Texas A&M
Master of Science in Data Science
Fall 2024 Information Session
Who are we?

Nick Duffield, PhD FACM FIEEE FIET
Director, Texas A&M Institute of Data Science (TAMIDS)
Professor, Electrical and Computer Engineering

Christi Retzer, MBA
Program Manager (TAMIDS)

Drew Casey
Assistant Director for Program Engagement (TAMIDS)
Why study data science!

Data science explores the potential of data to derive valuable insights for society.

Connect elements from engineering, technology, science, computing, and the humanities.

Data Science Highlights

- Uses interdisciplinary approaches
- Informs wider social challenges
- Necessary for our growing data-rich world
- Data Scientist is #3 on the 50 Best Jobs in America for 2022 (Glassdoor, 2022)

“I know that for the rest of my professional career I will be able to look back and say that making the decision to apply and receive my degree in the MSDS program was one of the best decisions for me…”

Benjamin Klein, Statistical Analyst at Medpace, MSDS Graduate 2022
Program Structure

Colleges

- Texas A&M University
  - College of Arts & Sciences
- Texas A&M University
  - Engineering

Program Tracks

<table>
<thead>
<tr>
<th>STAT</th>
<th>MATH</th>
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<tbody>
<tr>
<td>CSE</td>
<td>ECE</td>
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Coordination

- Texas A&M
  - Institute of Data Science
Program Organization

Master of Science in Data Science degree is an on-campus, 30 credit hour interdisciplinary program.

Each of the four academic departments offers a track in the program: CSE, ECE, Math, and Statistics.

Students will be admitted to an individual track which they will maintain for the duration of their study.

YOU MAY NOT SWITCH TRACKS
Students typically take four (4) common core courses in the first semester, and then take three (3) elective courses in each of the two subsequent semesters.

**Common Core**
- MATH 677 *Mathematical Foundations for Data Science*
- STAT 650 *Statistical Foundations for Data Science*
- STAT 624 *Databases and Computational Tools Used in Big Data*
- ECEN 758 / STAT 639 / CSCE 676 *Data Mining and Analysis*

Students choose six (6) elective courses from the list of courses offered by five (5) different departments.
- Can take the remainder of their elective courses from any department
- Required to take three (3) elective courses from your track department
Why three semesters?

Build essential skills and knowledge

First Semester
- Four (4) common courses

Second Semester
- Enter Track
  - CSE, ECE, Math, or Statistics
- Three (3) elective courses

Summer
- Internship
  [OPTIONAL]

Third Semester
- Three (3) elective courses
- Capstone
  [OPTIONAL]
## Tuition and Fees

Estimated tuition and fees for three (3) semesters (total 30 credit hours).

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<thead>
<tr>
<th></th>
<th>In-State</th>
<th>Out of State</th>
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<tbody>
<tr>
<td>Tuition and fees</td>
<td>$13,110</td>
<td>$29,355</td>
</tr>
<tr>
<td>Program fee total</td>
<td>$12,000</td>
<td>$12,000</td>
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<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>$26,268</strong></td>
<td><strong>$42,675</strong></td>
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These are *estimated* cost of attendance based on 2023–2024 tuition and required fees.

This does not include living expenses. Detailed information regarding tuition and fees at Texas A&M University is available from [Student Business Service](tx.ag/MSDS).
Funding Opportunities

First-Year Scholarship

TAMIDS offers a $1,000 competitive scholarships to all first-year MSDS students. All admitted students are considered for the scholarship and recipients qualify for the Non-resident Tuition Waiver.

Research Assistantships

MSDS students may also seek support from faculty to assist in research projects, teaching, or other administrative activities.

https://grad.tamu.edu/funding-your-education
Internships

Internships may be taken starting in the Summer semester.

Internships taken in the Fall or Spring must be remote.

Additional opportunities to connect with industry representatives and leading experts in data science

Lunch-and-Learn Industry Talks

“Texas A&M University's Data Science program offers so many opportunities for the students to develop and build their career upon.”

