

CHANGE UNDERGRADUATE DEGREE PROGRAM

PLEASE NOTE: To ensure that a series of changes to an existing degree program does not essentially create a new program, the Southern Association for the Accreditation of Colleges and Schools (SACS) requires submission of its Substantive Change Checklist for every program change. Prior to college-level review, you must fill out and submit the [SACS Substantive Change Checklist](#) to the Office of Institutional Effectiveness. Contact Institutional Effectiveness (institutionaleffectiveness@uky.edu) for assistance.

Once approved at the college level, your college will send the proposal to the appropriate Senate academic council (HCCC and/or UC) for review and approval. Once approved at the academic council level, the academic council will send your proposal to the Senate Council office for additional review and then a 10-day posting online, during which senators review on their own and have an option to register an objection if they so desire. If no objection is raised to the Senate Council Office within ten days of the posting the proposal, then the program change is approved. The Senate Council Office will report approvals to the Provost, Registrar and other appropriate entities, including the contact person.

For every proposed change, you MUST also include the existing requirement.

SUMMARY OF CHANGES

Check all that apply.

<input type="checkbox"/> Courses	<input type="checkbox"/> Program name	<input type="checkbox"/> Total required credit hours	<input type="checkbox"/> Student learning outcomes
<input type="checkbox"/> Criteria for admissions/progression/termination		<input type="checkbox"/> Certificate assessment	<input checked="" type="checkbox"/> Other

1. General Information

1a	Date of contact with Institutional Effectiveness (IE) ¹ :	10/23/2017		
	<input checked="" type="checkbox"/> Appended to the end of this form is a PDF of the reply from Institutional Effectiveness.			
1b	College ² :	Arts and Sciences	Department ² :	Biology
1c	CIP code ³ :	26.0101	Today's Date:	10/24/2017
1d	Current major name: (Biology, Design, etc.)	Biology	Proposed major name:	
1e	Current Degree (BA, BFA, etc.):	BA with Topical Focus Option	Proposed degree:	
1f	Will there be any changes regarding a track(s) for the program?			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1g	Accrediting agency, if applicable:			
1h	Date of most recent periodic program review for this degree:		2015	
1i	Requested effective date:	<input checked="" type="checkbox"/> Fall semester following approval.	OR	<input type="checkbox"/> Specific Date ⁴ : <i>Fall 20</i>

¹ Prior to college-level review, you must fill out and submit the SACS Substantive Change Checklist to the Office of Institutional Effectiveness. You can reach Institutional Effectiveness by phone or email (257-2873 or institutionaleffectiveness@uky.edu).

² It is not possible to change the home academic unit of a degree program via this form. To change the home unit, visit <http://www.uky.edu/faculty/senate> and search for forms related to academic organizational structure.

³ The CIP code is provided by Institutional Effectiveness. If a different CIP code is necessary, the program may undergo a review similar to the new program approval process.

⁴ No program change(s) will be effective until all approvals are received.

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1j	Contact person name:	Jennifer Osterhage	Phone / Email:	257-9322 / jennifer.osterhage@uky.edu
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2. Overview of Changes

2a	Describe the rationale for the changes, including results from the most recent program review if applicable. (450 word limit)
	<p>Within our BA, we have two existing options: Option A: Minor and Option B: Topical Focus. We propose to establish seven tracks within the Biology B.A Option B: Topical Focus option degree. We will not establish tracks with the B.A. with minor option because that degree does not require a sufficient number of biology electives to earn a track.</p> <p>To complete a track, 12 upper-level Biology elective hours out of 13-15 required must be completed from the courses listed for each track. The other 1-3 credit hours can be fulfilled with any course from the General Biology electives list. This change does not affect the total number of hours required for the Biology B.A. degree, nor does it change any Biology core requirement. If an alternative track is not declared, the default track will be General Biology. The establishment of tracks within the Biology major offers many advantages for both students and faculty. Students will gain:</p> <ol style="list-style-type: none"> 1. A commitment to a topic of study within the Biology major 2. Structure to / knowledge of upper level electives to develop their field of interest 3. Documented expertise in an area for those seeking admission to graduate school, professional school or specialized careers 4. Connection to research mentor <p>Rationale: By providing students a list of courses within a specific discipline in biology, we can help ensure that they are gaining competency and a thorough understanding of that subfield in biology. Each course given in the individual tracks provides valuable information and insight into the principles and practices of each subfield. There is sufficient variety in each track's courses that the student can choose a path that best matches their interests or future career goals while still gaining an understanding of the overarching concepts in that field. With the tracks, we hope to make the students' scheduling choices easier, while also providing them a more comprehensive study of their chosen subfield within biology.</p>

2b	Use the fields below, as applicable, to identify the areas in which changes will be made.		
		Current	<i>Proposed</i>
i.	Credit Hours of Premajor Courses:	21	21
ii.	Credit Hours of Preprofessional Courses:		
iii.	Credit Hours of Major Core Course Requirements	20	20
iv.	Minimum Credit Hours of Guided Electives:	25-27	25-27
v.	Minimum Credit Hours of Free Electives:	6	6
vi.	Credit Hours for Track 1 (name): 7 total tracks, see 5j and additional track documents		120
vii.	Credit Hours for Track 2 (name):		
viii.	Credit Hours for Track 3 (name):		
ix.	Credit Hours for Track 4 (name):		
x.	Credit Hours for Track 5 (name):		
xi.	Credit Hours for Required Minor:		
xii.	Total Credit Hours Required by Level:	100-level:	

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	200-level:	20	20
	300-level:	36	36
	400-level:	1	1
	500-level:		

	TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:	<u>120</u>	<u>120</u>
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xv. If the total hours required for graduation have changed, explain below. (150 word limit)
 This proposal does not change any requirement for the major or the total credit hours required for graduation.

2c	Will the requested change(s) result in the use of courses from another educational unit?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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If "Yes," describe generally the courses and how they will used.

There are courses from outside our department that are listed as possible electives in each track. The majority of these courses have been on our "accepted electives" list for many years. We have added some new courses when relevant and appropriate. The syllabi for each of these newly added courses were vetted by the Biology Undergraduate Affairs Committee. We have communicated with each of the affected departments and have attached evidence of support.

If "Yes," two pieces of supporting documentation are required.

