

## Artificial Intelligence

Priority dates for applying are as follows: **Fall Semester- June 15th**      **Spring Semester- October 15<sup>th</sup>**

**All** materials for your application, including all official test scores and transcripts, should arrive at the Graduate School admissions office by these dates in order to be processed in time for consideration and admission. You must request official GRE/TOEFL scores early to ensure that they arrive by the dates above.

### MINIMUM REQUIREMENTS FOR ADMISSION

*Effective: August 1<sup>st</sup>, 2005*

All students<sup>1</sup> applying for graduate study, Master's or PhD, must have completed a 4-year bachelor's degree, and **must** take the **GRE** test. **GRE** guidelines are based on statistics for all GRE scores of students interested in graduate study in Computer Science & Engineering, as released by ETS (the Educational Testing Services). These statistics change as new figures are released by ETS. In addition, international applicants who do not have a previous degree from a U.S. institution must take the **TOEFL** exam. It is the student's responsibility to have official scores sent from ETS to the University of North Texas and those scores must be **received by the priority date** in order to be processed and considered for admission that semester. *If you do not meet the minimum English requirements, you will have the option of registering for the Toulouse Graduate School IELI program.* <https://international.unt.edu/content/why-wait>

### TYPICAL SCORES FOR SUCCESSFUL APPLICANTS

#### **Master's Applicants:**

##### **GRE**

Verbal	<b>148</b> – 36%
Quantitative	<b>155</b> – 61%
Analytical	3.5

**TOEFL: 557** written exams / **79** Internet-based

**IELTS: 6.0**

**GPA: 3.0** in prior work

**Letters of Recommendation:** None required

#### **Doctoral (PhD) Applicants:**

##### **GRE**

Verbal	<b>151</b> – 49%
Quantitative	<b>156</b> – 65%
Analytical	4.5

**TOEFL: 557** written exams / **83** Internet-based

**IELTS: 6.5**

**GPA: 3.5** in prior work

**Letters of Recommendation:** 3

**Statement of Purpose:** yes

Our program is open to high-achieving students from engineering, computer science, math, and science-related backgrounds. Each applicant's transcripts will be reviewed to determine if their background is suitable for admission into the concentration of their choice and/or if leveling coursework is required. If leveling coursework is needed, students may be required to take undergraduate leveling courses to prepare for coursework in the concentration of their choice.

**Admission is competitive and based on the number of positions available in our program.**

### MAINTAINING GRADUATE STANDING

All graduate students are expected to make satisfactory progress toward a degree. An overall B average must be maintained, and two courses per year (not previously attempted) must be completed or evidence submitted showing activity in thesis or dissertation work.

For the M.S. degree, all requirements must be completed within six years from the date of admission.

Any provisionally admitted student who fails to fulfill the requirements specified at admission or any student who for two successive semesters fails to maintain at least a B average will be dropped from the program, unless after a review of the student's overall record, it is the opinion of the Graduate Committee that the student has demonstrated sufficient potential to pursue the graduate program successfully. In this case, probationary status will be granted for one semester.

### FINANCIAL ASSISTANCE

Teaching Assistantship or Teaching Fellow (TA/TF) positions are offered to current Computer Science & Engineering majors who are attending classes at UNT. Prospective students are welcome to apply, **but these positions are very rarely offered to potential new students**, and preference generally goes to PhD students. Research Assistant (RA) positions are selected by the individual professors from their current students. Students must submit a completed TA/TF Assistantship Application Form, **separate from the Admission Application form**, to the Computer Science & Engineering Department. The application form is available on the website at <https://computerscience.engineering.unt.edu/webforms/assistantship-application>.

<sup>1</sup> Except Graduates of the Department of Computer Science & Engineering at The University of North Texas

# Master's Degree Requirements

## Artificial Intelligence

To qualify for the master's degree, the student must earn a grade of B or better in each course.

### Course Selection

Artificial Intelligence Master's students are required to take the following courses to achieve 33 hours total:

#### Bridging and Core Courses (18 hours)

- CSCE 5214 Software Development for Artificial Intelligence
- CSCE 5210 Fundamentals of Artificial Intelligence
- CSCE 5218 Deep Learning
- CSCE 5215 Machine Learning
- CSCE 5222 Feature Engineering
- CSCE 5300 Introduction to Big Data and Data Science

#### Validation and Testing Courses (3 hours)

- CSCE 5310 Methods in Empirical Analysis
- BMEN 5007 Research Methods in Biomedical Engineering
- EENG 5320 Systems Modeling and Simulation
- MEEN 5140 Advanced Mathematical Methods for Engineers

#### Concentration Courses (12 hours)

##### A) Machine Learning Concentration

- CSCE 5290 Natural Language Processing
- CSCE 5380 Data Mining
- CSCE 5200 Information Retrieval and Web Search
- CSCE 5216 Pattern Recognition
- CSCE 5320 Scientific Data Visualization
- CSCE 5280 AI for Wearables and Healthcare
- CSCE 5900 Special Problems

OR

##### B) Biomedical Engineering Concentration

- BMEN 5322 Medical Imaging
- BMEN 5005 Neuroengineering
- BMEN 5324 Biomedical MEMs
- BMEN 5310 Clinical Instrumentation
- BMEN 5900 Special Problems
- EENG 5640 Computer Vision and Image Analysis
- CSCE 5216 Pattern Recognition
- CSCE 5225 Digital Image Processing

OR

##### C) Autonomous Systems Concentration

- EENG 5640 Computer Vision and Image Analysis
- EENG 5310 Control Systems
- EENG 5610 Digital Signal Processing
- EENG 5900 Special Problems

- Leveling course(s) are typically required if the applicant does not have a BS with a major in computer science or closely related field.