

COLLEGE OF SCIENCE & MATHEMATICS

MAJOR: MATHEMATICS & STATISTICS Pre-Actuarial Option

ACADEMIC YEAR: 2013-2014

DEGREE TYPE: B.A. or B.S.

REQUIRED DEGREE CREDITS TO GRADUATE: 122

GENERAL EDUCATION REQUIREMENTS – 40 CREDITS

Lower Division Requirements – 37 Credits

First Year Experience (F) - 1 Credit

UNIV	189	Skills for Academic Success	1 cr
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Students transferring in 24 or more credits do not need to take UNIV 189.

Communication (C) - 9 Credits

ENGL	110	College Composition I	3 cr
ENGL	120	College Composition II	3 cr
COMM	110	Fund of Public Speaking	3 cr

Quantitative Reasoning (R) - 3 Credits

MATH	165	Calculus I	4 cr
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Science & Technology (S) - 10 Credits

A one-credit lab must be taken as a co-requisite with a general education science/technology course unless the course includes an embedded lab experience equivalent to a one-credit course. Select from current general education courses www.ndsu.edu/registrar/gened/

Humanities & Fine Arts (A) - 6 Credits

Select from current general education courses www.ndsu.edu/registrar/gened/

Social & Behavioral Sciences (B) - 6 Credits

ECON	201	Principles of Microeconomics	3 cr
ECON	202	Principles of Macroeconomics	3 cr

Wellness (W) - 2 Credits

Select from current general education courses www.ndsu.edu/registrar/gened/

Cultural Diversity (D)

Select from current general education courses www.ndsu.edu/registrar/gened/

Global Perspectives (G)

ECON	201	Principles of Microeconomics
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Upper Division Requirements - Writing – 3 Credits

Select from current general education courses www.ndsu.edu/registrar/gened/

MATH MAJOR REQUIREMENTS – 31 CREDITS (includes MATH 165)

• A grade of 'C' or better is required for ALL courses used toward the major.

MATH	166	Calculus II	4 cr
MATH	265	Calculus III	4 cr
MATH	266	Intro to Differential Equations	3 cr
MATH	270	Intro to Abstract Mathematics	3 cr
MATH	376	Actuarial Exam Study	1 cr
MATH	429	Linear Algebra	3 cr
MATH	450	Real Analysis I	3 cr
MATH	488	Numerical Analysis I	3 cr
MATH	451 or 489	Real Analysis II	3 cr
		Numerical Analysis II	

STATISTICS MAJOR REQUIREMENTS – 25 CREDITS

• A grade of 'C' or better is required for ALL courses used toward the major.

STAT	330	Introductory Statistics	3 cr
STAT	461	Applied Regression Models	3 cr
STAT	462	Intro/Experimental Design	3 cr
STAT	467	Probability & Math Stat I	3 cr
STAT	468	Probability & Math Stat II	3 cr
STAT	476	Actuary Exam Study II	1 cr

Statistics Electives

9 Cr

Credits at the 400-level other than those listed above.

RELATED REQUIRED COURSES – 33 CREDITS

Computer Science – 8 Credits

CSCI	160	Computer Science I	4 cr
CSCI	161	Computer Science II	4 cr

Lab Sequence - 10 credits

Choose 1 sequence along with the 2 credits science elective OR the Physics sequence.

* Science & Tech Gen Ed Requirements

BIOL	111/L	Concepts of Biology/Lab* and	3/1 cr
	315/L	Genetics/Lab*	OR 3/1 cr

BIOL	126/L	Human Biology/Lab* and	3/1 cr
	220/L	Human Anatomy & Physics I/Lab*	OR 3/1 cr

CHEM	121/L	General Chemistry I/Lab* and	3/1 cr
	122/L	General Chemistry II/Lab*	OR 3/1 cr

CHEM	150/160	Principles of Chemistry I/Lab*	3/1 cr
	151/161	Principles of Chemistry II/Lab*	3/1 cr

And		Science Elective	2 cr
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OR Just the Physics courses listed below

PHYS	251/L	University Physics I/Lab*	4/1 cr
	252/L	University Physics II/Lab*	4/1 cr

Degree requirements continued on page two.

Accounting, Business, & Economics Courses – 15 Credits

ACCT	200	Elements of Accounting I	3 cr
ACCT	201	Elements of Accounting II	3 cr

Electives - 9 Credits

CSCI 453	3 cr	CSCI 454	3 cr	ECON 341	3 cr	ECON 343	3 cr
ECON 410	3 cr	ECON 430	3 cr	ECON 440	3 cr	ECON 456	3 cr
ECON 461	3 cr	ECON 465	3 cr	ECON 470	3 cr	ECON 472	3 cr
ECON 476	3 cr	ECON 480	3 cr	ECON 481	3 cr	ECON 482	3 cr
FIN 320	3 cr	FIN 410	3 cr	FIN 420	3 cr	FIN 450	3 cr
FIN 460	3 cr						

DEGREE REQUIREMENTS AND NOTES:

- Except for courses offered only as pass/fail grading, no course may be taken Pass/Fail.

Bachelor of Science (BS) Degree – An additional 6 credits in Humanities or Social Sciences*

Bachelor of Arts (BA) Degree – An additional 12 credits Humanities and Social Sciences* and proficiency at the second year level in a modern foreign language.

*Humanities and Social Sciences may be fulfilled by any course having the following prefix: ADHM, ANTH, ARCH, ART, CJ, CLAS, COMM, ECON, ENGL, FREN, GEOG, GERM, HDFS, HIST, LA, LANG, MUSC, PHIL, POLS, PSYC, RELS, SOC, SPAN, THEA, WGS, or any course from the approved list of general education courses in humanities and social sciences (general education categories A and B). These credits must come from outside the department of the student's major.