

MS in Data Analytics

Core, Required and Elective Courses

The MS in Data Analytics will be awarded upon successful completion of the 30-credit curriculum below, and successful completion of the SARI Requirement. The courses are not listed in sequential order. All module course work is subject to change as new courses are developed or renumbered.

15 Credit Core Curriculum			
Course #	Course Titles	Semester	Grade
STAT 500	Applied Statistics <i>(Should be one of first courses taken)</i>		
I E 575	Foundations of Predictive Analytics <i>(Prereq: STAT 500)</i>		
SWENG 545	Data Mining <i>(INSC 521 is NOT a required prerequisite)</i>		
DAAN 501	Research Methodology and Problem Framing		
DAAN 871	Data Visualization		
9 Credit Electives*			
Course #	Course Titles	Semester	Grade
6 Credit Thesis Course			
Course #	Course Titles	Semester	Grade
DAAN 600	Thesis Research (Prereq: DAAN 501) <i>* To check availability - contact EngHelp@psu.edu *</i>		
SARI Requirement Scholarship and Research Integrity			
SARI – Scholarship and Research Integrity Program			Semester Completed

Course Descriptions/Prerequisites - Do not check course descriptions from the registration web page. Please check course descriptions at: <https://greatvalley.psu.edu/academics/masters-degrees/data-analytics/curriculum-and-schedule-master-of-science>

All course work toward the Master of Science in Data Analytics must be completed within eight years of admission to the program. Students must maintain a minimum grade point average of 3.0 (B) throughout the program.

Master of Science in Data Analytics Elective Courses

9 Credit Electives (Choose 3 courses from the following list)	
DAAN 822	Data Collection and Cleaning (<i>Prerequisites: STAT 500 and IN SC 521</i>)
DAAN 825	Large-Scale Database and <i>Warehouse</i> (<i>Prereq: INSC 521</i>)
DAAN 846	Network and Predictive Analytics for Socio-Technical Systems
DAAN 862	Analytics Programming in Python (<i>Prerequisite: STAT 500</i>)
DAAN 881	Data-Driven Decision Making (<i>Prerequisite: STAT 500</i>)
DAAN 570	Deep Learning (<i>Prerequisite: STAT 500</i>) (<i>formerly DAAN 897</i>)
DAAN 897	Enterprise Analytics Strategies
DAAN 897	Marketing Analytics (<i>Prerequisite: STAT 500</i>)
INSC 497	Business Intelligence
INSC 521	Database Design Concepts
STS 589	Ethics and Values in Science and Technology
SWENG 541	Advanced Database Design Concepts (<i>Prerequisite: INSC 521 or approval by Division</i>)
SYSEN 505	Technical Project Management
SYSEN 530	Systems Optimization (<i>SYSEN 520 is <u>not</u> a required prerequisite</i>)
SYSEN 536	Decision and Risk Analysis in Engineering