Form: Course Syllabus		
	Form Number	
	Issue Number and Date	
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	
	The Date of the Deans Council Approval Decision	
	Number of Pages	

1.	**Course title**	**Special Topics in Artificial Intelligence**	
2.	**Course number**	1905493	
3.	**Credit hours**	3 Credit Hours	
	Contact hours (theory, practical)	3 theory (includes practical sessions)	
4.	**Prerequisites/co-requisites**	Artificial Intelligence (1905320)	
5.	**Program title**	Artificial Intelligence	
6.	**Program code**		
7.	**Awarding institution**	The University of Jordan	
8.	**School**	King Abdullah II School for Information Technology	
9.	**Department**	Department of Artificial Intelligence	
10.	**Course level**	Undergraduate	
11.	**Year of study and semester (s)**	Fall 2024 - 2025	
12.	**Other department (s) involved in teaching the course**	None	
13.	**Main teaching language**	English	
14.	**Delivery method**	☐Face to face learning ☐ Blended ☒Fully online	
15.	**Online platforms(s)**	☐Moodle ☒ Microsoft Teams ☐Skype ☐Zoom ☐Others	
16.	**Issuing/Revision Date**	October 2024	

17. Course Coordinator:

18. Other instructors:

19. Course Description:

This course, Special Topics in AI, explores the transformative potential of generative AI (GenAI) and large language models (LLMs) in various domains. Students will gain a foundational understanding of GenAI concepts, practical applications, and ethical considerations. Through interactive lectures, hands-on demonstrations, and collaborative projects, the course dives into how AI tools can streamline tasks such as self-development, travel planning, language learning, project management, and more.

Key topics include prompt engineering, AI in cybersecurity, and the role of GenAI in professional and personal productivity. The course culminates in a team-based project, where students tackle real-world challenges using GenAI tools, fostering critical thinking, creativity, and teamwork. By the end of the course, students will be equipped to assess the strengths and limitations of GenAI tools and apply them effectively across diverse contexts.

20. Course aims and outcomes:

A- Aims:

The aim of this course is to provide students with a comprehensive understanding of generative AI (GenAI) and its practical applications across various domains.

The main objectives of the course are:

- **Understand the fundamentals of generative AI and LLMs**: Equip students with a foundational knowledge of the principles, capabilities, and limitations of GenAI tools and large language models.
- **Explore diverse applications of GenAI**: Demonstrate the use of GenAI in areas such as personal productivity, project management, social media, customer service, and cybersecurity.
- **Develop skills in prompt engineering**: Teach students how to optimize interactions with GenAI tools to achieve desired outcomes efficiently.
- **Foster critical evaluation and ethical awareness**: Encourage students to assess the performance, biases, and ethical implications of AI tools in real-world scenarios.

- **Enhance teamwork and project management abilities**: Promote collaboration and innovation through a team-based project, focusing on problem-solving and creativity in applying AI solutions.

B- Students Learning Outcomes (SOs):

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

- SO-1: Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- SO-4: Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- SO-5: Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

Descriptor	ILO ID	ILO Description	SO-1	SO-4	SO-5
Knowledge	A1	Explain the foundational principles of generative AI and large language models (LLMs).	x		
Knowledge	A2	Identify ethical considerations and potential biases in generative AI tools.		x	
Skills	B1	Apply prompt engineering techniques to optimize outputs from generative AI tools.	x		
Skills	B2	Evaluate generative AI tools for specific tasks, assessing performance, biases, and ethical implications.		x	
Skills	B3	Design and implement a collaborative project utilizing generative AI to address a real-world problem.			x
Competencies	C1	Integrate generative AI tools into a workflow to improve productivity and solve domain-specific challenges.	x		

21. Topic Outline and Schedule:

Week	Topic	ILO	Learning Methods	Platform	Delivery Type	Evaluation Methods	Resources

