

Your Guide to the

# MS in Business Analytics & Information Systems



*Data Scientist • Software Engineer • Database Administrator • Web Developer  
IT Consultant • Enterprise Architect • Project Manager  
Data Warehouse Analyst • Data Analyst • Security Analyst • BI Analyst*



UNIVERSITY of  
**SOUTH FLORIDA**

**Muma College of Business**

# Why a Master's Degree in Business Analytics & Information Systems

The Master of Science in Business Analytics and Information Systems is a STEM (science, technology, engineering and math) business degree that blends technology and business skills. Courses allow students to specialize in business intelligence, information assurance, business analytics, project management, software engineering and compliance, risk and anti-money laundering.

Students who already have considerable background, primarily in information technology, will make use of the built-in flexibility of the program, providing them with the best background for their careers. An advisor will work closely with each student to design and monitor the most effective course sequence and optional thesis/practicum work.

## About the Program

- The typical student enrolling into the program has two to five years of related professional experience.
- Our professors are renowned for their academic and professional accomplishments.
- The School of Systems & Information Management is engaged with the business community through its industry-sponsored practice centers. Projects from the center allow students to introduce state-of-the-market technologies into local companies.
- Dedicated student success specialists are committed to the professional success of students. They assist with career development and facilitate job and internship placement in organizations nationwide.
- Ongoing professional development bootcamps presented by faculty and other experts give students an edge above the competition.
- Recent USF Muma College of Business Business Analytics and Information Systems masters students continue to be placed in leading global businesses such as IBM, Deloitte, Paypal, Microsoft, Amazon, JPMorgan Chase and Infosys, with starting salaries in the \$65k-\$170k range.

“ I chose to pursue MS BAIS from USF to get introduced to the field of data sciences, big data and machine learning. The courses that the program offers opens up the career paths to choose from data analytics, data engineering, machine learning and software development. The faculty here is very helpful and highly responsive. The opportunities to work on research projects, participating in bootcamps, hackathons, networking events makes it an ideal place to grow.”

Kartikay Bali, Class of '19

# Coursework

Incoming students must complete the prerequisites listed below. Many of these can be waived after a review of prior coursework and/or work experience. Any remaining prerequisites can be completed through various resources; some of them may be taken concurrently with courses in the program.

- One semester of a high-level, object-oriented programming language (e.g., C#, C++, Java) or substantial programming experience
- One semester of information systems analysis and design or equivalent experience
- One semester of database systems or equivalent
- A course in statistics
- A course in economics
- A course in financial accounting

## Core Courses (16 Credit Hours)

- **ISM 6124** - Advanced Systems Analysis and Design
- **ISM 6155** - Enterprise Information Systems Management
- **ISM 6218** - Advanced Database Management
- **ISM 6225** - Distributed Information Systems
- **QMB 6304** - Analytical Methods for Business

## Elective Courses (17 Credit Hours)

Elective courses are chosen from courses in the management field. Students choose at least six elective courses, such as include:

- **ISM 6056** - Web Application Development
- **ISM 6125** - Software Architecture
- **ISM 6136** - Data Mining
- **ISM 6145** - Seminar on Software Testing
- **ISM 6156** - ERP and Business Process Management
- **ISM 6208** - Data Warehousing
- **ISM 6316** - Project Management
- **ISM 6328** - Information Security and Risk Management
- **ISM 6642** - International Aspects of Information Science
- **ISM 6905** - Independent Study / Research
- **ISM 6485** - Electronic Commerce
- **ISM 6405** - Informatics & Business Intelligence
- **ISM 6945** - Business Analytics and Information Systems Internship
- **ISM 6945** - Managing the Information System Function
- **ISM 6930** - Selected Topics in MIS

With prior approval, students may take up to 6 credits in another field (within or outside the Muma College of Business). In order to seek approval, students must provide the advisor with a written rationale of how these courses outside the discipline complement the student's course of study. Once permission has been granted, it is the student's responsibility to attain permits for courses outside the Muma College of Business.

## Concentrations

By choosing electives carefully, students can earn concentrations in analytics and business intelligence or information assurance.

### Analytics & Business Intelligence

Students will have to complete four out of the following seven courses:

- **ISM 6136** - Data Mining
- **ISM 6218** - Advanced Database Management
- **ISM 6208** - Data Warehousing
- **ISM 6137** - Statistical Data Mining
- **QMB 7566** - Applied Multivariate Statistical Methods
- **ISM 6642** - Statistical Programming for Business Analytics
- **ISM 6562** - Big Data for Business
- **ISM 6930** - Selected Topics in MIS

### Information Assurance

The information assurance concentration requires the following courses:

- **ISM 6328** - Information Security & Risk Management
- **ISM 6577** - Decision Processes for Business Continuity & Disaster Recovery

The concentration also requires two courses from the following list:

- **ISM 6124** - Advanced Systems Analysis and Design
- **ISM 6145** - Seminar on Software Testing
- **ISM 6218** - Advanced Database Management
- **ISM 6266** - Software Architecture
- **ISM 6316** - Project Management



## Admission Requirements

Students are admitted based on an evaluation of an application in its entirety, including prior college level academic grades earned, GMAT or GRE scores, TOEFL scores (for international students only), letters of recommendation, statement of purpose, and relevant work experience.

## Financial Assistance

USF and the Muma College of Business offer a number of scholarships, graduate teaching assistantships, tutoring opportunities, and Student Excellence Grants to Tampa students. Please visit the USF Financial Aid website at [usf.edu/financialaid](http://usf.edu/financialaid) for other sources of financial assistance.

## How to Apply

Applications are submitted online at [grad.usf.edu](http://grad.usf.edu) and are evaluated as they are received. Admissions decisions are usually made within four weeks. Non-USF transcripts must be submitted with application.

## Application Deadline

**Please apply as early as possible. Admission will close once the program reaches capacity. Check current deadlines at [usf.edu/business/graduate/ms-bais/](http://usf.edu/business/graduate/ms-bais/)**

Please contact International Services at [global.usf.edu/is](http://global.usf.edu/is) for more information on international requirements.



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Our college is accredited by:



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