

Data Analytics - B.S.

Curriculum

The Data Analytics bachelor's degree program seeks to provide graduates with the knowledge, skills and tools necessary to obtain employment as a data analyst. Graduates learn to use specialized systems and software to collect and organize data, then use statistical methods to discover patterns, find correlations and predict outcomes in order to make better-informed decisions within their chosen field. Students in this program receive a firm foundation in mathematics, computer programming, and communications, along with gaining experience with database management systems and spreadsheet programs.

Upon completion of the program, graduates are expected to:

- Write reports and make presentations containing visual data or statistical results.
- Utilize database management systems and spreadsheet programs to collect, organize and display data.
- Use standard techniques of mathematics and statistics in order to address problems or explore phenomenon that are prevalent in various fields.
- Develop linkages between their interdisciplinary intellectual inquiries and their own ethical positions in terms of contemporary challenges facing individuals, communities and societies.

This program allows students to either directly enter the workforce or continue to a graduate-level education. The hybrid nature of data analysis in the workplace requires both analytical skills and domain specific knowledge. JWU's program prepares its graduates for this aspect of the profession by offering a selection of minors. Qualifying students will complete a 12-credit-hour internship to gain experience in the workforce. Students also have the opportunity to apply to the 4+1 Data Analytics master's degree program.

Data Analytics

A four-year program leading to the bachelor of science degree

Major Courses		
CSIS1010	Problem Solving for Computing	3
CSIS1101	Computer Science I	3
CSIS2030	Database Concepts	3
CSIS2080	Database Design	3
DMSM2025	Introduction to Data Visualization	3
DMSM2050	Spreadsheets for Data Analysis	3
FIT1040	Spreadsheet Design for Business Solutions	3
MATH2220	Linear Algebra	3
MATH4900	Applied Statistics	3
Major Electives or Minor		
Choose 15 credits from the following courses or declare a minor: **,***		15
CYB3038	HCI/Usable Security	
ITEC3050	Information Security with Cryptography	
Choose three of the following:		
CSIS1112	Computer Science II	
ENG2010	Introduction to Technical Communication	
MATH2020	Discrete Mathematics	
PRMG2010	Introduction to Project Management & Project Membership	
Applied/Experiential Learning		
Choose 12 credits from the following:		12
ASCI4799	College of Arts & Sciences Internship	
DEE3999	Directed Experiential Education ^D	
RSCH3830	Undergraduate Research Experience	
RSCH4020	Honors Directed Academic Experience	
Study Abroad ^{Sa}		
University Core Curriculum		
Communicating		9
ENG1020	Rhetoric & Composition I	
ENG1021	Rhetoric & Composition II	
ENG1030	Communication Skills	
Connecting		6
Two courses with the Connecting attribute (ECNG), one at the 2000 level, one at the 4000 level		
Experiencing		6
PHIL3240	Ethics: A Global Perspective	
Additional course with the Experiencing attribute (EEXP) in a different discipline		

Measuring		6
MATH1035	Quantitative Analysis I (or higher, based on student's placement) ***	
MATH2035	Quantitative Analysis II	
Exploring		3
One course with the Exploring attribute (EEPL)		
Interacting		6
ECON1001	Macroeconomics	
Additional course with the Interacting attribute (EINT) in a different discipline		
A&S Electives		6
MATH2001 or MATH2010	Statistics I Introduction to Biostatistics	
MATH2002	Statistics II	
Free Electives [#]		
24 credits selected from 1000-4999 numbered offerings within the university		24
Total Credits		120.0

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Students are responsible for meeting prerequisites.

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Students should consult with their advisor when selecting a minor.

Students that do not place in MATH1035 Quantitative Analysis I, must take an extra course, MATH1020 Fundamentals of Algebra, as a prerequisite. If needed this counts as a free elective.

^D Directed Experiential Education (DEE) opportunities are based on project availability with community partners and student eligibility. For more information, visit Experiential Education & Career Services (EE&CS).

