



MINNESOTA STATE UNIVERSITY MANKATO

Academic Map Proposal

Proposal Number	13467
Create Date	4/22/16
Modified Date	4/29/16
Author	Penny Knoblich, penny.knoblich@mnsu.edu
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	Biomedical Sciences
Option	
Version Number	1
Version	Biomedical Sciences
Version Explanation	
programType	Broad Major
Minor Required	No
Minor Specific	
Minor Specific	
Program Description	The program prepares the student for a career in biomedicine, and satisfies the requirements for most medical, osteopathic, dental, and chiropractic schools.
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	Some semesters have 16 credit hours and some have 14 credit hours. Average is 15 credits per semester.
Program Phone Number	() -
Program Website(Url)	

Fall Year 1

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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 Elective	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	
ENG	271W	Technical Communication	4	
CHEM	201	General Chemistry I	5	C or better is required

Spring Year 1 Notes

Fall Year 2

Designator	Course Number	Course Name	Credits	Milestones
BIOL	211	Genetics	4	C or better is required
CHEM	202	General Chemistry II	5	
PHYS	211	Principles of Physics I	4	
		General Education Course	1	

Fall Year 2 Notes

A minimum 2.2 GPA is needed, and a 2.0 GPA in Biology courses to apply for admission to the program.

Spring Year 2

Designator	Course Number	Course Name	Credits	Milestones
BIOL	220	Anatomy	4	
CHEM	305	Analytical Chemistry	4	
PHYS	212	Principles of Physics II	4	
		General Education Writing Intensive Course	3	

Spring Year 2 Notes

May apply to the major at the end of this term if overall GPA is 2.2 or better, and Biology GPA is 2.0 or better.

Fall Year 3

Designator	Course Number	Course Name	Credits	Milestones
BIOL	330	Principles of Human Physiology	4	
CHEM	322	Organic Chemistry I	4	
CHEM	323	Supplemental Organic Chemistry	1	
---	---	Choose one:	---	
HLTH	475	Biostatistics	3	
MATH	121	Calculus I	4	
MATH	154	Concepts of Probability & Statistics	3	
		General Education Course	2-3	

Fall Year 3 Notes

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

Spring Year 3

Designator	Course Number	Course Name	Credits	Milestones
BIOL	270	Microbiology	4	
BIOL	320	Cell Biology	4	
---	---	Choose four credits:	---	
CHEM	360	Principles of	4	
CHEM	460	Biochemistry OR	3	
CHEM	465	Biochemistry I	1	
		AND		
		Biochemical		
		Techniques I		
		General Education	3	
		Course		

Spring Year 3 Notes

Apply for graduation one year prior to your expected graduation date.

Fall Year 4

Designator	Course Number	Course Name	Credits	Milestones
BIOL		Unrestricted Elective in Biology	3-4	
BIOL		Unrestricted Elective in Biology with Lab	3-4	
		Gold or Purple Elective	3	
		Upper Division General Education Course	2-3	
		General Education Course	2	

Fall Year 4 Notes

Be sure all General Education and Diversity Course requirements have been met.

Spring Year 4

Designator	Course Number	Course Name	Credits	Milestones
BIOL		Unrestricted elective in BIOL	3-4	
BIOL		Unrestricted elective in BIOL	3	
		Purple Elective Course	3	
		General Education Course	3	
		Upper Division General Education Course	2-3	

Spring Year 4 Notes

Academic Map CheckList
Graduation Requirement

General Education = 44 credits
Writing Intensive = 2 courses (6 credits minimum)
Diverse Cultures = 2 course (6 credits minimum) from two disciplines
Major = 90 Credits
Upper-Division Requirements = 40 credits minimum
Total credits required for degree 120 Credits

Date	Action	Role	User	Comments

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