

course selections for the next semester and general academic progress, as well as to receive access to pre-registration through Checkmarq.

STUDENT LEARNING OUTCOMES

By the end of the program of study, the student will be able to:

1. Use mathematical and probabilistic reasoning to draw conclusions from data and make inference.
2. Use data to build models for real world complex systems and provide description, interpretation and exploratory analysis of the data by graphical and other means.
3. Incorporate statistical software, computing and programming tools to manage, visualize, and interpret data of all kinds.
4. Communicate effectively in writing and verbally to both technical and non-technical audiences.
5. Be an acknowledged part of a community of learners and scholars benefitting from shared experiences both inside and outside the classroom where learning is accepted and nurtured between peers and between students and faculty members.

REQUIREMENTS FOR THE STATISTICAL SCIENCE MAJOR

REQUIRED COURSEWORK

All students must take the following eleven courses:

COSC 1010 Introduction to Computer Programming

BS Statistical Science
Handbook

MATH 3100	3	MATH Elect. or MATH 4710	3
MATH 4700	3	MATH 4750* or MATH 4760	3
DSCV	3	DSCV	3
Elective	3	Elective	

**Typical 4-year Program for Statistical Science Major with Minor in Business
Administration**

Freshman			
First Term	Hours	Second Term	Hours
MATH 1450	4	MATH 1455	4
COSC 1010	4	ESSV 1 or ENGL 1001	3
ENGL 1001 or ESSV 1	3	PHIL 1001 or THEO 1001	3
PHIL 1001 or THEO 1001	3	ECON 1001	3
		Elective	3
	14		16
Sophomore			
First Term	Hours		

STUDENT COMPUTING FACILITIES

Katherine Reed Cudahy Hall houses the University's Information Technology Service (ITS) central computing facilities on the second floor, and MSSC 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 on 288-7799.

The MSSC Department maintains its own independent computing facilities for both teaching and research purposes. Students enrolled in MSSC 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 in-desk PC classroom to laboratories of dual-head workstations for collaborative project work.

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

Additional information about MSSC department computing facilities can be obtained from the MSSC system administrator at 288-1580, or online at <https://www.marquette.edu/mathematical-and-statistical-sciences/>