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Interdisciplinary Data Science

normally permitted to substitute up to six credits of COEN electives toward the COSC elective requirement, but must apply for a waiver from MSC

COMBINED MAJORS AND MINORS IN INTERDISCIPLINARY DATA SCIENCE AND OTHER AREAS

MAJOR IN INTERDISCIPLINARY DATA SCIENCE AND MINOR IN MATHEMATICS

A student with a major in Interdisciplinary Data Science needs to complete the math requirements for the minor in mathematics. There are additional credit hours of MATH courses (three more upper division MATH). If a INDS major decides to embark on a MATH minor after completing MATH 2100, substitutions for the MATH 2350 requirement may be allowed, but students must apply for a waiver from the MSSC Undergraduate Committee.

MAJOR IN INTERDISCIPLINARY DATA SCIENCE AND IN MATHEMATICS

A student majoring in both Interdisciplinary Data Science and Mathematics must complete seventyone credit hours of INDS and MATH courses. This total includes fifteen additional credit hours of MATH courses in addition to the fifty-six credit hours required of the INDS major. The required courses include (a) COSC 1010, 1020, 2100, 610 and 4800, (b) two approved electives from COSC or MATH; (c) MATH 1450, 1451, 2350 (in place of MATH 2100), 2450, 3,135, 3570, 4700, 4720, 4780 and 15 additional hours of upper division MATH courses as outlined in the Mathematics major handbook and (d) INDS 4997.

MAJOR IN INTERDISCIPLINARY DATA SCIENCE AND OTHER MINOR.

Other common minors with a major in Interdisciplinary Data Science include the Minor in Business Administration or the Minor in Entrepreneurship from the College of Business Administration, or the Minor in Digital Media from the College of Communication. A student seeking one of these minors should follow the course requirements listed in the Undergraduate Bulletin.

Interdisciplinary Data Science Major

SAMPLE CURRICULUM

First Term	Sem. Hrs.	Freshman	Second Term	Sem. Hrs.
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**Interdisciplinary Data Science Major with
Minor in Business Administration
SAMPLE CURRICULUM**

<u>First Term</u>		Freshman	<u>Second Term</u>	
	<u>Sem. Hrs.</u>			<u>Sem. Hrs.</u>
COSC 1010	4		COSC 1020	4
MATH 1450	4		MATH 1451	4
ENGL 1001or ESSV1 (MCC)	3		ENGL 1001or ESSV1 (MCC)	3
PHIL 1001 or THEO 1001 (MCC)	3		PHIL 1001 or THEO 1001 (MCC)	3
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	14			14

<u>First Term</u>		Sophomore	<u>Second Term</u>	
	<u>Sem. Hrs.</u>			<u>Sem. Hrs.</u>
COSC 2100	3		MATH 3100	3
MATH 2350	3		MATH 3570 or COSC 3570	3
MATH 2450	4		MATH 4720 or 4740	3
CORE1929 (MCC) or elective	3		CORE 1929 (MCC) or elective	3
ECON 1001	3		DSCV (MCC) ^{4,5}	3
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	16			15

<u>First Term</u>		Junior	<u>Second Term</u>	
	<u>Sem. Hrs.</u>			<u>Sem. Hrs.</u>
COSC 4800	3		COSC 4610	3
MATH 4700	3		COSC or MATH Science elective	3
DSCV (MCC) ^{4,5}	3		DSCV (MCC) ^{4,5}	3
OSCM 3001	3		DSCV (MCC) ^{4,5}	3
BUAD 1060	1		BUAD 2100	3
Elective	3			
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	16			15

<u>First Term</u>		Senior	<u>Second Term</u>	
	<u>Sem. Hrs.</u>			<u>Sem. Hrs.</u>
MATH 4780	3		INDS 4997	3
COSC or MATH science elective	3		CORE 4929 (MCC) or elective	3
CORE 4929 (MCC) or elective	3		MARK 3001	3
INSY 3001	3		Electives	6
MANA 3001	3			
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	16			15

**BS/MS Program in Interdisciplinary Data Science and
 Applied Statistics**
SAMPLE CURRICULUM

<u>Fall 1</u>	<u>Sem. Hrs.</u>	<u>Spring 1</u>	<u>Sem. Hrs.</u>
COSC 1010	4	COSC 1020	4
MATH 1450	4	MATH 1451	4
ENGL 1001or ESSV1 (MCC)	3	ENGL 1001or ESSV1 (MCC)	3
PHIL 1001 or THEO 1001 (MCC)	3	PHIL 1001 or THEO 1001 (MCC)	3
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	14		14
 Fall 2	 Sem. Hrs.	 Spring 2	 Sem. Hrs.

STUDENT COMPUTING FACILITIES

Katherine Reed Cudahy Hall houses the University's Information Technology Service (ITS) central computing facilities on the second floor, and MSC department computing facilities on the first, third and fourth floors.

Marquette students, faculty and staff are granted accounts on the Emarq and CheckMarq systems maintained by ITS. Authentication credentials can be obtained from the ITS Help Desk (room CU 293) and are maintained throughout a student's enrollment at Marquette. Additional information regarding University computing facilities can be obtained by calling the ITS Help Desk-at 288 7799.

The MSSC Department maintains its own independent computing facilities for teaching and research purposes. Students enrolled in MSC courses or as department majors are granted access to general purpose laboratories in CU 101, CU 310, and CU 412. In addition, students enrolled in particular courses or involved in research projects may be granted access to special purpose laboratories in CU 145, CU 301, CU 310, CU 368, CU 392, or CU 410.

The MSSC network features Gigabit internal connectivity between seven subnets with a wide variety of computing hardware and operating systems. Solaris and Linux servers provide centralized file, mail, web and print services to Windows, Linux, Solaris and Mac clients. Computer configurations range from an desktop PC classroom to laboratories of end user workstations for collaborative project work.

Although students may have their own computer equipment, the MSC department provides sufficient facilities for all MSC coursework. Students are encouraged to make use of department facilities; experience with heterogeneous computing environments provides a rich educational opportunity, and MSC maintains a large body of software tailored to the needs and interests of department majors.

Additional information about MSC department computing facilities can be obtained from the MSSC system administrator at 2881580, or online at <https://www.marquette.edu/mathematicalandsocialsciences/>