1	Introduction to Generative AI and LLMs		Online	MS Teams	Synchronous	Participation	Lecture Notes + Online Resources
2	Introduction to Generative AI and LLMs		Online	MS Teams	Synchronous	Participation	Lecture Notes + Online Resources
3	GenAI for Self-Development		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
4	GenAI for Travel Planning		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
5	GenAI for Languages		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
6	GenAI for Meeting Management		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
7	GenAI for Project Management		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
8	GenAI for Email Management		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
9	Midterm Exam GenAI for Document Management		Online	Moodle, Teams	Synchronous	Midterm Exam Participation + Group Exercises	Lecture Notes + Online Resources
10	GenAI for Social Media		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources

11	GenAI for Customer Service Prompt Engineering for GenAI		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
12	AI in Cybersecurity		Online	MS Teams	Synchronous	Participation + Group Exercises	Lecture Notes + Online Resources
13	Project Final Presentations		Online	MS Teams	Synchronous	Project Presentations	Lecture Notes + Online Resources
14	Project Final Presentations		Online	MS Teams	Synchronous	Project Presentations	
15	Final Exam		Online	MS Teams	Synchronous	Final Exam	

22. Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Method	Mark	ILOs	Week	Platform
Project	30%	B2, B3, C1	Throughout the semester	MS Teams
Midterm Exam	30%	A1, A2	Week 9	JUexams
Final Exam	40%	A1, A2, B1	Last week of semester	JUexams

23. Course Requirements

- MS Teams
- Access to various Gen AI tools.

24. Training courses and certificates

25. Course Policies:

A- Attendance policies:

Maximum allowable absence 15% of number of Lectures/Semester

B- Absences from exams and handing in assignments on time:

It is the student's responsibility to ensure that he/she is aware of all assignments, announcements and contents of missed sessions

C- Health and safety procedures:

Practical sessions need labs which are suitable adjustable chairs, safe computers and wires should be well organized.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

It is the student's responsibility to ensure that he/she is adhere with cheating, plagiarism, misbehaviour

E- Grading policy:

Intended (Tentative) Grading Scale:

Range	LG	الحرف	Range	LG	الحرف	Range	LG	الحرف
95 - 100	A	أ	72 - 79	B-	ب-	52 - 53	D+	د+
90 - 94	A-	أ-	66 - 71	C+	ج+	50 - 51	D	د
86 - 89	B+	ب+	60 – 65	C	ج	45 - 49	D-	د-
80 – 85	B	ب	54 – 59	C-	ج-	0 - 44	F	هـ

F- Available university services that support achievement in the course:

Computer Labs.

26. References:

Resources

- Lecture notes
- Online Learning resources
- Microsoft Teams

27. Additional information:

1) Tardiness and/or absenteeism will have a negative impact on the course grade.
الامتناع المدبر عن حضور المحاضرات أو الدروس أو عن الأعمال الاخرى التي تقضي الأنظمة بالمواظبة عليها ، وكل تحريض على هذا الامتناع سوف يؤدي الى حرمان الطالب من المادة المعنية.
في حالة التغيب عن الامتحانين الأول و الثاني لن يكون هناك امتحان تعويضي الا في حالة وجود عذر وحالة طارئة من المستشفى. على الطالب براز العذر لمدرس المادة في فتره لا تتجاوز الثلاثة ايام من تاريخ الامتحان, وللمدرس الحق في قبول او رفض العذر، وحسب التعليمات.
2) Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter problems are dealt

with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For the final complaints, there will be a committee to review grading the final exam.

3) Students are encouraged to make heavy use of the library, E-LIBRARY http://ezlibrary.ju.edu.jo/login or from within the university using (http://e-library)

4) Students are encouraged to search for articles related to the material contents discussed during this course, using designated sites, like http://researchGate.com

- The instructor can make changes to this syllabus when necessary.
- University regulations will be preserved at all times

5) For more details on University regulations please visit http://www.ju.edu.jo/rules/index.htm

Name of Course Coordinator: ---------- Signature: Date:

Head of Curriculum Committee/Department: ---------- Signature: ----------

Head of Department: ---------- Signature: ----------

Head of Curriculum Committee/Faculty: ---------- Signature: ----------

Dean: ---------- Signature: ----------