

25-10/06/03

LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		03-20f	AP 1-20-04	

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Allan Andrew	Email Address ATANDREW@iup.edu
Proposing Department/Unit Biology	Phone 72750

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply)

New Course Course Prefix Change Course Deletion
 Course Revision Course Number and/or Title Change Catalog Description Change

<i>Current Course prefix, number and full title</i>	<i>Proposed course prefix, number and full title, if changing</i>
---	---

2. Additional Course Designations: check if appropriate

This course is also proposed as a Liberal Studies Course. Other: (e.g., Women's Studies, Pan-African)
 This course is also proposed as an Honors College Course.

3. Program Proposals

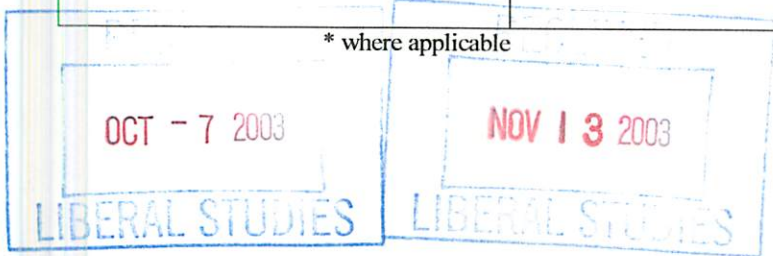
New Degree Program Program Title Change Other
 New Minor Program XXX_ New Track Catalog Description Change Program Revision

B.S. In Biology - Pre Medical Track

<i>Current program name</i>	<i>Proposed program name, if changing</i>
-----------------------------	---

4. Approvals	Date
Department Curriculum Committee Chair(s) <i>Arthur Atala</i>	<i>03-14-03</i>
Department Chair(s) <i>Andrew</i>	<i>3/14/03</i>
College Curriculum Committee Chair <i>[Signature]</i>	<i>10/06/03</i>
College Dean <i>[Signature]</i>	<i>10/06/03</i>
Director of Liberal Studies *	
Director of Honors College *	
Provost *	
Additional signatures as appropriate: (include title)	
UWUCC Co-Chairs	

* where applicable



Part II: Description of Curriculum Change

1. Complete Catalog Description for New Track

Bachelor of Science in Biology: Pre Medical Track

The Pre Medical Track includes all core courses in biology and, in addition, a selection of courses that focus on the preparation of the student for admission to both allopathic and osteopathic medical school.

Bachelor of Science: Pre Medical Track

Liberal Studies Courses: As outlined in the Liberal Studies section 48 cr
With the following specifications:

Mathematics:	MATH 121	
Natural Sciences:	CHEM 111-112	
Liberal Studies Electives	3 cr	

Majors: 38cr

Biology Core Courses (20 cr)

BIOL 111	Principles of Biology I	4cr
BIOL 112	Principles of Biology II	4cr
BIOL 210	Botany	3cr
BIOL 220	General Zoology	3cr
BIOL 250	Principles of Microbiology	3cr
BIOL 263	Genetics	3cr

Additional Required Biology Courses (9 cr)

BIOL 242	Comparative Vertebrate Anatomy	3cr
BIOL 331	Animal Developmental Biology	3cr
BIOL 352	Comparative Animal Physiology	3cr

Controlled Biology Electives (9 cr)¹

BIOL 151, 269, 271, 363, 364, 401, 453, 466, 476, 477, 481, 482, 493

Ancillary Science Requirements 20cr

Chemistry Sequence

CHEM 231	Organic Chemistry I	4cr
CHEM 232	Organic Chemistry II	4cr
CHEM351	Biochemistry	4cr

Physics Sequence		
PHYS 111	Physics I Lecture	3cr
PHYS 121	Physics I Laboratory	1cr
PHYS 112	Physics II Lecture	3cr
PHYS 122	Physics II Laboratory	1cr
Mathematics		
MATH 216	Probability and Statistics	4cr
Foreign Language Intermediate Level		0-6cr
Free Electives		4-10cr
TOTAL		120cr

⁽¹⁾ No more than 6 cr total from Independent Study, Special Topics and Internship applies to major, excess applied as free electives.

