

TRUMAN STATE UNIVERSITY
B.A./B.S. MATHEMATICS DEGREE WORKSHEET
2005-2007 CATALOG REQUIREMENTS

NAME: _____ ID# _____ DATE: _____

Each course may be used only once on this worksheet, with the following exceptions: (1) a course used to fulfill any requirement in a student's degree program may also be used to fulfill the Intercultural Perspective, Missouri Statute, and/or Writing Enhanced requirement, if also approved for that area, and (2) some required support courses may also be used to fulfill additional requirements, as indicated on this worksheet with an asterisk ().*

LIBERAL STUDIES PROGRAM

Essential Skills

ENG 190 Writing as Critical Thinking

Sem	Cr	Grade
	3	

COMM 170 Public Speaking

Sem	Cr	Grade
	3	

MATH 186 Elementary Functions

Sem	Cr	Grade
	3	

OR MATH 156 College Algebra

Sem	Cr	Grade
	3	

AND MATH 157 Plane Trigonometry

Sem	Cr	Grade
	2	

Satisfactory completion of a higher level Mathematics course in the Mathematical Mode of Inquiry fulfills this requirement.

STAT 190 Basic Statistics

Sem	Cr	Grade
	3	

OR STAT 290 Statistics*

Sem	Cr	Grade
	3	

Personal Well Being

Sem	Cr	Grade

Modes of Inquiry

Complete seven of the following eight Modes of Inquiry. Courses used to fulfill the Modes of Inquiry must be among those listed in the Liberal Studies Program pages of the 2005-2007 General Catalog.

Aesthetic: Fine Arts

Sem	Cr	Grade
	3	

Aesthetic: Literature

Sem	Cr	Grade
	3	

Historical

Sem	Cr	Grade
	3	

Mathematical

Sem	Cr	Grade
	5	

MATH 198 Analytic Geometry & Calculus I*

Philosophical/Religious

Sem	Cr	Grade
	3	

Scientific: Life Science

Sem	Cr	Grade
	4	

Modes of Inquiry continued in next column

Scientific: Physical Science

Sem	Cr	Grade

CHEM 120* or **PHYS 195***

Social Scientific

Sem	Cr	Grade
	3	

Interconnecting Perspectives

Truman Week Program

Sem	Cr	Grade
	1	

JINS (Interdisciplinary WE Junior Seminar)

Sem	Cr	Grade
	3	

Intercultural Perspective

Sem	Cr	Grade

Elementary Foreign Language

Sem	Cr	Grade

Successfully complete the first year of a single foreign language, or demonstrate elementary proficiency as determined by a proficiency examination, or successfully complete an intermediate or higher level foreign language course.

DEGREE REQUIREMENTS

Missouri Statute Course

Sem	Cr	Grade

Two Writing-Enhanced Courses

Sem	Cr	Grade

In addition to the JINS course listed above.
MATH 200 Foundations of Mathematics

Sem	Cr	Grade

In addition, Mathematics majors must also fulfill the following minimum requirements for graduation:

- A 2.0 Truman grade point average.
- A 2.0 major gpa
- A 2.00 cumulative gpa
- 40 hours of 300-400 level courses.
- 63 hours of liberal arts and sciences coursework.
- 124 total hours of undergraduate coursework
- Assessment, residency, and all other requirements as outlined in the *General Catalog*.

REQUIRED SUPPORT

CS 180 Foundations of Computer Science I
STAT 290 Statistics*
MATH 198 Analytic Geometry & Calculus I*
PHYS 195 Physics with Calculus I*
OR CHEM 120 Chemical Principles I*

Sem	Cr	Grade
	3	

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BA/BS REQUIREMENTS (Choose BA or BS)

BA Requirements

Complete the second year of a single foreign language, or demonstrate intermediate proficiency as determined by a proficiency examination, or successfully complete a higher level foreign language course.

	Sem	Cr	Grade

BS Requirements

Complete at least six hours from the following areas: Courses designated as CS, BIOL, CHEM, or PHYS, which fulfill a major requirement for a bachelor's degree in that major, or any of the following courses:

STAT 374 Statistical Quality Control	3	
STAT 375 ANOVA/Exp. Design	3	
STAT 376 Nonparametric Stat./Sampling	3	
STAT 378 Linear Regression/Time Series	3	
PHRE 342 Symbolic Logic	3	
PHRE 382 Philosophy of Mathematics	3	
NASC 400 History of Science to 1700	3	
NASC 401 History of Science since 1700	3	
ECON 300 Intermediate Microeconomics	3	
ECON 303 Intermediate Macroeconomics	3	
ECON 304 Mathematical Economics	3	
ECON 373 Econometrics	3	

ELECTIVES

[illegible]

MAJOR REQUIREMENTS

Required Courses

MATH 101 Freshman Seminar
MATH 263 Analytic Geo and Calculus II
MATH 264 Analytic Geo and Calculus III
MATH 200 Foundations of Mathematics
MATH 357 Linear Algebra
MATH 451 Algebraic Structures I
MATH 461 Advanced Calculus I
MATH 498 Senior Seminar

[illegible]

Mathematics Electives

Choose courses totaling 15 credit hours from the following lists, with at least one course from List A.

List A:

MATH 363 College Geometry
MATH 440 Topology
MATH 447 Combinatorial Analysis
MATH 452 Algebraic Structures II
MATH 454 Theory of Numbers
MATH 462 Advanced Calculus II
MATH 465 Differential Geometry
MATH 467 Logic and Set Theory
MATH 515 Complex Variables I
STAT 570 Math Prob and Statistics I

[illegible]

List B: #

MATH 300 Intro to Numerical Analysis
MATH 325 Intro to Oper Research
MATH 330 Mathematics of Finance
MATH 345 Intro to Mathematical Biology
MATH 347 Discrete Mathematics
MATH 364 Vector Analysis
MATH 365 Ordinary Diff Equations
MATH 400 Methods of Optimization
MATH 455 History of Mathematics I
MATH 456 History of Mathematics II
MATH 464 Higher Geometry
MATH 511 Numerical Analysis
MATH 521 Partial Diff Equations
MATH 530 Topics in Math. Modeling
MATH 564 Advanced Linear Algebra
STAT 571 Math Prob and Statistics II

[illegible]

At most one course from another discipline may be substituted for a course in List B. Such a course must be at the 300 level or above, contain a strong mathematical component, and be approved by the mathematics faculty. A list of approved courses may be obtained in the Mathematics and Computer Science Division Office.

Capstone Experience

Each student is required to complete a Capstone Experience, as described in the 2005-2007 General/Graduate Catalog. A "Verification of Completion of Capstone Experience" form must be filed with the Registrar prior to graduation. These forms are available in the Mathematics and Computer Science Division Office.