

Data Analytics

What can I do with this degree?

AREAS

BUSINESS ANALYTICS

Data collection/Data mining
Experiment design
Data analysis
Decision analysis and modeling
Predictive analytics
Customer loyalty
Marketing strategy development
Fraud detection
Applied statistics
Process optimization
Operations research
Operations management
Manufacturing design
Supply chain management
Information technology
Database administration
Program/Project management
Consulting
Service analytics
Artificial intelligence
Behavioral analytics
Cyber security

EMPLOYERS

Nearly all industries:
Retail, online retail
Software & technology
Telecommunications
Financial services
Banking Insurance
Manufacturing
Consumer products
Sports
Supply chain
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.

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).

Develop strong analytical skills and a logical approach to problem solving.

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 aware 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
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
Brokerage firms

Regulatory agencies:

Federal Reserve
Federal Deposit Insurance Corporation (FDIC)
Office of the Comptroller of the Currency (OCC)
Office of Thrift Supervision (OTS)

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 to gain relevant experience.

Conduct an informational interview with someone in the industry.

Develop strong communication skills and the ability to explain information clearly and concisely.

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

Plan to take a series of actuarial exams to gain licensure from either the Society of Actuaries or the Casualty Actuarial Society.

STRATEGIES FOR PLACEMENT IN DATA ANALYTICS:

- Most actuaries take their exams while working full-time, and the process takes several years.
- More than half of actuaries work for insurance carriers.
- Actively participate in student organizations to develop leadership skills.
- Build a strong computer background in programming skills using several languages.
- Increase employment opportunities with an MBA or certifications.
- Gain related experience through internships, co-ops, or part-time employment.
- Develop excellent analytical, decision-making, and written and oral communication skills.
- Learn to work effectively on interdisciplinary teams and communicate data intensive information to colleagues.