COLORADO MESA

2013-2014 PETITION/PROGRAM SHEET

Degree: Bachelor of Science Major: Mathematics Concentration: Statistics

About This Major . . .

The statistics concentration in mathematics prepares students for graduate work in statistics or to enter the job force. With some additional job-specific training, students entering the job market could function as applied statisticians working in areas such as actuarial science, wildlife management, marketing, quality control, and epidemiology to name a few. For more information on what you can do with this major, go to http://www.coloradomesa.edu/career/whatmajor.html.

All CMU baccalaureate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major and concentration will be able to:

- 1. construct multi-step problem-solving strategies, and communicate solutions effectively in written form. (Specialized Knowledge/ Quantitative Fluency)
- 2. use mathematical software to aid in problem-solving and investigation, and understand its limitations. (Applied Learning)
- 3. apply appropriate statistical procedures and justify chosen assumptions. (Applied Learning)
- 4. draw statistical conclusions and evaluate the validity of others' conclusions. (Critical Thinking)
- 5. communicate technical analyses to non-specialists. (Communication Fluency)

NAME:	STUDENT ID #	
LOCAL ADDRESS AND PHONE NUMBER:		
	()	
I, (Signature)	cies listed on the last page of this program sheet. of for the courses in which I am currently enrolled and	I further certify that the grade
Signature of Advisor	Date	_20
Signature of Department Head	Date	_20
Signature of Registrar	Date	20

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Posted 6/1/13

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

Degree Requirements:

- 120 semester hours total (A minimum of 28 taken at CMU 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 CMU).
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- 2.00 cumulative GPA or higher in all CMU 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 CMU 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 for additional graduation information.

GENERAL EDUCATION REQUIREMENTS (31 semester hours) See the current 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

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 ENGL 112 English Composition 3

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* *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)

History (3 semester hours)

Course No 7	Γitle	Sem.hrs	Grade Term/Trn
OTHER LO	WER DIVISION REQUIRE	MENTS ((6 semester hours)
	(3 semester hours)		
	t take KINE 100, plus two 100	-level KI	NA or approved
DANC cours	-		• •
KINE 100	Health and Wellness	1	
KINA 1		_ 1	
KINA 1		_ 1	
Applied Stud	dies (3 semester hours)		
Foundation	Courses (10 Semester Hours)		
	Calculus I	2	
MATH 151 MATH 152	Calculus II	5 _	
STAT 200		3 -	
	TICS – STATISTICS MAJO hours) A 2.5 GPA is required		
	e "D" may be used in completi		
Core Classes	=!		
CSCI 111	CS1: Foundations of Compu		
3. f . FFI 3. 40	Science I	. 4	
MATH 240	Intro to Advanced Mathemat		
MATH 253	Calculus III	4	
MATH 325	Linear Algebra I	3	
MATH 394	Mathematics Colloquium	1	
MATH 452	Introduction to Real Analysis	s I 3	
<u>OR</u> MATH 460	Lincon Alaches II	3	
MATH 484	Linear Algebra II Senior Seminar I	2	
MATH 494	Senior Seminar II	2 2	
STAT 311	Statistical Methods	3	
STAT 313	Sampling Techniques	3	
STAT 350	Mathematical Statistics I	3	
STAT 351	Mathematical Statistics II	3	
STAT 412 STAT 425	Correlation and Regression Design and Analysis of Expe	3 criments	
		3	
Electives (Al	l college level courses appearing	ng on you	r final transcript,
(32total same	ove that will bring your total seaster hours; some upper division	n hours m	ours to 120 nours.)
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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 Colorado Mesa website for course availability.