Check to confirm that appended to the end of this form is a letter of support from the appropriate chair/director⁵ of each unit from which individual courses will be used.

Check to confirm that appended to the end of this form is verification that the chair/director of each affected unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.

2d	Will the proposed change(s) affect an associated minor?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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If "Yes," the department must also submit a change form to change the minor.

3. Course Sharing

3a.	Will the requested changes result in the use of courses from another unit?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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If "Yes," describe generally the courses and how they will used.

There are courses from outside our department that are listed as possible electives in each track. The majority of these courses have been on our "accepted electives" list for many years. We have added some new courses when relevant and appropriate. The syllabi for each of these newly added courses were vetted by the Biology Undergraduate Affairs Committee. We have communicated with each of the affected departments and have attached letters of support.

If "Yes," two pieces of supporting documentation are required.

Check to confirm that appended to the end of this form is a letter of support from the other units' chair/director⁶ from which individual courses will be used.

Check to confirm that appended to the end of this form is verification that the chair/director of the other

⁵ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

⁶ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

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unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.

3. UK Core Courses

3a Are there any proposed changes to the UK Core requirements for the program? (If "Yes," indicate and proceed to next question. If "No," indicate and proceed to 4a.) Yes No

If "Yes," note the specific changes in the grid below.

UK Core Area	Current Course	Current Credits	Proposed Course	Proposed Credits
I. Intellectual Inquiry				
Arts and Creativity				
Humanities				
Social Sciences				
Natural/Physical/Mathematical				
II. Composition and Communication				
Composition and Communication I	CIS/WRD 110	3	<i>CIS/WRD 110</i>	3
Composition and Communication II	CIS/WRD 111	3	<i>CIS/WRD 111</i>	3
III. Quantitative Reasoning				
Quantitative Foundations				
Statistical Inferential Reasoning				
IV. Citizenship (one course in each area)				
Community, Culture & Citizenship in USA				
Global Dynamics				
Total UK Core Hours		=====		=====

3b Provide the Bulletin language about UK Core.

4. Graduation Composition and Communication Requirement

4a Will the Graduation Composition and Communication requirement be changed? (If "Yes," indicate and proceed to next question. If "No," indicate and proceed to 5a.) Yes No

If "Yes," note the specific changes below, including changes to credit hours.

If the course(s) used are from outside the home unit, one piece of supporting documentation is required.

Check to confirm that appended to the end of this form is a letter of support from the other units' chair/director⁷ from which individual courses will be used.

	Current	Proposed
i.	<input type="checkbox"/> Single course in home unit:	<input type="checkbox"/> <i>Single course in home unit:</i>
ii.	<input type="checkbox"/> Multiple courses in home unit.	<input type="checkbox"/> <i>Multiple courses in home unit.</i>
iii.	<input type="checkbox"/> Single course outside home unit.	<input type="checkbox"/> <i>Single course outside home unit.</i>
iv.	<input type="checkbox"/> Multiple courses outside home unit.	<input type="checkbox"/> <i>Multiple courses outside home unit.</i>
v.	<input type="checkbox"/> Course(s) inside & outside home unit.	<input type="checkbox"/> <i>Course(s) inside & outside home unit.</i>

⁷ A dean may submit a letter only when there is no educational unit below the college level, i.e. there are no departments/schools.

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4b	Provide the Bulletin language about GCCR below.

5. Other Course Changes

5a	Will the college-level requirements change? (If “Yes,” indicate and note the specific changes in the grid below. If “No,” indicate and proceed to question 5c.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>						
<table border="1" style="width: 100%;"> <tr> <th style="width: 50%; text-align: center;">Current</th> <th style="width: 50%; text-align: center;">Proposed</th> </tr> <tr> <td><input type="checkbox"/> Standard college requirement</td> <td><input type="checkbox"/> <i>Standard college requirement</i></td> </tr> <tr> <td><input type="checkbox"/> Specific course</td> <td><input type="checkbox"/> <i>Specific course</i></td> </tr> </table>		Current	Proposed	<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>	<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>		
Current	Proposed								
<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>								
<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>								
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ⁸			
						Select one....			
						Select one....			
						Select one....			

5b	Will the existing language in the Bulletin about college-level requirements change?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	If “Yes,” provide the new language below.		

5c	Will the pre-major or pre-professional course requirements change? (If “Yes,” indicate and note the specific changes in the grid below. If “No,” indicate and proceed to question 5e.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>						
<table border="1" style="width: 100%;"> <tr> <th style="width: 50%; text-align: center;">Current</th> <th style="width: 50%; text-align: center;">Proposed</th> </tr> <tr> <td><input type="checkbox"/> Standard college requirement</td> <td><input type="checkbox"/> <i>Standard college requirement</i></td> </tr> <tr> <td><input type="checkbox"/> Specific course</td> <td><input type="checkbox"/> <i>Specific course</i></td> </tr> </table>		Current	Proposed	<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>	<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>		
Current	Proposed								
<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>								
<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>								
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ⁹			
						Select one....			
						Select one....			
						Select one....			
						Select one....			
						Select one....			

5d	Provide the Bulletin language about pre-major or pre-professional courses below.

5e	Will the major’s core course requirements change? (If “Yes,” indicate and note the specific changes in the grid below. If “No,” indicate and proceed to question 5g.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>						
	If “Yes,” note the specific changes in the grid below.								
<table border="1" style="width: 100%;"> <tr> <th style="width: 50%; text-align: center;">Current</th> <th style="width: 50%; text-align: center;">Proposed</th> </tr> <tr> <td><input type="checkbox"/> Standard college requirement</td> <td><input type="checkbox"/> <i>Standard college requirement</i></td> </tr> <tr> <td><input type="checkbox"/> Specific course</td> <td><input type="checkbox"/> <i>Specific course</i></td> </tr> </table>		Current	Proposed	<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>	<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>		
Current	Proposed								
<input type="checkbox"/> Standard college requirement	<input type="checkbox"/> <i>Standard college requirement</i>								
<input type="checkbox"/> Specific course	<input type="checkbox"/> <i>Specific course</i>								
Prefix &	Credit	Title	Prefix &	Credit	Title	Course Status ¹⁰			

⁸ Use the drop-down list to indicate if the course is a new course (“new”), an existing course that will change (“change”), or if the course is an existing course that will not change (“no change”).

