



College of Arts and Sciences

P.O. Box 7751 • Havre, MT • 59501-7751

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TO: Larry Strizich

FROM: Will Rawn

A handwritten signature in black ink, appearing to read "Will Rawn".

DATE: March 25, 2004

RE: Biology Revisions 03-39

The change in credits from 3 to 4 credits for BIOL 407 Freshwater Biology would not change the total program credits required for graduation in the Bachelor of Science in Education Degree Teaching Major in General Science (5-12). This course will be one of a number of selectives in that program. With this change those selectives will include five-4 credit courses and eight-3 credit courses.

cc: Sandra Copenhaver

PROCEDURAL SEQUENCE FOR ACADEMIC SENATE APPROVAL OF PROPOSALS

1. Submit all proposals to the Office of Academic Affairs.
2. The Senate President will log items and forward them to the appropriate Senate subcommittees.
3. The Senate subcommittee will send the proposal to the Senate.
4. Senate proposals will be considered by the Full Faculty.
5. If approved, the proposal will then be forwarded to the Vice Chancellor.

Proposals that require action to approve/disapprove/table or remand will be sent back to the Senate according to the monthly meeting schedule.

Biology Program Revisions

SUBCOMMITTEE: _____ PROPOSAL #:

PROPOSAL:

1. Drop BIOL 363 - Lentic Ecology (3 credits) and BIOL 364 - Stream Ecology (3 credits).
2. Add a lab component of 1 credit to BIOL 407 - Freshwater Biology, increasing it from 3 to 4 credits and approve it as a laboratory science class.

Action Signatures:

Dwight C. Hester 3/23/04
Submitter Date

[Signature] 3/23/04
College Chair/Dean Date

Committee Chair Approve _____ Disapprove _____ Date

Committee Chair Approve _____ Disapprove _____ Date

Faculty Senate President Approve _____ Disapprove _____ Date

Provost/Senior Vice Chancellor for Academic Affairs Approve _____ Disapprove _____ Date

COURSE REVISION FORM

NEW _____ DROPPED _____ MAJOR REVISION X FOR INFORMATION ONLY _____.

College Arts & Sciences Program Area Biology Date 3/4/04 .

Submitter _____ Chair/Dean _____ Date _____
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

BIOL 363 - Lentic Ecology & Biology 364 - Stream Ecology are being dropped so some of their lab content will be added to BIOL 407 - Freshwater Biology changing course from 3 to 4 credits allowing it to meet the laboratory science requirement.

Please provide the following information:

College: Arts and Sciences

Program Area: Biology

Date: 3/4/04

Course Prefix & No.: BIOL 407

Course Title: Freshwater Biology

Credits: 3 changing to 4

Required by:

Selective in: Biology/Water Quality/ General Science Education

Elective in:

General Education: Will meet lab science requirement.

Lecture:

Lecture/Lab: 4 credit hours

Contact hours lecture: 3 per week

Contact hours lab: 2 per week

Current Catalog Description (include all prerequisites): The focus of this course will be towards examination, identification and classification of a wide variety of freshwater organisms abundant in Montana's aquatic systems. Extensive laboratory work and field trips are required. Graduate credit requirements are described in the syllabus. Prerequisites: basic biology course. This course does not meet the laboratory science requirement.

Proposed or New Catalog Description (include all prerequisites): This course will demonstrate and provide an opportunity for students to develop skills in selected techniques used in the examination, identification and classification of a wide variety of the freshwater organisms that live in Montana's aquatic systems. Extensive laboratory work and field trips are required. Prerequisites: BIOL 140 or BIOL 151 or approval of instructor. This course does meet the laboratory science requirement.

Course Outcome Objectives:

Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources. None

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College Arts and Science Program Area Biology Date 3/29/04

Submitter *Deborah Hester* Chair/Dean *Neil Brown* Date 3/24/04
Signature Signature (indicates "college" level approval)

Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Indicate changes by shading appropriate cells.

