

Curricular Action Workflow



Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Course Proposal Form

ubmit	ted on	01/08	/2018 by	G Schic	k (<u>AlanSchi</u>	ck@Missour	<u>iState.edu</u>	<u>μ)</u> .	•				
			. www. Afterware.	W. (n. marrier)		****	*		and the second s	in managaran			ekl ver alle er reverben allere greft hall ber ve i den
	s require	-											
	osal app												
•	An existin	g COURS	E										
							-						
0	An existin	g REGUL	AR (e.g. perm	nanent) SECT	TION of a variable o	content course.							
	_							Y.					
any a divin	Course:												
LINH SO	Chemist	ı y care	115										
this pro	posal need	to be re	viewed by CO	SEIP?	No ® Yes								• .
			viewed by EP	_	No ⊜ Yes								
·	•												~
HM 498	Chemist		ers	Writing sci	entific resumës	and cover letters	, discussion o	of cher	istry care	rs			
HM 498 rerequis raduate e invited	Chemist lite: CHM school, jo J. Interaci	ry Care 398 an 56-hunt tion wit	ers 160 hours, ng resourc 1 the Caree	es and prof r Center Wi	essional ethics. Il be required. Pi	and cover letters Outside speaker iblic Affairs Caps	s from chemis stone Experie	stry-re ence co	ated emplo urse. 1(1-0)	oyers will F,S			
HM 498 erequis aduate a invited	Chemist lite: CHM school, jr l. Interact current onli	ry Care 398 an 56 hunt tion with	ers 160 hours: ng resourc the Caree g description	es and prof r Center Wi	essional ethics. Il be required. Pi	Outside speaker	s from chemis stone Experie	stry-re ence co	ated emplo urse. 1(1-0)	oyers will F,S	d will lose ex	sisting formatti	ing: please review
HM 498 rerequis raduate e invited vise the c	Chemist lite: CHM school, jr l. Interact current onli	ry Care 398 an 56 hunt tion with	ers 160 hours, ng resourc 1 the Caree	es and prof r Center Wi	essional ethics. Il be required. Pi	Outside speaker Iblic Affairs Caps	s from chemis stone Experie	stry-re ence co	ated emplo urse. 1(1-0)	oyers will F,S	d will lose ex	isting formatti	ing: please reviev
HM 498 rerequis reduate e invited vise the couplingsion	Chemist lite: CHM school, jr l. Interact current onli	.ry Care 398 an 56-hunt tion with	ers 60 hours: ng resourc the Caree g description	es and prof r Center Wi	essional ethics. Il be required. Pi	Outside speaker Iblic Affairs Caps	s from chemis stone Experie	stry-re ence co	ated emplo urse. 1(1-0)	oyers will F,S	d will lose ex	listing formatti	ing; please review
rerequisers the commission that the commission	Schemistricker CHM school, jr J. Interact current onli) - B Chemistr iite: CHM nal ethics	ny Care 398 an ob-hunt tion with y Caree 398 anc . Outsid	ofs 60 hours. Gescription 60 hours.	es and prof r Genter Wi n as needed: Writing scien	essionel ethics. I be required. Proceed the second of the	Outside speaker Iblic Affairs Caps	s from chemistone Experience information. A sistemation of client interaction of client.	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and
Prerequise the coupling of the	Schemistricker CHM school, jr J. Interact current onli) - B Chemistr iite: CHM nal ethics	ny Care 398 an ob-hunt tion with y Caree 398 anc . Outsid	ofs 60 hours. Gescription 60 hours.	es and prof r Genter Wi n as needed: Writing scien	essionel ethics. I be required. Proceed the second of the	Outside speaker iblic Affairs Caps etions and insert/bold in id cover letters, do	s from chemistone Experience information. A sistemation of client interaction of client.	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and
rerequise the coupling of the	Schemistricker CHM school, jr J. Interact current onli) - B Chemistr iite: CHM nal ethics	ny Care 398 an ob-hunt tion with y Caree 398 anc . Outsid	ofs 60 hours. Gescription 60 hours.	es and prof r Genter Wi n as needed: Writing scien	essionel ethics. I be required. Proceed the second of the	Outside speaker iblic Affairs Caps etions and insert/bold in id cover letters, do	s from chemistone Experience information. A sistemation of client interaction of client.	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and
rerequistraduate of invited to submission the coupling the coupling to the cou	ite: CHM school, jt J. Interact current onling Chemistr ite: CHM nal ethics Experien	ny Care 398 an bb-hunt tion with ine catak I ry Caree 398 anc Outsid ce cours	of sources of the Career of th	es and prof r Center wi n as needed: Writing scientism chemis taught con	essionel ethics. I be required. Proceed the second of the	Outside speaker iblic Affairs Caps etions and insert/bold in id cover letters, do	s from chemistone Experience information. A sistemation of client interaction of client.	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and
rerequistraduate of invited to submission the coupling the coupling to the cou	ite: CHM school, jt J. Interact current onling Chemistr ite: CHM nal ethics Experien	ny Care 398 an bb-hunt tion with ine catak I ry Caree 398 anc Outsid ce cours	ofs 60 hours. Gescription 60 hours.	es and prof r Center wi n as needed: Writing scientism chemis taught con	essionel ethics. I be required. Proceed the second of the	Outside speaker iblic Affairs Caps etions and insert/bold in id cover letters, do	s from chemistone Experience information. A sistemation of client interaction of client.	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and
rerequise aduate a invited with the company of the	ite: CHM school, jt J. Interact current onling Chemistr ite: CHM nal ethics Experien	ack all bo	of sources of the Career of th	es and prof r Center wi n as needed: Writing scientism chemis taught con	essionel ethics. If be required Price of the second of th	Outside speaker iblic Affairs Caps etions and insert/bold in id cover letters, do	is from chemic itone Experie new information. A iscussion of cl iscussion of cl iscussion of cl	stry-re ence.co Any conte	eted emplourse. ICI-O int that is copia	pyers will F.S. ed and paste graduate Center wi	school, jo	b-hunting r ired. Public	resources and Affairs F,S
erequisers invited size the cubmission HM 498 rerequiser of fession apstone	ite: CHM school, jt school, jt linteract current onli) Chemistr dite: CHM nal ethics Experien	any Care 398 and bb-hunt tion with the catalog y Caree 398 and course course ack all bo	i 60 hours. Ing resource g description S 60 hours. \ a speakers f e. May be	es and prof r Center Wi n as needed: Writing scientiform chemis taught con	essionel ethics. If be required Price of the second of th	Outside speaker iblic Affairs Cape etions and insert/bold in dicover letters, di oyers will be invit CHM 696. Cann	is from chemic itone Experie new information. A iscussion of cl iscussion of cl iscussion of cl	stry-re ence co Any conte	ated emplourse. I(1-0) Int that is copil	yers will F.S. ed and paste graduate Center wi M 498 ar	school, jo Il be requ Id CHM 6	b-hunting r ired. Public 96. 1(1-0)	resources an Affairs F,S

Reason for proposed change A new 600-level parallel course (CHM 696) has been proposed and submitted. This proposed change involves only updating the catalog description to acknowledge the existence of the parallel course. As such, this is effectively a NON-SUBSTANTIVE change. Does this change affect course assessment (e.g. student learning evidence/outcomes)? @ No 🔘 Yes How did you determine the need for this change? Check all boxes that apply or specify other. Routine or annual review/assessment of curriculum Faculty Input Student Input Accreditation/certification compliance \Box Check if this is a non-substantive change What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY) 09/19/2017 Current Status: College Council Review **Proposal Progress:** 01/08/2018 - Submitted by Department Head (Bryan Breyfogle) **Review Comments:** No comments have been added to this proposal.

