Texas A&M University
Master of Science in Data Science
APPLICATION GUIDE

Your guide to exploring the potential of a data science degree and elevating your career in a growing data-rich society.

Are you ready to take your career to the next level and become a leader in the dynamic field of data science? The Master of Science in Data Science degree at Texas A&M University is your gateway to an exciting and rewarding career in the growing data science field. This interdisciplinary, on-campus program, offered by the Departments of Computer Science & Engineering, Electrical & Computer Engineering, Mathematics, and Statistics, provides a unique opportunity to gain the technical and practical expertise needed to succeed in data-rich industries. Jointly administered with the Texas A&M Institute of Data Science (TAMIDS), our program ensures a comprehensive education that combines theoretical knowledge with practical skills.

Why Study Data Science

In today's data-driven world, industries, governments, and societies rely on data to make informed decisions, drive innovation, and solve complex problems. Data science is revolutionizing every sector, from predictive analytics in healthcare and personalized marketing strategies to efficient supply chain management and robust financial forecasting. According to the United States Bureau of Labor Statistics, data science is one of the fastest-growing fields, with jobs projected to grow 35% by 2031.

Data Science jobs projected to grow 35% by 2031

A graduate degree in data science is more than just a credential; it is a significant step toward becoming a leader in the field. Advanced education provides deeper insights, cutting-edge techniques, and a competitive edge in the job market. It demonstrates a commitment to excellence and your ability to tackle complex problems with advanced methods and analytical tools. Employers across industries highly value the specialized knowledge and skills that MSDS provides, making Texas A&M graduates sought-after professionals.

TEXAS A&M UNIVERSITY

Texas A&M Institute of Data Science
College of Arts & Sciences
College of Engineering

About the Program

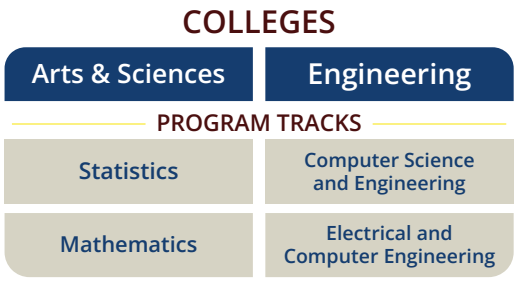
The Master of Science in Data Science (MSDS) program prepares students for a variety of career options associated with data science, such as artificial intelligence and machine learning. These include consulting agencies, financial services firms, government agencies, healthcare and pharmaceutical companies, marketing services, private commercial corporations, and technology companies.

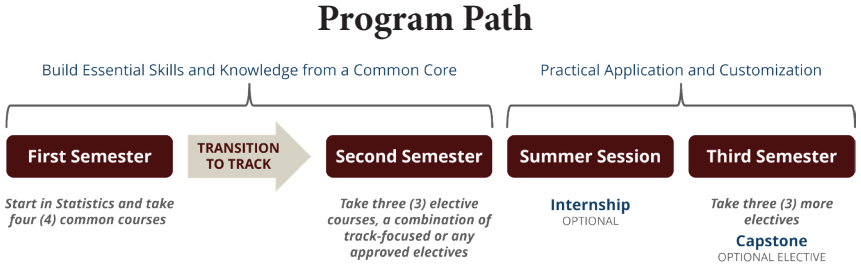
The MSDS degree is a three-semester, on-campus interdisciplinary program offered by the Departments of Computer Science and Engineering, Electrical and Computer Engineering, Mathematics, and Statistics within the University's Colleges of Engineering and Arts and Science, and administered jointly with the Texas A&M Institute of Data Science.

30 Credit Hours
3 Semesters
4 Tracks

Visit the MSDS website for more information about the curriculum and available courses.

Our program's 30-credit hour, multidisciplinary curriculum ensures students receive a well-rounded education, with core courses that build a solid foundation and elective courses that allow learners to tailor their studies to education interests and career goals. By choosing one of the four tracks offered by the participating academic departments, you can specialize in an area that aligns with your passion and expertise. Whether you aim to work in consulting, financial services, government agencies, healthcare, marketing, technology, or any other field, our MS in Data Science program prepares you for a diverse range of career options.





Each of the four academic departments offers a track in the program. Applicants apply for and are admitted to one of the tracks, which they maintain for the duration of their study. The multidisciplinary curriculum provides students with a solid foundation in mathematics, statistics, computer science, and machine learning through core courses. Afterward, students can choose from elective courses offered by different participating departments. Graduates of the MSDS program gain proficiency in advanced mathematics, analytics, computer programming, artificial intelligence, and data governance; preparing them to tackle real-world challenges and uncover valuable insights from data.