⁹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

¹⁰ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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Nmbr	Hrs		<i>Nmbr</i>	<i>Hrs</i>	
					Select one....
					Select one....
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					Select one....

5f Provide the Bulletin language for major core course requirements.

5g Will the guided electives change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5i.) Yes No

Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	<i>Prefix & Nmbr</i>	<i>Credit Hrs</i>	<i>Title</i>	<i>Course Status</i> ¹¹
		see attached list of courses to be added				New
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5h Provide the Bulletin language for guided electives.

5i Will the free electives change? (If "Yes," indicate and note the specific changes in the space below. If "No," indicate and proceed to question 5j.) Yes No

¹¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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5j	Does the proposed change affect any track(s)? (If "Yes," note the specific changes using the grid below. If "No," proceed to question 6.)					Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If more than one track is affected, click HERE for a template. Append a PDF for each affected track to the end of this form.							
Track Name:		Cellular, Molecular, and Developmental Biology Track		<input checked="" type="checkbox"/> New Track	<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track	
Current				Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹²	
		see list of courses below				No Change	
						No Change	
						No Change	
						No Change	
						No Change	
						No Change	
5k	Provide the Bulletin language for the track.						
<p>The Cellular, Molecular, and Developmental Track provides a broad background in biology, with a focus on the molecular, cellular, and integrative mechanisms by which organisms regulate life processes. Students will learn about the molecular and cellular mechanisms that provide the basis for biological structure, growth, evolution, embryonic development, and genetic inheritance. Students will understand how eukaryotic cells process information from their environment and initiate programs of gene expression leading to growth, development, and functional specification.</p> <p>A degree in biology with an emphasis in Cellular, Molecular, and Development will prepare students for a career in the life sciences, whether they are interested in understanding the molecular mechanisms underlying cell growth, or the complex patterns of organismal development. This can help prepare students for a career in academic or industrial research, biotechnology, genetic engineering or any of the health professions.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 308: General Microbiology (3) BIO 309: Microbiology Lab (2) BIO 429: Developmental Biology (3) BIO 494G: Immunobiology (3) BIO 394/395/397: Research in Neuroscience/Biology/Microbiology (maximum 3 credit hours toward track) (1-3) BIO 495G: Bacterial Pathogenesis (3) BIO 502: Principles of Systems, Cellular and Molecular Physiology (5) BIO 510: Recombinant DNA Techniques Laboratory (4) BIO 520: Bioinformatics (3) BIO 527: Stem Cells, Tissue Engineering, and Regenerative Medicine (3)</p>							

¹² Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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BIO 582: Virology (3)
 BIO 542: Histology (5)
 BIO 410: Vertebrate Endocrinology (3)
 BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by Director of Undergraduate Studies (1-4)
 BIO 315: Intro to Cell Biology* (4)

Courses from outside the Biology Department:

BCH 401G: Fundamentals of Biochemistry (3)
 CHE 233: Organic Chemistry Laboratory II (1) or CHE 533 Advanced Organic Chemistry Laboratory (2)
 CHE 550: Biological Chemistry I (3)
 CHE 552: Biological Chemistry II (3)
 CHE 532: Spectrometric Identification of Organic Molecules (2)
 MI 598: Clinical Microbiology (same as PAT 598) (3)
 ANA 442: Molecular and Cellular Neurobiology (3)

Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis.

*only for students who do not use the course to fulfill the 2nd Tier Core

6. Semester by Semester Program

List below the typical semester-by-semester program for the major. If multiple tracks are available, click [HERE](#) for a template for additional tracks and append a PDF of each track's courses to the end of this form.

YEAR 1 – FALL: (e.g. "BIO 103; 3 credits")	See four year plan attached Tracks proposal does not change 4 year plan	YEAR 1 – SPRING:	
YEAR 2 - FALL :		YEAR 2 – SPRING:	
YEAR 3 - FALL:		YEAR 3 - SPRING:	
YEAR 4 - FALL:		YEAR 4 - SPRING:	

7. Approvals/Reviews

Information below does not supersede the requirement for individual letters of support from educational unit administrators and verification of faculty support (typically takes the form of meeting minutes).

In addition to the information below, attach documentation of department and college approval. This typically takes the form of meeting minutes but may also be an email from the unit head reporting department- and college-level votes.

	Reviewing Group Name	Date Approved	Contact Person Name/Phone/Email
7a	(Within College)		
	Ann Morris, Interim Chair	10/1/2017	Ann Morris / 257-8832 / ann.morris@uky.edu
			/ /
			/ /
			/ /

7b (Collaborating and/or Affected Units)

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	see attached letters from all 15 affected departments		/ /
			/ /
			/ /
			/ /
			/ /
7c	(Senate Academic Council)	Date Approved	Contact Person Name
	Health Care Colleges Council (if applicable)		
	Undergraduate Council		

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		Ecology and Evolutionary Biology Track	<input checked="" type="checkbox"/> New Track		<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹
					<i>see course list below</i>	<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
5k		Provide the Bulletin language for the track.				
<p>The Ecology and Evolutionary Biology Track focuses on the diversity of life on Earth, including diversity in genes, physiology, and behaviors. Students will learn about how this diversity emerged, as plants, animals, and microbes became adapted to the environment and to each other. A wide variety of scientific disciplines are integrated within the track, including ecology, organismal biology, physiology, genetics, evolution, conservation biology, and behavior. A degree in biology with an emphasis in Ecology and Evolution will prepare students for a career in the life sciences, whether they are interested in having a deep understanding of evolutionary process, or are interested in the interactions between organisms and their environment. This can help prepare students for careers in areas such as: 1. conservation and restoration biology—addressing the impacts of climate change, developing plans for habitat conservation and wildlife protection, or other issues critical to maintaining a healthy planet; 2. working as a doctor or veterinarian; 3. science education—educating students and the public on the history and diversity of life on earth and the need to conserve it; 4. basic research in biology—helping to expand the frontiers of knowledge by studying the evolution of organisms and their ecosystems.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 300: General Entomology (3) BIO 337 Mathematical Modeling in the Life Sciences (3) BIO 351: Plant Kingdom (3) BIO 375: Behavioral Ecology and Sociobiology (3) BIO 395: Research in Biology (max 3 credit hours toward track) (1-3) BIO 430G: Plant Physiology* (4) BIO 440: Comparative and Functional Anatomy (4) BIO 445: The Biology of Sex (3)</p>						