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Curricular Action Workflow



Missouri State > Computer Services - MIS > Curricular Action
Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Department:			1 1 1
Mathematics:			
Type of Program Choose One:			
Non-Comprehensive Undergraduate Major	Option	○ Certification	
O Comprehensive Undergraduate Major	o Minor	Academic Rules	
○ Graduate Program	○ Certificate	○ Other	
Does this program include any new courses? O No O Yes (A corresponding new course form	n must be submitted to create ea	ch new course)	

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Bachelor of Science in Education (Certifiable grades 9-12) General Education Program and Requirements Major Requirements MTH 261(5), 280(5), 302(3), 315(3), 333(3), 345(3), 460(3), 532(3), 575(3) Select two courses from: MTH 503(3), 510(3), 536(3), 540(3), 567(3). Courses required from related areas; CSC 121(3) or 125(4) or 130(3); PHy 123(4) or 203(5) Public Affairs Capstone Experience will be fulfilled by completion of MTH 493(5-6) and 494(5-6). Professional Education Requirements. Note: A'grade of "C" or better in each course is required for state certification. MTH 409(3), 410(3), 411(3), 493(5-6), 494(5-6) Professional Education Required Core and Competencies - see Teacher Education Program General Baccalaureate Degree Requirements This program also requires compliance with the Teacher Education Program for eligibility to enroll in Professional Education courses, admission to and continuance in the Teacher Education Program, approval for supervised teaching and recommendation for certification which includes following GPA requirements: All GPA requirements include both Missouri State and transfer grades. at least a 2.75 GPA on all course work attempted at all colleges attended at least a 3.00 GPA in the certificate subject area (major field of study) which includes all courses listed under B at least a 3.00 GPA in any additional certificate subject area at least a 3.00 GPA in the professional education courses which includes all courses listed under C; and no grade lower than a "C" in all professional education courses

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

4	*	В	I	S																	
Ger Maj MTI Sek Cou Proi MTI Proi Ger This the requ at li at li at li	neral Edior Requires reculic Affair Fessiona de 1409(3) fessiona d	ucation irement), 280(: courses quired f rs Caps I Educa), 410(: I Educa ccalaure m also r Educa ts Inclu .75 GPA .00 GPA	Programs 5), 302 from: from rel tone Ex tion Re 3), 411 tion Re eate De require de both ton all ton the tion any	m and R (3), 315 MTH 50: a perience quireme (3), 493 quired C gree Re s compli gram; a Missou course certifice additio	3(3), 510(eas: CSC 1) e will be firsts. Note: (5-6) 492 Core and C quirement tance with pproval for ri State al work atter ate subject	nts 3), 345((3), 536((2)(3) o (2)(3) o (4)(6)(6)(6) (5)(7)(7)(7)(7) (6)(7)(7)(7) (7)(7)(7)(7) (7)(7)(7) (7)(7)(7) (7)(7)(7) (7)(7)(7) (7)(7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)(7) (7)	3), 460(3); (3), 540(3); r 125(4) oy completi e of "C" or 194(5-6) (incies - see cher Educa rised teach fer grades.; all college najor fleld ject area	r 130(3); Phon of MTH 4 better in ea 10) Teacher Ed etion Programing; and rec	HY 123(4 193(5-6) ach cours ucation m for eli commen	492 (2) se is requi Program gibility to dation fo udes all o	and 49 ired for enroll i r certific	state cer n Profess ation wh	tificati sional I ich inc der B	Educati Iludes 1	followi	ng GP	A requi	iremen	nts. All	GPA	engel de la company de la comp
Not A	Attache	ed .			**************************************		the standard of the White facility	Made THERESE THE ACTIVITIES MADE TO A STATE OF THE STATE		to a star man had been the face amount	and an Association of management		***************************************	,				0000000000			 41
	•													To	tal Ho	ours:	same				- FEESS
Wha	t is cha	anging	? Che	k ali b	oxes tha	t apply	:														
0 7	Title ch	ange					□ Fro	om option t	o progr	am (maj	or)			Othe	r						
	Course	change	es of u	nder 18	hours		□ Fro	om progran	n (majo	r) to opt	ion										
E C	Course	change	es of 18	hours	or more																

Reason for Proposed Change:

MTH 493 (6 credit hours) is being replaced by MTH 492 (2 credit hours) and MTH 494 is now to be 10 credit hours. Both were in previous course change proposals.



What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

Current Status:

College Council Review

Proposal Progress:

12/06/2017 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.



Last Modified: 07/17/2015 • Disclaimer • Accessibility • EO/AA/M/F/Veterans/Disability © 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action
Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

	MA COPPER MANAGEMENT OF THE CONTRACT OF THE CO	
Submitted on 12/12/2017 by Emme	tt Redd (<u>Emmettredd@misso</u> uristat	ts.edu).
epartment:		
hysics, Astronomy, & Mat Sci		
rpe of Program noose One:		
Non-Comprehensive Undergraduate Major	Option	O Certification
Comprehensive Undergraduate Major	Minor	O Academic Rules
Graduate Program	○ Certificate	Other
hoose All That Apply:		
Bachelor of Arts	☐ Bachelor of Music Education	Bach of Science in Athl Traing
Bachelor of Applied Science	☐ Bachelor of Music	☐ Bach of Science in Education
Bachelor of Fine Arts	된 Bachelor of Science	☐ Bachelor of Science in Nursing
Bachelor of Social Work Des this program include any new courses? No © Yes (A corresponding new course for	orm must be submitted to create each new c	ourse.)
tie of Program Affected:		
Physics		
urrent Catalog Description: (Either cut and pa	ste present description from online catalog OR prov	ide as an attachment below)
Physics Sechelor of Science N. PHY 203(5), 204(5) N. Electives from any other physics courses to b	ring total to 20 hours with no more than 14 hou	rs of courses numbered
oolow 300.		Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any

			The same of the sa
* * B I S	100000000000000000000000000000000000000	ARRIBA SAAAAA	A STATE OF THE STA
Physics Bachelor of Science A. PHY 123(4) or 203(5), 124(4) or 204(5) B. Ten (10) hours of effectives from any of courses numbered below 300. Courses w 324(4), 351(3), 373(3).) ther physics courses above PHY 124 except PHY 203 a vith math prerequisites no higher than required in it	and 204. to bring total to 20 hours wit tem A above: PHY 131(1), 141(1),	h no more than 14 hou 152(3), 220(4),
THE STATE OF THE S			
•			
ttached			
/hat is changing? Check all boxes that	apply:		
1 Title change	☐ From option to program (major)	□ Other	
Course changes of under 18 hours	☐ From program (major) to option		
	· · · · · · · · · · · · · · · · · · ·		
Course changes of 18 hours or more			
Course changes of 18 hours or more			
		·	
Course changes of 18 hours or more eason for Proposed Change:			
	ints		
eason for Proposed Change: To make the minor accessible to more stude	ints: was approved by departmental or program facult	ty? (MM/DD/YYYY)	
eason for Proposed Change: 'o make the minor accessible to more stude 'hat is the date that this new program	ennestaaneeduseeda en eesta selusta aaneetaas maaluud ka seen oo dan o	ty? (MM/DD/YYYY)	
eason for Proposed Change: To make the minor accessible to more stude That is the date that this new program 2/12/2017	ennestaaneeduseeda en eesta selusta aaneetaas maaluud ka seen oo dan o	ty? (MM/DD/YYYY)	
eason for Proposed Change: To make the minor accessible to more stude That is the date that this new program 2/12/2017 urrent Status:	ennestaaneeduseeda en eesta selusta aaneetaas maaluud ka seen oo dan o	ty? (MM/DD/YYYY)	
eason for Proposed Change: To make the minor accessible to more stude That is the date that this new program 2/12/2017	ennestaaneeduseeda en eesta selusta aaneetaas maaluud ka seen oo dan o	sy? (MM/DD/YYYY)	
eason for Proposed Change: To make the minor accessible to more stude That is the date that this new program 12/12/2017	ennestaaneeduseeda en eesta selusta aaneetaas maaluud ka seen oo dan o	ty? (MM/DD/YYYY)	
eason for Proposed Change: o make the minor accessible to more stude that is the date that this new program 2/12/2017 urrent Status: college Council Review roposal Progress:	was approved by departmental or program facult	ty? (MM/DD/YYYY)	
eason for Proposed Change: o make the minor accessible to more stude that is the date that this new program 2/12/2017: urrent Status: ollege Council Review roposal Progress: 1/05/2018 - Submitted by Department He	was approved by departmental or program facult	ty? (MM/DD/YYYY)	
eason for Proposed Change: To make the minor accessible to more stude that is the date that this new program 2/12/2017: urrent Status: college Council Review	was approved by departmental or program facult	sy? (MM/DD/YYYY)	

CAW - Change Program Proposal Form - Curricular Action Workflow... https://mis.missouristate.edu/Student/ccr/changeProgramProposal/5184

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Physics

Bachelor of Science

- A. <u>PHY 203(5)</u>, <u>204(5)</u>
- B. Electives from any other physics courses to bring total to 20 hours with no more than 14 hours of courses numbered below 300.



Physics

Bachelor of Science

- A. PHY **123(4)** or 203(5), **124(4)** or 204(5)
- B. Plus 10 hours of exelectives from any other physics courses to bring total to 20 hours with at least 6 no more than 14 hours in of courses numbered below 300 or above.

