



PROGRAM OVERVIEW

Businesses on every scale are becoming smarter at predicting future opportunities and risks through data analysis. With this trend, the need for professional data analysts continues to rise — and with it, so does the value of a specialized education in the field.

To meet that need, MACU offers Oklahoma's first-ever dedicated BS in Data Analytics. MACU's groundbreaking degree combines business, mathematics and information technology using data mining, simulation and optimization.

In addition to learning industry-standard data analysis tools, you will develop the soft skills you need to be a critical thinker and ethical leader within an organization. From problem-solving to communication, your degree will help you succeed in all areas of a role of a data analyst.

PROGRAM OUTCOMES

MACU is paving the way for data analytics in Oklahoma by offering the first degree of its kind in the state. Our program is built using facets of our award-winning business and mathematics programs, with the addition of new computer science courses. You will be prepared to confidently enter the sphere of data analysis with work-ready skills, analytical thinking and principles to match. This allows the pursuit of many careers, including as a:

- **Business Intelligence (BI) Developer**
- **Data Analyst**
- **Data Engineer**
- **Data Scientist**
- **Digital Marketing Manager**
- **Healthcare Data Analyst**
- **IT Systems Analyst**
- **Operations Analyst**
- **Quantitative Analyst**



PROGRAM COSTS

Courses in MACU's Data Analytics program cost \$435/credit hour for lower division (University Core) classes and \$499/hour for upper division (Major) classes.

CAREER OUTLOOK

Employment of data analysts is projected to grow 25 percent from 2020 to 2030, much faster than the average for all occupations.

This median annual wage for data analysts was \$86,200 in May 2020, which was higher than the median annual wage for all occupations of \$41,950.

ACCREDITATION

MACU is accredited through the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools (NCA).



DATA ANALYTICS BACHELOR OF SCIENCE (BS)

UNIVERSITY CORE (46 hrs.)

Specific courses within the University Core are listed in the University catalog.

- Bible/Theology (12 hrs.)
- Communication (9 hrs.)
- U.S. History and Government (6 hrs.)
- Science (6 hrs. plus 1 hr. of lab)
- Math (3 hrs.)
- Social Sciences (3 hrs.)
- Humanities (6 hrs.)

MAJOR REQUIREMENTS (42 hrs.)

Data Analytics Major

- CMSC 1203 Foundations of Programming
- CMSC 3103 Analytics Management and Presentation
- CMSC 3463 Advanced Structured Query Language (SQL)
- CMSC 4103 Introduction to R for Data Analytics
- MATH 3403 Discrete Math
- MATH 3703 Introduction to Statistics
- MATH 4113 Mathematical Modeling
- MATH 4243 Regression Analysis
- MISE 4643 Database Management
- MISE 4663 Business Intelligence/Data Analytics

Data Analytics Areas of Specialization

Students may choose one of the following areas of specialization to enhance their Data Analytics program of study.

Accounting Analyst (15 Hrs.)

- ACCN 2103 Principles of Financial Accounting
- ACCN 2203 Principles of Managerial Accounting
- ACCN 3903 Intermediate Accounting I
- ACCN 3913 Intermediate Accounting II
- ACCN 3963 Data Analytics for Accounting

Bioinformatics (10 Hrs.)

- **BIOL 3305 Microbiology
- CHEM 1105 General Chemistry I
- **This course requires an on-ground lab component

Business Analyst (12 Hrs.)

- MISE 3603 IT Management
- MISE 4403 Project Planning and Implementation
- Choose six (6) additional Elective hours from within the Business discipline.

Cybersecurity Analyst (12 Hrs.)

- CMSC 3123 Working with Data Structures
- CYBR 3103 Risk Management and IT Security
- CYBR 3503 Securing Windows
- CYBR 4303 Hacking Techniques and Countermeasures

Healthcare Management Analyst (12 Hrs.)

- HC 3203 Introduction to Healthcare Management
- HC 4103 Healthcare Economics
- HC 4203 Healthcare Operations Management
- HC 4303 Healthcare Information Systems

Math Analyst (13-14 Hrs.)

- MATH 2823 Business Calculus OR MATH 2114 Calculus I and Analytic Geometry
- MATH 2214 Calculus II
- MATH 2313 Calculus III
- MATH 3103 Linear Algebra

Sports Management (12 Hrs.)

- SMGT 3113 Leadership and Ethics in Sports
- SMGT 3123 Sociology of Sports
- SMGT 3513 Sports Fundraising and Sponsorship
- SMGT 4123 Sports Facilities Management

Data Analytics Optional Concentrations (18 Hrs.)

Students may choose to replace the area of specialization and the electives above with one of the optional concentrations listed below or a Multidisciplinary option. (See Multidisciplinary options in the University catalog).

Business Administration Concentration (18 Hrs.)

- ACCN 2103 Principles of Financial Accounting
- ACCN 2203 Principles of Managerial Accounting
- BUAD 3403 Business Finance
- BUAD 4303 Human Resource Administration
- MGMT 3213 Applied Business Management
- MKTG 3103 Principles of Marketing

ELECTIVES (22 hrs.)

Choose twenty-two (22) hours from any area to meet the required minimum 122-hour requirement for your bachelor's degree.

TOTAL REQUIRED HOURS: 122

CHRISTIAN

Not just in our name, it's who we are

AFFORDABLE

With federal financial aid and payment plans, we make it possible

PRACTICAL

Earn college credit for your work and prior learning experiences. Plus, apply what you learned in class at work the next day

CONVENIENT

Attend one class every five weeks and choose 100% online or one night on ground a week

ACCREDITED

Regional accreditation means we are transfer friendly

PERSONAL

Our staff and faculty know who you are and where you want to go