Leaders of organizations that operate across borders and sectors must be able to wield the power of big data. Thunderbird's MGM in data science empowers graduates with the latest data management tools and skills to solve complex, real-world problems. Are you ready for a global career in data science leadership?

Program Description

Degree Awarded: MGM Global Management (Data Science)
This STEM-designated* concentration program is offered to students who are interested in gaining both global management and data management expertise in order to work in multinational corporations, international nonprofit entities, governmental and non-governmental organizations around the globe.

As global companies and organizations in the Fourth Industrial Revolution continue to rely on data to drive management decisions, it is increasingly important for leaders to have the skills necessary to understand and interpret that data.

Thunderbird School of Global Management has produced unique leaders for 75 years, leaders in every sector capable of tackling the world's greatest challenges. The alumni network comprises 45,000 graduates and 170 chapters around the globe.

*As an added bonus for international students, this program meets special F-1 international student status requirements. This means that international students who graduate with the data science concentration qualify for a 24-month extension to their Optional Practical Training in the United States beyond the 12-month period already provided to international students in non-STEM degrees.

At a Glance

- **College/School:** Thunderbird School of Global Management
- **Location:** Downtown Phoenix campus
Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's and master's degree with:

- Business (Food Industry Management), BA
- Business (Global Agribusiness), BA
- Business (Language and Culture), BA
- Business (Statistics), BA
- Business Data Analytics, BS
- Business Entrepreneurship, BS
- Economics, BS
- Industrial Design, BSD
- Liberal Studies, BA
- Marketing, BS
- Marketing (Digital and Integrated Marketing Communications), BS
- Marketing (Professional Sales), BS

Acceptance to the graduate program requires a separate application. During their junior year, eligible students are advised by their academic departments to apply.

Degree Requirements

49 credit hours, a foreign language exam, including the required capstone course (TGM 597)

**Required Core (3 credit hours)**
TGM 506 Communicating and Negotiating Across Cultures (3)

**Concentration (12 credit hours)**
CSE 511 Data Processing at Scale (3) or CSE 512 Distributed Database Systems (3)
CSE 572 Data Mining (3) or IEE 520 Statistical Learning for Data Mining (3)
Choose two from the following:
CSE 510 Database Management System Implementation (3)
CSE 515 Multimedia and Web Databases (3)
CSE 546 Cloud Computing (3)
CSE 573 Semantic Web Mining (3)
CSE 578 Data Visualization (3)

**Electives (12 credit hours)**

**Other Requirements (21 credit hours)**
foreign language
TGM 515 Navigating Global and Regional Business Environments (3)
TGM 545 Global Leadership and Strategy (3)
TGM 557 Global Marketing and Data Analytics (3)
TGM 586 Global Entrepreneurship and Sustainable Business (3)
TGM 596 Thunderbird Experiential Practicum (6)

**Culminating Experience (1 credit hour)**
TGM 597 Thunderbird Personal Leadership Development (1)

**Additional Curriculum Information**
Electives are as approved by the academic unit.

Except for TGM 596 and the foreign language requirement, other requirements coursework may be substituted with approval of the academic unit.

Proficiency in a second language is required for graduation from the Master of Global Management degree program. Students whose native language is not English who meet the admission requirements for the program satisfy the language requirement.

Students whose native language is English must satisfy the graduation requirement for language proficiency by waiving this requirement through an oral proficiency interview administered by a third-party vendor or by successfully completing six credit hours of 400-level or higher of foreign language coursework.

**Admission Requirements**

Applicants must fulfill the requirements of both the Graduate College and Thunderbird School of Global Management.

Applicants are eligible to apply to the program if they have earned a bachelor’s or master’s degree in any subject 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 applicants must have 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. resume
4. essay response to application question
5. one professional or academic reference
6. GMAT or GRE may be required
7. interview
Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

The resume should demonstrate the applicant’s professional and academic history.

An interview is required. Final applicants may be asked to complete an additional interview.

Applicants are exempt from taking the GMAT or GRE if they have eight or more years of professional work experience or a cumulative undergraduate GPA of 3.25 or above. Applicants who do not meet either requirement are reviewed by the application committee and may receive an exception on a case-by-case basis.

Global Opportunities

Global Experience
Students in Thunderbird's Master of Global Management program have unique opportunities to apply and hone their learning in international settings. Experiential learning exposes students to actual problems faced by leaders of multinational businesses and governmental or nonprofit organizations that operate on an international level. Working with Thunderbird professors, their fellow students, alumni and corporate partners, students master and apply global management principles and concepts to meet real business challenges through special courses, labs and projects. Thunderbird offers a wide variety of experiential learning engagements, giving students the ability to solve real-world challenges by collaborating with the school's corporate partners around the world. Some options include:

Global Field Seminars
This two- or three-week seminar exposes students to the dynamics and nuances of doing business in a focused region of the world. Teams of students go on company site visits and attend high-level meetings and presentations with business, government and cultural leaders as well as with Thunderbird alumni. Students gain invaluable hands-on experience while expanding their global business skills so they can become major assets to any organization they join after graduating.

Thunderbird Global Challenge Laboratories
This is a client-facing, project-based course built on a six- to seven-week immersion assignment in a key emerging or advanced market. Projects take students to destinations all over the world. They are tailored to the business needs of the client and challenge students to provide sophisticated data and market analysis, strategy recommendations, and plans for sustained growth that are both practical and effective. For more information, students should visit https://thunderbird.asu.edu/challenge-labs.

Career Opportunities
Jobs for computer and information research scientists are expected to grow 16% between 2016 and 2028 (Occupational Outlook Handbook, Bureau of Labor Statistics). Many companies report difficulties finding qualified professionals with solid systems, engineering, algorithmic and mathematical backgrounds and with excellent data management and analysis skills. To meet this market need, Thunderbird School of Global Management designed the data science concentration within the MGM degree program in conjunction with ASU's School of Computing, Informatics and Decision Systems Engineering. [https://cidse.engineering.asu.edu/](https://cidse.engineering.asu.edu/)

Career examples include:

- instructional designers and technologists
- intelligence analysts
- management analysts
- market research analysts and marketing specialists

**Contact Information**

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