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM

BIO 461: Introduction to Population Genetics (3)
BIO 508: Evolution (3)
BIO 418: Ecological Genetics (3)
BIO 520: Bioinformatics (3)
BIO 525: Advanced Ecology (3)
BIO 530: Biogeography and Conservation (3)
BIO 555: Vertebrate Zoology (5)
BIO 559: Ornithology (4)
BIO 568: Insect Behavior (3)
BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by Director of Undergraduate Studies
BIO 325: Ecology* (4)

Courses from outside the Biology Department:

CHE 565: Environmental Chemistry (3)
EES 401G: Invertebrate Paleobiology and Evolution (3)
FOR 340: Forest Ecology (4)
PLS 450G: Biogeochemistry (3)
PLS 502: Ecology of Economic Plants (3)
PGY 512: Evolutionary Medicine (3)
FOR 370: Wildlife Biology and Management (4)
FOR 435: Conservation Biology (3)
FOR 510: Herpetology (4)
FOR 530: Freshwater Ecology (3)

Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis.

*only for students who do not use the course to fulfill the 2nd Tier Core

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		General Biology	<input checked="" type="checkbox"/> New Track		<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5k	Provide the Bulletin language for the track.
	<p>General Biology Degree This is the default for students who do not declare another track. Choose 13-15 credit hours from the courses listed below.</p> <p>Biology BIO 3xx, BIO 4xx, BIO 5xx, BIO 6xx</p> <p>Anthropology ANT 332: Human Evolution (3)</p> <p>Chemistry CHE 226: Analytical Chemistry (3-5) CHE 233: Organic Chemistry Laboratory II (1) CHE 440G: Physical Chemistry (4) CHE 441: Physical Chemistry Lab (2) CHE 446G: Physical Chemistry for Engineers (3) CHE 532: Spectrometric Identification of Organic Compounds (2) CHE 533: Qualitative Organic Analysis Lab (2) CHE 550: Biological Chemistry I (3) CHE 552: Biological Chemistry II (3) CHE 558: Hormone Receptors and Cell Signals (3) CHE 565: Environmental Chemistry (3)</p> <p>Geology EES 401G: Invertebrate Paleontology and Evolution (3)</p> <p>Psychology PSY 459: Neuropharmacology: Drugs and Behavior (3)</p> <p>Statistics (Biology usually accepts only one of the following for each student)</p>

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM

STA 570: Basic Statistical Analysis (4)
STA 580: Biostatistics I (2)
Other STA courses may be accepted at the discretion of your advisor.

College of Agriculture, Food and Environment

ABT 460: Introduction to Molecular Genetics (Cross listed as ENT 460) (3)
ASC 364: Reproductive Physiology of Animals (4)
ASC 378: Animal Nutrition (4)
ENT 310: Insect Pests of Field Crops (3)
ENT 320: Horticultural Entomology (3)
ENT 460: Introduction to Molecular Genetics (cross listed as ABT 460) (3)
ENT 502: Forest Entomology (cross listed as FOR 502) (3)
ENT 561: Insects Affecting Human and Animal Health (3)
ENT 564: Insect Taxonomy (4)
ENT 568: Insect Behavior (3)
FOR 340: Forest Ecology (4)
FOR 370: Wildlife Biology and Management (4)
FOR 435: Conservation Biology (3)
FOR 502: Forest Entomology (cross listed as ENT 502) (3)
FOR 530: Freshwater Ecology (3)
FOR 510: Herpetology (4)
FSC 530: Food Microbiology (5)
NRE 420G: Taxonomy of Vascular Plants (4)
NRE 450G: Biogeochemistry (3)
PLS 320: Woody Horticultural Plants (4)
PLS 330: Herbaceous Horticultural Plants I (2)
PLS 332: Herbaceous Horticultural Plants II (2)
PLS 366: Fundamentals of Soil Science (4)
PLS 450G: Biogeochemistry (3)
PLS 502: Ecology of Economic Plants (3)
PLS 566: Soil Microbiology (3)
PLS 567: Methods in Soil Microbiology (Lab) (1)
PPA 400G: Principles of Plant Pathology (3)

College of Medicine

ANA 410G: Neurobiology of Brain Disorders (3)
ANA 442: Molecular and Cellular Neurobiology (3)
ANA 511: Introduction to Human Anatomy
ANA 512: Microscopy and Ultrastructure (4)
ANA 516: Selected Topics in Advanced Neuroscience (3)
Some other anatomy courses at the 500-level are acceptable, but they are usually restricted to professional students.
BCH 401G: Fundamentals of Biochemistry (3)
MI 494G: Immunobiology (same as BIO 494G) (3)
MI 595: Immunobiology Laboratory (2)
MI 598: Clinical Microbiology (same as PAT 598) (3)
PGY 412G: Principles of Human Physiology (4) is acceptable as an elective for upper level biology credit ONLY IF a student DOES NOT complete BIO 350. It DOES NOT substitute for BIO 350 or BIO430G)

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE *UNDERGRADUATE* DEGREE PROGRAM

PGY 431: Introduction to Neuroendocrinology (3)

PGY 417: Genomics and Epigenetics (2)

PGY 512: Evolutionary Medicine (3)

PGY 560: Pathophysiology: Integrative Study in Physiology and Medicine (1)

PGY 590: Cellular and Molecular Physiology (4)

TOX 509: Environmental and Regulatory Toxicology (3)

Unacceptable courses often mistakenly thought to be acceptable:

ANA 209 (3) Principles of Human Anatomy and PGY 206 Elementary Physiology are not acceptable electives for Biology majors.

