

**Department of Computer & Electrical Engineering
and Computer Science
Florida Atlantic University
Course Syllabus**

1. Course title/number, number of credit hours		
Trustworthy Artificial Intelligence CAP 4623		3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study		
Prerequisites: MAD2104 and COP3014 or permission of instructor		
3. Course logistics		
Term: Spring 2021 Class location and time: TBD and TBD.		
4. Instructor contact information		
<i>Instructor's name</i>	Mehrdad Nojournian	
<i>Office address</i>	EE96, Room 503A	
<i>Office Hours</i>	TBD	
<i>Contact telephone number</i>	561.297.3411	
<i>Email address</i>	mnojournian@fau.edu	
5. TA contact information		
<i>TA's name</i>		
<i>Office address</i>		
<i>Office Hours</i>		
<i>Contact telephone number</i>		
<i>Email address</i>		
6. Course description		
Topics include preliminary materials security, trust and AI; human agency and oversight; technical robustness and safety; privacy and data governance; transparency; diversity, non-discrimination and fairness; societal and environmental well-being; and Accountability.		
7. Course objectives/student learning outcomes/program outcomes		
<i>Course objectives</i>	This course enables the students to review preliminary materials on privacy, security, trust, AI and ML as well as fundamental concepts of ethical guidelines for trustworthy artificial intelligence. Furthermore, it enables the students to utilize these techniques in intelligent systems.	
<i>Student learning outcomes & relationship to ABET 1-7 outcomes</i>	1. An Ability to identify, formulate, and solve complex computing/engineering problems by applying principles of computing, engineering, science, and mathematics. 4. An ability to recognize legal, ethical and professional responsibilities in computing/engineering situations and make informed judgments, which must consider the impact of commuting/engineering solutions in global, economic, environmental, and societal contexts.	
8. Course evaluation method		
Assignments -	20%	Project: students are supposed to select one of the following options: (a) implement a trustworthy AI
Project -	30%	

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Presentation -	20%	system targeting specific features, or (b) prepare a technical article on trustworthy AI.
Final Exam -	30%	
9. Course grading scale		
Grading Scale: 90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79: "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."		
10. Policy on makeup tests, late work, and incompletes		
All assignments are due at 11:00 am on the due date. Late assignments will lose 10% of the total points for each day they are late and they will not be accepted after three days. However, appropriate accommodations will be made for students having a valid medical excuse. Unless there exists an evidence of medical or emergency situation, incomplete grades will not be given. Plagiarism will not be tolerated. Any copying and pasting without attribution and a reference will be considered plagiarism.		
11. Special course requirements		
N/A		
12. Classroom etiquette policy		
University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.		
13. Attendance policy statement		
<p>Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.</p> <p>Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.</p>		
14. Disability policy statement		
In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/ .		
15. Counseling and Psychological Services (CAPS) Center		
Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a		

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range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/
16. Code of Academic Integrity policy statement
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 . If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.
17. Required texts/reading
To reduce costs for our students, we strongly encourage you to explore the adoption of open educational resources (OER), textbooks and other materials that are freely accessible. We also encourage you to clearly state in the syllabus if course materials are available on reserve in the Library.
Technical articles from related computer science conferences including but not limited to: AAAI Conference on AI, AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES), Innovative Applications of Artificial Intelligence Conferences (IAAI), International Joint Conferences on Artificial Intelligence (IJCAI), International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), International Conference on Machine Learning (ICML), USENIX Security Symposium, IEEE Symposium on Security and Privacy (S&P), IEEE European Symposium on Security and Privacy (EuroS&P), Neural Information Processing Systems (NeurIPS), Conference on Learning Theory (COLT), International Conference on Learning Representations (ICLR), etc.
18. Supplementary/recommended readings
N/A
19. Course topical outline, including dates for exams/quizzes, papers, completion of reading
Subject to Changes: The primary focus is on privacy, security and trust in AI/autonomous systems as well as emerging topics in AI/autonomy such as ethics, fairness, transparency and accountability. This course therefore covers the following topics of trustworthy AI: <ul style="list-style-type: none">• Human agency and oversight in AI/autonomy• Technical robustness and safety in AI/autonomy• Privacy and data governance in AI/autonomy• Transparency in AI/autonomy• Diversity, non-discrimination and fairness in AI/autonomy• Societal and environmental well-being in AI/autonomy• Accountability in AI/autonomy
Reference for syllabus: https://ec.europa.eu/futurium/en/ai-alliance-consultation/guidelines/2