

THE GEORGE WASHINGTON UNIVERSITY
School of Engineering and Applied Science
Online Engineering Programs Office

**Syllabus for
SEAS 8599 – DA2
Praxis Development for AI
Fall-1 2024**

Instructor: Hamza F. Alsarhan, D.Eng.
Email: hamzaalsarhan@gwu.edu
Credit Hours: 3 credit hours
Course Website: Blackboard
Class Time and Dates:

- Time: Saturdays 1:00 pm – 4:10 pm (Eastern)
- All Class Meeting Dates: Aug. 31; Sep. 7, 14, 21, 28; Oct. 5, 12, 19, 26; Nov. 2
- Attendance is normally expected at all sessions. If an absence from a class meeting is needed (due to family/medical or work-related emergency), students must contact the instructor in advance.
- Online classes are conducted via Zoom; Links are provided in Blackboard.
- Zoom link for office hours: [gwu-edu.zoom.us/my/alsarhan](https://gwu-edu.zoom.us/j/alsarhan)

Office Hours:

- Every Sunday, 5:30 pm – 6:30 pm (Eastern)
- Every Wednesday, 6:00 pm – 8:00 pm (Eastern)

Bulletin Description of the Course:

- Overview of research methods. Aims and purpose of the Praxis. Development of Praxis research strategies. Formulation and defense of a Praxis proposal. Restricted to Students in the D.Eng. in the field of artificial intelligence and machine learning program.

Course Learning Objectives:

Upon completing the course, students will know how to:

1. Develop research skills, such as choosing appropriate research methods and tools, collecting and analyzing data, and reporting findings.
2. Write a clear, concise, and well-structured problem statement and thesis statement.
3. Develop critical thinking skills to evaluate research literature and identify gaps in knowledge.
4. Create a research proposal that effectively communicates the research questions, research hypotheses, methodology, and expected results.

Textbooks and References:

No textbooks are required.

Average Amount of Out-of-Class or Independent Learning Expected per Week:

Over the 10-week semester, students meet with the instructor for at least 30 hours of guided instruction and are expected to spend about 80 hours researching and producing the report, for a total of about 130 hours of work for the semester.

Class Schedule and Assignments:

Class	Topic/Activity	Assignment Due
1	Course Overview, Praxis Structure, Scope of Work Definition, and Research Topic Selection	
2	Problem Statement, Thesis Statement, Research Questions, and Research Hypotheses	HW #1
3	Student Presentations (Group A)	HW #2
4	Student Presentations (Group B)	
5	Academic Writing and Referencing, Library Resources, Annotated Bibliography, and Literature Review	
6	Student Presentations (Group B)	HW #3
7	Student Presentations (Group A)	
8	Data Sourcing, Data Analysis, Research Methodology, Results, and Conclusion	
9	Student Presentations (Group A)	HW #4 (Final Praxis Proposal)
10	Student Presentations (Group B)	

How Student Performance Will Be Evaluated on Assignments:

Assignments must be on-time and will be graded accordingly based on correctness and completeness. Assignments are due by EOD Thursday prior to the Assignment Due Date as noted on the above Class Schedule and Assignment table. **Late assignments up to 24 hours will assess a 25% penalty. Late assignments up to 48 hours will assess a 50% penalty. After 48 hours, a grade of zero will be assigned.** For all assignments, the requirements are to submit using the following Format:

Assignment Format:

1. PowerPoint Slides Format:

- Please strictly adhere to the PPT slide format. That includes using the slide layout, font size, look and feel, etc.
- Please do not alter the slide format.

2. Oral Presentations:

- Students have a few minutes to present each assignment. Please practice your presentation and strictly adhere to the allotted time.

- Present using PowerPoint and Zoom Meetings.
- **Test your connection beforehand to ensure you have a good connection.**
- Stay focused and speak distinctly.

Student Expectations:

- You are expected to attend all sessions regardless of whether you are presenting or not. Please listen intently to other presentations. There are guidance and questions that are discussed in each session that are useful.

Grading:

GW's grading system for graduate students is: **A**, Excellent; **B**, Good; **C**, Satisfactory; **F**, Fail; other grades that may be assigned are **A-**, **B+**, **B-**, **C+**, **C-**. In this course, grades are determined by weighted average values and based on a standard curve relative to the class average.

HW #1	10%
HW #2	25%
HW #3	25%
HW #4 (Final Praxis Proposal)	40%

Withdrawals:

- Students may drop from courses through the day after the second class meeting without any academic or financial penalty. After that time, students may withdraw through the day after the eighth class meeting and will receive a designation of "W" and are responsible for full tuition.

Incomplete:

- Students who cannot complete a course due to deployment overseas/called to active military duty/death in the immediate family/debilitating illness may seek an incomplete with proper documentation.

University Policies:

University Policy on Observance of Religious Holidays: Students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. See <https://registrar.gwu.edu/university-policies#holidays>

Student Disability Support Services (DSS) 202-994-8250: Students needing an accommodation based on the potential impact of a disability should contact Disability Support Services. See <https://disabilitysupport.gwu.edu/>.

Student Mental Health Services 202-994-5300: GW offers 24/7 assistance and referral for students needing crisis and emergency mental consultations, confidential assessment, and counseling services. See <https://counselingcenter.gwu.edu/>.

SEAS Online Programs Office Policies: <https://seasonline.gwu.edu/about-us/policies-procedures-masters/>

Emergencies: In case of emergency, students will be notified on Blackboard.

Course recordings: Downloadable recordings of each class session will be available within about 2 hours of the conclusion of class meetings and will be available for the duration of the course. These recordings are to be used exclusively by registered students in that class for their own private use. *Releasing these recordings is strictly prohibited.*

SEAS Online Labs: Students can remotely access most computer labs of the School of Engineering and Applied Science and work with a variety of engineering design and analysis software packages. See <https://www.seas.gwu.edu/remote-access-labs>

Academic Integrity Code: Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and fabricating information. All academic work is subject to GW University and SEAS Online Programs policy and may be scrutinized electronically. For more information, see <https://studentconduct.gwu.edu/>.