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College of Science

Academy of Integrated Science

Minor: Data and Decisions

For students entering under UG catalog

2023-2024

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I. Introductory Restricted Elective (3 credits)**:** Choose one course from the following list. Note, three 1-credit SPIA modules will count as one class for this section.

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

Three 1-credit SPIA classes:

SPIA 2005	Introduction to Urban Analytics	(1)____
	Core outcome: Advanced Quantitative and Computational Thinking	
	Integrative outcome: Ethical Reasoning	
SPIA 2006	Introduction to Urban Analytics	(1)____
	Core outcome: Advanced Quantitative and Computational Thinking	
	Integrative outcome: Ethical Reasoning	
SPIA 2104	Urban Analytics for Decisions-Making	(1)____
	Core outcome: Advanced Quantitative and Computational Thinking	
	Integrative outcome: Ethical Reasoning	

II. Core Requirements (6 credits):

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

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)____
BIT 3434	Advanced Modeling for Business Analytics (Pre: BIT 2406)	(3)____
BIT 4604	Data Governance, Privacy, and Ethics (Pre: BIT 2405 or CMDA 2014 or CS 1114) *Core outcome: Critical Thinking in the Humanities* *Integrative outcome: Ethical Reasoning*	(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)____
HIST 2624	Topics in the History of Data in Social Context *Core outcome: Discourse; Critical Thinking in the Humanities* *Integrative outcome: Ethical Reasoning*	(3)____
HIST 3774	Digital History	(3)____
PHS/HNFE 3634	Epidemiologic Concepts of Health and Disease	(3)____
PHS 4064	Modeling Infectious Diseases	(3)____
PSCI 2024	Research Methods in Political Science (Pre: (PSCI 1014 or PSCI 1014H), (PSCI 1024 or PSCI 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):

BIT/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 OR CMDA 2005 Integrated Quantitative Sciences*

Note: If CMDA 2005 is taken for an Applying Data & Decisions Restricted Elective, 9 credits of Applying Data & Decisions Restricted Electives will be required for the minor, making the total minor requirements 21.

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.