^{Sa} To be eligible to count toward Applied/Experiential Learning, a Study Abroad offering must meet certain requirements. Contact JWU Global to discuss eligible Study Abroad options for this degree program.

In addition to classes, free elective credits may be applied to a number of options such as internship, study abroad, Directed Experiential Education courses and courses in a specialization or minor as relevant. For students who qualify for the J2 program, up to four graduate courses may apply. Students are strongly encouraged to contact a faculty advisor before scheduling free elective credits.

Note: Students must pass MATH0010 Pre-Algebra or have equivalent placement scores to enroll in required math courses.

Note: Students must pass ENG0001 Writing Workshop or have equivalent placement scores to enroll in ILS 2000-level courses.

In collaboration with academic colleges Study Abroad offer several options, direct enroll with international universities, domestic and digital options meet with a Study Abroad Advisor to learn more about how your major, minor, free electives, experiential learning and transferable courses would benefit by a Study Abroad program. There are many options for students during a semester, spring and/or summer breaks. Faculty-led, exchange, and direct-enroll programs range in duration from one week to a full semester or full year. Financial aid may be applied, and some partners offer external scholarships. Visit the study abroad website for information, program descriptions and online applications. Where will you go? Wherever you decide, make the best of your educational journey!

Admissions Requirements

Please see a campus catalog for Admissions Requirements for this program.

Accelerated Program Options

Combined Degrees Programs

- Combined Degrees: Data Analytics B.S./M.S.
- Combined Degrees: Data Analytics B.S./Public Health M.P.H.

J2 Program

The JWU J2 program allows qualified students enrolled in a matriculating undergraduate program to take graduate level courses at JWU. Students interested in pursuing this option should meet with their academic advisor to discuss their interest, qualifications and plans. The undergraduate student

may take up to four graduate courses (maximum 12 credits) and are limited to 6 credits a semester and 3 credits per session (Fall Session I and Fall Session II).

The completion of graduate credits to fulfill undergraduate program requirements does not guarantee acceptance into the graduate program after completion of the baccalaureate degree. Matriculating undergraduate students who wish to formally enroll in a graduate program must fulfill all requirements for entrance into the intended graduate program and complete a graduate program application.

Note: Not all graduate courses are included as part of this policy. Courses offered as part of the Master of Arts in Teaching, Master of Education, Master of Science in Physician Assistant Studies and doctoral courses are excluded from this policy and are restricted to program majors only. Additional courses and/or programs as determined by individual colleges may also have restricted access.

Eligibility Criteria

To be eligible to enroll in graduate level courses (excludes: Masters of Arts in Teaching, Masters of Education, Masters of Science in Physician Assistant Studies, doctoral courses and other programs as outlined by the colleges).

Undergraduate students must meet the following criteria:

- Undergraduate cumulative GPA of 3.00 or higher
- Completed and registered undergraduate credits at least 90 credits
- Meet the individual course prerequisites

Appeal to Eligibility Criteria: College dean or designee will receive a copy of the Petition Form, Student's GPS and email requesting appeal if the student requests to appeal the GPA or earned/registered credit criteria. College dean/designee will review and determine approval.

These courses carry graduate credit and will replace undergraduate degree requirements when applicable, traditionally free-electives (maximum of 12 credits). The course will be applied to the undergraduate degree in the order in which they are taken (if required) and will also be applied towards both the students undergraduate and graduate GPA.

Students should maintain enrollment in at least 12 credits of undergraduate coursework to maintain full-time status; graduate course enrollment is not calculated into undergraduate full-time status. For students already attending full-time as undergraduates (12 credits or more) and paying the full-time tuition, the graduate credits will be included in full-time tuition fee. Students attending part-time (11 credits or less) will pay the cost per-credit undergraduate tuition for the graduate course.

Course registration will be based on space availability and students enrolled in graduate level courses will be required to maintain good academic standing at the undergraduate and graduate level.

Please see the Accelerated Programs to see all accelerated program options.