DATA ANALYSIS MINOR

MINOR REQUIREMENTS

Basic Knowledge Courses
Select one of the following: 1
- MATH132 Elementary Statistics
- PHYS/QAC221 Modeling and Data Analysis: From Molecules to Markets
- PSYC200 Statistics: An Activity-Based Approach
- QAC201 Applied Data Analysis
- QAC211 Digging the Digital Era: A Data Science Primer

Mathematical, Statistical, and Computing Foundation Courses
Select two courses from the following, each from a different group: 2

Mathematical Foundations
- MATH221 Vectors and Matrices
- MATH223 Linear Algebra
- MATH228 Discrete Mathematics
- MATH274 Graph Theory

Statistical Foundations
- ECON300 Quantitative Methods in Economics
- GOVT367/ QAC302 Political Science by the Numbers
- MATH231 An Introduction to Probability
- MATH232 Mathematical Statistics

Computing Foundations
- BIOL265 Bioinformatics Programming
- COMP112 Introduction to Programming
- COMP115 How to Design Programs
- COMP211 Computer Science I
- COMP212 Computer Science II

Applied Electives
Select two credits from the following: 2
- E&ES280 Introduction to GIS
- E&ES380/ QAC344 Advanced GIS and Spatial Analyses
- ECON282 Economics of Big Data
- ECON385 Econometrics
- ECON386 Introduction to Forecasting in Economics and Finance
- GOVT366 Empirical Methods for Political Science
- GOVT378 Advanced Topics in Media Analysis
- PHYS340 Computational Physics
- PSYC385 Applied Quantitative Methods in Survey Research
- QAC231 Introduction to (Geo)Spatial Data Analysis and Visualization
- QAC241 Introduction to Network Analysis
- QAC251 Data Visualization: An Introduction
- QAC307 Experimental Design and Causal Inference
- QAC311 Longitudinal Data Analysis (0.5 credit)
- QAC312 Hierarchical Linear Models (0.5 credit)

Additional courses to be offered by QAC such as Modeling Time Series Data, Exploratory Data Analysis, Log-linear Models etc.

ADDITIONAL INFORMATION
- There may be prerequisite courses required for some of the courses that count toward the minor, such as calculus. These prerequisites do not count toward the minor, and students attempting to complete the minor are not recused from these prerequisites.
- Mathematics majors cannot count courses in the foundations groups already covered by their major toward the minor. They must instead complete one course from the statistical foundations group and complete three applied elective courses. Alternatively, to completing three applied elective courses, they can take either MATH232 or COMP212 and complete two applied elective courses.
- Computer science majors cannot count courses in the foundations groups already covered by their major toward the minor. They must instead complete one course from the statistical foundations group and complete three applied elective courses. Alternatively, they can complete both MATH231 and MATH232 and complete two applied elective courses.
- Economics majors and minors cannot count ECON300 toward the minor and must instead complete one course from each of the other two foundation groups.
- Students cannot count more than one course toward this minor that is also counted toward completion of any other of their majors or minors.
- One course taken elsewhere may substitute as appropriate for any of the above courses and count toward the minor, subject to the QAC Advisory Committee’s approval (where routine approval may be delegated to the QAC Director).
- A more advanced course can substitute for the basic knowledge course, subject to approval. Students with good quantitative skills are strongly encouraged to do this.
- Students cannot receive both the data analysis minor and the Applied Data Science Certificate (catalog.wesleyan.edu/certificates/applied-data-science).