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - New Course Proposal Form

ICVV '	Course P	roposa	ı çoriii					The second secon
Submit	ted on 12/22/2	017 by Toby	Dogwiler (]	Dogwiler@h	lissouriState.e	<u>du)</u> .		
ll fields :	require Input		-			_		
® N	ew COURSE					•		
	ew REGULAR PERMAN elow	ENT SECTION of	an existing variabl	e content course, If	a new regular section o	f an existing variable	topics course, enter	the existing course number
Course Coo	de:			Course Number: (Check Availability)			
Course Titl Topics in	e: ı Geospatiai Science							
Vill this co	urse become part of a p	orogram? 🔾 No	○ Yes (A corresp	onding program ch	ange form must be sub	mitted)		
Vill this pro	oposal need to be revie	wed by CGEIP?	○ No ○ Yes					
/ill this pro	oposal need to be revie	wed by EPPC?	⊕ No ○ Yes			•		
rerequisito perm i ssio	e/Co-requisite or enter on	'None':						
Detailed topics va	urse Description: (Inclu treatment of a selec iry, the course may l credit for the same to	ted topic in Geo be repeated for	ospatial Science a total of 7 hour	that may vary fr s. May be taught	om offering to offeri concurrently with G	ng, Since credit an EO 697. Cannot	(1))
		·						
redit Hou	rs: 4		Lecture Contact	Hours:	0	Lab Conta	ect Hours:	0
lote: If var	iable credit, enter the h	ighest number an	d add to end of co	urse description. (e	.g. "Variable credit, may	be taken 1-3 hours.")		
					•			

https://mis.missouristate.edu/Student/ccr/create/101	22
--	----

<u>.</u>	Spring		Spring (even-numbered years only)		. 🗆 .	Spring (odd-numbere	d years only)	(4)
. 🗅	Summer	Ø	On Demand only					
Complete	Catalog Descrip	Hone	•					
GEO 597	Topics in Geospati te: permission							
Detailed to	reatment of a sele		ospatial Science that may vary from offer ot receive credit for the same topic in bot					ol of 7 hours. May
Credit hou		act hours: 0 La	b contact hours: 0			, 20 12.0		
			goals 3.1 les tout hou OR upland only file to	soon of DDE DOC or DOC	~~			24 3
include sa	iniple syllabus (list	topics, course	goals.) Use text box OR upload only file ty	/pes of PDP, DOC of DOC	- ^	Attached		
Purpose o	f Course		•					
MARCHA!		a vehicle for	offering courses on particular topic	s that are of interest	to current stuc	lents and		
	As we revise of us a way cater		Science curriculum to emphasize ap le	plications to other di	isciplines, topic	s courses		
		i i i i i i i i i i i i i i i i i i i						
Relationsh	nip to Other Depar	tments		onggapapa, sestembahan	mmanasiki Utanimir	unganakanakana		
The second secon			ot negatively affect any other depart many disciplines. We are hoping to l					•
			ropology, political science, sociolog					
through	this topics cou	rse.						
Is there a	graduate/undergra	aduate parallel	course to this one? ® No ① Yes			,		
New Cour	se Resource I	nformation						
Anticipate	d Average Enrolln	ent per section	n	Maximum Enro	llment Limit per	section:		20
Anticipate	ed Average Enrolln	nent per semes	ter:	Maximum Enro	ollment Limit per	semester:		And the second
			(O)				•	20.
Anticipate	ed Average Enrolln	nent per year:	16	Maximum Enro	llment Limit per	year:		20
Faculty Lo	ad Assignment (e	quated hours):		200000 200000				
·	-							
	,	. 10 5 11 5	· W.					
is another	course being dele	ted? ® No €	· res					
What ^{til}	this source as	na in the week	ē.					
mat will	this course requi	·				•	-	
	Additions None	al library Holdin	gs Brown of the state of		12,0% (1.1.)			
	Additiona	d computer res	burces					

	Iona. Will utilize existing Geospatial Science computing labs in Temple Hall.
	Iditional or remodeled facilities Ione.
4113	lditional equipment or supplies
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Iditional travel funds
0.000 g 0.000 g 0.000 g	lditional faculty; general vs specialized
110113 23413	Iditional faculty; regular vs per-course
\$655 Cra**:	her additional expenses
	re not required, how will faculty be made available to teach this course? casionally if capacity in existing faculty load exists.
List names of current for Toby Dogwiler Xin Miao Xiaomin Qiu Jun Luo	faculty qualified and available to teach this course
Primarily Geospati	ed source of students for this course? Lial Science, Gaology, Geography, and Planning majors. Some topics may be offered in collaboration ms or majors and would attract majors from those programs.
	rom within the department, will students be taking this course in addition to or in place of other courses? Beospatial Science majors have a 3 credit major elective requirement this could fulfill. Students in other GGP majors typically have similar.
di	iscretionary major electives. This topics course could be used to fulfill those major requirements, with the approval of the program faculty and the department head.
di er If fr	

What is the date that this new course was approved by departmental or program faculty? (MM/DD/YYYY)

11/10/2017

Current Status:

College Council Review

Proposal Progress:

12/22/2017 - Submitted by Department Head (Toby Dogwiler)

Review Comments:

No comments have been added to this proposal.



MAKE YOUR

MENT.

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

SYLLABUS AND COURSE POLICY

GEO 597 Topics: XXXXXXX

3 cr

Dr. Toby Dogwiler TDogwiler@MissouriState.edu

Office: 358 Temple Hall Class Room: Temple 340

GEO 597, 12:30 - 1:50 TR

Office Hours: M-1:30-2:45, Tu-8:45-10:00, W-8:30-9:45, Th-10:00-11:15, or by appointment

Academic Dishonesty

I have no tolerance for academic dishonesty. There is no place for any form of academic dishonesty in a university. As such, if you are caught cheating, fabricating or misconducting research, plagiarizing, or facilitating academic dishonesty in any of its forms, I will FAIL you in this course. This is your only warning.

Missouri State University is a community of scholars committed to developing educated persons who accept the responsibility to practice personal and academic integrity. You are responsible for knowing and following the university's student honor code, which is entitled "Student Academic Integrity Policies and Procedures" and is available at the Reserves Desk in Meyer Library or online^{1.} Any student participating in any form of academic dishonesty will be subject to sanctions as described in this policy. Specifically, you will fail the course.

Course Description

Detailed treatment of a selected topic in Geospatial Science that may vary from offering to offering.

Catalog Description

Detailed treatment of a selected topic in Geospatial Science that may vary from offering to offering. Since credit and topics vary, the course may be repeated for a total of 7 hours. May be taught concurrently with GEO 697. Cannot receive credit for the same topic in both GEO 597 and GEO 697. Variable credit, may be taken 1-4 hours.

Textbook and Resources

Required

- Will vary by topic
- You need access to MyMissouriStatelive@edu accounts to stay connected to both class and university announcements and to access our Blackboard site.
- Blackboard page

Grading and Assignments

I will total the number of points available for the course and the points you have earned to figure your final grade using the following scale, which also applies to all assignments:

A = 90 - 100%; B = 80 - 89%; C = 70 - 79%; D = 60 - 69%; F = 59.99% and below. Note: an 89.9999% is a 'B', and so forth. Lines have to be drawn somewhere!

Weights

Projects 60% + Class Participation 15% + Exams / Quizzes 25% = 100% of your grade

¹ http://www.missouristate.edu/assets/policy/Op3 01 Academic-Integrity-Policies-and-Procedures-07-28-2014.pdf and: http://www.missouristate.edu/academicintegrity/policies.htm



Projects: This class will be primarily project-based. The goal is for you to learn how to use GIS tools to understand, analyze, and predict hydrologic phenomena across the landscape. I believe the best way to learn this is by doing it—in other words: to get your hands on GIS and it's processing tools.

Class Participation: This will include attendance, participating in discussions, working on in-class assignments (which may also be part of the grade for various projects), and other activities that occur during regular class time.

Exams / Quizzes: As a project-based course, the role of exams and quizzes is diminished. The main purpose of these assessments will be to enforce reading and other assignments and require you to demonstrate your practical GIS skills.

Attendance Policy

Here are the guidelines for attendance in GEO 597:

- Many of the things we do in class are difficult or impossible to make-up. So don't miss class!
- If you are not in class, you are still responsible for the information; you <u>cannot</u> make-up class activities and
 points offered during classes, except in extremely rare circumstances, which will be considered on a case-bycase basis for approval by the instructor. Generally, such excused absences and make-ups will require preapproval PRIOR to the absence.
 - Weddings, vacations, colds, sniffles, headaches, hangovers, and birthdays are <u>NOT</u> acceptable excuses.
- If you will be absent from class for a university-sanctioned event, you need to present written documentation to me PRIOR to the class you will miss in order to make up missed points.
- If you miss class (excused or unexcused) it is your responsibility to obtain the information and assignments you missed. You are responsible for the content and for completing assignments even if your absence is unexcused (and therefore cannot be made up for a grade).
- Please do not be tardy to class.
- I will evaluate your ability to complete the course in the event of excessive undocumented absences. More than four undocumented absences will require a meeting with me and will be grounds for failing the course, unless we agree on a plan for the rest of the semester and you adhere to it.
- If you have an emergency, contact the Academic Advisement Center (417-836-5258) and an advisor will notify your instructors.
- Assignments must be turned in at the beginning of the class period of the due date to receive full credit. Student
 may receive up to 50% if the assignment is turned in within 24 hours of a due date. Assignments turned in after
 24 hours receives 0%. Exceptions will be made with verifiable emergencies (see above). Speak with me as soon
 as possible if you have an emergency or a problem with a deadline.

