



**2008– 09 PETITION/PROGRAM SHEET**  
**Degree: Bachelor of Science**  
**Major: Mathematics**  
**Concentration: Statistics**  
[www.mesastate.edu/schools/snsn/csms/degrees/stat.htm](http://www.mesastate.edu/schools/snsn/csms/degrees/stat.htm)

**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.**
4. 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).

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**NAME:** \_\_\_\_\_ **STUDENT ID #** \_\_\_\_\_

**LOCAL ADDRESS AND PHONE NUMBER:** \_\_\_\_\_

\_\_\_\_\_ ( ) \_\_\_\_\_

I, (Signature) \_\_\_\_\_, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

\_\_\_\_\_  
Signature of Advisor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Department Head

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Registrar

\_\_\_\_\_  
Date

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

**Degree Requirements:**

- Must earn 120 semester hours total and meet the academic residency requirements to earn a baccalaureate degree at Mesa State College.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- 40 upper division credits (i.e., 300-level and 400-level courses).
- 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.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- 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
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**English** (6 semester hours, must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.)

ENGL 111	English Composition	3				
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ENGL 112	English Composition	3				
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(ENGL 129, Honors English, may be substituted for ENGL 111 & ENGL 112.)

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

MATH 151	Calculus I	5*				
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\*3 credits apply to the General Ed requirements and 2 credits apply to elective credit

**Humanities** (3 semester hours)

**Social and Behavioral Sciences** (6 semester hours)

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

**History** (3 semester hours)

HIST						
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**Fine Arts** (3 semester hours)

Course	No	Title	Sem.hrs	Grade	Term	Trns
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**OTHER LOWER DIVISION REQUIREMENTS** (6 semester hours)

**Kinesiology** (3 semester hours)

Students must take KINE 100, plus two 100-level KINA or approved DANC course.

KINE 100	Health and Wellness	1				
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KINA 1		1				
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KINA 1		1				
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**Applied Studies** (3 semester hours)

**BACHELOR OF SCIENCE DEGREE DISTINCTION**

**REQUIREMENTS** (6 semester hours) Must receive a grade of "C" or better.

STAT 200	Probability and Statistics	3				
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**Humanities or Social/Behavioral Sciences:** (3 semester hours)

**MATHEMATICS – STATISTICS MAJOR REQUIREMENTS**

(44-45 semester hours) A 2.5 GPA is required in the major courses. No more than one "D" may be used in completing major requirements.

**Core Classes**

CSCI 110	Beginning Programming	3-4				
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**OR**

CSCI 111	Computer Science I	5				
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MATH 152	Calculus II	4				
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MATH 240	Intro to Advanced Mathematics	4				
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MATH 253	Calculus III	4				
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MATH 361	Numerical Analysis	4				
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STAT 351	Mathematical Statistics II	3				
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STAT 311	Statistical Methods	3				
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STAT 313	Sampling Techniques	3				
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STAT 350	Mathematical Statistics I	3				
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STAT 412	Correlation and Regression	3				
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MATH 452	Introduction to Real Analysis I	3				
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**OR**

MATH 490	Abstract Algebra I	3				
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MATH 453	Introduction to Real Analysis II	3				
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**OR**

MATH 491	Abstract Algebra II	3				
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STAT 425	Design and Analysis of Experiments	3				
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**OR**

STAT 496	STAT 496 Topics					
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**Electives** (All college level courses appearing on your final transcript, **not listed above** that will bring your total semester hours to 120 hours.) (32 -33 total semester hours; some upper division hours may be needed.)

*MATH 151	Calculus	2				
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## 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	Hours	Spring Semester	Hours
MATH 151      Calculus I	5	MATH 152      Calculus II	5
CSCI 110      Beginning Programming <u>or</u>		ENGL 112      English Composition	3
CSCI 111      Computer Science I (recommended)	3-4	General Education Social/Behavioral Science	3
ENGL 111      English Composition	3	General Education History	3
General Education Social/Behavioral Science	3	KINA      Activities (2 courses)	<u>2</u>
KINE 100      Health and Wellness	<u>1</u>		16
	15-16		

### SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 240      Introduction to Advanced Mathematics	4	MATH 253      Calculus III	4
General Education Humanities	3	STAT 200      Probability and Statistics	3
General Education Fine Arts	3	General Education Natural Science with Lab	4
General Education Applied Studies	3	Degree Distinction Social/Behavioral Science or Humanities	<u>3</u>
General Education Natural Science	<u>3</u>		14
	16		

### JUNIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 361      Numerical Analysis	4	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
Upper Division Elective	<u>3</u>	Elective	3
	13	Elective	<u>3</u>
			15

### SENIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 452      Intro to Real Analysis I <u>or</u>		MATH 453      Intro to Real Analysis II <u>or</u>	
MATH 490      Abstract Algebra	3	MATH 491      Abstract Algebra II	3
STAT 412      Correlation and Regression	3	STAT 425      Design & Analysis of Experiments <u>or</u>	
Upper Division Elective	3	STAT 496      Topics	3
Upper Division Elective	3	Elective	3
Elective	<u>3</u>	Elective	3
	15	Elective	<u>3</u>
			15