DATA ANALYTICS GRADUATE CREDIT CERTIFICATE PROGRAM

Person-in-Charge	Raghu Sangwan
Program Code	DAANG
Campus(es)	Great Valley

The Data Analytics Graduate Certificate program at Penn State Great Valley is designed to prepare students to apply data analytics techniques to large data sets to support data-driven decisions across application domains.

Effective Semester: Spring 2020
Expiration Semester: Spring 2025

Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (https://gradschool.psu.edu/graduate-admissions/how-to-apply/). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (https://gradschool.psu.edu/graduate-education-policies/). International applicants may be required to satisfy an English proficiency requirement; see GCAC-305 Admission Requirements for International Students (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/) for more information.

Applicants with undergraduate degrees in a quantitative discipline such as science, engineering, or business may apply. Students from other disciplines will be considered based on prior coursework. Applicants are generally expected to have a minimum combined junior/senior grade-point average of 3.0 (B) on a 4.0 scale.

Certificate Requirements

Requirements listed here are in addition to requirements listed in Graduate Council policy GCAC-212 Postbaccalaureate Credit Certificate Programs (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/).

To be awarded the Graduate Certificate in Data Analytics, students must successfully complete 15 credits of course work. All courses must be completed with a grade of C or better and a grade-point average of 3.0 to be awarded the certificate.

Code	Title	Credits
Required Courses		
STAT 500	Applied Statistics	3
SWENG 545	Data Mining	3
IE 575	Foundations of Predictive Analytics	3
DAAN 871	Data Visualization	3
Electives		
Select one of the following:		3
DAAN 881	Data-Driven Decision Making	
INSC 521	Database Design Concepts	
DAAN/INSC 846	Network and Predictive Analytics for Socio-Technical Systems	
DAAN 570	Deep Learning	
DAAN 862	Analytics Programming in Python	
Total Credits		**15**

Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Learning Objectives

Students will be able to:

1. Effectively communicate technical knowledge, including ideas, data analysis, findings, or decision justification in written formats in a manner appropriate to the audience.
2. Analyze large data sets to support data-driven decision making.
3. Demonstrate understanding of machine learning and statistical analysis techniques.

Contact

Campus	Great Valley
Graduate Program Head	Raghu Sangwan
Director of Graduate Studies (DGS) or Professor-in-Charge (PIC)	Adrian Sorin Barb
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Program Website	View (http://greatvalley.psu.edu/academics/graduate-certificates/data-analytics/)