Bottom line: If you're not here, you will miss valuable input from your classmates, as well as the understanding provided through class discussions. I expect you to be here and to be ready to think and to participate.

POLICIES

Student Responsibilities

The following policies explain the manner in which I expect students to conduct themselves in my classroom:

Assignments--All assignments completed outside of class must be typed, 12 point font, Calibri, double-spaced, with 1 inch margins unless otherwise instructed. Assignments must be turned in at the beginning of the class period by the due date to receive full credit. If you are tardy, by definition, you are unable to submit an assignment at the beginning of class. Most assignments will be distributed through BlackBoard or in class. It is your responsibility to check Blackboard regularly.

Be prepared for class—assigned reading should be completed before class. In order for you to receive the most from this course, you need to be prepared to share your knowledge and to learn from your peers.



Make-up Examinations and Quizzes: Make-up exams are rarely approved or offered by the instructor. If you miss an exam for an extenuating reason (e.g., due to hospitalization, serious illness, or family emergency) special consideration may be granted at the discretion of the instructor. Whenever possible students should notify the instructor in advance and request approval.

Work obligations, common illness (colds, flus, etc.), weddings, rides home, and vacations are NOT suitable excuses for missing an exam. I expect that you will adapt your work schedule to the requirements and schedule of this course. Work is something you do to afford your education and I believe strongly that education and coursework should be the first priority of every student.

In the rare case that a make-up exam is approved it will be given during the final examination period (in addition to the regular final exam). This make-up exam will be comprehensive. If a make-up for the Final Exam is approved an alternate time will be arranged. The content, format, and comprehensiveness of make-up exams is the sole discretion of the instructor.

Generally, quizzes will not be offered for make-up for any reason. If the instructor approves an excused absence that results in missing a quiz, the missed quiz will be replaced with your average quiz score on all other quizzes.

Email and Communication—

- o Emails from me will be sent through Blackboard to your MSU email account. Check it regularly.
- I encourage you to register for the Remind service (see BlackBoard). I will use Remind to send brief announcements and reminders to the class. You must still check email. Some announcements and information are not suitable for text messaging. Remind is an excellent way to ask and receive quick questions about class and projects.
- O Use proper e-mail etiquette, as described on the first day of class, when sending e-mails to each other or the instructor. These should be respectful, professional, not have slang (e.g. "u" instead of "you"), and be well-written. Be sure to include your name in the body of the email and "GRY 597/697" or "HTA" in the subject line. E-mails should come from the Windows Live account you have as a student. I will strive to respond promptly to e-mails. Nonetheless, if you do not receive a response within a reasonable timeframe (one business day for most purposes), please politely resend your message.
- If we are playing "communication tag", assume that you are always "it".
- Note: Most of your assignments will be submitted via blackboard or flashdrive. Generally, assignments will not be accepted via email.

Use of Cell Phones, tablets, and other similar technology devices in classes—As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones ring and students respond in class or leave class to respond, it disrupts the class. Therefore, the Office of the Provost prohibits the use by students of cell phones, pagers, tablets, or similar communication devices during scheduled classes. All such devices must be turned off or put in a silent (vibrate) mode and ordinarily should not be taken out during class. Given the fact that these same communication devices are an integral part of the University's emergency notification system, an exception to this policy would occur when numerous devices activate simultaneously. When this occurs, students may consult their devices to determine if a university emergency exists. If that is not the case, the devices should be immediately returned to silent mode and put away. Other exceptions to this policy may be granted at the discretion of the instructor.

- O Using any device or technology during class in a way that distracts other course participants is strictly forbidden. Failure to comply with this policy will result in the loss of points in the course. Repeated offenses will result in escalated penalties, as determined by the instructor.
- Communicate with Respect and Civility--In alignment with section 2.4 of the Missouri State Code of Students' Rights and Responsibilities, all class communication must follow those guidelines to remain productive. I strongly encourage students to express their opinion, but not at the expense of being disrespectful to others. When you are speaking, please be sensitive to others and make your statements in a respectful way. When you are listening, please respect the viewpoint and perspective of the speaker and give them the benefit of the doubt that they are

doing their best to respect you. Differences of opinion should be an opportunity for learning and discussion, not a reason to attack or become defensive.

EMERGENCY RESPONSE PLAN

At the first class meeting, students should become familiar with a basic emergency response plan through a dialogue with the instructor that includes a review and awareness of exits specific to the classroom and the location of evacuation centers for the building. Students with disabilities impacting mobility should discuss the approved accommodations for emergency situations and additional options when applicable with the instructor. For more information, go to http://www.missouristate.edu/safetran/51597.htm and http://www.missouristate.edu/safetran/erp.htm.

Shelter Information (in case of severe weather).

Building	Shelter Information
Temple Hall	2nd floor and 3rd floor, Shelter in interior labs and classrooms

Evacuation Instructions (in case the building needs to be evacuated for events such as fire, gas leak, etc.)

Evacuation Information
North to Meyer Library Main Entrance; Alternate: Northwest to Glass Hall rooms 101, 102 and 108; and West to Kemper Hall. (Destination will be determined by type of emergency and weather condition.)

Academic Integrity Policy

There is a reason that I stated my "Academic Dishonesty" policy on the first page of this syllabus. I take it very seriously. Please see the first page of this syllabus for the course policies specific to this section of GRY 597/697. You are responsible for knowing and following the university's student honor code, *Student Academic Integrity Policies and Procedures* at the following website: http://www.missouristate.edu/academicintegrity/policies.htm. Any student participating in any form of academic dishonesty will be subject to sanctions as described in this policy.

Nondiscrimination Policy

Missouri State University is an equal opportunity/affirmative action institution and maintains a grievance procedure available to any person who believes he or she has been discriminated against. At all times, it is your right to address inquiries or concerns about possible discrimination to the Office for Institutional Equity and Compliance, Park Central Office Building, 111 Park Central Square, Suite 111, (417) 836-4252. Other types of concerns (i.e., concerns of an academic nature) should be discussed directly with your instructor and can also be brought to the attention of your instructor's Department Head. Please visit the Office for Institutional Equity and Compliance website at http://www.missouristate.edu/equity.

Disability Accommodation

To request academic accommodations for a disability, contact the Director of the Disability Resource Center, Meyer Library, Suite 111, (417) 836-4192 or (417) 836-6792 (TTY), www.missouristate.edu/disability. Students are required to provide documentation of disability to the Disability Resource Center prior to receiving accommodations. The Disability Resource Center refers some types of accommodation requests to the Learning Diagnostic Clinic, which also provides diagnostic testing for learning and psychological disabilities. For information about testing, contact the Director of the Learning Diagnostic Clinic at (417) 836-4787 or visit http://psychology.missouristate.edu/ldc.

Policy Regarding Dropping a Class

It is your responsibility to understand the University's procedure for dropping a class. If you stop attending this class but do not follow proper procedure for dropping the class, you will receive a failing grade and will also be financially obligated to pay for the class. For information about dropping a class or withdrawing from the university, contact the Office of the Registrar at 836-5520.

Other important dates and deadlines: Academic Calendar: http://calendar.missouristate.edu/academic.aspx



Amendment: The instructor reserves the right to amend, correct, or change this syllabus in any manner I deem necessary provided I give notice of any substantial changes at a regularly scheduled class meeting or through email and make the updated copy available on Blackboard. Simple editorial and grammatical corrections will not require notification.

Religious Accommodation: The University may provide a reasonable accommodation based on a person's sincerely held religious belief. In making this determination, the University reviews a variety of factors, including whether the accommodation would create an undue hardship. The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the University. Students who expect to miss classes, examinations, or other assignments as a consequence of their sincerely held religious belief shall be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation Form to the instructor by the end of the third week of a full semester course or the end of the second week of a half semester course.

COURSE TOPICS

This following list of topics / projects is tentative and may be changed or added to as the semester progresses. The projects and assignments for the course will be based, at least in part, on the abilities and interests of the students.

