

**ACADEMIC SENATE PROPOSAL TRACKING SHEET**  
**(Document To Be Originated by the Academic Senate Secretary On Canary Color Paper)**

<b>Proposal #</b> 23-31	<b>Title:</b> Proposal of Tracks in the Bachelor of Science in Biology
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(Proposal explanation, submitter and college dean signatures on attached program/degree or course revision form.)

**All proposals MUST have their originating college faculty body (Arts, Sciences & Education; Health Sciences; Technical Sciences) approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.**

1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms or General Education Inclusion form) to the Academic Senate Secretary. **NOTE: Level 1 or Level 2 forms must be submitted concurrent with this proposal where applicable. For Education proposals, PEU approval must be received prior to forwarding the proposal to the Senate.**
2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): General Education (if applicable), or Curriculum. A digital copy of the proposal will be linked on the Academic Senate Proposal page by the Academic Senate Secretary.
3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is returned to the Academic Senate Secretary for forwarding to the next committee. If a committee disapproves the proposal, the committee will provide written rationale to the originator, via the Academic Senate.\* The originator may request that the item be forwarded to the next body for consideration. Upon completion of subcommittee action, the proposal will be returned to the Academic Senate Secretary for consideration at the next Academic Senate meeting.
4. The Academic Senate considers the proposal and recommends approval or disapproval. If approved, the proposal is forwarded to the Provost for consideration within 10 working days. If the Academic Senate disapproves the proposal, the Academic Senate will provide written rationale to the originator. \* The originator may request that the item be forwarded to the Full Faculty for consideration, utilizing procedures set forth in the Senate Bylaws.
5. Approved proposals will be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor. From this point forward, the Provost's Administrative Assistant will update the Proposal page on the website by contacting the webmaster.
7. The Chancellor approves or disapproves the proposal.
8. If approved, the proposal will then either be implemented or referred to MSU for further action. The tracking page on the Provost site will be updated as required.

**Subcommittee and Academic Senate college representatives will notify their respective colleges of the progress of submitted proposals or the proposal may be tracked via the web page -- <http://www.msun.edu/admin/provost/senate/proposals.htm>**

**Documentation and forms for the curriculum process are also available on the web page: <http://www.msun.edu/admin/provost/forms.htm>**

**\* If a proposal is disapproved, it is returned to the Dean of the submitting college who then notifies the originator.**

**See back for tracking form**

	Date	Action Taken	Signature	Date	Comments/Reason for Disapproval	Sent to	Date	Transmittal E-mail sent
Received by Senate Secretary	1/5/2024	Tracking form initiated	<i>DocuSigned by: Brittany Garden</i>	1/5/2024	Sent to Curriculum Committee	Committee	1/5/2024	DocuSign
General Education Committee (if applicable)		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<i>7131CC9454D9458...</i>					
Curriculum Committee (if applicable)	1/9/2024	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<i>DocuSigned by: Casey Donovan</i>	1/9/2024	Passed - Modified track credit loads to meet 80 max			
Academic Senate	3/2/2024	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<i>DocuSigned by: Valerie Guyant</i>	3/2/2024	and Paperwork for NSCI 450 & 451 should be submitted ASAP	450 & 451	should	
Provost		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<i>DE995B0729A143B...</i>	4/3/24				
Chancellor		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<i>Gregory D. Keyel</i>	6.4.2024				
MSU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	N/A					
BOR		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	N/A					
NWCCU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
Provost		Advise originating college and Academic Senate of status. Update Web page.						
Registrar		Catalog/Policy Manual Update						

**NOTE:** The secretary of the Academic Senate will update the Academic Senate Proposal web page from initial receipt until the proposal reaches the Provost. The Provost's Administrative Assistant will ensure that the current status of each proposal is maintained on the Academic Senate Proposal web page from that point forward.

Academic Senate Form 1 (Revised 4/4/2023)

**PROGRAM/DEGREE REVISION FORM**

NEW \_\_\_\_\_ DROPPED \_\_\_\_\_ MAJOR REVISION  X  FOR INFORMATION ONLY \_\_\_\_\_

College ARTS, SCIENCE & EDUCATION Program Area BIOLOGY

Submitter Jenni Hildebrand Dean Beth Durodye Date 4-5-24  
 Signature Signature (indicates "college" level approval)

