

# BUSINESS ANALYTICS

What can I do with this major?

## AREAS

### **BUSINESS ANALYTICS**

Data Collection/Data Mining  
Experiment Design  
Data Analysis  
Decision Analysis and Modeling  
Predictive Analytics  
Customer Loyalty and Selection Programs  
Marketing Strategy Development  
Fraud Detection  
Applied Statistics  
Process Optimization  
Operations Research/Management  
Manufacturing Design  
Supply Chain Management  
Information Technology  
Database Administration  
Program/Project Management  
Consulting

## EMPLOYERS

Nearly all industries have need for business analytics including:  
Retail, online retail  
Software and technology  
Telecommunications  
Financial services and banking  
Insurance  
Manufacturing  
Consumer products  
Transportation  
Consulting  
Entertainment  
Hospitality  
Healthcare  
Government/Public sector  
Nonprofit organizations

## STRATEGIES

Seek broad exposure to business principles while honing statistics and quantitative skills.  
Gain relevant experience through an internship in an industry of interest.  
Develop excellent information technology, database management, and programming skills. Learn to use relevant software or tools such as Apache Hadoop, SQL, and SPSS. Earn industry certifications, e.g. SAS and Google, when possible.  
Learn to work effectively on interdisciplinary teams and how to communicate data intensive information to colleagues. Hone presentation skills.  
Develop strong analytical skills and a logical approach to problem solving.  
Get involved in campus organizations and seek leadership roles.  
Conduct informational interviews with professionals to learn about various industries or functional areas because business analytics professionals can fit into a wide array of positions.  
Consider earning a master's degree to qualify for advanced opportunities.  
Stay abreast of industry developments through professional societies and websites dedicated to business analytics, data mining, information technology, or other relevant topics.

## AREAS

## EMPLOYERS

## STRATEGIES

### OPERATIONS MANAGEMENT

#### Operations Research Analysis:

- Business Strategy
- Facilities Layout
- Inventory Control
- Personnel Scheduling

#### Production Management:

- Line Supervision
- Manufacturing Management
- Production Planning
- Quality Assurance

#### Materials Management:

- Purchasing/Buying
- Traffic Management
- Inventory Management

- Manufacturers
- Industrial organizations
- Service organizations

- Develop strong analytical skills and a logical approach to problem solving. Skills in budgeting and cost management are also important.
- Take courses in statistics, computer systems, or logistics. This is a more technical side of management.
- Learn to manage multiple situations and problems.
- Be able to communicate effectively with different types of people in various functional areas.
- Earn an MBA to reach the highest levels of operations management.

### BANKING AND FINANCE

#### Corporate and Consumer Credit Analysis

#### Commercial Lending

#### Trust Management

#### Capital Services and Mergers and Acquisitions

#### Mortgage Loans

#### Originations and Packaging

#### Branch Management

#### Operations

#### Cash Management

#### Credit Scoring and Risk Management

#### Private Banking

#### Financial Analysis

#### Investment Banking

#### Commercial banks

#### Credit unions

#### Savings and loan associations

#### Savings banks

#### Mortgage banks

#### Captive finance companies

#### Regulatory agencies including:

##### Federal Reserve

##### Federal Deposit Insurance Corporation (FDIC)

##### Office of the Comptroller of the Currency (OCC)

##### Office of Thrift Supervision (OTS)

#### Brokerage firms

- Build a solid background in business including marketing, finance, and accounting.
- Gain experience through part-time, summer, or internship positions in a financial services firm.
- Develop strong interpersonal and communication skills in order to work well with a diverse clientele.
- Plan to earn an MBA to enter investment banking.
- Research professional certifications that may be valuable in this field.

## AREAS

### **INSURANCE**

Actuary Science  
Risk Management/Assessment  
Loss Management/Control  
Underwriting  
Asset Management  
Claims  
Sales  
Customer Service

## EMPLOYERS

Insurance firms  
Insurance agents and brokers  
Professional, scientific, and technical consulting firms  
Government agencies

## STRATEGIES

Take additional courses in mathematics and finance. Complete an internship with an insurance agency to gain relevant experience.

Talk to professionals in the industry to learn more about claims, underwriting, and risk management. Many entry-level positions exist in these areas.

Develop strong communication skills as many positions require interaction with others and the ability to explain information clearly and concisely.

Learn how to use statistical analysis software and various computer programming languages.

For Actuary Science:  
Plan to take a series of actuarial exams to gain licensure from either the Society of Actuaries or the Casualty Actuarial Society. The type of insurance you deal with will determine which path to pursue. Most actuaries take these exams while working full-time, and the process takes several years. More than half of actuaries work for insurance carriers.

Initiative and sales ability are necessary to be a successful agent or broker.

There are many certifications in the insurance industry. Research those relevant to your area.

AREAS	EMPLOYERS	STRATEGIES
<p><b><u>MANAGEMENT</u></b> Types of Management Include: Entry-Level/Management-Trainee Supervision of Employees and Operations Project Management Team Management Information Management Middle Management Top Management</p>	<p>Nearly every type of organization across industries offer management positions including: Banks and financial institutions Retail stores Restaurants Hotels and other facilities Service providers Healthcare organizations Manufacturers Software and technology companies Educational institutions Local, state, and federal government Nonprofit organizations Self-employed</p>	<p>Be prepared to start in entry-level management trainee positions or corporate rotational training programs. Gain related experience through internships or summer and part-time jobs. Work at a retail store or restaurant; advance into an assistant manager position. Get involved in student organizations and assume leadership roles. Demonstrate a strong work ethic, integrity, and a sense of independence. Take courses in a secondary specialty such as marketing or information systems to increase job opportunities. Learn to communicate effectively with a wide variety of people and to work well on a team. Develop strong problem solving skills.</p>

**GENERAL INFORMATION**

- Business analytics is a rapidly expanding career field due to the growth of "big data." The job outlook for "data scientists" is very strong because businesses have more access to data than ever before and that data requires analysis for decision making.
- An undergraduate degree can be used in a variety of business settings if combined with relevant experience and skills. Plan to complete one or more internships in an industry or functional area of interest.
- Some positions in business, such as sales and management, are open to any major. Seek experiences and build skills that will help you prepare for those jobs.
- Earn an MBA or master's degree in business analytics or related field to qualify for higher level opportunities. To prepare for graduate school, maintain a high grade point average and secure strong faculty recommendations.
- Develop a solid background in information technology, software, and tools related to data mining, statistical analysis, and business process optimization. Earn relevant industry certifications to increase marketability.
- Good communication skills are critical in order to communicate statistical information clearly to people who do not have technical backgrounds. Writing and presentation skills are also frequently used.
- Get involved with campus organizations to build leadership and teamwork skills.
- Conduct informational interviews with professionals in fields of interest to learn more about their work and to build a network of contacts. Join relevant professional associations.