DATA ANALYSIS MINOR

Banner Code: DATA
Phone: 703-993-3645
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Website: statistics.gmu.edu

The minor provides students with a background in data analysis and statistical methodology. It is intended to complement undergraduate degree programs such as computer science, economics, environmental engineering, geography, mathematics, nursing, psychology, public administration, sociology, and systems engineering.

Admissions & Policies

Policies
For policies governing all minors, see AP.5.3.4 Minors (http://catalog.gmu.edu/policies/academic/undergraduate-policies/#ap-5-3-4).

Digital Technology Credential
Student can earn the Digital Technology Credential (https://statistics.preprod.gmu.edu/digital-technology-credential/) by enrolling in the Data Analysis Minor.

Program Requirements
The minor requires 15 credits: a core sequence of 6 credits, plus 9 credits of electives. Grades of C or better are required in all courses. At least 3 of the 9 elective credits must be in STAT (http://catalog.gmu.edu/courses/stat/) or CDS (http://catalog.gmu.edu/courses/cds/) courses numbered above 300. At least 8 credits must be in courses not required by the student’s major.

Requirements

Minor Requirements
Total credits: 15

Core Sequence Credits
Code | Title | Credits
--- | --- | ---
Select one sequence from the following: 1 | 6
Sequence 1:
STAT 250 | Introductory Statistics I (Mason Core) (http://catalog.gmu.edu/mason-core/) | 3
STAT 350 | Introductory Statistics II | 3
Sequence 2:
STAT 344 | Probability and Statistics for Engineers and Scientists I | 3
STAT 354 | Probability and Statistics for Engineers and Scientists II | 3
Total Credits | 6

1 Mathematics majors may substitute MATH 351 and MATH 352 for the core sequence credits provided all 9 elective credits are in STAT courses.

Electives
Code | Title | Credits
--- | --- | ---
Select 9 credits from the following: | 9
STAT 362 | Introduction to Computer Statistical Packages | 
STAT 455 | Experimental Design | 
STAT 456 | Applied Regression Analysis | 
STAT 460 | Introduction to Biostatistics | 
STAT 462 | Applied Multivariate Statistics | 
STAT 463 | Introduction to Exploratory Data Analysis | 
STAT 465 | Nonparametric Statistics and Categorical Data Analysis | 
STAT 472 | Introduction to Statistical Learning | 
STAT 474 | Introduction to Survey Sampling | 
STAT 499 | Special Topics in Statistics | 
BENG/IT 322 | Health Data Challenges | 
BINF 401 | Bioinformatics and Computational Biology I | 
BIOL 214 | Biostatistics for Biology Majors | 
BIOL 312 | Biostatistics for Bioinformatics | 
BIOL 314 | Introduction to Research Design and Analysis | 
CDS 130 | Computing for Scientists | 
CDS 301 | Scientific Information and Data Visualization | 
CDS 302 | Scientific Data and Databases | 
CDS 303 | Scientific Data Mining | 
CS 445 | Computational Methods for Genomics | 
CS 450 | Database Concepts | 
CS 484 | Data Mining | 
CYSE 101 | Introduction to Cyber Security Engineering | 
CYSE 325 | Discrete Events Systems Modeling | 
ECON 345 | Introduction to Econometrics | 
ECON 445 | Design and Analysis of Experiments | 
GOVT 300 | Research Methods and Analysis | 
GGS 300 | Quantitative Methods for Geographical Analysis | 
GGS 354 | Data Analysis and Global Change Detection Techniques | 
OR/SYST 335 | Discrete Systems Modeling and Simulation | 
OR/MATH 441 | Deterministic Operations Research | 
OR/MATH 442 | Stochastic Operations Research | 
PSYC 300 | Statistics in Psychology | 
SOCI 313 | Statistics for the Behavioral Sciences (Mason Core) (http://catalog.gmu.edu/mason-core/) | 
SOCI 405 | Analysis of Social Data | 
SYST 469 | Human Computer Interaction |
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SYST 473</td>
<td>Decision and Risk Analysis</td>
<td>9</td>
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Total Credits: 9