



Arizona State University (Tempe campus)

Data Science, Analytics and Engineering (Mechanical and Aerospace Engineering), MS

Study details

Course type: Master's degree

Degree: Data Science, Analytics and Engineering (Mechanical and Aerospace Engineering), MS
ESDSEMAEMS

Study mode: Full time

Duration: 24 Month

Cost of study

Cost : 29 880 USD

Reg. fee : 115 USD

Scholarship :

Insurance : 2 765 USD

Intake/s

Jan/Aug

Requirements

Admission requirements

- Applicants must fulfill the requirement of both the Graduate College and the Ira A. Fulton Schools of Engineering.
- Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in mechanical engineering, aerospace engineering or a related field from a regionally accredited institution.
- Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Applicants are required to submit:

1. graduate admission application and application fee
2. official transcripts
3. letter of intent
4. professional resume
5. proof of English proficiency

Additional Application Information

An applicant whose native language is not English must provide proof of English proficiency regardless of current residency. Applicants demonstrate proficiency in the English language by scoring at least 90 on the TOEFL iBT (taken in a testing center); 7 on the IELTS; or 115 on the Duolingo English test regardless of their current residency.

All applicants must demonstrate relevant coursework or experience in the following three areas:

- familiarity with Matlab, Python, SQL, R or other relevant programming skills (in the professional resume)
- undergraduate linear algebra (e.g., MAT 242 Elementary Linear Algebra)
- undergraduate statistics or probability (e.g., IEE 380 Probability and Statistics for Engineering Problem Solving; STP 420 Introductory Applied Statistics; STP 421 Probability; EEE 350 Random Signal Analysis)

In addition, applicants without an undergraduate degree in computer science, computer engineering, software engineering, information technology, industrial engineering, operations research, statistics or a related computing field must show evidence (in the professional resume) of at least one of the following certifications or equivalent experience:

- AWS certified cloud practitioner
- Google data analytics certificate
- Google IT support certificate

Accommodation

Provided by partner agencies;

On-campus housing and meals \$18,933

Speciality

STEM-OPT for international students on F-1 visas

This program may be eligible for an Optional Practical Training extension for up to 24 months. This OPT work authorization period may help international students gain skills and experience in the U.S. Those interested in an OPT extension should review ASU degrees that qualify for the STEM-OPT extension at ASU's International Students and Scholars Center website.

The OPT extension only applies to students on an F-1 visa and does not apply to students completing a degree through ASU Online.

Additional information

Program description

Degree awarded: MS Data Science, Analytics and Engineering (Mechanical and Aerospace Engineering)

There is an increasing need for all engineers to make use of data science tools such as statistics, machine learning, artificial neural networks and artificial intelligence. Yet the majority of engineering occupations require subject matter expertise beyond data science. For mechanical and aerospace engineering, the need for data science, including machine learning, is felt in all subdisciplines,

including controls, energy systems, aeronautics, astronautics and mechanics.

The mechanical and aerospace engineering concentration in the MS program in data science, analytics and engineering provides an advanced education that combines high-demand data science and mechanical and aerospace engineering. A focus on probability and statistics, machine learning and data engineering is complemented by mechanical and aerospace engineering-specific courses to ensure breadth and depth in both data science and mechanical and aerospace engineering.

Career opportunities

Data scientist is consistently ranked among the top jobs in the U.S. Mechanical and aerospace engineers with a background in data science can pursue opportunities in a variety of fields to manage and analyze data and extract knowledge from large data sets for decision-making, including in the following industries:

- aircraft design
- energy systems
- manufacturing
- product design
- space systems