

# M.S. Artificial Intelligence

The Master of Science in Artificial Intelligence (AI) offers a comprehensive curriculum designed to impart deep understanding and expertise in the rapidly evolving domain of artificial intelligence. At the heart of the program lie five core courses which serve as the foundation of (a) AI understanding and (b) the bridge between AI concepts and stakeholder-driven applications. To further tailor their learning, students are granted the flexibility to select four technical electives from the Computer Science department, broadening their horizons and honing specific areas of interest within AI. Additionally, a hands-on practicum ensures students gain practical exposure, bridging the gap between academic concepts and real-world applications.

For students inclined towards research and contributing original knowledge to the field, the MSAI program offers a thesis option. Choosing this route will result in a dedicated focus on their thesis work. This pathway provides an opportunity to immerse deeply into a specialized AI topic under expert guidance, culminating in substantial scholarly work.

## Admission Requirements

Applicants must have earned a Baccalaureate degree from an accredited university. Applicants must apply through the Graduate School, and must provide the following supporting materials:

- GRE optional
- Official transcripts of all previous academic work
- Personal Statement of Purpose
- Minimum of two letters of recommendation
- A CV/resume outlining relevant experience
- Applicants whose degrees are from non-English speaking institutions are required to demonstrate English proficiency. Please consult the Graduate School (<https://www.utep.edu/graduate/future-students/applicant-timelines.html>) website for required scores.

Depending on the qualifications for study, students may need to complete leveling coursework at the undergraduate level. These courses are not applied towards the program. Applicants must be able to demonstrate knowledge of programming in a high-level language such as Java or C++, including knowledge of data structures and algorithms. This can be demonstrated by completing CS 2302 Data Structures with a B or better, or by completing equivalent coursework or certifications as approved by the program committee. Additionally, applicants must be able to demonstrate knowledge of mathematics including knowledge of probability, and statistics. This can be demonstrated by completing STAT 3320 (<http://catalog.utep.edu/search/?P=STAT%203320>) Probability and Statistics.

## Degree Plan

Required Credits: 30

Code	Title	Hours
<b>MS in Artificial Intelligence (All courses require a grade of B or better; elective courses require a grade of C or better.)</b>		
<b>Required Courses:</b>		
CS 5314	Decision Making	3
CS 5355	Integrated Prob. Solv. for AI	3
CS 5361	Machine Learning	3
CS 5365	Deep Learning	3
Thesis or Practicum Option		18
<b>Total Hours</b>		<b>30</b>
<b>Thesis Option</b>		
CS 5398	Master's Thesis	3
CS 5399	Master's Thesis	3
Electives: Students must complete twelve hours of elective courses in Computer Science at the 5000-level or above. Advisor approval required.		12
<b>Practicum Option</b>		
CS 5389	Software Engineering Practicum	3
Electives: Students must complete fifteen hours of elective courses in Computer Science at the 5000-level or above. Advisor approval required.		15