Yutae Lee, Business Analytics Specialist at Atlanta Braves, MSDS Graduate 2022
How to apply

Apply online through the TAMU’s GraduateCAS

Required prior coursework:

- **Math**: calculus and linear algebra*
- **Statistics**: college level introduction to statistics
- Some programming experience in at least one of languages (R, Python, C++)

Applicants with a bachelor’s degree in computer science, statistics, mathematics, electrical engineering, industrial engineering, or similar fields should have the sufficient background (additional degrees are acceptable).

**GRE is not required**

* TAMIDS & the Math Learning Center provide optional online math workshops for incoming students.

**Application Dates for Fall 2024:**

September 1, 2023–February 1, 2024

**NO SPRING INTAKE**
How to apply

Welcome to the Texas A&M University GraduateCAS

Texas A&M University GraduateCAS is the Centralized Application Service (CAS™) for most graduate programs at Texas A&M University.

The 2023-2024 application cycle is now open. If you’re seeking to apply to Summer 2023, Fall 2023, and Spring 2024 terms, you can find your program selections and complete your application starting August 1, 2023 onward. Note that you’re limited to one application per college per entry term.

If you’re interested in admission for the Fall 2023 or Spring 2024 terms, go to https://texasam2023.liaisoncas.com.

For information regarding specific programs and scholarships, visit https://grad.tamu.edu/prospective_students.

You are applying for Fall 2024 and must create a new account if you have not applied for another 2024 graduate program.

NO SPRING INTAKE
Graduation and Careers

You will graduate with the college which your program track falls under.

Math and Stat  College of Arts and Sciences
ECE and CSE  College of Engineering

“I liked the opportunity to be able to apply my skills and education to industry research during the course of the program and get a chance to collaborate with faculty and industry professionals to bring solutions to real-world problems.”

Aisha Aslam, Data Analyst II at Intuit, MSDS Graduate 2022

Growing Career Opportunities

- Technology Companies
- Industrial Data Science
- Applied Sciences
- Financial Technology
- Healthcare and Pharmaceutical
- Business Consulting
- Government Agencies
- Transportation & Urban Studies
- Power and Energy Industry
- PhD Research in Data Science

tx.ag/MSDS
TAMIDS Activities

TAMIDS helps students excel in data science!

- **Data Science STEW** (Seminars, Tutorials, and Educational Webinars)
- Student Competitions and Hackathons
- Research Support and Travel Grants
- Lunch-and-Learn Industry Talks
- A network with over 1,000 undergraduate and graduate students

**Our Mission**

TAMIDS pursues new approaches to data science education, research, operations, and partnerships.

We create multidisciplinary opportunities that connect elements from engineering, technology, science, and the humanities, and inform broader social challenges.

Visit TAMIDS Website [tamids.tamu.edu](http://tamids.tamu.edu) and join our mailing list.
Research opportunities for MS DS students with Thematic Labs faculty.
Thematic Labs faculty transition research into new MSDS elective courses

“My research and coursework at TAMIDS directly contributed to my selection as an NLP Engineering Intern at Nvidia, and subsequently, as an AI/ML Engineer at PayPal.”

Sree Kiran Prasad Vadaga, AI/ML Engineer at PayPal, MSDS Graduate 2022
Janvita Reddy

MS in Data Science, Computer Science & Engineering Track

Undergraduate degree in Mechanical Engineering from the National Institute of Technology, Surat, India.

Janvita’s research interests include Machine Learning with a focus on Computer Vision. She currently assists TAMIDS research program in AI for Agriculture.

She worked with an astronomy research group which resulted in the publication of a paper in *The Monthly Notices of the Royal Astronomical Society* journal.
Isaias Negassi

MS in Data Science, Electrical & Computer Engineering Track

Undergraduate degree in Electrical and Electronics Engineering from the Higher Colleges of Technology, Abu Dhabi, United Arab Emirates.

Isaias currently assists research in TAMIDS Operational Data Science Lab, working on Machine Learning and Computer Vision applications.

As an undergraduate student, he developed a smart car plate recognition gate that was later published in IEEE.
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Christi Retzer
Program Manager, MS Data Science
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