

DATA ANALYTICS MINOR

Interdisciplinary Minor

Data Analytics provides knowledge and skills in data collection and analysis for supporting decision-making within organizations. This inquiry-based minor provides students with the tools and concepts needed to function effectively in an increasingly data-driven world. The coursework is multidisciplinary and covers statistics, visualization techniques, data mining techniques, and other types of data modeling techniques. Data analytics orients the student towards the application of such skills and knowledge to organizational issues. Essentially, students learn the discipline of examining an organizational problem specified in human terms, analyzing it, designing a solution, simulating that solution using mathematics and computers, reflecting, and reworking the results of the simulation, and finally, communicating the new knowledge in a concise and clear way. A key theme underlying this minor is the ethical use of data.

SAP Student Recognition Award

Washington College, a member of the SAP University Alliances Program, has been authorized by SAP to award students meeting the following criteria with the SAP Student Recognition Award. In order to earn this highly valued non-transcript resume-building recognition, students must successfully complete BUS 210 Management Information Systems, BUS 315 Enterprise Resource Planning Systems and BUS 316 Data Analytics, reflecting a breadth of experience and familiarity with the SAP software products that are used to support pedagogy in these three classes. BUS 210 Management Information Systems is offered every semester but BUS 315 Enterprise Resource Planning Systems and BUS 316 Data Analytics are offered on a rotating basis so students interested in pursuing this award should work with their advisors to plan accordingly. Students seeking more information about the SAP Student Recognition Award may contact the Chair of the Business Management Department.

Data Analytics Minor Requirements

Code	Title	Credits	Notes
Required Courses (key skills noted in parenthesis)		20	
BUS 109	Managerial Statistics		
or ECN 215	Data Analysis I		
or MAT 109	Statistical Inference & Data Analysis I		
or PSY 209	Statistics & Research Design I with Lab		
BUS 210	Management Information Systems		
BUS 316	Data Analytics		
CSI 111	Computer Science I		
CSI 310	Database Systems		
Select 1 Elective Course From Below		4	
ANT 210	Intermediate Geographic Info Systems		
BUS 315	Enterprise Resource Planning Systems		
BUS 325	Marketing Research Methods		
BUS 357	Intro to Quantitative Finance		
BUS 455	Financial Derivatives		
ECN 320	Econometrics		
PHY/MAT 252	Scientific Modeling & Data Analysis		
POL 401	Political Science Senior Seminar		
PSY 309	Statistics & Research Design II With Lab		
SOC 306	Research Methods in Sociology		
Special topic courses (with approval by Director)			
Total Credits		24	

Advising Notes

The Data Analytics minor is intended to complement major courses of study by providing additional tools for critical thinking and analysis of knowledge grounded in the student's major and so each elective course in this program requires prerequisites that are not listed here and would be taken in pursuit of the student's major. For instance, students majoring in Business Management would take ECN 112 Principles of Microeconomics and BUS 111 Principles of Marketing as prerequisites to BUS 325 Marketing Research Methods; students majoring in Economics would take the introductory economics courses necessary to enroll in ECN 320 Econometrics.

Several departments (MAT, PSY, ECN) offer introductory statistics courses which can be used for this minor; however, BUS 109 Managerial Statistics is recommended because students learn to integrate descriptive and inferential statistics with the use of the Statistical ToolPak add-in for Microsoft Excel. Excel is the software of choice in real-world provisioning of analytics software as well as a powerful analytical tool in its own right.

The following rules govern double-counting:

- Students pursuing both the Information Systems minor and the Data Analytics minor may count only BUS 210 Management Information Systems, CSI 111 Computer Science I, and CSI 310 Database Systems towards both minors. The elective chosen for the Information Systems minor will not count towards the Data Analytics minor and vice versa.
- Students majoring in Computer Science may count at most CSI 111 Computer Science I and CSI 310 Database Systems toward the Data Analytics minor.
- Students majoring in Business Management may count only BUS 109 Managerial Statistics (or equivalent) and BUS 210 Management Information Systems towards the minor. The elective chosen for the Business Management major will not count towards the Data Analytics minor and vice versa.

BUS 112 Intro to Financial Accounting is recommended as a prerequisite to BUS 210 Management Information Systems for non-BUS majors but is not required. It is required for Business Management majors.

Austin A. Lobo, Co-Director
Caddie Putnam Rankin, Co-Director

Sample Text