

# MSIS BIG DATA—PLAN OF STUDY

SCHOOL OF COMPUTING AND INFORMATION

Student Name: \_\_\_\_\_

Advisor Name: \_\_\_\_\_

PeopleSoft ID: \_\_\_\_\_

MSIS Specialization: Big Data (MSISBDA-SP or MSIBDAL-SP)

Pitt E-mail: \_\_\_\_\_@pitt.edu

Entry Term: Fall 20\_\_\_\_ Spr 20\_\_\_\_ Sum 20\_\_\_\_

Home E-mail: \_\_\_\_\_

Graduation Term: Fall 20\_\_\_\_ Spr 20\_\_\_\_ Sum 20\_\_\_\_

ACADEMIC AREAS*	CREDITS REQUIRED	COURSES	CREDITS COMPLETED	INTENDED TERM OR EARNED GRADE	COURSE OPTIONS, TRANSFER CREDITS AND/OR APPROVED EXCEPTIONS
<b>Foundations</b>	6 credits	INFSCI 2160			REQUIRED
		INFSCI 2591			REQUIRED
<b>Cognitive</b>	6 credits				RECOMMENDED <sup>+</sup> : INFSCI 2410, 2415, 2430, 2480
<b>System &amp; Technology</b>	18 credits	INFSCI 2710			REQUIRED
		INFSCI 2725			REQUIRED
					CHOOSE: INFSCI 2711 OR 2750
					RECOMMENDED <sup>+</sup> : INFSCI 2150, 2711, 2750, TELCOM 2120, 2310
<b>Electives</b>	6 credits				RECOMMENDED <sup>+</sup> : INFSCI 2130, 2140, 2135, 2801, 2802, 2809, 2821
<b>Total credits =</b> <i>(36 credits required for graduation)</i>				<b>GPA =</b> <i>(Minimum 3.0)</i>	

\*If course options are not explicitly stated, refer to the MSIS Course Index for class options which fall under the appropriate academic area

+You may choose classes from outside of the list of recommended courses and are encouraged to discuss your options with your academic advisor.

## OFFICE USE ONLY

**Pre-reqs for specialization**       Data Structures waived or INFSCI 2500 completed

**Provisions completed**      Check provisional condition review form, insert classes here:

**Advanced Standing**      Total credits (6 max):

Total credits "S" Grade (6 max):

**Grading & Program Policies**      Individual course grades "C" or better:       Yes, no grades earned less than "C"

Total credits of exceptions (9 max):

**Graduation Certification**      Faculty Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# MSIS COURSE INDEX & POLICIES

*Admissions provisions and pre-requisites must be completed in addition to the 36 credits required for graduation.*

- Admissions provisions are unique to each student and, if applicable, are stated in your offer of admission
- Each specialization may have specific pre-requisites. These are listed in the “OFFICE USE ONLY” area of the plan of study.

*Program policies, grading policies, and registration help (permission numbers)* are available on the Academics section of the school’s intranet.

*Enrollment Requirements:* Pre-Requisite (PREQ) must be completed before enrolling in a class | Co-requisite (CREQ) must be completed in the same or previous term as a class.

*Course descriptions and frequency of course offerings:*

- Courses marked with an asterisk (\*) are not offered on a regular basis.
- Annual and term-by-term course schedules are available on the school’s courses webpage
- Course descriptions are available on the [University’s Catalog webpage](#) (select “Display course offerings” for your program).

COURSES (3 CREDITS PER CLASS UNLESS OTHERWISE SPECIFIED)		ENROLLMENT REQUIREMENTS AND/OR CROSS-LISTED COURSES
<b>FOUNDATIONS</b>		
INFSCI 2000*	Introduction to Information Science	
INFSCI 2020	Mathematical Foundations for Info Science	
INFSCI 2040	Research Design	
INFSCI 2120	Information & Coding Theory	
INFSCI 2125	Network Science & Analysis	Cross-listed with TELCOM 2215
INFSCI 2130	Decision Analysis & Decision Support Systems <i>(also</i>	Cross-listed with ISSP 2430
INFSCI 2135	Probabilistic Methods	Cross-listed with BIOINF 2101
INFSCI 2140	Information Storage & Retrieval	
INFSCI 2150	Information Security and Privacy	PREQ: TELCOM 2000 or INFSCI 1070
INFSCI 2160	Data Mining	PREQ: [(INFSCI 2020 or 2725) with B+ or better] or Analytics Exam
INFSCI 2170	Cryptography	Cross-listed with TELCOM 2820
INFSCI 2180*	Knowledge Representation & the Semantic Web	
TELCOM 2130*	Queuing Theory	PREQ: TELCOM 2120 and 2310
INFSCI 29XX	<i>See Independent Study and Special Topics options in Foundations</i>	
<b>FOUNDATIONS &amp; SYSTEMS (these courses meet either a systems OR foundations requirement)</b>		
INFSCI 2591	Algorithm Design	PREQ: INFSCI 2500
INFSCI 2725	Data Analytics	
INFSCI 2915*	Special Topics: Foundations – MACHINE LEARNING	
<b>PROFESSIONAL</b>		
INFSCI 2204	Intro to Technical Communications for Info Sci	English Proficiency Test placement
INFSCI 2205	Technical Communications for Info Science	English Proficiency Test placement
INFSCI 2210*	Information Ethics	Cross-listed with TELCOM 2515 & LIS 2194
INFSCI 2220*	Information Policy	Cross-listed with TELCOM 2512 & LIS 2186
INFSCI 2230*	Cybercrime	Cross-listed with LAW 5380
INFSCI 2821	Foundations of Clinical & Public Health Info	Cross-listed with BIOINF 2011
TELCOM 2510*	US Telecommunications Policy	PREQ: TELCOM 2000 or 2100 or INFSCI 1070
<b>COGNITIVE SCIENCE</b>		
INFSCI 2300	Human Information Processing	Cross-listed with ISSP 2221
INFSCI 2350	Human Factors in Systems	
INFSCI 29XX	<i>See Independent Study and Special Topics options in Cognitive Science</i>	

