

Artificial Intelligence, Graduate Certificate

The Graduate Certificate in Artificial Intelligence provides fundamental and advanced skills in the principles, algorithms and technologies that enable AI and cybersecurity.

Matriculation Requirements

1. Application for admission to the graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
3. A bachelor's degree from a regionally accredited college/university or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. Completion of Introduction to Algorithms and Data Structures (CS 2420 or the equivalent).
6. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
7. International students must also meet all US government requirements for international students.
8. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.
9. Recommended courses to take before the program begins are Linear Algebra (MAT 2270 or equivalent) and Statistics & Probability (STAT 2050 or equivalent).

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		18
Discipline Core Requirements		12 Credits
CS 6150	Advanced Algorithms	3
CS 6200	Cyberphysical Security	3
CS 6460	Artificial Intelligence	3
CS 6470	Machine Learning	3
Elective Requirements		6 Credits
Pick two of the following courses or other approved departmental electives:		6
CS 6100	Database Management System Construction (3)	
CS 6300	Software Engineering Leadership (3)	
CS 6400	Modern Databases (3)	
CS 6480	Deep Learning (3)	
CS 6500	Software Architecture (3)	
CS 6620	Advanced Data Mining and Visualization (3)	
CS 6510	Design and Simulation of Operating Systems (3)	
CS 6730	Advanced Embedded Systems Engineering (3)	
CS 6800	Computer Graphics and Mixed Realities (3)	

Graduation Requirements

1. Complete all courses with a B- or higher.
2. Overall average GPA for 18 hours of 3.0 or higher.
3. A maximum of 6 credit hours transferred from another institution may be used to satisfy graduation requirements. At least two-thirds of the courses applied to the graduate certificate must be taken at UVU.

Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

First Year

Semester 1		Credit Hours
CS 6150	Advanced Algorithms	3
CS 6200	Cyberphysical Security	3
Credit Hours		6

Semester 2

CS 6460	Artificial Intelligence	3
CS 6XXX any other MCS course excluding 6600 and 6610		3
Credit Hours		6

Second Year**Semester 1**

CS 6470	Machine Learning	3
CS 6XXX Any other MCS course not already taken excluding 6600 and 6610		3
Credit Hours		6

Total Credit Hours		18
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Program Learning Outcomes

1. Apply principles and techniques of AI and Machine Learning to solve problems.
2. Apply security principles and practices to maintain operations in the presence of risks and threats.