	FRESHMA	AN YEAR		
Fall Semester	Hours	Spring Semest	er	Hours
MATH 151 Calculus I	5	MATH 152	Calculus II	5
CSCI 111 CS1:		ENGL 112	English Composition	3
Foundations of Computer Science	4		ion Social/Behavioral Science	3 3 <u>1</u> 15
ENGL 111 English Composition	3	General Educat	ion History	3
General Education Social/Behavioral Science	3	KINA Activi	ty	<u>1</u>
KINE 100 Health and Wellness	<u>1</u>			15
	16			
	SOPHOMO			
Fall Semester	Hours	Spring Semest		Hours
MATH 240 Introduction to Advanced Mathematical Introduction of Introductio		MATH 253	Calculus III	4
General Education Humanities	3	STAT 200	Probability and Statistics	3
General Education Fine Arts	3	General Educat	ion Natural Science with Lab	4
General Education Applied Studies	3	Elective		<u>3</u> 14
General Education Natural Science	<u>3</u>			14
	16			
	JUNIOR	R YEAR		
Fall Semester	Hours	Spring Semest		Hours
Math 325 Linear Algebra I	3	STAT 313	Sampling Techniques	3
Math 325 Linear Algebra I STAT 311 Statistical Methods	3	STAT 313 STAT 351	Sampling Techniques Mathematical Statistics II	3
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I	3 3 3	STAT 313 STAT 351 Upper Division	Sampling Techniques Mathematical Statistics II Elective	3 3 3
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective	3 3 3 3	STAT 313 STAT 351 Upper Division MATH 394	Sampling Techniques Mathematical Statistics II	3 3 3 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I	3 3 3 3 3	STAT 313 STAT 351 Upper Division MATH 394 Elective	Sampling Techniques Mathematical Statistics II Elective	3 3 3 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective	3 3 3 3	STAT 313 STAT 351 Upper Division MATH 394	Sampling Techniques Mathematical Statistics II Elective	3 3 3 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective	3 3 3 3 3	STAT 313 STAT 351 Upper Division MATH 394 Elective	Sampling Techniques Mathematical Statistics II Elective	3 3 3
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective	3 3 3 3 3	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective	Sampling Techniques Mathematical Statistics II Elective	3 3 3 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester	3 3 3 3 3 15	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium	3 3 1 3 1 3 16 Hours
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or	3 3 3 3 3 15	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experiment	3 3 3 1 3 16 Hours
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II	3 3 3 3 15 SENIOR Hours	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics	3 3 3 1 3 1 6 Hours s or 3
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II STAT 412 Correlation and Regression	3 3 3 3 15 SENIOR Hours 3 3	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496 MATH 494	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics Senior Seminar II	3 3 3 1 3 1 3 16 Hours ts or 3 2
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II STAT 412 Correlation and Regression Math 484 Senior Seminar I	3 3 3 3 15 SENIOR Hours 3 3 2	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496 MATH 494 KINA	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics	3 3 3 1 3 16 Hours 4 5 or 3 2 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II STAT 412 Correlation and Regression Math 484 Senior Seminar I Upper Division Elective	3 3 3 3 15 SENIOR Hours 3 3 2 3	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496 MATH 494 KINA Elective	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics Senior Seminar II	3 3 3 1 3 16 Hours 4 5 or 3 2 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II STAT 412 Correlation and Regression Math 484 Senior Seminar I Upper Division Elective Upper Division Elective Upper Division Elective	3 3 3 3 15 SENIOR Hours 3 3 2 3 2 3 2	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496 MATH 494 KINA	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics Senior Seminar II	3 3 3 1 3 16 Hours 4 5 or 3 2 1
Math 325 Linear Algebra I STAT 311 Statistical Methods STAT 350 Mathematical Statistics I Elective Upper Division Elective Fall Semester MATH 452 Intro to Real Analysis I or Math 460 Linear Algebra II STAT 412 Correlation and Regression Math 484 Senior Seminar I Upper Division Elective	3 3 3 3 15 SENIOR Hours 3 3 2 3	STAT 313 STAT 351 Upper Division MATH 394 Elective Elective R YEAR Spring Semest STAT 425 STAT 496 MATH 494 KINA Elective	Sampling Techniques Mathematical Statistics II Elective Mathematics Colloquium er Design & Analysis of Experimen Topics Senior Seminar II	3 3 3 1 3 1 3 16 Hours ts or 3 2

POLICIES:

- 1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the 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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