# MSIS COURSE INDEX & POLICIES

<b>COGNITIVE SCIENCE &amp; SYSTEMS (these courses meet either a systems OR cognitive requirement)</b>		
INFSCI 2410	Intro to Neural Networks	
INFSCI 2415	Information Visualization	Cross-listed with LIS 2690
INFSCI 2420*	Intro to Natural Language Processing	PREQ: INFSCI 2300 & 2500, Cross-listed with CS 2731
INFSCI 2430	Social Computing	Cross-listed with ISSP 2430
INFSCI 2440*	Artificial Intelligence	PREQ: INFSCI 2300 & 2500
INFSCI 2460	Spatial Reasoning for GIS	
INFSCI 2470	Interactive System Design	
INFSCI 2480	Adaptive Information Systems	PREQ: INFSCI 2710 or 2470
<b>SYSTEMS AND TECHNOLOGY</b>		
INFSCI 2500	Data Structures	
INFSCI 2510	Information Systems Analysis & Design	
INFSCI 2540	Software Engineering	
INFSCI 2545	Software Quality Assurance	
INFSCI 2550	Client-Server Systems	PREQ: INFSCI 2500
INFSCI 2560	Web Technologies & Standards	
INFSCI 2620	Developing Secure Systems	PREQ: INFSCI 2150 or TELCOM 2810
INFSCI 2621	Security Management & Computer Forensics	PREQ: (INFSCI 2150 or TELCOM 2810) & TELCOM 2821
INFSCI 2625*	Cybersecurity & Privacy Regulation	
INFSCI 2629	Capstone in Security	PREQ: (INFSCI 2150 or TELCOM 2810) & TELCOM 2821
INFSCI 2640	Programming Languages & Environments	PREQ: INFSCI 2500
INFSCI 2710	Database Management	CREQ: INFSCI 2500
INFSCI 2711	Advanced Topics in Database Management	PREQ: INFSCI 2710
INFSCI 2730	E-Business	PREQ: INFSCI 2560 & 2710
INFSCI 2731	Security in E-Commerce	PREQ: 2560 & CREQ: INFSCI 2150 or TELCOM 2810
INFSCI 2739	Web Services & Distributed Computing	PREQ: INFSCI 2550 & 2730
INFSCI 2750	Cloud Computing	PREQ: INFSCI 2500
INFSCI 2780	Interactive Graphics	PREQ: INFSCI 2500
INFSCI 2801	Geospatial Information Systems (GIS)	
INFSCI 2802	Location-based Services	
INFSCI 2809	Spatial Data Analytics	
TELCOM 2000	Intro to Telecommunications	
TELCOM 2821	Network Security	
TELCOM 2XXX	<i>Other telecommunications classes not explicitly listed may serve as S&amp;T classes with advisor permission.</i>	
<b>INDEPENDENT STUDIES (variable credits, 1-3), SPECIAL TOPICS, AND THESIS</b>		
INFSCI 2910	Independent Study: Foundations	Permission of faculty advisor & study sponsor
INFSCI 2915	Special Topics: Foundations	
INFSCI 2930	Independent Study: Cognitive Science	Permission of faculty advisor & study sponsor
INFSCI 2935	Special Topics: Cognitive Science	
INFSCI 2950	Independent Study: Systems and Technology	Permission of faculty advisor & study sponsor
INFSCI 2955	Special Topics: Systems and Technology	
INFSCI 2970	Independent Study	Permission of faculty advisor & study sponsor
INFSCI 2980	Practicum	18 credits & advisor permission
INFSCI 2995	Thesis	24 credits & advisor permission