Master of Science in Information Science (MS in INSC)
Required and Elective Courses

The Master of Science in Information Science degree will be awarded upon successful completion of the 33-credit program, and completion of SARI.* The courses are not listed in sequential order. All module course work is subject to change as new courses are developed or renumbered.

Note: The capstone course, INSC 594, is only offered in Fall semesters and is to be taken at or near the end of all coursework.

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

18-Credit Required Curriculum			
Course #	**Course Title**	**Semester**	**Grade**
DAAN 545	Data Mining *(formerly SWENG 545)* (INSC 521 is <u>NOT</u> a required prerequisite.)		
INSC 526	Business Process Management & Integration		
INSC 539	Information Science Emerging Topics		
INSC 561	Web Security and Privacy		
INSC 831	Contemporary Information Systems Architecture		
SWENG 568	Enterprise Integration		
12-Credit Elective Curriculum			
3-Credit Required Capstone (to be taken near end of the program) *The Capstone Course is only offered in Fall Semesters*			
INSC 594	Research Topics		
Preparatory Courses (only for those notified that prep courses are required for admission)			
IST 140	Introduction to Application Development		
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.

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

Master of Science in Information Science (MS in INSC)
Program Electives

12 Credits of Elective Courses (*Choose 4 courses from the following list*)	
Course #	**Course Title**
* A-I 570	Deep Learning **(*Required Prerequisite: STAT 500*)** *Recommended* to be taken after completing DAAN 862; *** *Division Approval Needed*** – Contact EngHelp@psu.edu to request permission to enroll.
* A-I 572	Reinforcement Learning *Recommended* to be taken after completing STAT 500; *** *Division Approval Needed*** – Contact EngHelp@psu.edu to request permission to enroll.
* A-I 801	Foundations of Artificial Intelligence **(*Required Prerequisite: STAT 500*)** *Recommended* to be taken after completing DAAN 862; *** *Division Approval Needed*** – Contact EngHelp@psu.edu to request permission to enroll.
DAAN 825	Large-Scale Database and Warehouse (*Note: INSC 521 is NOT a prerequisite.*)
DAAN 846/ INSC 846	Network and Predictive Analytics for Socio-Technical Systems
DAAN 862	Analytics Programming in Python (**_Required Prerequisite:_** STAT 500)
DAAN 871	Data Visualization for Analytics
ENGMT 520	Systems Optimization
IE 575	Foundations of Predictive Analytics **(*Required Prerequisite: STAT 500*)**
INSC 521	Database Design Concepts
INSC 897	Ethical Hacking
STAT 500	Applied Statistics
STS 589	Ethics and Values in Science and Technology
SWENG 805/ SYSEN 805	Software/Technical Project Management (*formerly SWENG 505/SYSEN 505*)
SWENG 826	Applied Human-Computer Interaction
SYSEN 532	Simulation in Systems
SYSEN 536	Decision and Risk Analysis in Engineering
SYSEN 555	Invention and Creative Design

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.