Other courses may be accepted at the discretion of the Director of Undergraduate Studies in the Department of Biology

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		Genetics, Genomics, and Bioinformatics Track		<input checked="" type="checkbox"/> New Track	<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
Current			Proposed			
Prefix & Nbr	Credit Hrs	Title	Prefix & Nbr	Credit Hrs	Title	Course Status ¹
					<i>see course list below</i>	<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
5k		Provide the Bulletin language for the track.				
<p>The Genetics, Genomics, and Bioinformatics Track will provide guidance and structure to students with a desire to specialize in the study of inheritance and will formally recognize their chosen area of specialization in the description of their degree. The selected course offerings span the spectrum of studies within the area of inheritance, allowing students to select broadly from courses that provide sophisticated insight into genetic information and genetic analysis. The selected courses also allow students to dive deeply into different realms of genetics, including: emphasis on microbes (BIO 308, 309 and 510); emphasis on animals (BIO 404, 405, 429, 527); emphasis on analytical technology (BIO 337, 404, 461, 510, 520, STA 579, STA 580, ABT 460); emphasis on development (BIO 404, 405, 429, 445, 527, PGY 417); and emphasis on evolution (BIO 461, 508, 518).</p> <p>Students selecting this track will be able to demonstrate a clear understanding of the most important and fundamental theories and ideas in contemporary biology from a perspective that emphasizes inheritance, organization, and analysis of genetic information.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 308: General Microbiology (3) BIO 309: Microbiology Laboratory (2) BIO 337: Mathematical Modeling in the Life Sciences (3) BIO 395/397: Research in Biology/Microbiology (max 3 credit hours toward track) (1-3) BIO 404: Advanced Genetics (3) BIO 405: Human Genetics (3) BIO 429: Developmental Biology BIO 445: Biology of Sex (3)</p>						

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE *UNDERGRADUATE* DEGREE PROGRAM

BIO 461: Introduction to Population Genetics (3)

BIO 508: Evolution (3)

BIO 510: Recombinant DNA Techniques Laboratory (4)

BIO 418: Ecological Genetics (3)

BIO 520: Bioinformatics (3)

BIO 527: Stem Cells, Tissue Engineering, and Regenerative Medicine (3)

BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by Director of Undergraduate Studies (1-4)

Courses from outside the Biology department:

STA 570: Basic Statistical Analysis (4)

STA 580: Biostatistics I (2)

ABT 460: Introduction to Molecular Genetics (Cross listed as ENT 460) (3)

PGY 417: Genomics and Epigenetics (2)

Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		Physiology and Behavior Track	<input checked="" type="checkbox"/> New Track		<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹
					<i>see course list below</i>	<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>

5k	Provide the Bulletin language for the track.
	<p>Physiology is the study of function of living organisms, primarily plants and animals. The field studies cells, tissues, organs, and the whole organism. To understand function, a mechanistic approach is used to integrate the cell level to the whole organism. The study of animal behavior and physiology go hand and hand in addressing the functional mechanisms which regulate behavior. This track will prepare pre-professionals in health science areas (MD, DO, DDS, and PT), researchers in the function of animals and plants (MS /PhD), and ecologists.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 302: Introduction to Neuroscience (3) BIO 305: Introduction to Neuroscience Techniques (4) BIO 375: Behavioral Ecology and Sociobiology (3) BIO 394/395/397 Research in Neuroscience/Biology/Microbiology (max 3 credit hours toward track) (1-3) BIO 430G: Plant Physiology* (4) BIO 440: Comparative and Functional Anatomy (4) BIO 445: Biology of Sex (3) BIO 446: Neurophysiology Laboratory (3) BIO 494G: Immunobiology (3) BIO 502: Principles of Systems, Cellular and Molecular Physiology (5) BIO 507: Biology of Sleep and Circadian Rhythms (3) BIO 535: Comparative Neurobiology and Behavior (3) BIO 550: Advanced Physiology (3) BIO 350: Animal Physiology* (4) BIO 410: Vertebrate Endocrinology (3) BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by <u>Director of Undergraduate Studies</u> (1-4)</p>

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE *UNDERGRADUATE* DEGREE PROGRAM

Courses from outside the Biology department:

ASC 364: Reproductive Physiology of Animals (4)

ENT 568: Insect Behavior (3)

MI 595: Immunobiology Laboratory (2)

PGY 560: Pathophysiology: Integrative Study in Physiology and Medicine (1)

PSY 459: Neuropharmacology: Drugs and Behavior (3)

ANA 410G: Neurobiology of Brain and Spinal Cord Disorders (3)

ANA 442: Molecular and Cellular Neurobiology (3)

PGY 431: Introduction to Neuroendocrinology (3)

Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis

*only for students who do not use the course to fulfill the 2nd Tier Core

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		Plant Biology	<input checked="" type="checkbox"/> New Track		<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹
					<i>see courses below</i>	<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
5k		Provide the Bulletin language for the track.				
<p>The Plant Biology Track focuses on fundamental aspects of how plants function as organisms and interact with their environment. A wide variety of scientific disciplines are integrated within the track, including physiology, taxonomy, reproduction, and ecology.</p> <p>A degree in biology with an emphasis in plant biology serves as an excellent launching point for a wide range of career options, including domestic and international opportunities in business, research, and teaching. The program is excellent preparation for students wishing to enter graduate or other professional schools. Plant biologists can work in the laboratory or field, forestry, botanical gardens and nurseries, agricultural companies, biotechnology, pharmaceuticals, energy and chemical industries, or environmental protection.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 310: The Life Processes of Plants (3) BIO 351: Plant Kingdom (3) BIO 394/395/397: Research in Neuroscience/Biology/Microbiology (max 3 credit hours toward track) (1-3) BIO 420G: Taxonomy of Vascular Plants (4) BIO 430G: Plant Physiology* (4) BIO 525: Advanced Ecology (3) BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by Director of Undergraduate Studies (1-4)</p> <p>Courses outside the Biology department: ENT 310: Insect Pests of Field Crops (3) ENT 320: Horticultural Entomology (3) FOR 340: Forest Ecology (4)</p>						

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE *UNDERGRADUATE* DEGREE PROGRAM

ENT/ FOR 502: Forest Entomology (3)

PLS 502: Ecology of Economic Plants (3)

PLS 566: Soil Microbiology (3)

PLS 567: Methods in Soil Microbiology (1)

PPA 400G: Principles of Plant Pathology (3)

PLS 320: Woody Horticultural Plants (4)

PLS 366: Fundamentals of Soil Science (4)

Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis

*only for students who do not use the course to fulfill the 2nd Tier Core

**TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM**

5j		Proposed Undergraduate Degree Program Change – Tracks				
Track Name:		Pre-Professional Track	<input checked="" type="checkbox"/> New Track		<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track
<i>Current</i>			<i>Proposed</i>			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹
					<i>see course list below</i>	<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
						<i>Select one....</i>
5k		Provide the Bulletin language for the track.				
<p>The Pre-Professional Track in the biology major broadly explores organismal structure and function in the context of preparing students for health-related professional programs. The courses in this track give the students a broad view of both normal and abnormal organismal function, with courses specializing in neuroscience, physiology, microbiology, and molecular biology. Independent research in this track will be an opportunity for students to work with science professionals within their desired field. Through completion of this track, students can fulfill pre-requisite and recommended courses for most pre-professional health programs. Students who excel in this track can go on to enroll in a variety of professional programs, including medical, dental, optometry, veterinary, and physician’s assistant programs. A biology degree with a pre-professional health emphasis also prepares students for careers as research scientists, research lab technicians, microbiologists, genetic counselors, biology teachers, and many other general biology careers.</p> <p>12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed below. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 1-3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397). A maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 13-15 hours of total upper-level electives required, 9 credit hours must have a BIO prefix.</p> <p>BIO 302: Introduction to Neuroscience (3) BIO 305: Introduction to Neuroscience Techniques (4) BIO 308: General Microbiology (3) BIO 309: Microbiology Lab (2) BIO 394/395/397: Research in Neuroscience/Biology/Microbiology (max 3 credit hours toward track) (1-3) BIO 405: Human Genetics (3) BIO 410: Vertebrate Endocrinology (3) BIO 440: Comparative and Functional Anatomy (4) BIO 445: Biology of Sex (3) BIO 446: Neurophysiology Laboratory (3) BIO 494G: Immunobiology (3)</p>						

¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

TEMPLATE FOR ADDITIONAL TRACKS, SPECIFIC COURSE REQUIREMENTS
PROPOSAL TO CHANGE UNDERGRADUATE DEGREE PROGRAM

BIO 495G: Bacterial Pathogenesis (3)
BIO 502: Principles of Systems, Cellular and Molecular Physiology (5)
BIO 507: Biology of Sleep and Circadian Rhythms (3)
BIO 510: Recombinant DNA Techniques Laboratory (4)
BIO 520: Bioinformatics (3)
BIO 527: Stem Cells, Tissue Engineering, and Regenerative Medicine (3)
BIO 429: Developmental Biology (3)
BIO 535: Comparative Neurobiology and Behavior (3)
BIO 550: Advanced Physiology (3)
BIO 582: Virology (3)
BIO 542: Histology (5)
BIO 315: Introduction to Cell Biology* (4)
BIO 350: Animal Physiology* (4)
BIO 380: Special Topics in Biology (Intermediate Level)(Subtitle required). Subtitle must be approved by Director of Undergraduate Studies (1-4)
Courses from Outside the Biology Department:
ANA 410G: Neurobiology of Brain and Spinal Cord Disorders (3)
ANA 442: Molecular and Cellular Neurobiology (3)
BCH 401G: Fundamentals of Biochemistry (3)
CHE 550: Biological Chemistry I (3)
CHE 552: Biological Chemistry II (3)
MI 598: Clinical Microbiology (same as PAT 598) (3)
PGY 560: Pathophysiology: Integrative Study in Physiology and Medicine (1)
PSY 459: Neuropharmacology: Drugs and Behavior (3)
PGY 512: Evolutionary Medicine (3)
PGY 431: Introduction to Neuroendocrinology (3)
Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis
*only for students who do not use the course to fulfill the 2nd Tier Core

Proposal: Establish tracks within the Biology B.S. Degree and B.A. with Topical Focus Option Degrees

Background: We currently offer both B.S. and B.A. degrees in Biology. The Biology B.S. degree requires 15 hours of guided upper-level electives, which students can choose from a long list of approved electives.

The B.A. degree has two “Options”. Option A requires the completion of a minor. The Option A B.A. degree requires 4-9 credit hours of guided upper level electives, which varies depending on the minor chosen. Option B requires the completion of a Topical Focus, in which students design their own 12 credit hour “minor” based on their interests. The Option B B.A. degree (Topical Focus) requires 13-15 credit hours of guided upper-level electives.

Proposal: We propose to add seven “tracks,” or specialties within the B.S. and B.A. Option B (Topical Focus degrees). The tracks will not be an option for students pursuing the B.A. with minor option since this option requires less than 12 credit hours of upper-level electives. This change **does not** change the total number of hours required for the Biology B.S. or B.A. Option B degrees, nor does it change any Biology core requirement.

To complete a track, 12 upper-level guided elective hours out of the required 13-15 hours of guided electives must be completed from the courses listed for each track. Of those 12 hours, a maximum of 3 hours can be independent research (BIO 394/395/397). The remaining 3 credit hours may come from the list of approved electives for the general biology track, which may include an additional three hours of independent research (BIO 394/395/397).

As with our current degree, a maximum of 6 credit hours of independent research can be counted toward the Biology degree. Of the 15 hours of total upper-level electives required, 9 hours must have a BIO prefix.

Any student with less than 45 credit hours will be enrolled in the General Biology Track by default. *Alternate tracks can be declared when students have earned at least 45 credit hours.* If students do not declare another track, they will earn the General Biology Track.

Students can receive formal recognition for the completion of one track only.

Rationale:

By providing students a list of courses within a specific discipline in biology, we can help ensure that they are gaining competency and a thorough understanding of that subfield in biology. Each course given in the individual tracks provides valuable information and insight into the principles and practices of each subfield. There is sufficient variety in each track’s courses that the student can choose a path that best matches their interests or future career goals while still gaining an understanding of the overarching concepts in that field. With the tracks, we hope to make the students’ scheduling choices easier, while also providing them a more comprehensive study of their chosen subfield within biology.

The establishment of tracks within the Biology major offers many advantages for both students and faculty. Students will gain:

1. A commitment to a topic of study within the Biology major
2. Structure to / knowledge of upper level electives to develop their field of interest
3. Documented expertise in an area for those seeking admission to graduate school, professional school, or specialized careers
4. Connection to research mentor

Faculty will:

1. Connect with BIO 395 students with specific interests in their field
2. Teach upper-level courses that fit their interests
3. Teach students seeking expertise in their field

Osterhage, Jennifer

From: Mathews, Alice
Sent: Monday, December 04, 2017 11:15 AM
To: Osterhage, Jennifer
Subject: RE: Update on Substantive Change

Jennifer,

Thank you for your emails regarding the proposed program change(s) to the **Bachelor of Arts/Science in Biology (26.0101)**.

