



# MINNESOTA STATE UNIVERSITY MANKATO

## Academic Map Proposal

Proposal Number	13468
Create Date	4/22/16
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Author	Penny Knoblich, <a href="mailto:penny.knoblich@mnsu.edu">penny.knoblich@mnsu.edu</a>
Are you the contact for this proposal?	Yes
Does this proposal require approval from multiple Colleges or Departments?	No
College	Science, Engineering and Technology, Dean: Brian Martensen
Department	Biological Sciences, Chair: Penny Knoblich
Proposal Type	Academic Map
Full Program Name	Biology BS
Award	BS
Emphasis	Zoology
Option	
Version Number	1
Version	Zoology
Version Explanation	
programType	Broad Major
Minor Required	No
Minor Specific	
Minor Specific	
Program Description	<p>Zoology is the study of animals, including form and function of physiology, behavior, and morphology. Specific areas include organismal diversity, genetics, development, evolution, behavior, and ecological interactions. Most zoologists work either in academia or in government; a minority in the private sector. Careers paths related to zoology include Professor, Veterinarian, Ecologist, Wildlife educator, Zoo Guide, Animal Laboratory Technician, Animal Trainer, Museum Curator, Entomologist, Research Scientist, Environmental Consultant, Field Researcher, Science Writer, Physician, Veterinarian, Wildlife Biologist, Natural Resource Technician, Rehabilitator, Zoo Keeper, Animal Husbandry and many others. To enter a career and succeed in zoology usually requires advanced training in a professional program or in graduate school. Zoologists typically possess a thorough knowledge of general biology, the ability to work and relate with animals, proficiency in reading and writing, the ability to collect and analyze data, and an interest in problem solving and decision making.</p>

Admission Requirement	32 earned semester hours including BIOL 105, BIOL 106, BIOL 211, and CHEM 201 with a grade of "C" or better; completed General Education Goal Area 4 (Mathematics); completed General Education Goal Area 1, Part A (English Composition); and a minimum cumulative GPA of 2.2, with a cumulative GPA in Biology courses of 2.0.
Advising	Each student must meet with an advisor each semester. Following the meeting the student will be given an access code which allows the student to register for classes.
Program Notes	
Program Phone Number	( ) -
Program Website(Url)	

**Fall Year 1**

Designator	Course Number	Course Name	Credits	Milestones
BIOL	105	General Biology I	4	C or better is required
MATH	112	College Algebra	4	
ENG	101	Composition	4	
		General Education Course	3	

## Fall Year 1 Notes

General Education Categories 1A, 2, 3, and 4, will be filled by the major's required courses.

**Spring Year 1**

Designator	Course Number	Course Name	Credits	Milestones
BIOL	106	General Biology II	4	C or better is required
MATH	113	Trigonometry	3	
CHEM	201	General Chemistry I	5	C or better is required
		General Education Course	3	

## Spring Year 1 Notes

**Fall Year 2**

Designator	Course Number	Course Name	Credits	Milestones
BIOL	211	Genetics	4	C or better is required
BIOL	215	General Ecology	4	
---	---	Choose one:	---	
CHEM	202	General Chemistry II	5	
CHEM	111	Chemistry of Life Processes	5	
		General Education Course	2	

## Fall Year 2 Notes

You may apply to the major at the end of this term. Overall GPA must be a 2.2 or better, and Biology GPA must be a 2.0 or better.

**Spring Year 2**

Designator	Course Number	Course Name	Credits	Milestones
		General Education Course	2-3	
BIOL	301	Evolution	2	
PHYS	211		4	

		Principles of Physics		
---	---	Choose one:	---	
BIOL	420	Diagnostic	3	
BIOL	436	Parasitology	4	
BIOL	438	Animal Behavior	3	
		Endocrinology		
HLTH	475	Biostatistics	3	

## Spring Year 2 Notes

**Fall Year 3**

Designator	Course Number	Course Name	Credits	Milestones
BIOL	316	Animal Diversity	3	
BIOL	408	Vertebrate Ecology	4	
ENG	271W	Technical Communication	4	
		General Education Course	4	

## Fall Year 3 Notes

40 credits of upper division courses (including biology) are required for graduation.

**Spring Year 3**

Designator	Course Number	Course Name	Credits	Milestones
---	---	Choose a second course:	---	
BIOL	420	Diagnostic Parasitology	3	
BIOL	436	Animal Behavior	4	
BIOL	428	Endocrinology	3	
BIOL	431	Comparative Animal Physiology	3	
		Writing Intensive Course	3	
		General Elective Course	2-3	
		Upper Division General Elective Course	3	

## Spring Year 3 Notes

Two writing intensive courses are required. Apply for graduation one year before your graduation date.

**Fall Year 4**

Designator	Course Number	Course Name	Credits	Milestones
BIOL	424	Developmental Biology	3	
BIOL	421	Entomology (if needed)	0-3	
BIOL		Unrestricted Elective in BIOL (if needed)	0-4	
		Upper Division General Education Course	3	
		Upper Division General Elective	2-3	
		Gold or Purple Course	3	

## Fall Year 4 Notes

Be sure all General Education, Diversity, and writing course requirements have been met.

**Spring Year 4**

Designator	Course Number	Course Name	Credits	Milestones
BIOL		Unrestricted Elective in BIOL	3	

	Purple Course Elective	3	
	Upper Division General Elective	3	
	Upper Division General Education Course	3	
	General Education Course	3	

Spring Year 4 Notes

Academic Map CheckList  
Graduation Requirement

Minimum of 15 credits per semester
General Education = 44 credits
Writing Intensive = 2 courses (6 credits minimum)
Diverse Cultures = 2 course (6 credits minimum) from two disciplines
Major = 73 Credits
Upper-Division Requirements = 40 credits minimum
Total credits required for degree 120 Credits

<u>Date</u>	<u>Action</u>	<u>Role</u>	<u>User</u>	<u>Comments</u>
4/29/16			Knoblich, Penny	Created
4/29/16	Recommended	Chair of Biological Sciences	Knoblich, Penny	
4/29/16	Recommended	Dean of Science Engineering and Technology	Martensen, Brian	
5/22/16	Approved	Academic Affairs VP	Wells, Marilyn	

**DARS Encoder**

**AgileGrad**