Accessible Resources webpage

Campus Location and Maps

- Bus service and free student bus pass
- Interactive Map of the LCC Main Campus
- Map (floor plan) of Building 19

Schedules

Academic Calendar for Summer Term 2024

Event	Date
Summer term classes begin	6/24, Monday
Last day to drop and receive a full refund	7/1, Monday
Independence Day Holiday, no class	7/4/ Thursday
End of eight-week term	8/16, Friday

View <u>academic calendars</u> on the LCC web site.

Course Schedule

(Tentative, may be subject to change)

Week	Topics	Activities
1 6/25 6/27	Intro to the course Overview of Al	Introduce Yourself Survey Join a Team Essentials of Al Ch. 1 and 2 exercises Quiz
2 7/2 7/4	Holiday History of Al Applications of Al	Essentials of Al Ch. 3 exercises Quiz
3 7/9 7/11	Machine Learning Neural networks	TBD Quiz
4 7/16 7/18	Deep learning	TBD Midterm quiz
5 7/23 7/25	Generative Al	TBD Quiz
6 7/30 8/1	Prompt engineering	TBD Quiz
7 8/6 8/8	Custom GPT chatbot	TBD Quiz
8 8/13 8/15	Social and ethical issues of Al	Final Quiz

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