

DATA ANALYTICS MINOR

Science and Technology Center (McNulty Hall) Room 116

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Director: Manfred Minimair, Ph.D.

The program is offered by the Department of Mathematics and Computer Science and the Department of Psychology. This program identifies the skills and knowledge that data analysts need to succeed. The students learn how to analyze and visualize complex data with industry-standard applications, including Tableau, and programming languages such as R and Python. The program trains the students to communicate information clearly and effectively through graphic depictions that stimulate and encourage viewer engagement. The students practice preparing real-world data for storing in databases, analyzing data with statistics and machine-learning tools, and using visualization in order to explore data and present findings. The program is a hybrid program, offering some courses online and others in-person, as listed in the online course catalogue database.

Prerequisites

- Undergraduate admission to Seton Hall University

Curriculum

The minor is earned by completing 15 course credits (9 required and 6 elective) and an additional 3-credit internship, for a total of 18 credits.

Code	Title	Hours
Required Courses		
DASC 3000	Data Visualization	3
DASC 3010	Data Mining	3
MATH 1203	Stats Models for Soc Science *	3
Practical Experience		
Select three credits from the following:		3
DASC 4011	Intern in Visual Analytics	
DASC 4021	Project in Visual Analytics	
PSYC 3408	Internship in Psychology	
CSAS 3091 & CSAS 3092	and Independent Study	
CSAS 3093	Computer Science Internship	
CSAS 3094	Computer Science Co-Op I	
CSAS 4201	Approaches to Big Data	
Electives		
Select six credits from one of the following concentrations:		6
Visualization and Cognition Concentration (p. 1)		
Computing Concentration (p. 1)		
Total Hours		18

* Or BQUA 2811 Business Statistics, CHEM 4212, MATH 2111 Statistics for Science Majors, MATH 2711 Intro Probability - Statistics, MATH 3711 Statistical Analysis, PSYC 2311 Elementary Psychological Statistics for majors with these courses.

****For students who have skills comparable to BITM 2701 Management Information Systems**

Visualization and Cognition

Code	Title	Hours
PSYC 1101	Introduction to Psychology (must earn at least a C-)	3
PSYC 3214	Cognitive Psychology	3
Total Hours		6

Computing

Code	Title	Hours
DASC 3111	Text Mining	3
or ENVL 3150	Geographic Information Systems	
Select an introductory computing course: *		3
CSAS 1114	Intro to Program Design I	
CSAS 1113	Computing for Science Majors	
ISCI 1117	Computing for Informatics	
Total Hours		6

* The computing course is waived for students who receive transfer credit recorded as CSAS 1111 Introduction to Computer Science I.