TEXAS A&M Institute of Data Science

TAMIDS pursues novel approaches to research, education, operations, and partnerships that explore artificial intelligence, machine learning, digitization, visualization, and other growing data science fields.

- **Data Science STEW** (Seminars, Tutorials, and Educational Workshops)
- **Academic Programs** (Courses, Capstones, Certificates, and Degrees)
- **Community Building** (Scholarships, Travel Grants, and Sponsorship of Student Activities and Programs)

Program Coordination

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MSDS Program Manager
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Application Eligibility

The MSDS program is open to students from all majors and experience backgrounds. There are general eligibility requirements and additional requirements based on which degree track you are applying to (see Program Tracks for more information).

GENERAL ELIGIBILITY REQUIREMENTS

Many MSDS students join the program with post-bachelor, industry experience, understand the basics of data analysis, and are proficient in a programming language. Applications are reviewed holistically but generally, competitive applicants will have:

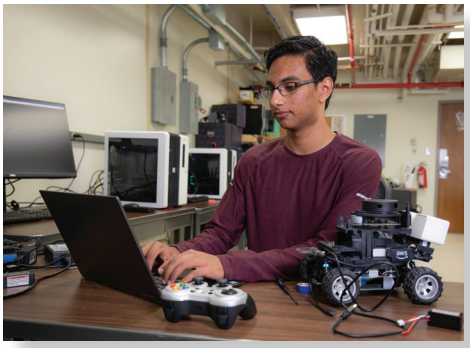
- **Math and Statistics Proficiency:** Applicants must demonstrate excellent grades in college-level calculus, linear algebra, and statistics courses and have a GPA above 3.0 on a 4.0 scale. Applicants with a bachelor's degree in mathematics, statistics, computer science, electrical engineering, industrial engineering, or similar fields should have a sufficient background.
- **Programming Language Proficiency:** Applicants must have a beginner's to intermediate understanding of at least one programming language (R, MatLab, Python, C++, SQL, Java, etc.).
- **Communication Skills:** Applications benefit from showing strong technical writing and presentation skills. For international students, low English scores on the GRE verbal or TOEFL exams (e.g. less than 100 on the iBT) greatly reduce the chances for admission.

COMPUTER SCIENCE & ENGINEERING (CSCE) TRACK REQUIREMENTS

The CSCE track is highly competitive and usually requires applicants to have a demonstrated capacity for advanced computational work.

- **Strong Computational Background:** Applicants should have a bachelor's degree in Computer Science, Computer Engineering, Data Engineering, Industrial and Systems Engineering, or a similar degree program with a strong focus on computational research, analytics, machine learning, and coding.
- **Programming Fluency:** Applicants should have a strong background in programming, machine learning, and familiarity with database systems. Proficiency in Python and Java is highly recommended as these languages are commonly used in track courses.
- **Research or Project Management Experience:** Applicants should have previous computational research or large project experience, demonstrated through computational or statistical academic research or through professional accomplishments.

ELECTRICAL & COMPUTER ENGINEERING (ECEN) TRACK REQUIREMENTS



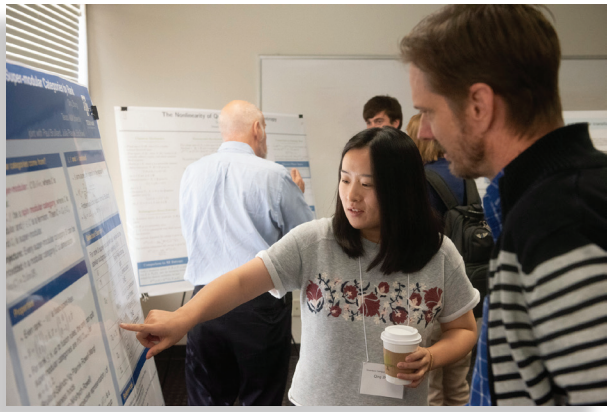
The ECEN track prioritizes applicants with experience in the design, analysis, and application of computers and their applications as components of systems.