OLD PROGRAM

NEW PROGRAM

Course Prefix	#	Course Title	Credits	
			Fall	Spr.
		Common Science Core (34 credits)		
BIOL	140	Cell Biology	4	
BIOL	141	Cell Biology Lab	1	
BIOL	221	Botany I	3	
BIOL	222	Botany I Lab	2	
BIOL	348	Zoology	3	
BIOL	350	Zoology I Lab	2	
CHEM	121	General Inorganic Chemistry I	3	
CHEM	122	General Inorganic Chemistry II		3
CHEM	123	General Inorganic Chemistry I Lab	2	
CHEM	124	General Inorganic Chemistry II Lab		2
PHYS	231	Fundamentals of Physics I	3	
PHYS	232	Fundamentals of Physics II		3
PHYS	234	Fundamentals of Physics I Lab	2	
PHYS	235	Fundamentals of Physics II Lab		2
		Required Courses (22 credits)		
BIOL	314	General Ecology	4	
BIOL	468	Molecular Biology & Genetics	4	
CHEM	341	Organic Chemistry I	3	
CHEM	342	Organic Chemistry I Lab	2	
MATH	116	Statistics	3	
NSCI	301	Essence of Science	3	
NSCI	450	Undergraduate Research I	3	
		Program Selectives (12 credits)		
BIOL	217	Microbiology		4
BIOL	241	Anatomy and Physiology I	4	
BIOL	242	Anatomy & Physiology II		4
BIOL	322	Botany II		4
BIOL	324	Entomology		3
BIOL	334	Ornithology		3
BIOL	406	Molecular Biology Techniques		3
BIOL	407	Freshwater Biology	3	
BIOL	410	Field Biology Methods	4	
BIOL	460	Advanced Microbiology	3	
NSCI	451	Undergraduate Research II		3
ESCI	310	Introduction to Paleontology	3	(Summer)

Course Prefix	#	Course Title	Credits	
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		Common Science Core (35 credits)		
BIOL	140	Cell Biology	4	
BIOL	141	Cell Biology Lab	1	
BIOL	221	Botany I	3	
BIOL	222	Botany I Lab	2	
BIOL	348	Zoology	3	
BIOL	350	Zoology I Lab	2	
CHEM	121	General Inorganic Chemistry I	3	
CHEM	122	General Inorganic Chemistry II		3
CHEM	123	General Inorganic Chemistry I Lab	2	
CHEM	124	General Inorganic Chemistry II Lab		2
PHYS	231	Fundamentals of Physics I	3	
PHYS	232	Fundamentals of Physics II		3
PHYS	234	Fundamentals of Physics I Lab	2	
PHYS	235	Fundamentals of Physics II Lab		2
		Required Courses (22 credits)		
BIOL	314	General Ecology	4	
BIOL	468	Molecular Biology & Genetics	4	
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MATH	116	Statistics	3	
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		Program Selectives (12 credits)		
BIOL	217	Microbiology		4
BIOL	241	Anatomy and Physiology I	4	
BIOL	242	Anatomy & Physiology II		4
BIOL	322	Botany II		4
BIOL	324	Entomology		3
BIOL	334	Ornithology		3
BIOL	406	Molecular Biology Techniques		3
BIOL	410	Field Biology Methods	4	
BIOL	460	Advanced Microbiology	3	
NSCI	451	Undergraduate Research II		3
ESCI	310	Introduction to Paleontology	3	(Summer)

Total Credits: 170

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COURSE REVISION FORM

NEW _____ DROPPED MAJOR REVISION _____ FOR INFORMATION ONLY _____

College Arts & Sciences Program Area Biology Date 3/4/04

Submitter *Dregg A. Hester* Chair/Dean *Neil R. Ray* Date 3/23/04
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

BIOL 363 - Lentic Ecology will be dropped from the catalog. It is no longer a selective in Biology.

Please provide the following information:

College: Arts and Sciences

Program Area: Biology

Date: 3/4/04

Course Prefix & No.: BIOL 363

Course Title: Lentic Ecology

Credits: 3

Required by:

Selective in: Water Quality

Elective in:

General Education:

Lecture: 3

Lecture/Lab:

Contact hours lecture: 3 per week

Contact hours lab:

Current Catalog Description (include all prerequisites): Structure and function of standing-water aquatic systems with emphasis on the ponds and lakes of mountain and prairie locales. Offered alternative years. Prerequisite: BIOL 140 or BIOL 151 or equivalent.

Proposed or New Catalog Description (include all prerequisites): N/A

Course Outcome Objectives:

Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources. None

COURSE REVISION FORM

NEW _____ DROPPED X MAJOR REVISION _____ FOR INFORMATION ONLY _____

College Arts & Sciences Program Area Biology Date 3/4/04

Submitter *Greg A. Hunter* Chair/Dean *Neil R. Quinn* Date 3/23/04
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

BIOL 364 - Stream Ecology will be dropped from the catalog. It is no longer a selective in Biology.

Please provide the following information:

College: Arts and Sciences

Program Area: Biology

Date: 3/4/04

Course Prefix & No.: BIOL 364

Course Title: Stream Ecology

Credits: 3

Required by:

Selective in: Water Quality

Elective in:

General Education:

Lecture: 3

Lecture/Lab:

Contact hours lecture: 3 per week

Contact hours lab:

Current Catalog Description (include all prerequisites): Structure and function of flowing-water aquatic systems with emphasis on the creeks and rivers of mountain and prairie locales. Offered alternative years. Prerequisite: BIOL 140 or BIOL 151 or equivalent.

Proposed or New Catalog Description (include all prerequisites): N/A

Course Outcome Objectives:

Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources. None