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|  Graphical user interface, text  Description automatically generated |
| **Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Advisor Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Catalog:** 2024-2025 University **Catalog Program:** Mathematics Data Science Minor |
| **Data Science Minor****(15-18 UNITS)**Mathematics pairs well as a minor with any major. It is the universal language of quantitative thinking, which is becoming ever more essential in our technological and data-driven world. A mathematics minor provides graduates with an edge over the competition and can be tailored to suit the student’s preferences. For elementary or secondary education, there are special math minors that are optimal for the prospective teacher. For other majors, students take the traditional calculus sequence and select courses from a variety of upper-division offerings in statistics, applied math and pure math. For data science, at least 12 units in the minor, including six at the upper division level, must be applied exclusively to the minor requirements and may not be used to meet any other program requirements, with the exception of General Education requirements.All courses must be completed with a “C” (2.0) or better. |
| **Data Science (15-18 units)** |
| **Required Courses (12-14 units)** |
| **Course Name** | **Term Taken** | **Grade** |
| Choose one: CPSC 375: Introduction to Data Science and Big Data (3 units) or MATH 237: Foundations of Data Science (3 units) |  |  |
| CPSC 483: Introduction to Machine Learning (3 units) |  |  |
| Choose one: ISDS 361A: Business Analytics I (3 units) or MATH 338: Statistics Applied to Natural Sciences (4 units) or PSYC 201: Introduction to Statistics in Psychology (3 units) or PUBH 349: Measurement & Statistics in Healthy Science (3 units)  |  |  |
| Choose one: 495 Internship (3 units) or497 Independent Research (3 units) or 499 Independent Study (3 units) |  |  |
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| **Electives (at least 3 units)**Select from any of the following courses.  |
| **Course Name** | **Term Taken** | **Grade** |
| ACCT 307: Accounting Information Systems (3 units), ACCT 404: Emerging Technologies in Accounting (3 units), ACCT 407: Accounting Data Analytics (3 units) |  |  |
| ANTH 404: Analytical Methods in Archaeology (3 units), ANTH 445: Quantitative Methods in Anthropology (3 units) |  |  |
| BIOL 402: Computer Lab in Molecular Systematics (3 units), BIOL 410: Evolutionary Genetics (3 units), BIOL 411: Medical Genetics and Systems Biology (3 units), BIOL 473: Introduction to Bioinformatics (3 units) |  |  |
|  CPSC 332: File Structures and Database Systems (3 units), CPSC 454: Cloud Computing and Security (3 units), CPSC 474: Parallel and Distributed Computing (3 units), CPSC 479: Introduction to High Performance Computing (3 units), CPSC 485: Computational Bioinformatics (3 units) |  |  |
| ECON 305: Economics (3 units), Causality, and Analytics (3 units), ECON 340: Economic Research Methods (3 units), ECON 440: Introduction to Econometrics (3 units) |  |  |
| EGME 424: Data Acquisition and Instrumentation (3 units) |  |  |
| FIN 478: Data Analytics for Risk and Insurance (3 units) |  |  |
| GEOG 489: Digital Imager Processing (3 units) |  |  |
| GEOG 381: Data Collection and Analysis for Earth Scientists (3 units) |  |  |
| HUSR 315: Research and Data Management in Human Services (3 units) |  |  |
| ISDS 373: Python for Business Analytics (3 units), ISDS 402: Database Management Systems (3 units), ISDS 415: Principles of Business Intelligence (3 units), ISDS 442: Business Modeling Using Spreadsheets (3 units), ISDS 462: Applied Business Regression Analysis (3 units), ISDS 474: Data Mining for Managers (3 units), ISDS 477: Applied Business Forecasting (3 units), ISDS 478: Data Analytics for Risk and Insurance (3 units) |  |  |
| KNES 349: Measurement and Statistics in Kinesology (3 units) |  |  |
| MATH 335: Mathematical Probability (3 units), MATH 435: Mathematical Statistics (3 units), MATH 337: Introduction to Computational Statistics (3 units), MATH 437: Modern Approaches to Data Analysis (4 units), MATH 439: Intermediate Data Analysis (3 units) |  |  |
| MKTG 443: Marketing Analytics Decision Making in the Information Age (3 units) |  |  |
| POSC 407: Polls, Statistics and Political Interpretation (3 units) |  |  |
| PSYC 466: Computer Applications for Psychological Research (3 units) |  |  |
| PUBH 201: Introduction to Public Health (3 units), PUBH 349: Measurement and Statistics in Health Sciences (3 units), PUBH 349L: Applied Measurement and Statistics in Health Science (1 unit), PUBH 401: Epidemiology (3 units) |  |  |
| SOCI 302 Social Research Methods (3 units), SOCI 30-3 Statistics for the Social Sciences (3 units) |  |  |
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| **Important:** Is it the case thatat least 12 units in the minor, including six at the upper division level, are applied exclusively to the minor requirements and are not used to meet any other program requirements, with the exception of General Education requirements? | **YES** | **NO** |
| Notes: |