- This list will vary by topic, the following is an example set of topics that would be relevant to a GEO 597 course
- Hydrologic and Topographic Data Acquisition and Processing
- Hydrologic Conditioning of DEMs
- Watershed Delineation
- Stream Delineation and Calibration
- Spatial Analysis of Hydrologic Data
- Temporal Analysis of Hydrologic Data
- Modeling and Predicting Erosion

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Course Proposal Form

*All fields require input This proposal applies to: An existing REGULAR (e.g. permanent) SECTION of a variable content course. Existing Course: GEOST Intermediate Geographic information Science Will this proposal need to be reviewed by CCEIP? No O Yes Will this proposal need to be reviewed by CCEIP? No O Yes Will this proposal need to be reviewed by EPPC? No O Yes Current online catalog description: GEO 55 Intermediate Geographic Information Science The requisites CRY 383 Principles and applications of Geographic Information Systems (GIS) software: Examines the resture and accuracy of spatially referenced data; as well as methods of data capture; storinge, retrieval, visualization and output. May be saight concurrently with GEO 661 Cannot receive credit for both GEO 661 and GEO 561 accuracy as a patient shall be a patient shall	tate.edu).	<u>tate.edu)</u> .	viler@Missouris	gwiler (<u>TDo</u>	by Toby I	2/22/20	d on 1	mitte
An existing COURSE An existing REGULAR (e.g. permanent) SECTION of a variable content course. Existing Course: GEOSGI Intermediate Geographic Information Science Will this proposal need to be reviewed by CGEIP? No Yes Virent online catalog description: GEO 561 Intermediate Geographic Information Science Prerequisites GRY 363 Principles and applications of Geographic Information Systems (GIS) software. Examines the nature and accuracy of spatially referenced date, as well as methods of data capture, storage, retrieval visualization and output. May be taugint concurrently with GEO 661 Cannot receive credit for both GEO 661 and GEO 661. 3(2-2) S Revise the current online catalog description as needed: (Strikethrough all deletions and insert/boid new information. Any content that is copied and passed will lose existing formatting please assimilation.) Revise the current online catalog description as needed: (Strikethrough all deletions and insert/boid new information. Any content that is copied and passed will lose existing formatting please assimilation.) Revise the current online catalog description as needed: (Strikethrough all deletions and insert/boid new information. Any content that is copied and passed will lose existing formatting please assimilation.) Revise the current online catalog description as needed: (Strikethrough all deletions and insert/boid new information. Any content that is copied and passed will lose existing formatting please assimilation.) Revise the Current online catalog description as needed: (Strikethrough all deletions and insert/boid new information. Any content that is copied and passed will lose existing formatting please as a subject to out of GTS to solving geospatial proferement of GTS to solving geospatial proferement of GTS to solving geospatial profelems in various disciplines. May be studied and output. This course will emphasize the accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. This cou				rmer on, housen, melanner – er va ii n melannom.	dat hat, was, web presented about the course work delication and an area.	nput	equire	ields r
An existing REGULAR (e.g. permanent) SECTION of a variable content course. An existing Course: CECGSI Intermediate Geographic information Science. Ill this proposal need to be reviewed by CGEIP? No Yes Ill this proposal need to be reviewed by EPPC? No Yes Ill this proposal need to be reviewed by EPPC? No Yes Urrent online catalog description: SEC 651 Intermediate Geographic Information Science Prerequisite GRY 363. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. May be taught concurrently with GEO 661. Cannot receive credit for both GEO 661 and GEO 561. 3(2-2) S evise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting please automission.) B			•			es to:	al appl	propos
EGEOSSI Intermediate Geographic Information Science Ill this proposal need to be reviewed by CGEIP? No Yes Ill this proposal need to be reviewed by CGEIP? No Yes Urrent online cetalog description: SEO 561 Intermediate Geographic Information Science Prerequisite: GRY 363. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval visualization and output. May be taught concurrently with GEO 861. Cannot receive credit for both GEO;661 and GEO 861. 3(2-2)'S service the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting: please aubmission.) B						COURSE	existing	An
DECOSSI Intermediate Geographic Information Science Ill this proposal need to be reviewed by CGEIP? No Yes Ill this proposal need to be reviewed by EPPC? No Yes Ill this proposal need to be rev			ent course.	FION of a variable c	. permanent) SE	REGULAR (e	existing	An
If this proposal need to be reviewed by EPPC? No Yes Arrent online catalog description: DEO 561 Intermediate Geographic Information Science Prerequisite: GRY 363. Principles and applications of Geographic Information Systems (GIS) software. Examines the least representation of accuracy of spatially referenced data; as well as methods of data capture, storage, retrieval visualization, and output. May be taught concurrently with GEO 661. Cannot receive credit for both GEO 661 and GEO 561. 3(2-2) S Principles are the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please submission.) Are B J S GEO 561 Intermediate Geographic Information Science Applied Geographic Information Science Prerequisite: GRY 363 or instructor's permission. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature application of GIS to solving geospatial problems in various disciplines. May be taught concurrently with GEO 661. Cannot receive credit for both GEO 661				cience in 175	c Information	te Geograp		
Perequisite: GRY 363. Principles and applications of Geographic Information Systems (GIS) software. Examines the lature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. May be taught concurrently with GEO 661. Cannot receive credit for both GEO;861 and GEO 561. 3(2-2) Service the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting: please submission.) B			-	No O Yes	by CGEIP?	o be reviewe	sal need t	s ргоро
Prerequisite: GRY 363. Principles and applications of Geographic Information Systems (GIS) software. Examines the lature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. May be taught concurrently with GEO 861. Cannot receive credit for both GEO; 861 and GEO 581. 3(2-2) Service the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please submission.) BI GEO 561 Intermediate Geographic Information Science Applied Geographic Information Science Prerequisite: GRY 363 or instructor's permission. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature application of GIS to solving geospatial problems in various disciplines. May be taught concurrently with GEO 661. Cannot receive credit for both				No 🗘 Yes	by EPPC?	o be reviewe	sal need t	s propo
GEO 561 Intermediate-Geographic Information Science Applied Geographic Information Science Prerequisite: GRY 363 or instructor's permission. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. This course will emphasize the application of GIS to solving geospatial problems in various disciplines. May be taught concurrently with GEO 661. Cannot receive credit for bot				ns of Geographic	and applicat	33. Principi	: GRY 3	
GEO 561 Intermediate Geographic Information Science Applied Geographic Information Science Prerequisite: GRY 363 or instructor's permission. Principles and applications of Geographic Information Systems (GIS) software. Examines the nature accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization and output. This course will emphasize the application of GIS to solving geospatial problems in various disciplines. May be taught concurrently with GEO 661. Cannot receive credit for bot	O;661 and GEO 561: 3(2-2) S	O 661 and GEO 561	ve credit for both G	O 661. Cannot re	urrently with	taught con	May be	output.
	O;661 and GEO 561: 3(2-2) S	O 661 and GEO 561	ve credit for both G	O 661. Cannot re	urrently with	taught con	May be	utput. the cur
/hat is changing? Check all boxes that apply. ☐ Course Code ☐ Course Number (<u>Check Availability</u>) ☑ Title ☑ Prerequisite	O:861 and GEO 561: 3(2-2) S ation. Any content that is copied and pasted will lose existing formatting; please review p Science aic Information Systems (GIS) software. Examines the nature and visualization and output. This course will emphasize the	O 661 and GEO 561 ation. Any content that is Science aic Information Syste, visualization and o	we credit for both G s and insert/bold new infor graphic Informatio plications of Geograp ure, storage, retrieva	G. 661. Cannot re (Strikethrough all dele cience Applied G on. Principles and methods of data of	urrently with a ription as needed ic Information at the control of	taught con e catalog des I S te Geograp 53 or instri	ent onlin B termedic GRY 3- spatially of GIS	the cur ission.) 561 In equisite racy of ication



Reason for proposed change

The content and focus of this course will largely be similar, but more emphasis will be placed on demonstrating the applications of GIS to various disciplines in the sciences and non-sciences.

Does this change affect course assessment (e.g. student learning evidence/outcomes)? ® No O Yes How did you determine the need for this change? Check all boxes that apply or specify other. Routine or annual review/assessment of curriculum Student Input Accreditation/certification compliance Review of catalog information Other (be specific): 2 Check if this is a non-substantive change. What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY) 11/10/2017 **Current Status:**

College Council Review

Proposal Progress:

12/22/2017 - Submitted by Department Head (Toby Dogwiler)

Review Comments:

No comments have been added to this proposal.

