

ARTIFICIAL INTELLIGENCE, CERTIFICATE

Learning Outcome

1. Students will use AI techniques or create AI tools for heuristic problem solving, automated reasoning and knowledge representation, including search algorithms, constraint processing systems, propositional theorem provers, neural networks, and probabilistic graphical models.

The graduate certificate program in Artificial Intelligence requires at least 12 hours of graduate study, at least half of which must be courses at the 700-level or above with the CSCE designator, completed within a period of six years before the award of the certificate. The Certificate requires a Core Course, followed by the opportunity for a concentration to be chosen by the student in consultation with their advisor and the graduate director of the Department of Computer Science and Engineering. Example concentrations include knowledge representation and reasoning, computer vision, natural language processing, reasoning under uncertainty, and machine learning.

Degree Requirements (12 Hours)

Course	Title	Credits
Core Course:		3
CSCE 580	Artificial Intelligence	
The following courses may be used to satisfy this requirement: ¹		9
CSCE 582	Bayesian Networks and Decision Graphs	
CSCE 587	Big Data Analytics	
CSCE 768	Pattern Recognition and Classification	
CSCE 771	Computer Processing of Natural Language	
CSCE 774	Robotics Systems	
CSCE 780	Knowledge Representation	
CSCE 822	Data Mining and Warehousing	
CSCE 883	Machine Learning	
Other courses as approved by the advisor and graduate director		
Total Credit Hours		12

¹ At least 9 hours of additional courses must be selected with the approval of the advisor and graduate director. Up to 6 hours of appropriate courses may be taken from other departments and/or by transfer credit.