2. Detailed description of the Track

Rationale and Justification

The proposed Pre-medical Track will provide students with a formal well-defined curriculum that will give the students the courses required for admission to all medical schools, both allopathic and osteopathic, in the United States. The proposed track is also designed to give students the background needed to earn competitive scores on the Medical College Admissions Test (MCAT)

The proposed track includes all Biology core courses, three additional courses (BIOL 242, BIOL 331, and BIOL 352) and an additional 9 hours of biology electives. The track also requires 20 semester hours of chemistry (CHEM 111, CHEM 112, CHEM 231, CHEM 232, and CHEM 351, eight semester hours of physics (PHYS 111 & 121 and PHYS 112 & 122) and eight semester hours of mathematics (MATH 121 and MATH 216). Students who complete this track will receive a minor in chemistry

Sequencing of the Pre-medical Track: See Attached

Restrictions

Provided they meet the prerequisites, students from other departments and programs may enroll in the Pre-medical Track.

Part III Implementation

1. How will the proposed new track affect students in the existing program

The introduction of this Track will have little or no affect on students in existing biology programs. The Pre-medical Track is very similar to the old BS degree in Biology. All the courses in the program are currently taught within the biology department and the ancillary departments.

2. Are faculty resources adequate?

Yes. Again this track does not add any new courses to our course offerings. At the present time, approximately 50% of the students currently enrolled in the biology department are pre-professional (either pre-medical or pre-veterinary). Teaching loads are already factored into the course schedule

3. Are other resources adequate?

Space: Existing laboratory space within the biology department will be adequate

Equipment: Equipment on hand will be adequate. Eventually all equipment will need to be replaced. This can be done over a period of time

Supplies: Current supply budgets should be adequate

Travel Funds: NA

Library: Library materials are less than adequate and students will probably need to utilize interlibrary loan or rely on the reprint collections of faculty.

4. Do you expect an increase or decrease in the number of students as a result of these revisions? If so, how will the department adjust?

At the current time, pre-professional students make up a significant part of the department. It is not anticipated that the new track will have an effect on the number of students.

5. Intended implementation date

Fall 2004 semester

Part IV Periodic Assessment

The Track will be reviewed by the Student Affairs Committee of the biology department. Student's outcomes will be measured by determining success rate for medical school admissions and also how well students do on the MCAT. First year medical students from IUP will be asked to fill out an evaluation of the program to determine if we are meeting the stated goals.

Part V. Course Proposals

There are no new courses being proposed

Part VI. Letters of Support

B.S. IN BIOLOGY
PRE-MEDICINE/FAMILY MEDICINE
(August 2002)

First Semester				Second Semester			
BIOL	111	Principles of Biology I	4	BIOL	112	Principles of Biology II	
	4						
CHEM	111	General Chemistry I	4	CHEM	112	General Chemistry II	
	4						
ENGL	101	College Writing	4			Intro Course	
	3						
HIST	195	Modern Era	3			Soc. Sci. Elective	
	3						
			—			Health and Wellness	
	<u>3</u>						
			15				
		17					

Third Semester				Fourth Semester			
BIOL	220	Zoology	3	BIOL	250	Micro	
	3						
CHEM	231	Organic I	4	CHEM	232	Organic II	
	4						
MATH	121	Calculus	4	MATH	216	Prob/Stat	
	4						
ENGL	121	Humanities Lit	3			Soc. Sci Elective	
	3						
			—			Hum/Religious Studies	
	<u>3</u>						
			14				
							1
							7

*Internship: 3-6 credits (Summer)

Fifth Semester				Sixth Semester**			
CHEM	351	Biochemistry	4	BIOL	353	Comp Physiology	
	3						
BIOL	263	Genetics	3	PHYS	112	Physics II Lecture	
	3						
BIOL	331	Animal Dev.	3	PHYS	122	Physics II Lab	
	1						
PHYS	111	Physics I Lecture	3			Soc. Sci. Elective	
	3						
PHYS	121	Physics I Lab	1			Free Elective	
	3						
ENGL	202	Research Writing	<u>3</u>				
			17				
	13						

***Internship: 3-6 credits (Summer)**

Seventh Semester			Eighth Semester		
BIOL	_____	Elective	3		
BIOL	283	Comp. Anatomy	3	BIOL	_____ Electives
	6				
BIOL	220	Botany	3	LBST	499 Synthesis
	3				
Foreign Language			3-4	Foreign Language	
3-4					
Elective			<u>3</u>		
_____			15-16		12-
13					

***It is strongly recommended that students enroll in an internship in the summer either between their Sophomore/Junior year or Junior/Senior year. Six credits of internship will count as Biology electives in the degree program.**

****MCAT, Interview with Pre-Medical Committee.**