MAKE YOUR

Last Modified: 07/17/2015 • Disclaimer • Accessibility • EO/AA/M/F/Veterans/Disability © 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information



Curricular Action Workflow



Missouri State > Computer Services - M(S > Curricular Action Workflow > CAW - Change Course Proposal Form

hang	ge C	lou	rse Pr	ropos	al Form			18790 1 == · · · · · · · · · · · · · · · · ·	-6444 1 5 . 1	
Submitte	ed on '	12/22	2/2017 by	Toby Dog	wiler (<u>TDogwiler@Misso</u> u	ıriState	.edu).).		
All fields	require	inpui	***************************************	nda para mandada Area Area, area erra, erra, area area erra, area, area (gagan kaga menumum menumum menung perinda perinda perinda dari dalam dalam dalam dalam dalam dalam dalam dalam	endern, ern - marrier ern ern ern ern ern ern ern ern ern e	
his propo	•	-								
⊚ A	n existing	g COUR	SE		•					
					•					
O A	n existinç	g REGU	LAR (e.g. perm	nanent) SECTI	ON of a variable content course.					
xisting Co	ourse:		***							
RY360 Ir	terpret	etion o	f Aerial Phot	ography						
Il this prop	sal need	to be r	eviewed by CG	SEIP? W N	lo 🔾 Yes	-				11/4
				- - n ·						
l this prop	sal need	to be r	eviewed by EP	PC? ® N	O Yes				÷	
rrent online	e catalog	descrip	otion;						*	
BA 380 II	ternret	ation	of Aerial Phot	rogranhy		Millia.				
IK 1 300 II	ireihier	audiit	I Adilai Filot	iograpity						
					nd analysis of objects or features f		er igk			
hotograp	ny and c	other t	ypes of high	resolution re	motely sensed images. Laboratory	emphasi	zes ma	nual and digital		
nage inte	pretatio	on for	and cover m	apping, fore	stry, agriculture, geology, and plani	ning appli	cations	. Field trip is	800	
equired: 3	(2-3) F	19.469						fisi i (4 co		
armarmoni Armarmoni		Diguesel		(25) ISVS (OAKOAK)	irga ottofti fissi 1889 i Rekkindi. Hestälen 1,360 i Stati Höll	ereration.		e sinderen er en en		*
vise the cu	rrent onli	ine cata	log description	n as needed: (9	trikethrough all deletions and insert/bold new i	information.	Any conte	ent that is copied and p	oasted will lose ex	isting formatting; please review
ubmission.)	· .				A. I A.		<u> </u>		The second secon	**************************************
* *	В		S	*************	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE					
RY GEO	360 Inte	rpretat	ion of Aerial	Photography						
rereauisit	e• 30 ha	nurs. D	etection ider	ntification, an	d analysis of objects or features fro	m film and	d dioita	Laerial photograp	hy and other	types of high resolution
emotely s	ensed in	nages.	Laboratory e	mphasizes m	anual and digital image interpretation	on for land	cover	mapping, forestr	y, agriculture,	geology, and planning
pplication	s. rielu	trip is i	required. 3(2-	-3) F						
					·					
	•						٠			
nat is chang	ing? Che	ack all b	oxes that appl	ly.					· a	
Cou	rse Code			C3	Course Number (Check Availability)		CJ	Title	o	Prerequisite
COL	135 0006	-		lJ	Codise Malital (Check Wallebillita)		لسة	TILLE	ų.	rielequisite
Cre	dit Hours	/Contra	et House	D	Periodicity			Description		



Reason for proposed change

GRY 360 was originally a course in our Geography (GRY) program prior to the creation of a separate Geospatial Science major. We are proposing to change the prefix for this course to "GEO" to reflect the fact that GRY 360 truly is a Geospatial Science course. This will help alleviate confusion among faculty in other departments and prospective students and majors interested in this course.

students and majors interested in this course. Does this change affect course assessment (e.g. student learning evidence/outcomes)? No O Yes How did you determine the need for this change? Check all boxes that apply or specify other. Σ Routine or annual review/assessment of curriculum Faculty Input Accreditation/certification compliance Review of catalog information Other (be specific): Check if this is a non-substantive change. What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY) 11/10/2017 **Current Status:** College Council Review Proposal Progress: 12/22/2017 - Submitted by Department Head (Toby Dogwiler) **Review Comments:** No comments have been added to this proposal.

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Curricular Action Workflow



Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Course Proposal Form

Submitte	d on 1	2/22	/2017	by To	oby Do	ogwiler (<u>TDogwiler@Missour</u>	riState.edu)	<u>)</u> .		
All fields r	equire	input			***************************************			техняльня датум (Втал Фр. Динур год постав общеную фр. Ду. Дин	ret Martini de em Albert em a Valencen em ace	нана во сущивання вишення на настранення выполня на выполня на на выполня на на выполня на на на на на на на н
his propos	al appl	ies to:		* -			4			
⊛ An	existing	COURS	E					+		
୦ An	evietina	REGUL	AD (an	nermanı	ent) SEC	FION of a variable content course.				
- 111	oxio (ing	MEGOL	(0.9	pormun	0115 020	TON OF E VANABLE CONTAINS COMPOSE				
disting Co	urse,								-	-
RY363 Int	127.53	on to G	Angrai	shle infe	rmation	Science				
				\$143×4						
I this propo	sal need	to be re	viewed	by CGEI	P? 🐞	No O Yes		•		
this propo	sai need	to pe te	viewed	Dy EPPC	7 👳	No ○ Yes				
rerequisite	: 30 ho	urs, Int	eogra roduct	lon to tl	ne found	r Science lations of geographic information syst and remote sensing used in academia				
rerequisite artography nd private	: 30 ho , global	urs. Int positio	eogra roduct oning s	lon to ti ystems	ne found (GPS), a	lations of geographic information syst	, government a	gencles,		
rerequisite artography nd private	: 30 ho , global	urs. Int positio	eogra roduct oning s	lon to ti ystems	ne found (GPS), a	lations of geographic information syst and remote sensing used in academia	, government a	gencles,		
rerequisite artograph) nd private (3-4) F.S vise the cur	: 30 ho /, global industr	urs, int position les, Top	eogra roduct oning s	lon to ti ystems slude m	ne found (GPS), a aps. dat	lations of geographic information syst and remote sensing used in academia	, government a a analysis and c	gencles, Jisplay:	isted will lose ex	isting formatting; please raview
rerequisite artograph) nd private (3-4) F.S vise the cur	: 30 ho /, global industr rent onlin	urs, int position les, Top	eogra reduct oning s oics in	lon to ti ystems slude m	ne found (GPS), a aps. dat	lations of geographic information syst and remote sensing used in academia a collection, data processing, and data	, government a a analysis and c	gencles, Jisplay:	sted will lose ex	isting formatting; please review p
artography nd private (3:4) F.S vise the current submission.)	s: 30 ho , global industr rent onlin	urs. Int positiv es. To es catalo	eeogra roduct oning s sics in	lon to ti y stems slude m	ne founc (GPS), a aps. dat a needed:	lations of geographic information syst and remote sensing used in academia a collection, data-processing, and data (Strikethrough all deletions and insert/bold new in	, government a a analysis and c	gencles, Jisplay:	sted will lose ex	isting formatting; please review
rerequisite artography nd private (3:4) F.S vise the curre submission.) FRY GEO 3 Prerequisite emote seni	: 30 ho , global industr rent onlin B 63 Intro :: 30 ho sing use	urs, Int position pos	roduct oning s ojes in og desc S o to Ge	ion to ti ystems slude m ription as ographic ion to th	ne found (GPS), a aps. data s needed:	lations of geographic information syst and remote sensing used in academia a collection, data processing, and data	government a a analysis and c formation Any conte	gencies, Jispiay, ent that is copied and pa	al positioning	g systems (GPS), and
rerequisite artography nd private (3:4) F.S vise the curn submission.) The property of the curn submission.	: 30 ho , global industr rent onlin B 63 Intro :: 30 ho sing use	urs, Int position pos	roduct oning s ojes in og desc S o to Ge	ion to ti ystems slude m ription as ographic ion to th	ne found (GPS), a aps. data s needed:	lations of geographic information system remote sensing used in academia a collection, data processing, and data (Strikethrough all deletions and insert/bold new in action Science ations of geographic information system	government a a analysis and c formation Any conte	gencies, Jispiay, ent that is copied and pa	al positioning	g systems (GPS), and
rerequisite artography nd private (3:4) F.S vise the curre submission.) FRY GEO 3 Prerequisite emote seni	: 30 ho , global industr rent onlin B 63 Intro :: 30 ho sing use	urs, Int position pos	roduct oning s ojes in og desc S o to Ge	ion to ti ystems slude m ription as ographic ion to th	ne found (GPS), a aps. data s needed:	lations of geographic information system remote sensing used in academia a collection, data processing, and data (Strikethrough all deletions and insert/bold new in action Science ations of geographic information system	government a a analysis and c formation Any conte	gencies, Jispiay, ent that is copied and pa	al positioning	g systems (GPS), and
rerequisite artography and private (3-4) F.S. vise the curricular submission.) April 10 SRY GEO 3 Prerequisite emote sensilisplay. 4(3	B 63 Intro :: 30 ho industr	urs. Int position es. To duction duction urs. Int d in acc	roductionings ojcs in	or to the street of the street	ne found (GPS), a aps. data s needed:	lations of geographic information system remote sensing used in academia a collection, data processing, and data (Strikethrough all deletions and insert/bold new in action Science ations of geographic information system	government a a analysis and c formation Any conte	gencies, Jispiay, ent that is copied and pa	al positioning	g systems (GPS), and
rerequisite artography nd private (3-4) F.S. vise the curn submission.) APPER GEO 3 Perequisite emote sensilisplay, 4(3) and 1 is changing the changing of the current of	B 63 Intro :: 30 ho industr	urs. Int position es. To duction duction urs. Int d in acc	roductionings ojcs in	or to the street of the street	ne found (GPS), a aps. data s needed:	lations of geographic information system remote sensing used in academia a collection, data processing, and data (Strikethrough all deletions and insert/bold new in action Science ations of geographic information system	government a a analysis and c formation Any conte	gencies, Jispiay, ent that is copied and pa	al positioning	g systems (GPS), and

Reason for proposed change

GRY 363 was originally a course in our Geography (GRY) program prior to the creation of a separate Geospatial Science major. We are proposing to change the prefix for this course to "GEO" to reflect the fact that GRY 363 truly is a Geospatial Science course. This will help alleviate confusion among faculty in other departments and prospective students and majors interested in this course.

