

B.S. in Business Analytics

The Bachelor of Science in Business Analytics is offered through the Worldwide Campus and the ERAU Asia Institute.

On either campus, students develop analytical and data-driven decision-making skills within aviation-focused learning environments supported by experienced faculty and global industry resources.

At the **Worldwide Campus**, the Bachelor of Science in Business Analytics focuses on evidence-based management and data-driven decision-making to address business problems. The program includes study of business outcomes and strategy through applied activities, analytics and visualization software, and case studies. Areas of study include data sourcing, database and data manipulation, statistics, computation, output, visualization, and communication, as well as data ethics. Students may earn the SAS Academic Certification Badge by completing four required business analytics (BUAN) courses.

At the **Asia Campus**, Business Analytics relates to applications within the aviation and aerospace industry. Demand for air travel, influenced by economic growth, emerging markets, and societal changes, contributes to the need for individuals with data analysis skills. Potential areas of application include data-driven revenue management, airline network planning and optimization, aircraft maintenance and safety analytics, and airport operations and management. Employment settings may include airlines, airport operators, aviation consultancies, aviation technology companies, and financial institutions.

Program-Level Student Learning Outcomes

Students will:

- Apply the appropriate technical skills in descriptive and predictive analytics methods to generate insights into business problems.
- Describe the foundations and techniques of big data analytics in business as part of evidence-based management.
- Determine appropriate sources of data and information which account for underlying business challenges.
- Apply concepts in data presentation and visualization to effectively communicate results to a diverse audience.
- Identify different business opportunities, constraints, and needs for data analytics, including the ethical components involved.
- Synthesize data output into clear, actionable insights that inform business problems and create executable solutions.

Worldwide Program Requirements

General Education Requirements	36
Core Requirements	66
Electives	18
Total Credits	120

Program Details

The Bachelor of Science in Business Analytics requires successful completion of a minimum of 120 credit hours. Students enrolled in the Worldwide Undergraduate Online program may complete the degree in 20 terms, or approximately four years, assuming full-time enrollment and continuous progress. Students pursuing this undergraduate degree must earn a minimum cumulative grade point average (CGPA) of 2.00 for all work completed at the University. The courses required to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students are responsible for ensuring that all prerequisite and degree requirements are satisfied prior to enrollment in advanced coursework. The suggested plan of study is provided as a guide. A

student's actual plan of study may vary based on term of admission, course availability, transfer credit, and other academic considerations. Students should consult with their academic advisor to develop an individualized plan of study.

General Education Requirements

Communication	9
COMM 122 English Composition	
COMM 222 Business Communication	
Any Communication above COMM 106 Introduction to Composition	
Humanities - Lower or Upper Level	3
Social Sciences - Lower Level	6
ECON 210 Microeconomics	
ECON 211 Macroeconomics	
Humanities - Upper Level	3
Computer Science/Information Technology	3
CPSC 123 Introduction to Computing for Data Analysis	
Mathematics	6
STAT 211 Statistics with Aviation Applications or STAT 222 Business Statistics	
Any College Algebra or Higher Math or any Statistics (Credit cannot be awarded for STAT 211 or STAT 222)	
Physical/Life Sciences	6
Physics/Biology/Meteorology/Chemistry/Environmental Science	
Total Credits	36

Core Requirements

Common Business Core

MGMT 201 Principles of Management	3
MMIS 320 Business Information Systems	3
MKTG 311 Marketing	3
ACCT 210 Financial Accounting	3
ACCT 312 Managerial Accounting	3
MGMT 317 Organizational Behavior	3
BUSA 325 Social Responsibility and Ethics in Management	3
FINE 332 Corporate Finance I	3
BUSA 335 International Business	3
BUSA 390 Business Law	3
SCLM 420 Management of Production and Operations	3
MGMT 436 Strategic Management	3
Total Credits	36

Business Analytics Core

BUAN 352 Business Analytics for Decision Making	3
BUAN 301 Evidence-Based Management: The Need for Data	3
BUAN 302 Communication and Ethics in Data Analysis	3
BUAN 304 Advanced Statistics and Analytics Concepts	3
BUAN 406 Applied Analytics II -- Predictive Analytics	3
BUAN 407 Business Intelligence in Industry Capstone	3
BUAN 428 Business Analytics and Data Intelligence	3
BUAN 405 Applied Analytics I -- Descriptive Analytics	3
MMIS 392 Database Management	3
MMIS 385 Programming Concepts	3
Total Credits	30