- **Background in Electrical or Computer Engineering:** Applicants should have a bachelor's degree in Electrical Engineering Computer, Engineering, Data Engineering, Industrial and Systems Engineering, Instrumentation and Control Engineering, or a similar degree program with a strong focus on machine learning, information processing, and analytics.
- **Programming Fluency:** Applicants should have a strong background in programming, machine learning, and familiarity with database

systems. Proficiency in Python and Java is highly recommended as these languages are commonly used in track courses.
- **Research or Project Management Experience:** Applicants should have previous research or large project experience in computer systems, signal processing, networks, artificial intelligence, or visualization.

MATHEMATICS (MATH) TRACK REQUIREMENTS

The MATH track deepens student's understanding of advanced mathematical theories, concepts, and techniques. This level of expertise is valuable for tackling complex problems in data science, from theoretical research to practical applications across industries.
- **Background:** Applicants should have a bachelor's degree in Mathematics, Statistics, Physics, Engineering, or related fields.
- **Programming Fluency:** Applicants should have a strong background in logical training or programming.

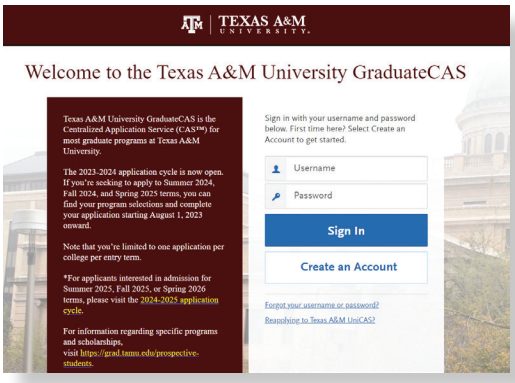


STATISTICS (STAT) TRACK REQUIREMENTS

The STAT track is in the Department of Statistics, one of the leading Statistics departments in the country.
- **Background:** Applicants should have a bachelor's degree in Statistics, Mathematics, Computer Science and Engineering, Industrial engineering, or related fields.
- **Programming Fluency:** Applicants should have a strong background in logical training or programming.
- **Research or Project Management Experience:** Applicants with research or project experience are preferred but not required. The course projects will provide these additional skills.

Application Process

Prospective students must apply online through Texas A&M University GraduateCAS. Create an Account and select the next Fall application deadline from the *Add Program* list.



Complete all four quadrants:

Personal Information	Supporting Information
Academic History	Program Materials

Application Materials

Statement of Purpose: Applicants should submit a statement of purpose to describe the reasons for pursuing graduate study, academic and professional interests and goals, and experiences preparing for graduate study. Submit it in the Program Materials quadrant of GraduateCAS under Documents.

CV/Resume: The CV/resume should outline the work history, educational background, relevant publications and patents, and research experience, and also include a section about the relevant courses taken and associated grades. Submit it in the Supporting Information quadrant of GraduateCAS under Documents.

Transcript: Submit a non-official transcript in the Academic History quadrant of GraduateCAS. Official transcripts are required only if you are admitted and intend to enroll.

Three (3) **Recommendation Letters:** Provide the contact information of your referees in the Program Materials

quadrant of GraduateCAS under Recommendations. An email request will automatically be sent to each referee on your behalf.

APPLY NOW

GRE (optional)**:** You can self-report GRE scores in the Academic History quadrant of GraduateCAS under Standardized Tests. The GRE requirement is waived for all applicants.

TOEFL and Other Language Requirements: International applicants must have a satisfactory score on the TOEFL or IELTS exams. For Texas A&M's English language proficiency requirement, see International Graduate—Admissions (tamu.edu). You can self-report standardized test scores or report tests planned to take in the Academic History quadrant of GraduateCAS under Standardized Tests. Official scores must be sent directly from the testing service. The institution code for Texas A&M University is 6003.

Other Supporting Documents (optional)**:** If you have publications or other documents that may show your qualification to the program, you may submit them as additional materials in the Program Materials quadrant of GraduateCAS under Documents.

Application Fee: The application fee is nonrefundable and must be paid at the time of submission.

Application Reviews & Notifications

Applications are reviewed by the selected track department in Spring (each track has a separate review committee), and students are admitted each Fall. The program does not offer Spring admissions. Admitted applicants receive an email from the University and must log into the Howdy portal to receive the decision, All offer letters are distibuted by the chosen track's department. This communication will be sent to the email address you provided on your application.

Join our Master of Science in Data Science program and be part of a vibrant community of learners and innovators. Develop the expertise to transform data into actionable insights, drive impactful decisions, and shape the future of industries, society, and government. Apply today and embark on a journey that will redefine your career and open doors to limitless opportunities.

tamids.tamu.edu