

**TRUMAN STATE UNIVERSITY
B.S. BIOLOGY DEGREE WORKSHEET**

Leading to Elementary Education Certification, Grades 1-6 -- For Students Interested in Pursuing the M.A.E. Degree

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

MS 100 and 101 will not fulfill teacher certification requirements.

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. Elementary education teacher certification requires courses that fulfill the Aesthetic: Fine Arts and Social Scientific Modes.

Aesthetic: Fine Arts

Sem	Cr	Grade
	3	

 ART 203 or 223, or MUSI 204, 205, 206, or 207

Aesthetic: Literature

Sem	Cr	Grade
	3	

Historical

Sem	Cr	Grade
	3	

 HIST 104 or HIST 105 is recommended

Mathematical

Sem	Cr	Grade
	5	

 MATH 198 Analytic Geometry & Calculus I*

Philosophical/Religious

Sem	Cr	Grade
	3	

Scientific: Life Science

Sem	Cr	Grade
	4	

 BIOL 107 Introductory Biology I*

Scientific: Physical Science

Sem	Cr	Grade
	4-5	

 CHEM 120* or PHYS 185* or PHYS 186*

Social Scientific

Sem	Cr	Grade
	3	

 ECON 130 or ECON 200 or ECON 201

Interconnecting Perspectives

Truman Week Program

Sem	Cr	Grade
	1	

JINS (Interdisciplinary WE Junior Seminar)

Sem	Cr	Grade
	3	

Intercultural Perspective

Sem	Cr	Grade
	3	

 SOAN 190 or SOAN 191 is recommended

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

 POL 161 American Nat'l Govt is recommended

Two Writing-Enhanced Courses

Sem	Cr	Grade

In addition to the JINS course listed above.
 ED 389 Foundations of Education

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

- A 2.0 Truman and cumulative grade point average.
- A grade of C in BIOL 107, 108, 200, 247, 300, 301, 315 or 405 and 545.
- A 2.00 gpa in all MATH, STAT, CS, CHEM, and PHYS support courses, and in all biology elective courses applied toward the major.
- 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*, including a score at the 20th percentile or higher on the MFAT Senior Exam.

REQUIRED SUPPORT

MATH 198 Analytic Geometry & Calculus I*
 STAT 190 Basic Statistics*
 BIOL 107 Introductory Biology I*
 PHYS 185 College Physics I*
 PHYS 186 College Physics II*
 CHEM 120 Chemical Principles I*
 CHEM 121 Chemical Principles II

Sem	Cr	Grade
	5	

MAJOR REQUIREMENTS

BIOL 247 Freshman Seminar
 BIOL 108 Introductory Biology II
 BIOL 200 Cell Biology
 BIOL 300 Genetics
 BIOL 301 Introduction to Ecology
 BIOL 315 Physiology
 OR
 BIOL 405 Plant Physiology

Sem	Cr	Grade
	1	
	4	
	4	
	4	
	4	
	4	
	4	

BS REQUIREMENTS

CHEM 329 Organic Chemistry I
 CHEM 330 Organic Chemistry I Lab
 CHEM 331 Organic Chemistry II
 CHEM 332 Organic Chemistry II Lab

Sem	Cr	Grade
	3	
	1	
	3	
	1	

Capstone Experience

BIOL 545 Senior Seminar

Sem	Cr	Grade
	1	

Biology Major Electives (15 hours)

Select a minimum of 15 hours of BIOL courses. (See course descriptions in catalog for exceptions.) CHEM 421 Biochemistry may be used as a Biology Elective.

Students may take CHEM 333 in place of CHEM 330 and 332:

CHEM 333 Organic Chemistry Superlab

Sem	Cr	Grade
	2	

Sem Cr Grade

Sem	Cr	Grade

ELECTIVES

Students seeking teacher certification need to complete the following courses as part of their elective hours. All other electives should be listed in the space provided.

MATH 240 Concrete Behav. Foundations of Math

Sem	Cr	Grade
	3	

In addition, the following course is recommended for students seeking elementary certification.

NASC 331 Philosophy of Science

Sem	Cr	Grade
	4	

ED 389 Foundations of Education #

Sem	Cr	Grade
	2	

ED 393 Clinical Experiences in Teaching #

Sem	Cr	Grade
	3	

ED 593 Psychological Foundations of Education #

Sem	Cr	Grade
	3	

A 2.75 cumulative gpa is required. See General Catalog for additional prerequisites.

ES 235 Physical Activities for the Young Child

Sem	Cr	Grade
	2	

ENG 415 Literature for Children

Sem	Cr	Grade
	3	

GEOG 111 The Geographic Perspective

OR GEOG 211 Global Geography

Sem	Cr	Grade
	3	