My email will serve 2 purposes: 1.) Next steps for SACSCOC, and 2.) Verification and notification that you have contacted the Office of Strategic Planning and Institutional Effectiveness (OSPIE)—a Senate requirement for proposal approval.

1. **Next steps for SACSCOC:** None required
2. **Verification that OSPIE has reviewed the proposal:** Based on the proposal documentation presented and Substantive Change Checklist, the proposed program changes (refer to list below) are not substantive changes as defined by University or SACSCOC, the university's regional accreditor. Therefore, no additional information is required by the Office of Strategic Planning & Institutional Effectiveness at this time. The proposed program change(s) may move forward in accordance with college and university-level approval processes.

List of Proposed Change(s):

- Establish the following tracks
 - Pre-Professional Health Track
 - Cellular, Molecular & Development Biology Track
 - Ecology and Evolutionary Biology Track
 - Genetics, Genomics & Bioinformatics Track
 - Physiology and Behavior Track
 - Plant Biology Track
- To complete a track, 12 upper-level Biology elective hours out of 15 must be completed from the courses listed for each track. This change does not affect the total number of hours required for the Biology B.S. degree, nor does it change any Biology core requirement. The establishment of tracks within the Biology major offers many advantages for both students and faculty.

Should you have questions or concerns about UK's substantive change policy and its procedures, please do not hesitate contacting me.

Alice Mathews

From: Osterhage, Jennifer
Sent: Friday, December 1, 2017 2:40 PM
To: Mathews, Alice <Alice.Mathews@uky.edu>
Subject: RE: Update on Substantive Change

Hi Alice,

I have attached the Senate Undergraduate Change form (and additional pdfs for our tracks). The change proposed for the B.A. is exactly the same. Do you need a separate senate form for the B.A change?
Please let me know if you need anything else! I hope you have a great weekend.
Best,
Jennifer

From: Osterhage, Jennifer
Sent: Wednesday, November 29, 2017 4:28 PM
To: Mathews, Alice <Alice.Mathews@uky.edu>
Subject: RE: Update on Substantive Change

Hi Alice,
Thanks for letting me know! I will have that to you by the end of the week.
Best,
Jennifer

From: Mathews, Alice
Sent: Tuesday, November 28, 2017 2:04 PM
To: Osterhage, Jennifer <jennifer.osterhage@uky.edu>
Subject: Update on Substantive Change

Hello Jennifer,

I was looking through our records today and saw that we are waiting on the Senate's Undergraduate Change form. We need this form before we can make a determination on whether or not your proposed change is considered to be substantive. Please let us know if we can provide any assistance!

Thanks!

Alice Mathews
Administrative Assistant
Office of Strategic Planning and Institutional Effectiveness
Patterson Office Tower, 551
859-218-3481



University of Kentucky Substantive Change Checklist¹

Substantive change, according to the Commission on Colleges of the Southern Association of Colleges and Schools (SACSCOC or SACS), is “a significant modification or expansion of the nature and scope of an accredited institution.”² Substantive change is a federal concept, based in the regulations of the U.S. Department of Education,³ which regional accreditors are required to enforce.

The University is required to submit any substantive change to SACS for review, and in some cases approval, prior to implementation of such substantive change. As noted by SACS:

“if an institution fails to follow the substantive change policy and procedures of the Commission on Colleges, it may lose its Title IV funding or be required by the U.S. Department of Education to reimburse it for money received by the institution for programs related to the unreported substantive change. In addition, the institution’s case may be referred to the Commission for the imposition of a sanction or for removal from membership.”⁴

Checklist Instructions: To ensure substantive change compliance, individuals should complete the checklist on the following pages in the early stages of any proposal (e.g. new degree program, new certificate program, etc.) or curricular revision. **Upon completion, the form must be submitted to the assistant provost for Strategic Planning and Institutional Effectiveness or designee by e-mail to OSPIE@uky.edu. A determination as to whether the proposed program or changes to the existing program constitutes a substantive change will be made within seven (7) business days of receipt and next steps will be communicated accordingly.**

Questions concerning substantive change should be sent to OSPIE@uky.edu.

¹ Adapted, with appreciation, from University of Virginia’s “Substantive Change Checklist.”

² See [Substantive Change for Accredited Institutions of the Commission on Colleges: Policy Statement](#), p. 1.

³ See [34 C.F.R. § 602.22](#).

⁴ See [Substantive Change for Accredited Institutions of the Commission on Colleges: Policy Statement](#), p. 9.

University of Kentucky

Substantive Change Checklist

Instructions: Email completed form to OSPIE@uky.edu, Subject line: UK Sub Change. Questions concerning substantive change should be sent to OSPIE@uky.edu.

Please note: there is a 200 character limit for each text box.

Name of Proposed Program/Action: establishment of tracks within the Biology B.S. and B.A with Topical Focus degrees

Is this a New, Existing Degree, or Non-Degree Educational Program?

New Degree Educational Program **Existing Degree Educational Program**
New Non-Degree Educational Program **Existing Non-Degree Educational Program**

Program CIP Code (as applicable): 26.0101

General Description of Proposed Action (e.g., new program/courses/delivery or changes to program (such as change in course(s)/delivery mode). Attach applicable documentation to support the program description with checklist submission): _____

Total number of Credit hours for:

<u>New or Proposed Degree/Non-Degree/Certificate:</u>	_____	<u>Existing Degree/Non-Degree/Certificate:</u>	_____
<u>New or Proposed Program Major:</u>	_____	<u>Existing Program Major:</u>	_____
<u>New or Proposed Program Option:</u>	<u>Tracks</u>	<u>Existing Program Option:</u>	_____
(e.g. Concentration, Specialization, Track)		(e.g. Concentration, Specialization, Track)	