Electives

Transfer Credit or COB Minor or COB Non-Duplicated Undergraduate Level Courses	15
Open Electives	3
Total Credits	18

Suggested Plan of Study

Year One

Requirements	Credits
COMM 122 - English Composition	3
Any College Algebra or Higher Math	3
Semester Hours	6

Requirements	Credits
COMM 222 - Business Communication	3
STAT 211 - Statistics with Aviation Applications or 222 - Business Statistics	3
Semester Hours	6

Requirements	Credits
Physics/Biology/Meteorology/Chemistry/Environmental Science	3
Any Communication above COMM 106 Introduction to Composition	3
Semester Hours	6

Requirements	Credits
ECON 210 - Microeconomics	3
MGMT 201 - Principles of Management	3
Semester Hours	6

Requirements	Credits
CPSC 123 - Introduction to Computing for Data Analysis	3
ECON 211 - Macroeconomics	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Year Two

Requirements	Credits
Humanities - Lower Level	3
ACCT 210 - Financial Accounting	3
Semester Hours	6

Requirements	Credits
ACCT 312 - Managerial Accounting	3
Physics/Biology/Meteorology/Chemistry/Environmental Science	3
Semester Hours	6

Requirements	Credits
MGMT 317 - Organizational Behavior	3
MMIS 320 - Business Information Systems	3
Semester Hours	6

Requirements	Credits
FINE 332 - Corporate Finance I	3
Open Elective	3
Semester Hours	6

Requirements	Credits
BUAN 352 - Business Analytics for Decision Making	3
MKTG 311 - Marketing	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Year Three

Requirements	Credits
Humanities - Upper Level	3
BUAN 301 - Evidence-Based Management: The Need for Data	3
Semester Hours	6

Requirements	Credits
MMIS 385 - Programming Concepts	3
Transfer/COB Minor/COB Courses	3
Semester Hours	6

Requirements	Credits
BUAN 302 - Communication and Ethics in Data Analysis	3
Transfer/COB Minor/COB Courses	3
Semester Hours	6

Requirements	Credits
BUAN 304 - Advanced Statistics and Analytics Concepts	3
Transfer/COB Minor/COB Courses	3
Semester Hours	6

Requirements	Credits
BUAN 405 - Applied Analytics I -- Descriptive Analytics	3
MMIS 392 - Database Management	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Year Four

Requirements	Credits
BUSA 335 - International Business	3
BUSA 325 - Social Responsibility and Ethics in Management	3
Semester Hours	6

Requirements	Credits
BUAN 428 - Business Analytics and Data Intelligence	3
SCLM 420 - Management of Production and Operations	3
Semester Hours	6

Requirements	Credits
BUAN 406 - Applied Analytics II -- Predictive Analytics	3
Transfer/COB Minor/COB Courses	3
Semester Hours	6

Requirements	Credits
MGMT 436 - Strategic Management	3
BUSA 390 - Business Law	3
Semester Hours	6

Requirements	Credits
BUAN 407 - Business Intelligence in Industry Capstone	3
Transfer/COB Minor/COB Courses	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 30

Estimated Cost of Attendance

Estimated Cost of Attendance: California Student Information (<https://catalog.erau.edu/student-life/student-affairs/california-student/>)

Asia Program Requirements

General Education Requirements	36
Core Requirements	67
Minor	18
Total Credits	121

Program Details

The Bachelor of Science in Business Analytics at the Asia Campus requires successful completion of a minimum of 121 credit hours. Students should consult their advising report to determine which modules, if any, have been granted as exemptions. The courses required to earn this degree are listed below.

Students should be aware that many modules have prerequisites and/or corequisites. Students are responsible for ensuring that all prerequisite and degree requirements are satisfied prior to enrollment in advanced coursework. The suggested plan of study is provided as a guide. A student's actual plan of study may vary based on instructor availability, the number of modules taken during a term, and other academic considerations.

Based on placement examination results, students may be required to complete one or more of the following modules prior to beginning the program: COMM 104, COMM 106, MATH 100, and/or MATH 106. Students should consult with their academic advisor to develop an individualized plan of study.