Doe	es this change affect course assessment (e.g. student learning evidence/o	outcomes)? @ No O Ye	S				
How	did you determine the need for this change? Check all boxes that apply o	r specify other.					
Ø	Routine or annual review/assessment of curriculum		Ð	Faculty Input	0	Student Input	
a	Accreditation/certification compliance		O	Review of catalog	information .		
C	Other (be specific):						
M	Check if this is a non-substantive change.				•		*
What	is the date that this course change was approved by departmental or pro	ogram faculty? (MM/DD/Y)	(YY)		11/10/20	7	
	nt Status:						
College	e Council Review						
Propos	sal Progress:	• .					
12/22/2	2017 - Submitted by Department Head (Toby Dogwiler)			÷			
Reviev	v Comments:					•	
No con	nments have been added to this proposal.						

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information



Curricular Action Workflow



Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Submitted on 12/22/2017 by Toby Do	gwiler (<u>TDogwiler@Mi</u>	issouriState.edu).
Department:		
Geography, Geology, & Planning		
Type of Program Choose One:		
Non-Comprehensive Undergraduate Major	Option	 Certification
Comprehensive Undergraduate Major	Minor	Academic Rules
○ Graduate Program	 Certificate 	○ Other
No O Yes (A corresponding new course form Title of Program Affected: Geospatial Sciences-BS Current Catalog Description: (Either cut and paste	e present description from online	
content that is copied and pasted will lose existing forma	•	
* * B I S		
		·
		·
Attached		

1 of 2

Title change	☐ From option to program (major)	☐ Other
Course changes of under 18 hours	☐ From program (major) to option	
Course changes of 18 hours or more		
eason for Proposed Change:		
his is part of a periodic review of the majo	r gurriculum. The faculty have decided to streamline	the requirements by
	requirements that were not strictly necessary for a Ge	F 20 19 10 10 10 10 10 10 10 10 10 10 10 10 10
	es previously made to GRY 353 and 470 (changed to n is replaced with PLN 367). Finally, the proposed cha	
	tial component that are appropriate for entry to the G	#### CD 4
ote: The proposed changes include crafts	changes for GRY 363 and GRY 360, which are chang	Suite GEO 2022 and
EU 360. The course change proposals for	those courses are being submitted simultaneously to	this proposal, the same
EU 360, The course change proposals for	Truse coorses are being submitted simurtaneously to	this proposal.
istanistikinka kalillistää käytelle kulittaa kaitainin ja	was approved by departmental or program fact	
istanistikinka kalillistää käytelle kulittaa kaitainin ja		
hat is the date that this new program		
hat is the date that this new program /10/2017		
hat is the date that this new program		
hat is the date that this new program /10/2017		
hat is the date that this new program /10/2017 Irrent Status: llege Council Review	was approved by departmental or program fact	
hat is the date that this new program /10/2017 Irrent Status: Illege Council Review Oposal Progress:	was approved by departmental or program fact	
hat is the date that this new program /10/2017 Irrent Status: Ilege Council Review Poposal Progress: /22/2017 - Submitted by Department He	was approved by departmental or program fact	
hat is the date that this new program /10/2017 Irrent Status: Illege Council Review Poposal Progress: 22/2017 - Submitted by Department He	was approved by departmental or program fact	

MAKE YOUR

MENT.

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Geospatial Sciences (Comprehensive)

Bachelor of Science

- A. General Education Program and Requirements
- B. Major Requirements (59-60 hours)
 - 1. GRY 100(3) or 108(3) or PLN 100(3)
 - 2. GRY 142(4) or GLG 110(4)
 - 3. GRY 275(3) or 348(3) or 351(3)
 - 4. GRY 300(3) or 305(3) or 320(3) or 321(3) or 322(3) or 323(3)
 - 5. GRY 301(3) or 353(3) or 470(2)
 - 6. GRY 360(3), 363(4), 367(3), 498(1)
 - 7. <u>GEO 551(3)</u>, <u>561(3)</u>, <u>562(3)</u>, <u>566(3)</u>, <u>568(3)</u>, <u>572(3)</u>
 - 8. CSC 130(3)
 - AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 302(3)
 - 10 Complete 3 additional hours from GEO prefix.
 - 11. Complete 6 additional hours from the following: GRY courses numbered 300 or above; TCM 110(3); MTH 138(5), 181(3); 261(5) or 287(3); 280(5) or 288(3); CSC 131(4), 335(3)
 - 12. Public Affairs Capstone Experience will be fulfilled by completion of <u>GRY 498(1)</u> and either <u>GRY 301(3)</u> or <u>353(3)</u> or <u>470(2)</u>.

NOTE: Students who select a surveying emphasis must take <u>GRY 275(3)</u>, <u>375(3)</u>, <u>377(3)</u>, <u>379(3)</u>.

C. General Baccalaureate Degree Requirements



Geospatial Sciences (Comprehensive)

Bachelor of Science

- A. General Education Program and Requirements
- B. Major Requirements (59-60 **52-53**hours)
 - 1. GRY 100(3) or 108(3) or <u>135(4) or 142(4) or PLN 100(3) or GEO 200(3) or GLG 110(4) or 171(3)</u>
 - 2. GRY 142(4) or 135(4) or GLG 110(4)
 - 3. GRY 275(3) or 348(3) or 351(3)
 - 4. GRY 300(3) or 305(3) or 320(3) or 321(3) or 322(3) or 323(3)
 - 5. GRY 301(3) or 353(3) or 470(23)
 - 6. GRYGEO 360(3), 363(4), PLN 367(3), 498(1)
 - 7. GEO 551(3), 561(3), 562(3), 566(3), 568(3), 572(3)
 - 8. CSC 130(3)
 - 9. AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 302(3)
 - 10. Complete 3 additional hours from GEO prefix.
 - 11. Complete <u>69</u> additional hours from the following: <u>GEO or</u> GRY courses numbered <u>300 275</u> or above; TCM 110(3); MTH 138(5), 181(3); 261(5) or 287(3); 280(5) or 288(3); CSC 131(4), 335(3)
 - 12. Public Affairs Capstone Experience will be fulfilled by completion of GRY 498(1) and either GRY 301(3) or 353(3) or 470(23).

NOTE: Students who select a surveying emphasis must take GRY 275(3), 375(3), 377(3), 379(3).

C. General Baccalaureate Degree Requirements

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Department:		·
Geography, Geology, & Planning		
ype of Program hoose One:		
Non-Comprehensive Undergraduate Major	Option	 Certification
Comprehensive Undergraduate Major	Minor	Academic Rules
Graduate Program	○ Certificate	O Other
	•	
hoose All That Apply:		
Bachelor of Arts	☐ Bachelor of Music Education	☐ Bach of Science in Athl Traing
Bachelor of Applied Science	☐ Bachelor of Music	☐ Bach of Science in Education
Bachelor of Fine Arts	☑ Bachelor of Science	☐ Bachelor of Science in Nursing
Bachelor of Social Work		
oes this program include any new courses? No O Yes (A corresponding new course for	m must be submitted to create each new co	urse.)
itle of Program Affected:		•
Geospatial Sciences		
it i Maragada (t. 1. a. dada (taga) — Edin Ada (dada (taga) taga) and taga (t. dada (t. dada (t. dada (t. dada Taga	managamining abundang george company of page 1 and an angular angular and an angular an	
urrent Catalog Description: (Either cut and past	e present description from online catalog OR provid	le as an attachment below)
		Attached
1.15 5031 14 344 14.15151525214 14881434 145534 14533 14533 14533 14534 14534 14534 14534 14534 14534 14534 1453	1985 BECK 1144 TABLETA BETTA TABLETA BEST 11711 TOTAL TOTAL BETTA BEST 1144 BEST 1144 BEST 1144 BEST 1144 BEST	·