**PROPOSAL TITLE B65 – BACHELOR OF SCIENCE IN BIOLOGY**

*To better address career goals as represented in our current and anticipated student population, faculty in the Biology Program propose "Tracks" within the Biology degree. Similar to other Montana Universities, our students will have the option to focus their course selections, subsequently providing them with knowledge, skills, and abilities (KSA) tailored to meet future objectives. Along with advising, both tracks prepare competitive applicants that can apply to professional programs (e.g., graduate, medical, veterinary, pharmacy, et al.). In addition, the Ecology & Conservation Biology Track provides career options that include future employment with a B.S. degree as a game warden, botanist, wildlife biologist, fisheries or range manager, and soil scientist. Students in this track will be well-prepared for positions with federal and state agencies as well as for-profit and non-profit corporations.*

**Current Program  
in 22-23 Catalog**

Course Prefix	#	Course Title	Credits
<b>General Education Requirements</b>			<b>34</b>
<b>Biology Program Requirements</b>			
BIOB	160	Principles Living Systems	4
BIOB	161	Principles Living Systems Lab	1
BIOO	220	General Botany	3
BIOO	221	General Botany Lab	2
BIOO	380	Zoology	3
BIOO	381	Zoology Lab	2
CHMY	141	College Chemistry I	3
CHMY	142	College Chemistry I Lab	2
CHMY	143	College Chemistry II	3
CHMY	144	College Chemistry II Lab	2
PHSX	205	College Physics I	3
PHSX	206	College Physics I Lab	1
PHSX	207	College Physics II	3
PHSX	208	College Physics II Lab	1
			<b>33</b>
<b>Required Program Courses</b>			
BIOE	370	General Ecology	4
BIOE	371	General Ecology Lab	0
BIOB	485	Molecular Biology & Genetics	4
BIOB	486	Molecular Biology & Genetics Lab	0
CHMY	321	Organic Chemistry I	3
CHMY	322	Organic Chemistry I Lab	2
BIOB	420	Evolution	4
NSCI	450	Undergraduate Research	3
COMX	111	Introduction to Public Speaking	3
STAT	216	Introduction to Statistics	3
			<b>23</b>
<i>Please see current Program courses on Page 2</i>			
<b>Total</b>			<b>90</b>

**Proposed Program  
for 24-25 Catalog**

Course Prefix	#	Course Title	Gen-Ed Credits	Degree Credits	Change
<b>General Education Requirements</b>					
WRIT	101	College Writing	3		
COMX	111	Introduction to Public Speaking	3		
CAT II		Math			
		M 121 College Algebra	3		
CAT III		Science	6		
CAT IV		Social Science/History	6		
CAT V		Cultural Diversity	3		
CAT VI		Humanities/Arts	6		
CAT VII		Technology	3		
<b>Total</b>			<b>33</b>		
<b>Required Course Requirements</b>					
BIOB	160	Principles of Living Systems		3	*
BIOB	161	Principles of Living Systems Lab		1	
BIOB	170	Organismal Diversity & Evolution		3	*
BIOB	171	Organismal Diversity & Evolution Lab		1	*
CHMY	141	College Chemistry I		3	
CHMY	142	College Chemistry I Lab		1	*
CHMY	143	College Chemistry II		3	
CHMY	144	College Chemistry II Lab		1	*
PHSX	205	College Physics I		3	
PHSX	206	College Physics I Lab		1	
BIOE	370	General Ecology		4	
BIOE	371	General Ecology Lab		0	
BIOB	485	Molecular Biology & Genetics		4	
BIOB	486	Molecular Biology & Genetics Lab		0	
CHMY	321	Organic Chemistry I		3	
CHMY	322	Organic Chemistry I Lab		2	
BIOB	420	Evolution		4	
M	112	Trigonometry & Complex Numbers		2	*
STAT	216	Introduction to Statistics		3	
<b>Total - Please see Proposed Tracks (pp. 3-4)</b>			<b>33</b>	<b>42</b>	

## Current Program in 22-23 Catalog

Course Prefix	#	Course Title	Credits
Choose <b>12 Credits</b> from the following			
BIOM	250/251	Microbiology for Health Sciences & Lab	3/1
BIOH	201/202	Human Anatomy and Physiology I & Lab	4/0
BIOH	211/212	Human Anatomy and Physiology II & Lab	4/0
BIOO	320/321	General Botany II & Lab	4/0
BIOO	462/463	Entomology & Lab	3/0
BIOO	470/471	Ornithology & Lab	3/0
BIOB	450/451	Molecular Biology Techniques & Lab	3/0
BIOE	428/429	Freshwater Ecology & Lab	4/0
BIOE	410/411	Field Biology Methods & Lab	4/0
BIOM	400/401	Medical Microbiology & Lab	3/0
GEO	314	Introduction to Paleontology	3
NSCI	451	Undergraduate Research II	3
			<b>12</b>
<b>Advisor Approved Electives (please list below) or Minor</b>			<b>25**</b>
** As currently listed in catalog despite totaling to more than 120 hours			
		<b>Total</b>	<b>120</b>