Note: Asia campus students follow Worldwide prerequisite requirements unless otherwise specified.

General Education Requirements

Communication	9
COMM 122 English Composition	
COMM 222 Business Communication	
COMM 224 Collaborative Writing and Presenting	
Humanities - Lower Level	3
SOSC 210 Introduction to Sociology	
Social Sciences - Lower Level	6
ECON 210 Microeconomics	
ECON 211 Macroeconomics	
Humanities - Upper Level	3

HUMN 330 Values and Ethics	
Computer Science/Information Technology	3
CPSC 123 Introduction to Computing for Data Analysis	
Mathematics	6
STAT 211 Statistics with Aviation Applications	
MATH 111 Pre-calculus for Aviation	
Physical/Life Sciences	6
EVSC 142 Introduction to Environmental Science	
WEAX 201 Introduction to Meteorology	
Total Credits	36

Core Requirements

Business Core

ACCT 210 Financial Accounting	3
ACCT 312 Managerial Accounting	3
RSCH 202 Introduction to Research Methods	3
BUSA 335 International Business	3
BUSA 390 Business Law	3
FINE 332 Corporate Finance I	3
MGMT 201 Principles of Management	3
COIN 496 Co-Operative Education *	3
or SCLM 331 Transportation Principles	
MKTG 311 Marketing	3
MMIS 320 Business Information Systems	3
SCLM 420 Management of Production and Operations	3
MGMT 436 Strategic Management	3
UNIV 101 College Success	1
Total Credits	37

* COIN 496 is a mandatory 3-credit course module intended for all undergraduate students to take as part of the Bachelor of Science in Business Analytics offered through the Singapore location. Under certain extenuating circumstances, COIN 496 may be substituted on a case-by-case basis for SCLM 331 Transportation Principles in discussion with the Academic Advising Team. COIN 496 is an industry attachment serving as a structured supervised internship through which a student is personally coached by expert faculty. COIN 496 intends to add value to the student experience and benefit student employability upon completion of the degree program.

Business Analytics Core

BUAN 352 Business Analytics for Decision Making	3
BUAN 301 Evidence-Based Management: The Need for Data	3
BUAN 302 Communication and Ethics in Data Analysis	3
BUAN 304 Advanced Statistics and Analytics Concepts	3
BUAN 406 Applied Analytics II -- Predictive Analytics	3
BUAN 407 Business Intelligence in Industry Capstone	3
BUAN 428 Business Analytics and Data Intelligence	3
BUAN 405 Applied Analytics I -- Descriptive Analytics	3
MMIS 392 Database Management	3
MMIS 385 Programming Concepts	3
Total Credits	30

Minor

Minor **	18
Total Credits	18

** View Available Asia Minors (<https://catalog.erau.edu/campuses/asia/>)

Suggested Plans of Study

Part-Time

Year One

Requirements	Credits
COMM 122 - English Composition	3
MATH 111 - Pre-calculus for Aviation	3
UNIV 101 - College Success	1
Semester Hours	7

Requirements	Credits
CPSC 123 - Introduction to Computing for Data Analysis	3
WEAX 201 - Introduction to Meteorology	3
Semester Hours	6

Requirements	Credits
EVSC 142 - Introduction to Environmental Science	3
Minor/Elective 1	3
Semester Hours	6

Requirements	Credits
SOSC 210 - Introduction to Sociology	3
STAT 211 - Statistics with Aviation Applications	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 25

Year Two

Requirements	Credits
Minor/Elective 2	3
COMM 224 - Collaborative Writing and Presenting	3
Semester Hours	6

Requirements	Credits
ECON 210 - Microeconomics	3
Minor/Elective 3	3
Semester Hours	6

Requirements	Credits
RSCH 202 - Introduction to Research Methods	3
COMM 222 - Business Communication	3
Semester Hours	6

Requirements	Credits
ECON 211 - Macroeconomics	3
MGMT 201 - Principles of Management	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 24

Year Three

Requirements	Credits
ACCT 210 - Financial Accounting	3
Minor/Elective 4	3
Semester Hours	6

Requirements	Credits
ACCT 312 - Managerial Accounting	3
MKTG 311 - Marketing	3
Semester Hours	6

