

# MASTER OF SCIENCE 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*

POWERED BY ANALYTICS, DRIVEN BY CREATIVITY



<http://www.usf.edu/business/departments/isds/programs>

# PROGRAM OVERVIEW

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. Students 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 either in information systems or in business 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 or practicum work.

“ The Business Analytics and Information Systems program plants a seed of curiosity about the world of data analytics, machine learning and big data systems. With motivation and interest to conduct research in these emerging technologies and USF's great exposure to bootcamps, hackathons and research projects, the sky is the limit. ”

- Birupakhya Dash '17  
Master of Science in Business Analytics  
and Information Systems

## ABOUT THE PROGRAM

- The typical student enrolling into the program has two to five years of professional experience.
- Professors are renowned for their academic and professional accomplishments. The department is ranked highly for its research productivity.
- The Information Systems Decision Sciences Department is engaged with the business community through its industry-sponsored practice center projects. Projects from the center allow students to introduce state-of-the-market technologies into local companies.
- 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 over the competition.
- Recent graduates continue to be placed in leading global businesses such as IBM, Deloitte, Paypal, Microsoft, Goldman Sachs, Capital One, PwC, Tesla, and Infosys, with salaries averaging \$70k .



# COURSEWORK & CONCENTRATIONS

## PREREQUISITES

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 (15 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
- **ISM 6304** - Analytical Methods for Business

## ELECTIVE COURSES (18 credit hours)

- **ISM 6056** - Web Application Development
- **ISM 6125** - Software Architecture
- **ISM 6136** - Data Mining
- **ISM 6137** - Statistical 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 6485** - Electronic Commerce
- **ISM 6642** - Statistical Programming for Business Analytics
- **ISM 6905** - Independent Study
- **ISM 6930** - Decision Analysis for Business Continuity and Disaster Recovery
- **ISM 6930** - Big Data and Electronic Commerce
- **ISM 6930** - Mainframe Technologies
- **ISM 6930** - Cryptocurrencies and IoT Based Application
- **ISM 6930** - Blockchain technology

## CONCENTRATIONS

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

### ANALYTICS & BUSINESS INTELLIGENCE

Graduate students who take four of the five required courses, and earn a GPA of 3.0 or higher in each, receive a joint SAS/USF Certificate in Analytics and Business Intelligence when they use the SAS analytics package as part of some of these courses.

The program has one of the strongest data analytics focused curricula in the United States, offering several advanced data-focused courses.

### INFORMATION ASSURANCE

The information assurance concentration requires the following courses:

- **ISM 6124** - Advanced Systems Analysis and Design
- **ISM 6218** - Advanced Database Administration

The concentration also requires **six credit hours** from the following list:

- **ISM 6124** - Advanced Systems Analysis and Design
- **ISM 6155** - Enterprise Information Systems Management
- **ISM 6218** - Advanced Database Administration
- **ISM 6225** - Distributed Information Systems
- **ISM 6436** - Operations and Supply Chain Processes

“The Master of Science in Business Analytics and Information Systems program challenges students to think beyond current information technologies and practices. The inclusion of cutting-edge research topics taught by a world-class faculty enables students to design the future of information technology and systems.”

- Alan Hevner, Business Analytics and Information Systems Professor



## 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 [www.usf.edu/finaid](http://www.usf.edu/finaid) 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 deadlines are as follows.

### Fall

**Domestic: July 1**  
**International: February 1**

### Spring

**Domestic: November 1**  
**International: July 1**

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

## CONTACT US

### Muma College of Business Graduate Office

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