College of Science Academy of Data Science

Minor: Data and Decisions

For students entering under UG catalog

2024-2025

I. Introductory Restricted Elective (3 credits)**:** Choose one course from the following list.

ACTS 1504	Introduction to Business Analytics & Business Intelligence	(3)_____
CS 1014	Introduction to Computational Thinking *Core outcome: Foundational Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
FREC 1004/GEOG 1084	Digital Planet *Core outcome: Foundational Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
HTST/SOC/STS 2604	Introduction to Data in Social Context *Core outcome: Foundational Quantitative and Computational Thinking;* *Critical Thinking in the Humanities* *Integrative outcome: Ethical Reasoning; Intercultural and Global Awareness*	(3)_____
STAT 1014	Data in our Lives *Core outcome: Foundational Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
SPIA 2004	Introduction to Urban Analytics *Core outcome: Advanced Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____

II. Core Requirements (6 credits): No VT courses are acceptable substitutions for these classes.

BDS 2005	Fundamentals of Behavioral Decision Science *Core outcome: Reasoning in the Social Sciences* *Integrative outcome: Ethical Reasoning*	(3)_____
CMDA 2014	Data Matter (Pre: MATH 1014) *Core outcome: Advanced Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____

III. Restricted Electives - Applying Data and Decisions (6 Credits): Choose two courses from the following list.

BDS 2006	Fundamentals of Behavioral Decision Science (Pre: BDS 2005, ECON 2005, PSYC 1004) *Core outcome: Reasoning in the Social Sciences* *Integrative outcome: Ethical Reasoning*	(3)_____
BTT 3434	Advanced Modeling for Business Analytics (Pre: BTT 2406)	(3)_____
BTT 4604	Data Governance, Privacy, and Ethics (Pre: BTT 2405 or CMDA 2014 or CS 1114) *Core outcome: Critical Thinking in the Humanities* *Integrative outcome: Ethical Reasoning*	(3)_____
ECON 3254	Analysis of Economic Data	(3)_____
FREC 3044	Environmental Data Science *Core outcome: Advanced Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
GEOS/GEOG 4354	Introduction to Remote Sensing	(3)_____
HD 3024	Community Analytics	(3)_____
HTST 2624	Topics in the History of Data in Social Context *Core outcome: Discourse; Critical Thinking in the Humanities* *Integrative outcome: Ethical Reasoning*	(3)_____
HTST 3774	Digital History	(3)_____
PHS/HNFE 3634	Epidemiologic Concepts of Health and Disease	(3)_____
PHS 4064	Modeling Infectious Diseases	(3)_____
PSCT 2024	Research Methods in Political Science (Pre: (PSCT 1014 or PSCT 1014H), (PSCT 1024 or PSCT 1024H))	(3)_____
SOC/HD 2104	Quantitative Approaches to Community Research *Core outcome: Foundational Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
SOC 3204	Social Research Methods (Pre: SOC 1004)	(3)_____
STAT 3604	Statistics for Social Sciences *Core outcome: Advanced Quantitative and Computational Thinking* *Integrative outcome: Ethical Reasoning*	(3)_____
UAP 3024	Urban and Regional Analysis	(3)_____

IV. Data and Decisions Capstone Requirement (3 credits): No VT course is an acceptable substitution

BTT/MGT 4854	Analytics in Action (Pre: CMDA 2014, BDS 2005) *Core outcome: Advanced Discourse* *Integrative outcome: Intercultural and Global Awareness*	(3)_____

Prerequisites

Some courses listed on this checksheet may have prerequisites. Students are required to double check course prerequisites and equivalents. Please see your advisor or consult the Undergraduate Course Catalog for more information.

Acceptable Substitutions:

CS 1014: CS 1114 Introduction to Software Design OR CS 1064 Introduction to Programming in Python OR CS 1054 Introduction to Programming in Java OR CS 1044 Introduction to Programming in C

STAT 3604: STAT 3005 Statistical Methods OR STAT 3615 Biological Statistics.

Minimum GPA

For the courses attempted for this minor, the student must have a GPA of 2.0 or better.

Number of Credits

18 total credit hours are required to complete the minor.