

Data Engineering

Priority dates for applying are as follows: **Fall Semester- April 15th** **Spring Semester- October 15th**

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 1st, 2005

All students¹ 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	148 – 36%
Quantitative	155 – 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	151 – 49%
Quantitative	156 – 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>.

¹ Except Graduates of the Department of Computer Science & Engineering at The University of North Texas

Master's Degree Requirements

Data Engineering

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

Course Selection

Data Engineering Master's students are required to take the following courses to achieve 33 hours:

Core Courses (15 hours)

- CSCE 5300 Introduction to Big Data and Data Science
- CSCE 5310 Methods in Empirical Analysis
- CSCE 5320 Scientific Data Visualization
- CSCE 5350 Fundamentals of Database Systems
- CSCE 5370 Distributed and Parallel Database Systems

Predictive Analytics Course (3 hours)

- CSCE 5215 Machine Learning
- CSCE 5216 Pattern Recognition
- CSCE 5380 Data Mining

A) General Data Engineering Concentration Courses (15 hours)

- CSCE 5290 Natural Language Processing
- CSCE 5200 Information Retrieval and Web Search
- CSCE 5170 Graph Theory
- CSCE 5215 Machine Learning
- CSCE 5216 Pattern Recognition
- CSCE 5230 Methods of Numerical Computations
- CSCE 5360 Implementation and Practices of Database Systems
- CSCE 5380 Data Mining
- CSCE 5390 Multimedia Computing

OR

B) Biomedical Engineering Concentration (15 hours)

- BMEN 5007 Research Methods in Biomedical Engineering
- BMEN 5322 Medical Imaging
- BMEN 5315 Computational Methods in Biomedical Engineering
- BMEN 5700 Introduction to Statistical Genetics
- BMEN 5800 Topics in Biomedical Engineering
- BMEN 5900 Special Problems in Biomedical Engineering

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