

CS5047 – Exploring AI Trends and Tools

Instructor Information

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Course Description

Explore key ideas in Artificial Intelligence (AI) while delving into trending developments in the field. Examines AI tools and frameworks to enable collaboration effectively and efficiently across technical and non-technical stakeholders. Analyze topics such as AI-enabled perception, representation, reasoning, and learning as contextualized by societal impact. Equips students with the knowledge and skills necessary to confidently navigate the ever-evolving landscape of artificial intelligence.

Course Outcomes

This course provides you the opportunity to:

- Categorize new AI advancements with regard to key concepts in AI and recognize their societal impact.
 - Recognize ethical considerations and biases in AI systems and propose potential mitigations.
 - Apply AI to a specific problem or dataset and interpret the results within the specified domain.
 - Simplify complex AI concepts to communicate effectively with both technical and non-technical stakeholders.
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Required Course Materials

There is no required textbook or other reading materials that need to be purchased.

Course Structure and Activities

There are seven modules in a course and each module represents one week of learning. Assignments are generally due at the end of the week (Sundays) unless otherwise noted. Be sure to check the syllabus, your announcements, and/or assignment pages for exact due dates. Learners are encouraged to look ahead at the assignments in order to best prepare their time.

This course includes the following required activities:

- **Final Case Study:** There will be a summative case study that you complete during the course; specific instructions will be found in weekly modules.
 - **Projects:** Throughout the course, there will be multiple opportunities to put your new AI knowledge into practice with tools and framework in these exercises. You will then follow up with an analysis report about what you learned.
 - **Non-graded Learning Activities:** Throughout the course there will be opportunities for you to self-assess your learning to help you gauge your comprehension of core concepts and uncover any gaps.
 - **Discussion:** These weekly submissions aim to provide you with an opportunity to reflect on your learning and to share your thoughts and experiences with the class in a professional community discussion space. This is a great venue to present your ideas or reflections for feedback and to elicit ideas from your peers.
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Class Schedule and Grade Distribution

Please note: For more information about specific assignments, see assignment pages in Canvas, and refer to the Course Summary below for exact due dates.

Activity	% of Grade	Week Due
Academic Integrity Attestation	0%	Week 1
Discussion Board	20%	All weeks
Projects	50%	Weeks 1 -6
Summative Case Study	30%	Dues Week 7
Non-graded Learning Activities	0%	Open Practice

Grading Scale

At the discretion of the instructor, a weighted average across graded components may be calculated at the end of the course to determine the final grade earned. The standard Northeastern University grading system, with numeric GPA and the final letter grade correspondence, is as follows:

Grading Scale

Please note that the calculated percentage that you see in Canvas may not correspond to the final letter grade you have earned. The final grade earned will be located in the official Northeastern Student Hub.

Late Policy

Students are responsible for submitting assignments by posted deadlines. Deductions will be automatically applied to late submissions based on the time elapsed after the deadline:

- 10% deduction within 24 hours
- 25% deduction within 24-48 hours
- 50% deduction within 48-72 hours
- Zero credit if submitted more than 72 hours after the deadline

Exceptions to the late policy will be considered only in the event of an approved extension request.

Important: There are no exceptions or extensions for the final **week** project/assignment deadlines in a course. They must be turned in by the deadline to receive a grade, due to the nature of the final grade entry deadlines enforced by Northeastern University.

Extension Request Policy:

Students should only request an extension in the event of an emergency or other extenuating circumstance that impacts academic progress. To make an extension request, students should submit the [Extension Request Form](#)

[Links to an external site.](#) and include a detailed explanation of the emergency or extenuating circumstance and how much additional time is being requested. When foreseeable, requests should occur before the assignment deadline. Requests received more than 24 hours after the deadline will not be considered. Extension requests will be considered by the faculty member on a case-by-case basis. If approved by the faculty member, it is at the discretion of the faculty member to determine the extended deadline and any associated penalties.

Extension Request Monitoring and Accountability:

The program team tracks and monitors all extension requests. Repeated requests for extensions across multiple courses may raise concerns regarding a student's overall academic progress and time management skills. Such patterns will be reviewed, and interventions may be implemented to provide support and address underlying issues. Students are encouraged to manage their time effectively and seek help proactively to avoid frequent extension requests.