



2006 – 07 PETITION/PROGRAM SHEET
Degree: Bachelor of Science
Major: Mathematics
Concentration: Statistics
www.mesastate.edu/schools/sns/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).

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 _____ 20_____
Date

Signature of Department Head _____ 20_____
Date

Signature of Registrar _____ 20_____
Date

- Must earn 120 semester hours and meet the academic residency requirements to earn a baccalaureate degree at Mesa State College.
- Must earn a minimum of 40 semester hours in upper division courses (i.e., 300-level and 400-level courses).
- A cumulative grade point average of 2.0 or higher must be maintained for all courses.
- A 2.5 GPA is required in the major courses. No more than one "D" may be used in completing major requirements.
- When filling out this program sheet a course can only be used once, i.e., no double counting is allowed between categories.
- Excess KINA/HPWE courses beyond the two required and pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- All degree requirements must be completed as described. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.
- Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement.

General Education Requirements (Minimum of 33 semester hours) See the M.S.C. catalog for the list of courses that meet the general education categories.

Course No. Credit Grade Term Year Trns/Subs

English: ENGL 111 and 112 (6 semester hours, must receive a "C" or higher, must be completed by the time the student has 60 semester hours)

*ENGL

*ENGL

*ENGL 129, Honors English, may be substituted for ENGL 111 and ENGL 112. Must earn a grade of "C" or better. May need to take additional electives.

Humanities: (6 semester hours)

Social and Behavioral Sciences: (6 semester hours)

Course No. Credit Grade Term Year Trns/Subs

Humanities or Social/Behavioral Science: (3 semester hours)

Fine Arts: (3 semester hours)

Natural Sciences: (minimum 6 semester hours, at least one course must include a lab)

Applied Studies: (3 semester hours)

Other Requirements (9-10 semester hours)

Kinesiology: (3 Semester Hours)

Course No. Credit Grade Term Year Trns/Subs

KINE/HPWA 100 1

KINA/HPWE 1

KINA/HPWE 1

See the M.S.C. catalog for the list of approved KINA/HPWE/Selected DANC courses.

Bachelor of Science Degree Distinction:

(6-7 semester hours) Must earn a "C" or better in both courses.

Course No. Credit Grade Term Year Trns/Subs

MATH

MATH 113 or higher, CSCI 110 or CSCI 111 is recommended for the other course.

Mathematics-Statistics Major Requirements (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.

Course No. Credit Grade Term Year Trns/Subs

MATH 151 5

MATH 152 5

MATH 240 3

MATH 253 4

MATH 361 4

STAT 200 3

STAT 311 3

STAT 313 3

STAT 350 3

STAT 412 3

Course No. Credit Grade Term Year Trns/Subs

MATH 452 3

or

MATH 490 3

MATH 453 3

or

MATH 491 3

STAT 425 3

or

STAT 496 3

Electives (All college level courses appearing on your final transcript, **not listed above** that will bring your total semester hours to 120 hours. Excludes KINA/HPWE activity courses.) (30 semester hours; some upper division hours may be needed.)

Course	No.	Credit	Grade	Term	Year	Trns/Subs	Course	No.	Credit	Grade	Term	Year	Trns/Subs
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

GRADUATION INFORMATION

See the “Undergraduate Graduation Requirements” in the Mesa State College catalog for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (Minimum of 33 Semester Hours) See current Mesa State College catalog for list of courses that fulfill the requirements below. If one (or more) of the selections below is required in your major, you must use it to fulfill the major requirement and **make a different selection to meet the general education requirement. The courses may not be used to fulfill both requirements.**

English – 6 Semester Hours (Must be **completed** before student has 60 semester hours. Must receive grade of “C” or above.)
ENGL 111 and ENGL 112 **or** ENGL 129 (*by permission*)

Humanities – 6 semester hours

Social and Behavioral Sciences – 6 semester hours

Humanities or Social/Behavioral Sciences – 3 semester hours

Fine Arts – 3 semester hours

Natural Sciences – 6 semester hours (At least one course must include a lab.)

Applied Studies – 3 semester hours

OTHER REQUIREMENTS (9-10 Semester Hours)

Kinesiology – 3 Semester Hours

Each student must take KINE/HPWA 100 together with two KINA/HPWE/Selected DANC courses. See current catalog for listing.

Degree Distinction – 6-7 Semester Hours

MATH 113 or higher

Any CSCI, MATH (113 or higher), or STAT course. CSCI 110 or 111 is strongly recommended.

Mathematics - Statistics (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.

Required Courses:

MATH 151 Calculus I (5)
MATH 152 Calculus II (5)
MATH 240 Introduction to Advanced Mathematics (3)
MATH 253 Calculus III (4)
MATH 361 Numerical Analysis (4)
STAT 200 Probability and Statistics (3)
STAT 311 Statistical Methods (3)
STAT 313 Sampling Techniques (3)
STAT 350 Mathematical Statistics (3)
STAT 412 Correlation and Regression (3)
MATH 452 Introduction to Real Analysis I (3) **or** MATH 490 Abstract Algebra I (3)
MATH 453 Introduction to Real Analysis II (3) **or** MATH 491 Abstract Algebra II (3)
STAT 425 Design and Analysis of Experiments (3) **or** STAT 496 Topics (1-3)

General Electives: 30 Semester Hours; additional upper division hours may be needed.

Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement. All degree requirements must be completed as described above. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head.

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 their 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 or		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 Humanities	3
General Education Social/Behavioral Science	3	KINE/HPWA Activities (2 courses)	<u>2</u>
KINE/HPWA 100 Health and Wellness	<u>1</u>		16
	15-16		

SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 240 Introduction to Advanced Mathematics	3	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	3-4
General Education Applied Studies	3	General Education Social/Behavioral Science or Humanities	<u>3</u>
General Education Natural Science	<u>3</u>		13-14
	15		

JUNIOR YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 361 Numerical Analysis	4	STAT 313 Sampling Techniques	3
STAT 311 Statistical Methods	3	STAT 350 Mathematical Statistics	3
Upper Division Elective	3	Upper Division Elective	3
Upper Division Elective	3	Elective	3
Degree Distinction	<u>3</u>	Elective	<u>3</u>
	16		15

SENIOR YEAR

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