Two MS Degrees in 2 Years

Masters of Science in Biomedical Engineering & Data Science

First Year

Fall

- BMEN 5210—Biomedical Engineering Laboratory
- BMEN 5315—Computational Methods in Biomedical Engineering
- BMEN 5940—Biomedical Engineering Seminar
- INFO 5501—Fundamentals of Data Analytics
- INFO 5502—Principles & Techniques for Data Science

Spring

- BMEN Courses—*9 Credit Hours*
- INFO 5505—Applied Machine Learning for Data Scientists

Summer

- MSDS Guided Electives—*6 Credit Hours*

Second Year

Fall

Thesis

- BMEN Elective
- BMEN Thesis
- MSDS Guided Electives—*6 Credit Hours*

Non-Thesis

- BMEN Courses—*6 Credit Hours*
- MSDS Guided Electives—*6 Credit Hours*

Spring

Thesis

- BMEN Thesis
- MSDS Guided Elective
- MSDS General Elective

Non-Thesis

- BMEN Course
- MSDS Guided Elective
- MSDS General Elective

1 Complete MS Biomedical Engineering Application *(pay application fee)*

2 Complete MS Data Science Application *(do not pay application fee)*

3 email ApplyTexas Application Numbers to BMEN-DS-Admit@unt.edu

For detailed application instructions visit bit.ly/UNT_MS_BMEN_DS

UNT COLLEGE OF ENGINEERING | COLLEGE OF INFORMATION

BMEN Courses

BMEN 5005 – Neuroengineering
BMEN 5007 – Research Methods in Biomedical Engineering
BMEN 5280 – AI for Wearables and Healthcare
BMEN 5310 – Clinical Instrumentation
BMEN 5311 – Rehabilitation Engineering
BMEN 5312 – Advanced Signal Processing in Biomedical Engineering
BMEN 5313 – Bioengineering of Cellular Systems
BMEN 5314 – Advanced Tissue Engineering and Regenerative medicine
BMEN 5316 – Biopolymers and Flexible Bio-electronics
BMEN 5317 – Advanced Biotechnology
BMEN 5318 – Biomedical Implants
BMEN 5319 – Cardiovascular Fluid Dynamics
BMEN 5320 – Advanced Biomechanics
BMEN 5321 – Biomaterials Compatibility
BMEN 5322 – Medical Imaging
BMEN 5323 – Advanced Biomedical Optics
BMEN 5324 – Biomedical MEMS
BMEN 5325 – Bio-nanotechnology
BMEN 5326 – Biomolecular Engineering
BMEN 5700 – Statistical Genetics
BMEN 5800 – Topics in Biomedical Engineering
BMEN 5810 – Topics in Biomedical Engineering
BMEN 5890 – Directed Study in Biomedical Engineering
BMEN 5900 – Special Problems in Biomedical Engineering
BMEN 5910 – Special Problems in Biomedical Engineering
BMEN 5920 – Cooperative Education in Biomedical Engineering

BMEN Electives

5000 or 6000 level courses from any of BMEN, EENG, MEEN, MTSE, CSCE, or BIOL
5000 level or above MGMT/LSCM/MKTG courses from the College of Business
5000 level or above HLSV courses from the College of Health and Public Service
5000 level or above MUPH courses in Performance Arts Health from the College of Music
6000 level or above ASLP courses in Audiology from the College of Health and Public Service

Data Science Guided Electives

CSCE 5213 - Modeling and Simulation
CSCE 5218 - Deep Learning
CSCE 5300 - Introduction to Big Data and Data Science
DSCI 5240 - Data Mining and Machine Learning for Business
CSCE 5380 - Data Mining
DSCI 5330 - Enterprise Applications of Business Intelligence
DSCI 5340 - Predictive Analytics and Business Forecasting
INFO 5040 - Information Behavior
INFO 5206 - Information Retrieval Design
INFO 5307 - Knowledge Management Tools and Technologies
INFO 5503 - Knowledge Management Processes and Practices
INFO 5810 - Data Analysis and Knowledge Discovery
ADTA 5230 - Data Analytics II
DSCI 5360 - Data Visualization for Analytics
INFO 5709 - Data Visualization and Communication
LING 5410 - Computational Linguistics I
LING 5412 - NLP in Linguistics
LING 5415 - Computational Linguistics II

Data Science General Electives

CSCE 5200 - Information Retrieval and Web Search
CSCE 5214 - Software Development for Artificial Intelligence
CSCE 5216 - Pattern Recognition
INFO 5091 - Data Science Internship
INFO 5200 - Information Organization
INFO 5205 - Information Indexing, Abstracting and Retrieval
INFO 5223 - Metadata for Information Organization and Retrieval I
INFO 5224 - Metadata for Information Organization and Retrieval II
INFO 5305 - Systems Analysis and Design
INFO 5365 - Health Sciences Information Management
INFO 5637 - Medical Informatics
INFO 5707 - Data Modeling for Information Professionals
INFO 5731 - Computational Methods for Information Systems
INFO 5735 - Usability and User Experience Metrics
INFO 5737 - Information and Cyber-Security
INFO 5745 - Information Architecture
INFO 5770 - Introduction to Health Data Analytics
INFO 6050 - Health Research Methodology
LTEC 5300 - Learning and Cognition
LTEC 5320 - Contemporary Issues in Workforce Learning and Performance
LING 5405 - Python Programming for Text