Requirements	Credits
Minor/Elective 5	3
BUSA 335 - International Business	3
Semester Hours	6

Requirements	Credits
BUAN 352 - Business Analytics for Decision Making	3
MMIS 320 - Business Information Systems	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 24

Year Four

Requirements	Credits
BUAN 301 - Evidence-Based Management: The Need for Data	3
HUMN 330 - Values and Ethics	3
Semester Hours	6

Requirements	Credits
FINE 332 - Corporate Finance I	3
BUSA 390 - Business Law	3
Semester Hours	6

Requirements	Credits
BUAN 302 - Communication and Ethics in Data Analysis	3
Minor/Elective 6	3
Semester Hours	6

Requirements	Credits
SCLM 420 - Management of Production and Operations	3
MMIS 385 - Programming Concepts	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 24

Year Five

Requirements	Credits
BUAN 304 - Advanced Statistics and Analytics Concepts	3
MGMT 436 - Strategic Management	3
Semester Hours	6

Requirements	Credits
MMIS 392 - Database Management	3
BUAN 405 - Applied Analytics I -- Descriptive Analytics	3
Semester Hours	6

Requirements	Credits
BUAN 406 - Applied Analytics II -- Predictive Analytics	3
BUAN 428 - Business Analytics and Data Intelligence	3
Semester Hours	6

Requirements	Credits
BUAN 407 - Business Intelligence in Industry Capstone	3
COIN 496 - Co-Operative Education or SCLM 331 - Transportation Principles	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 24

Full-Time

Year One

Requirements	Credits
COMM 122 - English Composition	3
MATH 111 - Pre-calculus for Aviation	3
CPSC 123 - Introduction to Computing for Data Analysis	3
UNIV 101 - College Success	1
Semester Hours	10

Requirements	Credits
WEAX 201 - Introduction to Meteorology	3
EVSC 142 - Introduction to Environmental Science	3
Minor/Elective 1	3
Semester Hours	9

Requirements	Credits
SOSC 210 - Introduction to Sociology	3
STAT 211 - Statistics with Aviation Applications	3
Minor/Elective 2	3
Semester Hours	9

Requirements	Credits
COMM 224 - Collaborative Writing and Presenting	3
ECON 210 - Microeconomics	3
Minor/Elective 5	
Semester Hours	6

Total Credits

Total Hours for All Requirements: 34

Year Two

Requirements	Credits
RSCH 202 - Introduction to Research Methods	3
COMM 222 - Business Communication	3
ECON 211 - Macroeconomics	3
Semester Hours	9

Requirements	Credits
MGMT 201 - Principles of Management	3
ACCT 210 - Financial Accounting	3
Minor/Elective 4	3
Semester Hours	9

Requirements	Credits
ACCT 312 - Managerial Accounting	3
MKTG 311 - Marketing	3
Minor/Elective 5	3
Semester Hours	9

Requirements	Credits
BUSA 335 - International Business	3
BUAN 352 - Business Analytics for Decision Making	3
MMIS 320 - Business Information Systems	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 36

Year Three

Requirements	Credits
BUAN 301 - Evidence-Based Management: The Need for Data	3
HUMN 330 - Values and Ethics	3
FINE 332 - Corporate Finance I	3
Semester Hours	9

Requirements	Credits
BUSA 390 - Business Law	3
BUAN 302 - Communication and Ethics in Data Analysis	3
Minor/Elective 6	3
Semester Hours	9

Requirements	Credits
SCLM 420 - Management of Production and Operations	3
MMIS 385 - Programming Concepts	3
BUAN 304 - Advanced Statistics and Analytics Concepts	3
Semester Hours	9

Requirements	Credits
MGMT 436 - Strategic Management	3
MMIS 392 - Database Management	3
BUAN 405 - Applied Analytics I -- Descriptive Analytics	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 36

Year Four

Requirements	Credits
BUAN 406 - Applied Analytics II -- Predictive Analytics	3
BUAN 428 - Business Analytics and Data Intelligence	3
Semester Hours	6

Requirements	Credits
BUAN 407 - Business Intelligence in Industry Capstone	3
COIN 496 - Co-Operative Education or SCLM 331 - Transportation Principles	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 12