The pioneering certificate program in Data Visualization and Analysis identifies the skills and knowledge that information workers need to succeed. Students are trained in data analytics and to communicate information clearly and effectively through graphic depictions that stimulate and encourage viewer engagement.

Now offered completely online!

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Undergraduate and Graduate Certificate Programs in Data Visualization and Analysis

In today's society, government, industry and many other institutions collect and analyze large amounts of data to further their goals. To address these growing needs, the Department of Mathematics and Computer Science and the Department of Psychology offer undergraduate and graduate certification programs in Data Visualization and Analysis. These unique programs teach data analysis, visualization and cognitive psychology. Students may earn the certificates by taking courses online or on-site at Seton Hall University's campus.

Students are trained to communicate information clearly and effectively through graphic depictions that stimulate and encourage viewer engagement. Students learn how to analyze and portray complex data in an attractive and vivid design format. They also practice preparing real-world data for storing in databases, analyzing data with statistics and machine-learning tools, and using visualization in order to study data and present findings.

Who should apply?
The certificates are designed for people who want to explore careers in visualization design or data analytics and who are:
1. Professionals who need skills in data visualization and analysis for their careers; or
2. University students who want to supplement their education with data visualization and analysis.

The skills learned in the certificate programs are in demand in many industries such as marketing, finance, insurance and healthcare, and in many academic fields such as business, criminal justice, economics, psychology, sociology, biology and applied mathematics.

Prerequisites
Undergraduate program:
PSYC 1101 Introduction to Psychology (minimum grade of C–), or equivalent
Undergraduate admission to Seton Hall University (enroll as a non-matriculated student)
Graduate program:
PSYC 1101 Introduction to Psychology (minimum grade of C–), or equivalent (not required for students who enroll in the online program)
Minimum undergraduate GPA: 2.75
Graduate admission to Seton Hall University

On-site Curriculum
Visualization and Cognition .............. 6 credits
Undergraduate: DAVA 3000 and PSYC 3214
Graduate: DAVA 7000 and PSYC 7214
Data Mining ............................................. 3 credits
Undergraduate: DAVA 3010
Graduate: DAVA 6010
Statistics ................................................ 3 credits
Undergraduate: MATH 1203 (or approved substitutes such as BQUA 2811, CHEM 4212, MATH 2111, MATH 3711, PSYC 2311 for majors with these courses)
Graduate: PSMA/HCAD 6002 (or approved substitutes such as CHEM 6212, GMHS 7500+7508, PSYC 6100+6200 for majors with these courses)
Internship ............................................... 3 credits
Undergraduate: DAVA 4011 or PSYC 3408
Graduate: DAVA 8011 or DAVA 8021
Elective ................................................... 3 credits
Choose from graphics, communication or applications.
Undergraduate: AART 1223, BITM 2701, BITM 3727, BMIE 3716, COGR 3323, CSAS 4115, ENVL 3150
Graduate: COGR 6323, COST 7220, EDST 6215, EDST 6304, GMHS 7604

More details can be found on the undergraduate and graduate pages accessible at www.shu.edu/go/DAVA

Online Curriculum
The online curriculum is the same as the on-site curriculum. However, instead of taking an elective, undergraduate students must take ENGL 2516 and graduate students must take PSMA 6003. In some cases, with the permission of the program director, students may be able to substitute other courses for ENGL 2516 or PSMA 6003.

Tuition and Fees
The tuition and fees are posted on the pages of the Office of the Bursar at www.shu.edu/offices/bursar
Graduate certificate program tuition is based on College of Arts and Sciences rates.

Contact
For further information, please contact the program director, Dr. Manfred Minimair, Department of Mathematics and Computer Science, Seton Hall University, at (973) 761-9466 or e-mail manfred.minimair@shu.edu.

To apply, visit: www.shu.edu/go/DAVA