Master of Data Analytics – Base Program
Required and Elective Courses

The Master of Data Analytics degree will be awarded upon successful completion of the 30-credit curriculum below and completion the SARI Requirement. The courses are not listed in sequential order. **The capstone course, DAAN 888, will only be available in fall semesters.**

If you have any questions throughout your studies, please email EngHelp@psu.edu.

Course #	Course Title	Semester	Grade
9 Credits ~ Core Curriculum *(Required Courses)*			
STAT 500	Applied Statistics (***Should be one of first courses taken***)		
DAAN 545	Data Mining *(formerly SWENG 545) / (INSC 521 is NOT a prerequisite.)*		
IE 575	Foundations of Predictive Analytics ***(Required Prerequisite: STAT 500)***		
9 Credits ~ Prescribed Curriculum *(Required Courses)*			
DAAN 846	Network and Predictive Analytics for Socio-Technical Systems		
DAAN 871	Data Visualization		
DAAN 881	Data-Driven Decision Making ***(Required Prerequisite: STAT 500)***		
9 Credits ~ Elective Courses *(see list on next page)*			
3-Credit Capstone Course *(Required)*			
DAAN 888	Design and Implementation of Analytic Systems ***(Required Prerequisites: ALL 6 Core and Prescribed Courses*** ***NOTE: DAAN 888 is only offered in FALL Semesters.***		
Scholarship and Research Integrity (SARI) Requirement			
SARI (Scholarship and Research Integrity) Required Online Activity		**Semester Completed**	
Note: The SARI Module is only offered in Spring & Fall semesters.			

NOTE: Students must maintain a minimum grade point average of 3.0 (B) throughout the program. A 3.0 cumulative GPA is required to graduate.

Questions & Advising - General questions should be sent to EngHelp@psu.edu. Students should contact their assigned faculty advisor for advice on course selection.

Master of Data Analytics – Base Program
Elective Courses

9 Credits ~ Electives *(Choose 3 courses from the following list)*	
A-I 570	Deep Learning **(Required Prerequisite: STAT 500)** *Recommended Prerequisite: DAAN 862)*
A-I 572	Reinforcement Learning
A-I 574	Natural Language Processing **(Required Prerequisites: STAT 500 and A-I 570 or DAAN 570)**
A-I 596	Individual Studies
A-I 801	Foundations of Artificial Intelligence **(Required Prerequisite: STAT 500 /** *Recommended Prerequisite: DAAN 862)*
A-I 804	Ethics of Artificial Intelligence
A-I 879	Machine Vision
DAAN 822	Data Collection and Cleaning **(Required Prerequisite: STAT 500)**
DAAN 825	Large-Scale Database and Warehouse *(Note: INSC 521 is NOT a prerequisite.)*
DAAN 826	Large-Scale Databases for Real-Time Analytics **(Required Prerequisite: DAAN 825)**
DAAN 862	Analytics Programming in Python (*Recommended* Prerequisite: STAT 500)
DAAN 897	Enterprise Analytics Strategies
INSC 521	Database Design Concepts
SWENG 805/ SYSEN 805	Software/Technical Project Management *(formerly SWENG 505/SYSEN 505)*

NOTE: Students must maintain a minimum grade point average of 3.0 (B) throughout the program. A 3.0 cumulative GPA is required to graduate.

Questions & Advising - General questions should be sent to EngHelp@psu.edu. Students should contact their assigned faculty advisor for advice on course selection.