Is this an Accredited Program? No Yes , **Name of Accreditor:** _____

Sponsoring College/Home Educational Unit: Arts and Sciences

College/Department/Educational Unit Contact: Biology

Date Form Completed: 10/23/2017

	UK Substantive Change Items	Yes	No	Not Sure	N/A	Provide brief explanation (if necessary)
1	The proposed program or existing program requires a <u>number of new faculty</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
2	<u>More than 25 percent of the required courses for the proposed or existing program are new.</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
3	<u>More than 50 percent of the required courses for the proposed or existing program are new.</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4	The proposed or existing program requires new library or other learning resources.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
5	The proposed or existing program requires new equipment or facilities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6	The proposed or existing program requires a new resource base.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
7	The proposed or existing program will initiate a <u>branch campus</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
8	The proposed or existing program will initiate a <u>dual degree program with another institution</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
9	The proposed or existing program will initiate a <u>joint degree program with another institution</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
10	The proposed or existing program will initiate a <u>certificate program? (if yes, answer the following)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
11	• Will the proposed certificate program utilize existing courses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	• Will the proposed certificate program be offered at a new off-Grounds site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	• Does the proposed certificate program represent a significant departure from previously approved programs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	The proposed or existing program will be initiated <u>at a new off-Grounds site? (if yes, answer the following)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
15	• Will a student be able to earn 50 percent or more of program credits at the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16	• Will a student be able to earn 25 to 49 percent of program credits at the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	UK Substantive Change Items	Yes	No	Not Sure	N/A	Provide brief explanation (if necessary)
17	• Will a student be able to earn 24 percent or less of program credits at the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18	The proposed or existing program will be at an <u>existing off-Grounds site?</u> (if yes, answer the following)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
19	• Does the proposed program represent a significant departure from previously approved programs [at the existing site]?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20	The proposed or existing program will be offered via distance education. (if yes, answer the following)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
21	• Will more than 50 percent of the program be offered via distance education?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22	• Will 25-49 percent of the program be offered via distance education?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23	• Will less than 25 percent of the program be offered via distance education?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24	• Total number of proposed course changes (as applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
25	The proposed or existing program or courses will be initiated through contractual agreement or consortium.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
26	The proposed or existing program will relocate an existing off-Grounds site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
27	The change to the existing program will <u>significantly alter the length of the currently approved program.</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
28	The proposed or existing program will initiate a degree completion program.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
29	The proposed program will close an existing program.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

4-YEAR CURRICULAR MAP

Bachelor of Arts in Biology – Topical Focus

Students who have multiple interests or interests that do not fall into the requirements for a minor offered at the University of Kentucky may select a 12 hour credit hour sequence of courses with a topical focus. Courses in several disciplines and in the various interdisciplinary programs may be combined to pursue the topical focus. **Students interested in pursuing this option MUST have the 12 credit hour sequence of courses APPROVED IN ADVANCE by the Director of Undergraduate Studies, Dept. of Biology. Students must submit an APPROVAL OF TOPICAL FOCUS FORM to the DUS.**

Fall	YEAR 1	Spring
‡UK Core CC1 (WRD 110) UK Core QFO (MA 123: Elementary Calculus and Its Applications <u>OR</u> MA 137: Calculus I with Life Science Applications <u>OR</u> MA 113: Calculus I) UK Core NPM (CHE 105: General College Chemistry I) UK Core NPM (CHE 111: General Chemistry I Lab) BIO 148: Introductory Biology I BIO 155: Lab for Introductory Biology I OR BIO 198: Scholars Biology Research <p style="text-align: right;">Total Credits: 16</p>	UK Core CC2 (WRD 111) CHE 107: General College Chemistry II CHE 113: Lab to Accompany General Chemistry II BIO 152: Principles of Biology II ‡Foreign language 201 <p style="text-align: right;">Total Credits: 14</p>	
Fall	YEAR 2	Spring
BIO 303: Intro to Evolution <u>OR</u> BIO 304: Principles of Genetics CHE 236: Survey of Organic Chemistry <u>OR</u> CHE 230: Organic Chemistry I CHE 231: Organic Chemistry Lab I A&S SS ‡Foreign language 202 <p style="text-align: right;">Total Credits: 14</p>	BIO 303: Intro to Evolution <u>OR</u> BIO 304: Principles of Genetics UK Core HUM UK Core SSC (STA 296) UK Core SIR <p style="text-align: right;">Total Credits: 13</p>	
Fall	YEAR 3	Spring
PHY 151: Intro to Physics <u>OR</u> PHY 211: General Physics I Topical Focus Course I Tier 2 BIO Course I BIO Elective <p style="text-align: right;">Total Credits: 13-15</p>	Tier 2 BIO Course II A&S SS A&S HUM Topical Focus Course II ◇ Elective(s) <p style="text-align: right;">Total Credits: 16</p>	
Fall	YEAR 4	Spring
*BIO Electives Topical Focus Course III UK Core ACR UK Core CCC ◇ Elective(s) <p style="text-align: right;">Total Credits: 15-17</p>	*BIO Electives BIO 425: Biology Seminar Topical Focus Course IV A&S HUM/Graduation writing requirement-if BIO 350 not taken UK Core GDY <p style="text-align: right;">Total Credits: 16</p>	

‡ Incoming Students are Strongly Encouraged to take WRD 112 to fulfill the CC1 and CC2 requirements if they have any of the following: an ACT English score of 32 or Higher, an SAT Verbal score of 720 or Higher, or an AP English Composition score of 4 or 5. If the Student has been accepted into the University Honors Program, the Student is required to take WRD 112, instead of CC1 and CC2.

* To be discussed with your academic advisor. Consider pursuing a 2nd major or minor.

‡ Students who have taken at least 2 years of a language in high school can complete the A&S Foreign Language Requirement with 3 college semesters of a different language. Students choosing this option should replace the 4th semester of language with electives. Also note that if you take a foreign language placement exam, you may be exempt from 1 or more of the beginning semesters of that language. In this case, replace the by-passed language courses with electives. Any language sequence may be used to satisfy the foreign language requirements - French, German, Greek, or Latin is recommended.

◇ 6 hours of 'free' electives - that do not count toward any other requirement - must be taken. Additional electives may be required to reach the required minimum of 120 hours. Consider pursuing a 2nd major or minor.

UK Core Abbreviations

HUM =Intellectual Inquiry in the Humanities
 NPM=Intellectual Inquiry in the Natural/Physical/Mathematical Science
 SSC=Intellectual Inquiry in Social Sciences
 ACR=Intellectual Inquiry in Arts & Creativity

CC1= Composition and Communication I
 CC2= Composition and Communication II
 QFO= Quantitative Foundations
 SIR= Statistical Inferential Reasoning
 CCC= Community, Culture and Citizenship in U.S.
 GDY= Global Dynamics

College of Arts & Sciences Abbreviations

SS: Social Sciences NS: Natural Sciences Lab: College Laboratory or Field Experience HUM: Humanities