## Proposed Track I – Biomedical Sciences & Human Health for 24-25 Catalog

(includes Medical, Pharmacy, Dentistry & Research Career Preparation)

Course Prefix	#	Course Title	Gen-Ed Credits	Degree Credits	Change
<b>Required Track Credits</b>					
AHMS	144	Medical Terminology		3	
BCH	360	Fundamentals of Biochemistry		3	
BIOM	363	Eukaryotic Cell Biology		3	*
BIOH	201/202	Human Anatomy & Physiology I & Lab		4/0	
BIOH	211/212	Human Anatomy & Physiology II & Lab		4/0	
BIOM	250/251	Microbiology for Health Sciences & Lab		3/1	
CHMY	323/324	Organic Chemistry II & Lab		5	
PHSX	207/208	College Physics II & Lab		3/1	
				<b>30</b>	
<b>Advisor Approved Track Electives (Choose at least 8 credits from the following)</b>					
BIOB	450/451	Molecular Biology Techniques & Lab		3/0	
BIOH	4XX	Neurology of Disease		3	*
BIOM	400/401	Medical Microbiology & Lab		3/0	
CHTH	440	Principles of Epidemiology		3	
HTH	325	Etiology of Disease		3	
KIN	320	Exercise Physiology		3	
KIN	327	Kinesiology & Biomechanics		3	
NSCI	450	Undergraduate Research I		1-3	
NSCI	451	Undergraduate Research II		1-3	
<b>Electives Required for Graduation</b>				<b>7</b>	
<b>Total</b>				<b>120</b>	

**Please note additional instructional resources needed (including library materials, special equipment, and facilities). Approval does not indicate support for new faculty or additional resources:**

*A need for additional instructional resources is not anticipated.*

## Proposed Track II – Ecology & Conservation Biology for 24-25 Catalog

(includes Veterinary, Wildlife Biology, Plant Science & Research Career Preparation)

Course Prefix	#	Course Title	Gen-Ed Credits	Degree Credits	Change
<b>Required Track Credits</b>					
AOT	301	Global Positioning Systems		3	
AOT	315	Geographic Information Systems		3	
BIOE	440	Conservation Biology		3	*
BIOE	451	Landscape Ecology		3	*
GEO	3XX	Landscape Geology & Lab		4/0	*
				<b>16</b>	
<b>Advisor Approved Track Electives</b> (Choose at least 22 credits from the following, at least three of which are at the 300 or 400 level)					
AHMS	144	Medical Terminology		3	
ANTY	250/251	Introduction to Archaeology		3	
ANTY	3XX	Archaeological Science & Lab		4/0	*
ASTR	307	Astronomy & Lab		4/0	*
BCH	360	Fundamentals of Biochemistry		3	
BIOB	450/451	Molecular Biology Techniques & Lab		3/0	
BIOE	410/411	Field Biology Methods & Lab		4/0	
BIOE	417/418	Ecological Methods & Lab		4/0	
BIOE	428/429	Freshwater Ecology & Lab		4/0	
BIOE	4XX	Restoration Ecology		3	*
BIOM	423	Mycology		3	*
BIOO	320/321	General Botany & Lab		4/0	*
BIOO	335/336	Rocky Mountain Flora & Lab		3	
BIOO	380/381	Zoology & Lab		4/0	*
BIOO	462/463	Entomology & Lab		4/0	
BIOO	470/471	Ornithology & Lab		3/0	
BIOO	475	Mammalogy & Lab		4/0	*
CHMY	323/324	Organic Chemistry II & Lab		5	
ENSC	245	Soils		4	
NRSM	260	Range Management & Lab		4	
NSCI	450	Undergraduate Research I		1-3	
NSCI	451	Undergraduate Research II		1-3	
PHSX	207/208	College Physics II & Lab		4	
<b>Electives Required for Graduation</b>				7	
<b>Total</b>				<b>120</b>	

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College ARTS, SCIENCE & EDUCATION

Program Area BIOLOGY

Date 4/5/2024

Submitter Jeri Hildebrand  
Signature

Dean Reth Nusodoye  
Signature (indicates "college" level approval)

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