

2010-2011 PETITION/PROGRAM SHEET

Degree: Bachelor of Science Major: Mathematics Concentration: Statistics

www.mesastate.edu/academics/programs.html

About This Major . . .

The role of mathematics and statistics in a liberal arts education is to provide quantitative and analytical reasoning skills, which aid students in the organization of data and problem solving. More specifically, the concentration in statistics provides students with the ability to utilize a large array of statistical analysis procedures, to develop an understanding of necessary assumptions and the correct use of statistical procedures, to develop skills in the use of statistical software, and necessary communication skill, especially when interacting with other professionals.

The statistics concentration in mathematics prepares students for graduate work in statistics or to develop the student's statistical and mathematical skills to enter the job force. Students entering the job market with some additional job-specific training could function as applied statisticians working in areas such as actuarial science, wildlife management, marketing, quality control, and epidemiology to name a few.

The program gives students individual attention. Most lower division and all of our upper division classes are small compared to larger institutions.

POLICIES:

- 1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the MSC Catalog for a complete list of graduation requirements.
- 2. You must turn in your "Intent to Graduate" form to the Registrar's Office by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.
- 3. This program sheet must be submitted with your graduation planning sheet to your advisor during the semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.
- Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
- 5. Finally, the Department Head or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
- 6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
- 7. NOTE: The semester before graduation, you will be required to take a Major Field Achievement Test (exit exam).

NAME:	STUDENT ID #				
LOCAL ADDRESS AND PHONE NUMBER:					
	_()				
on the Program Sheet. I further certify that the	, hereby certify that I have completed (or will congrade listed for those courses is the final course grade received except plete next semester. I have indicated the semester in which I will complete the complete the congression of the congression of the complete the congression of the congression	for the courses in which I am			
Cinneton of Advisor	D.4.	20			
Signature of Advisor	Date				
		20			
Signature of Department Head	Date				
		20			
Signature of Registrar	Date				

Bachelor of Science: Mathematics - Statistics

Posted 4/13/10

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

Degre		

- 120 semester hours total (A minimum of 28 taken at MSC in no fewer than two semesters).
- 40 upper division credits (A minimum of 15 taken at the 300-400 course levels within the major at MSC).
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- 2.00 cumulative GPA or higher in all MSC coursework
- 2.50 cumulative GPA or higher in coursework toward the major content area No more than one "D" may be used in completing major requirements.
- A student must follow the MSC graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the Mesa State College catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (31 semester hours) See the current Mesa State College catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course No Title Sem.hrs Grade Term/Trns

Math: (3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.)

3

MATH 151 Calculus I 5* _

ENGL 112 English Composition

*3 credits apply to the General Ed requirements and 2 credits apply to Foundation Courses

Humanities (3 semester hours)

Social and Behavioral Sciences (6 semester hours)

Natural Sciences (7 semester hours, one course must include a lab)

OTHER LO	Course No Title		Grade Terr	n/Trn
	WER DIVISION REQUIREN	MENTS (6 semester l	nours
	(3 semester hours)			
	st take KINE 100, plus two 100-	level KIN	VA or appro	ved
DANC cours	e.			
KINE 100	Health and Wellness	1		
KINA 1		. 1		
KINA 1		. 1		
Applied Stud	dies (3 semester hours)			
Foundation '	Courses (10 Semester Hours)			
MATH 151		2		
MATH 152	Calculus II	5 _		
STAT 200	Probability and Statistics	3		
MATHEMA	TICS - STATISTICS MAJO	R REQU	IREMENT	'S
	hours) A 2.5 GPA is required in			
	e "D" may be used in completing			
Core Classes	<u>s</u>			
CSCI 111	CS1: Foundations of Compute Science I	er 4		
MATH 240	Intro to Advanced Mathematic	cs 4		
MATH 253	Calculus III	4		
MATH 325	Linear Algebra I	3		
STAT 351	Mathematical Statistics II	3		
STAT 331	Statistical Methods	3		
STAT 311	Sampling Techniques	3		
STAT 350	Mathematical Statistics I	3		
MATH 394	Mathematics Colloquium	1		
MATH 484	Senior Seminar I	2		
MATH 494	Senior Seminar II	2		
STAT 412	Correlation and Regression	3		
MATH 452	Introduction to Real Analysis	I		
OR		3		
	Linear Algebra II			
MATH 460				
MATH 460 STAT 425	Design and Analysis of Exper	riments		

Posted 4/13/10

SUGGESTED COURSE SEQUENCING FOR THE CONCENTRATION IN STATISTICS

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with the assigned advisor and check the 2 year course matrix on the Mesa State website for course availability.

FRESHMAN YEAR

Fall Semester H		Hours	Spring Semester	Hours
MATH 151	Calculus I	5	MATH 152 Calculus II	5
CSCI 111	CS1:		ENGL 112 English Composition	3
Foundations of Co	mputer Science	4	General Education Social/Behavioral Science	3
ENGL 111	English Composition	3	General Education History	3
General Education	Social/Behavioral Science	3	KINA Activity <u>1</u>	
KINE 100	Health and Wellness	<u>1</u>		15
		16		

SOPHOMORE YEAR

Fall Semester Ho		Hours Spring Semester		ter	Hours
MATH 240	Introduction to Advanced Mathematics	s 4	MATH 253	Calculus III	4
General Educati	on Humanities	3	STAT 200	Probability and Statistics	3
General Educati	on Fine Arts	3	General Educa	tion Natural Science with Lab	4
General Educati	on Applied Studies	3	Elective		3
General Educati	on Natural Science	<u>3</u>			14
		16			

JUNIOR YEAR

Fall Semester		Hours	Spring Semester		Hours
Math 325	Linear Algebra I	3	STAT 313	Sampling Techniques	3
STAT 311	Statistical Methods	3	STAT 351	Mathematical Statistics II	3
STAT 350	Mathematical Statistics I	3	Upper Division Elective		3
Elective		3	MATH 394	Mathematics Colloquium	1
Upper Division Elective		<u>3</u>	Elective	_	3
		15	Elective		3
					16

SENIOR YEAR

Fall Semester		Hours	Spring Semest	er	Hours
MATH 452	Intro to Real Analysis I or		STAT 425	Design & Analysis of Experiments on	<u>-</u>
			STAT 496	Topics	3
Math 460	Linear Algebra II	3	MATH 494	Senior Seminar II	2
STAT 412	Correlation and Regression	3	KINA	Activity	1
Math 484	Senior Seminar I	2	Elective		3
Upper Division	Elective	3	Elective		<u>3</u>
Upper Division	Elective	2			12
Elective		<u>3</u>			
		16			

Bachelor of Science: Mathematics - Statistics

Posted 4/13/10