



## Arizona State University (Tempe campus)

### Data Science, Analytics and Engineering (Sustainable Engineering and Built Environment), MS

#### Study details

**Course type:** Master's degree

**Degree:** Data Science, Analytics and Engineering (Sustainable Engineering and Built Environment), MS ESDSESEBMS

**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 requirements 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 computing, engineering, mathematics, statistics, operations research, information technology 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. written statement
4. professional resume
5. proof of English proficiency

#### Additional Application Information

An applicant whose native language is not English must demonstrate proficiency in the English language by scoring at least 90 on the TOEFL iBT, 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:

- 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)
- undergraduate linear algebra (e.g., MAT 242 Elementary Linear Algebra)
- familiarity with Matlab, Python, SQL, R or other relevant programming skills (in their professional resume)

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 their professional resume) of at least one of the following certifications or equivalent experience:

- AWS certified cloud practitioner
- Google IT support certificate
- Google data analytics 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 (Sustainable Engineering and Built Environment)

Data scientist is consistently ranked among the top jobs in the U.S., and 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.

This concentration in the MS program in data science, analytics and engineering provides an advanced education in high-demand data science and sustainable engineering and the built environment. A focus on probability and statistics, machine learning, data mining and data engineering is complemented by sustainable engineering and built environment-specific courses to ensure breadth and depth in data science and sustainable engineering and the built environment.

## Career opportunities

Civil, environmental, sustainable or construction management 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:

- building
- construction
- environmental remediation
- transportation
- water treatment