

# Course Syllabus

## CSCE 3201 – Applied Artificial Intelligence

### Instructor Information

Dr. Oluwatosin Oluwadare. Email: [oluwatosin.oluwadare@unt.edu](mailto:oluwatosin.oluwadare@unt.edu)

**Office:** Discovery Park F209 (office hours for the TA and I are held via Zoom – please see Canvas for details).

**TA:** Abhishek Pandeya. Email: [AbhishekPandeya@my.unt.edu](mailto:AbhishekPandeya@my.unt.edu) (please reach out to the TA with grading and assignment help questions)

\*I reserve the right to modify course policies, the course calendar, assignment or project point values, and due dates.

### Course Description, Structure, and Objectives

#### Course Objectives:

- Gain a foundational understanding of artificial intelligence concepts and terminology.
- Explore the practical applications of AI in decision-making systems.
- Be introduced to machine learning techniques, including unsupervised and semisupervised learning.
- Understand the principles behind building powerful predictive models.

Core concepts and terminology in artificial intelligence will be introduced to understand the taxonomy of AI applications - the relationships between the tools and frameworks available for intelligent, data-driven decision making. This will include a demo-driven introduction to machine learning, with general principles of powerful predictive models discussed and the role of learning techniques in powering many state-of-the-art decision systems.

Prerequisite(s): [MATH 1650](#) or instructor consent. This course is for non-computer science and engineering majors.

Experience with Python is helpful as it is used in the course, but significant prior programming experience with any language will be sufficient.

**This course is asynchronous online, meaning that we will not have scheduled Zoom meetings or in-person meetings in a classroom.** Please review the materials and complete the assignments each week and remember that something is due every Sunday at 11:59pm. All assignments and exams are submitted via Canvas.

Note for International Students: Federal regulations state that students may apply only 3 fully-online semester credit hours (SCH) to the hours required for full-time status for [F-1 Visa \(DOC\)](#) holders. Full-time status for F-1 Visa students is 12 hours for undergraduates and 9 hours for graduate students.

## **How to Succeed in this Course**

### **Communication**

Connect with the TA and I through email and/or by attending office hours. During busy times, my inbox becomes rather full, but I will try to get back to all requests within two business days.

### **Academic Success Resources**

UNT strives to offer a high-quality education in a supportive environment where you can learn, grow, and thrive. As a faculty member, I am committed to supporting you, and I want to remind you that UNT offers a range of mental health and wellness services to help maintain balance and well-being. Utilizing these resources is a proactive way to support your academic and personal success. To explore campus resources designed to support you, check out [mental health services \(https://clear.unt.edu/student-support-services-policies\)](https://clear.unt.edu/student-support-services-policies), visit [unt.edu/success](http://unt.edu/success), and explore [unt.edu/wellness](http://unt.edu/wellness). To get all your enrollment and student financial-related questions answered, go to [scrappysays.unt.edu](http://scrappysays.unt.edu)

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access

resources that can support your needs, refer to the [Office of Disability Access](https://studentaffairs.unt.edu/office-disability-access) website (<https://studentaffairs.unt.edu/office-disability-access>)

### **Supporting Your Success and Creating an Inclusive Learning Environment**

Every student in this class should have the right to learn and engage within an environment of respect and courtesy from others. We will discuss our classroom's habits of engagement and I also encourage you to review UNT's student code of conduct so that we can all start with the same baseline civility understanding ([Code of Student Conduct](https://policy.unt.edu/policy/07-012)) (<https://policy.unt.edu/policy/07-012>).

### **Materials**

- Textbook: None. All materials are online.
- Technology requirements for courses with digital materials:

This course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System. If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at [Learn Anywhere](#) .

### **Course Requirements/Schedule**

Please see Canvas for the weekly schedule, assignments, and due dates.

<b>Week</b>	<b>Topic</b>
<b>Week 1</b>	Introduction
<b>Week 2</b>	Vocabulary
<b>Week 3</b>	Introduction to AI (Part 1)
<b>Week 4</b>	Introduction to AI (Part 2)
<b>Week 5</b>	Large Language Models (LLMs)
<b>Week 6</b>	HuggingFace
<b>Week 7</b>	Datasets
<b>Week 8</b>	Midterm
<b>Week 9</b>	Spring Break
<b>Week 10</b>	Sentiment Analysis Project (Part 1)
<b>Week 11</b>	Sentiment Analysis Project (Part 2)
<b>Week 12</b>	APIs and Model Context Protocol (MCP)
<b>Week 13</b>	Agentic AI
<b>Week 14</b>	Image Generation
<b>Week 15</b>	AI Safety and Alignment
<b>Week 16</b>	Final Exam

You will be notified by Eagle Alert if there is a campus closing that will impact a class and describe that the calendar is subject to change, citing the [Campus Closures Policy \(https://policy.unt.edu/policy/15-006\)](https://policy.unt.edu/policy/15-006).

## **Assessing Your Work**

The course grading scale (subject to change):

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = below 60%

PLEASE NOTE: Course materials will be posted well in advance of the due date, and you will have plenty of time to complete each week's assignments. **AS SUCH, NO LATE WORK CAN BE ACCEPTED FOR ANY REASON AND THERE ARE NO EXTRA CREDIT ASSIGNMENTS.**

**Final Grades will be based** on 40% quizzes, 40% assignments, and 20% exams.

## **Use of AI Tools**

Permitted Use: In this course, you are allowed to use Generative AI (GenAI) tools such as Claude, ChatGPT, Gemini to support your learning and develop skills for a GenAI-oriented workforce. This use will help us stay technically proficient and ethically grounded. However, GenAI should complement, not replace, our course materials. If something seems unclear, feel free to ask.

I use GenAI to assist in creating course materials.

All quizzes and exams should be completed by you, and simply uploading assignments to AI and asking it to complete the assignment is not permitted. AI tools should assist you, not replace you.

## **Policies**

Grades are based on mastery of the content. As a rule, I do not grade on a "curve" because that is a comparison of your outcomes to others. I do, however, encourage you to find opportunities to learn with and through others. Explore [Navigate360's Study Buddy \(https://navigate.unt.edu\)](https://navigate.unt.edu) tool to join study groups. Maximize your learning with our coaching staff at the Learning Center. Focus on areas where you are struggling in this course

by attending scheduled study group sessions with me the week before each exam. Forward together.

Honor Code: “I commit myself to honor, integrity, and responsibility as a student representing the University of North Texas community. I understand and pledge to uphold academic integrity as set forth by [UNT Student Academic Integrity Policy, 06.003](https://policy.unt.edu/policy/06-003) (<https://policy.unt.edu/policy/06-003>). I affirm that the work I submit will always be my own, and the support I provide and receive will always be honorable.”

### **Participation**

You are expected to keep up with each week’s materials, assignments, and quizzes and submit your work before each week’s deadline.