

UNDERGRADUATE CERTIFICATE IN AI LITERACY

Web Site: <https://twu.edu/english-rhetoric-spanish/undergraduate-program/>

The Undergraduate Certificate in AI Literacy equips students from any major with a fundamental understanding of artificial intelligence technologies and their impact on society, along with practical skills to ethically apply AI in various contexts. Rooted in TWU's mission of empowering leaders and aligned with our liberal arts tradition, this interdisciplinary program helps students become critical and informed consumers of AI and its effects on communities and global systems rather than just passive users.

Students in the AI Literacy certificate will explore core concepts of AI in accessible terms, learning how these technologies work and what their limitations are. They will examine the societal and ethical implications of AI – for example, issues of bias, privacy, the future of work, and environmental impacts – to develop a well-rounded perspective on intelligent technologies. The curriculum emphasizes critical thinking and communication, ensuring that graduates can not only use AI tools, but also analyze and discuss their outcomes responsibly. Through a combination of existing courses (enhanced with AI-focused projects) and a new culminating seminar course, students gain hands-on experience with AI applications while reflecting on broader questions like: How can AI be used to solve real-world problems?

A distinctive feature of TWU's program is its culminating course, ENG 4383 "Fostering Critical AI Literacy." In this course, students synthesize what they have learned by undertaking a project or research paper that addresses an AI-related challenge in their field of interest (for instance, developing a lesson plan that integrates an AI tool for education majors, or analyzing how an AI application could improve patient outcomes for health studies majors). This culminating project serves as both an assessment of their learning and a showcase of their ability to apply AI literacy in practice.

The certificate is designed to be completed alongside a student's major and requires no prior computer science background. All courses are offered on the Denton campus in face-to-face or hybrid formats. Students can finish the program in as little as one year (with careful planning), or spread the courses out over their undergraduate career. There are no additional fees for this program beyond normal tuition; it is an accessible pathway for all interested students to enhance their degree.

Marketable Skills

Marketable skills prepare students for success in a variety of professional settings. Developed through academic coursework, co-curricular engagement, and extracurricular involvement, these skills include communication, critical thinking, teamwork, ethical reasoning, adaptability, and digital literacy. Whether directly related to a student's major or serving as complementary strengths, marketable skills enhance career readiness and reflect TWU's commitment to producing graduates who are prepared to thrive in today's dynamic workforce.

- **Critically Evaluate AI Solutions:** Identify and assess the capabilities, limitations, and biases of AI approaches to problem-solving in a given context. Graduates will be able to ask the right questions about an AI

system's reliability and fairness, and determine whether using AI in a scenario is appropriate or not.

- **Apply AI Tools Effectively:** Utilize current AI tools (such as machine learning software or generative AI applications) to enhance productivity and decision-making in real-world tasks. This includes being able to input data or prompts to an AI system and interpret the outputs to improve work processes. Graduates can seamlessly integrate AI-driven techniques into projects in their major field.
- **Data and Information Literacy:** Demonstrate strong quantitative and information literacy by interpreting data outputs from AI and data analytics platforms. Graduates will be able to analyze data-driven insights produced by AI, evaluate their accuracy, and incorporate those insights into evidence-based decisions. They can also manage information (sourced or generated by AI) ethically and effectively, distinguishing between credible and flawed AI-generated information.
- **Effective Communication about AI:** Communicate complex information about artificial intelligence clearly and persuasively to diverse audiences. Graduates will be adept at explaining AI concepts, findings, or recommendations to both technical teams and non-technical stakeholders. For example, they can write a report or deliver a presentation translating what an AI model has revealed into layperson's terms. They will also be skilled in using AI tools to assist in communication tasks (such as drafting documents or creating visualizations), while critically reviewing and editing the AI's contributions for accuracy and tone.
- **Ethical Decision-Making in Technology Use:** Make informed and principled decisions regarding the adoption and use of AI technologies in the workplace or community. Graduates will be trained to consider ethical, legal, environmental, and social implications (privacy concerns, bias mitigation, transparency) when implementing AI solutions. They will be able to formulate guidelines or policies for responsible AI use in an organization, ensuring that technology is used in a manner consistent with professional ethics and societal values.

These marketable skills prepare certificate holders to take on roles such as AI literacy specialists, data analytics assistants, technical communicators, or project managers who can bridge between technical AI teams and broader business or educational objectives. In essence, graduates will be able to leverage their AI literacy to innovate and lead in their chosen careers, adapting to the rapid technological changes in today's job market while upholding strong critical thinking and ethical standards.

Admissions

All applicants must meet the general undergraduate admission requirements (<https://catalog.twu.edu/undergraduate/admission-information/>).

To apply for a certificate program, students must complete an Undergraduate Certification Declaration form (<https://twu.edu/registrar/forms/>) with their advisor and submit it to the Registrar's Office (<https://twu.edu/registrar/>).

Certificate Requirements

Course	Title	Credits
Foundational		
LS 3053	Interdisciplinary Information Retrieval	3
MATH 1703	Elementary Statistics I (or approved equivalent)	3
or MATH 1713	Elementary Statistics II	
Intensive		
Prerequisites must be completed for any courses selected.		
Select 6 SCH from the following		6
Students MUST register for sections of the courses that are labeled as AI-Intensive at registration. The following courses MAY have AI-Intensive sections. Additional AI-Intensive courses may be eligible towards this certificate. Please consult with the certificate coordinator for a comprehensive list of current sections.		
ENG 3253	Technical Writing	
ENG 3433	Professional Writing	
MKT 4503	Digital Marketing	
Capstone		
Student must complete LS 3053 and one AI-Intensive course before enrolling in the Capstone. If the student has not already completed the second AI-Intensive course prior to taking the Capstone, then the student must enroll both the Capstone and second AI-Intensive course concurrently.		
ENG 4383	Fostering Critical AI Literacy	3
Total SCHs		15

Non#duplication with major/minor

Where a student's major already requires LS 3053 (or an equivalent), one of the following will apply:

1. **Substitution:** Choose an information literacy alternative approved by advisor (i.e., upper#division LS course); or
2. **Third AI#Intensive:** Complete an additional Intensive course approved by advisor.

Students who substitute for LS 3053 will still need to demonstrate Information Literacy in their certificate capstone.