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 management
- Program/Project management
- Consulting
- Service analytics
- Artificial intelligence
- Behavioral analytics
- Cyber security

Business Analytics Employers

- Retail, online retail
- Software and technology
- Telecommunications
- Financial services and banking
- Insurance
- Manufacturing
- Consumer products
- Sports
- Supply chain
- Transportation
- Consulting
- Entertainment
- Hospitality
- Healthcare
- Government/Public sector
- Nonprofit organizations

Business Analytics 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, R, Python, and SPSS.

- Earn industry certifications (e.g., SAS and Google).

- Learn to work effectively on interdisciplinary teams and how to communicate data intensive information to colleagues.

- 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.

- Consider earning a master's degree to qualify for advanced opportunities.

- Stay abreast of industry developments through professional societies and websites.

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

Operations Management Employers

Manufacturers

Industrial organizations

Service organizations

Operations Management Strategies

Develop strong analytical skills and a logical approach to problem solving. Skills in budgeting and cost management are also important.

Take courses in logistics, statistics, or computer systems. 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

- **Commercial banking**
- •**Retail/Consumer banking**
- •**Credit analysis**
- •**Lending**
- •**Trust services**
- •**Mortgage loans**
- •**Branch management**
- •**Operations**

Banking Employers

- Banks
- Credit unions
- Savings and loan associations
- Financial services institutions
- Wholesale lenders
- Housing lenders
- Federal Reserve banks

Banking Strategies

Build a solid background in business including marketing and accounting.

• Seek experience through part-time, summer, or internship positions in a bank.

• Develop strong interpersonal and communication skills in order to work well with a diverse clientele.

Insurance Employers

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

Insurance 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.

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

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

Take additional statistics classes to prepare for a career in actuary science. Prepare to take the first in a series of actuarial examinations.

Management Employers

Nearly every type of organization across industries offer management positions:

- 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

Management Strategies

- 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.

General Business Analytics 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.