•			/#
·			•
Attached		, , , , , , , , , , , , , , , , , , ,	.il
What is changing? Check all boxes that	t apply:		
☐ Title change	☐ From option to program (major)	Other	7334641-45527-187-
☑ Course changes of under 18 hours	☐ From program (major) to option		
Course changes of 18 hours or more			
Source of the floate of those	•		
		• .	
B		•	
reduced the number of courses required for Note: The proposed changes include prefit	x changes for GRY 363 and GRY 360, which are changin	g to GEO 363 and	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program	r the minor, by one course,	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required to Note: The proposed changes include prefix GEO 360. The course change proposals for	r the minor, by one course, x changes for GRY 363 and GRY 360, which are changin r those courses are being submitted simultaneously to t	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017	r the minor, by one course, x changes for GRY 363 and GRY 360, which are changin r those courses are being submitted simultaneously to t	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017	r the minor, by one course, x changes for GRY 363 and GRY 360, which are changin r those courses are being submitted simultaneously to t	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017	r the minor, by one course, x changes for GRY 363 and GRY 360, which are changin r those courses are being submitted simultaneously to t	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017 Current Status: College Council Review Proposal Progress:	t the minor, by one course. It changes for GRY 363 and GRY 360, which are changing those courses are being submitted simultaneously to the was approved by departmental or program facul	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017 Current Status: College Council Review Proposal Progress:	t the minor, by one course. It changes for GRY 363 and GRY 360, which are changing those courses are being submitted simultaneously to the was approved by departmental or program facul	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefix GEO 360. The course change proposals for What is the date that this new program	t the minor, by one course. It changes for GRY 363 and GRY 360, which are changing those courses are being submitted simultaneously to the was approved by departmental or program facul	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017 Current Status: College Council Review Proposal Progress: 12/22/2017 - Submitted by Department H	t the minor, by one course. It changes for GRY 363 and GRY 360, which are changing those courses are being submitted simultaneously to the was approved by departmental or program faculting the course of the cour	g to GEO 363 and his proposal.	
These changes are part of a periodic review reduced the number of courses required for Note: The proposed changes include prefit GEO 360. The course change proposals for What is the date that this new program 11/10/2017 Current Status: College Council Review Proposal Progress: 12/22/2017 - Submitted by Department H	t the minor, by one course. It changes for GRY 363 and GRY 360, which are changing those courses are being submitted simultaneously to the was approved by departmental or program faculting the course of the cour	g to GEO 363 and his proposal.	

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Geospatial Sciences

Bachelor of Science

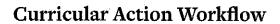
- A. GRY 142(4) or GLG 110(4); GRY 360(3), 363(4); GEO 551(3), 561(3)
- B. Complete three hours from GEO 562(3), 566(3), 568(3), 572(3), 573(3), 575(3), 578(3). Note: Students majoring in geography must complete nine hours of the following to avoid overlap with the major degree requirements: GEO 562(3), 566(3), 568(3), 572(3), 573(3), 575(3), 578(3).



Geospatial Sciences

Bachelor of Science

- A. GRY 142(4) or GLG 110(4), GRY 360(3), 363(4); GEO 551(3), 561(3)
- A. GEO 200(3) OR GRY 100(3) OR 108(3) OR 135(4) OR 142(4) OR PLN 100(3) OR GLG 110(4) OR 171(3)
- B. Complete three hours from GEO 562(3), 566(3), 568(3), 572(3), 573(3), 575(3), 578(3). Note: Students majoring in geography must complete nine hours of the following to avoid overlap with the major degree requirements: GEO 562(3), 566(3), 568(3), 572(3), 573(3), 575(3), 578(3).
- B. GEO 360(3), 363(4), 551(3)
- C. Complete three hours from GEO courses numbered 300 or above. Note: Students majoring in geography must complete six hours of GEO courses numbered 300 or above to avoid overlap with major degree requirements.







Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Submitted on 12/22/2017 by Toby Dog	gwiler (<u>TDogwiler@Mi</u>	ssouriState.edu).
Department:		
Geography, Geology, & Planning		
Type of Program Choose One:		
Non-Comprehensive Undergraduate Major	Option	 Certification
O Comprehensive Undergraduate Major	© Minor	Academic Rules
Graduate Program	Certificate	Other
Title of Program Affected: Geographic Information Sciences-Undergraduate C	ertificate ##	
Current Catalog Description: (Either cut and paste	present description from online	catalog OR provide as an attachment below)
		Attached
Complete New Catalog Description: (Either provice content that is copied and pasted will lose existing format	•	text area below [strikethrough all deletions and insert/bold new information - any nission] OR provide as an attachment below)
◆		
Attached		<u></u>

What is changing? Check all boxes that apply:

			•	/
☐ Title change	☐ From option to progra	•		
☑ Course changes of under 18 hours	☐ From program (major)		Other	(1985年) [1985]
☐ Course changes of 18 hours or more			•	•
		• .		
Reason for Proposed Change:				
These changes are part of a periodic review students more flexibility in which GEO cour requirements.				
Note: The proposed changes include prefix 360. The course change proposals for thos			363 and GEO	
What is the date that this new program	was approved by departmental o	r program faculty? (MN	I/DD/YYYY)	
11/10/2017.				
Berrasognicita den inaksilen birrasognin seksa sen men oca				
11/10/2017.				
11/10/2017 Current Status: College Council Review				
11/10/2017 Current Status: College Council Review Proposal Progress:				
11/10/2017 Current Status:				
11/10/2017 Current Status: College Council Review Proposal Progress: 12/22/2017 - Submitted by Department He	ead (Toby Dogwiler)			
11/10/2017 Current Status: College Council Review Proposal Progress: 12/22/2017 - Submitted by Department He Review Comments:	ead (Toby Dogwiler)			

MAKE YOUR

MENT.

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 <u>Board of Governors,</u> Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Geographic Information Sciences

The certificate in Geographic Information Sciences provides an 16 hour undergraduate level program for students and professionals who desire credentials in this area.

Admission requirements

At least a 2.50 Missouri State cumulative GPA and a minimum of 30 credit hours.

Program requirements (16 hours)

- A. GRY 360(3), 363(4); GEO 551(3), 561(3)
- B. Three additional hours from: <u>GEO</u> 562(3), 566(3), 568(3), 572(3), 573(3), 575(3), 578(3)
- C. Attain a 2.75 GPA in required courses



Geographic Information Sciences

The certificate in Geographic Information Sciences provides a an 16 hour undergraduate level program for students and professionals who desire credentials in this area.

Admission requirements

At least a 2 50 Missouri State cumulative GPA and a minimum of 30 credit hours.

Program requirements (16 hours)

- A: GRY GEO 360(3), 363(4);, GEO 551(3), 561(3)
- B. Three additional hours from GEO **courses** <u>562(3)</u>, <u>566(3)</u>, <u>568(3)</u>, <u>572(3)</u>, <u>573(3)</u>, <u>575(3)</u>, <u>578(3)</u>
- C. Attain a 2.75 GPA in required courses

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Course Proposal Form

ubmit	ted on	01/05	/2018 by	Debra F	inn (<u>DFinn@Mis</u>	souriState.ed	<u>iu)</u> .			
	s require	-				•				
his prop	osal app	lies to:								
®	An existing	COURS	E							
0	An existing	REGUL.	AR (e.g. perma	anent) SECT	FION of a variable content	course.				
xisting (Course:				on manyalasa a sa an	energy and energy designation of the energy and energy and energy and energy and energy and energy and energy				
310574 4	Aquatic E	ntomolo	gy							
III this pro	posal neec	I to be re	viewed by CG	EIP?	No O Yes		IIIIIIII LANING TO THE TOTAL TOTAL TO THE TO			
ll this pro	posal need	I to be re	viewed by EPF	PC?	No O Yes					
	ine catalog Aquatic E	terioria a								
IIO 5747	Aquatic E site: BIO 3	ntomolo 70 or B	gy O 371 or AG	TOTAL STREET, CONTRACTOR	uatic insects, ecology a of receive credit for bo	Control of the second	141.00		2588200001	
Prerequis May be to Experient	Aquatic E site: BIO 3 aught cor ce course current on!	ntomolo 70 or B ncurrent 2(1-3)	gy O 371 or AG Iy with BIO 6 SE	374. Cenni		th BIO 674 and E	10 574. Publi	c Affairs Capston	e	xisting formatting: please re
Prerequis May be to Experient	Aquatic E site: BIO 3 aught cor ce course current onl	ntomolo 70 or B ncurrent 2(1-3)	gy O 371 or AG Iy with BIO 6 SE	374. Cenni	ot receive credit for bo	th BIO 674 and E	10 574. Publi	c Affairs Capston	e	xisting formatting; please re
Prerequise Asy be to experience wise the consultation of the consu	Aquatic E site: BIO 3 aught cor ce course current onl	ntomolo 170 or B current 1, 2(1-3) ine catalo	9y O'37h or AG Iy with BIO o SE og description	374. Cenni	ot receive credit for bo	th BIO 674 and E	10 574. Publi	c Affairs Capston	e	xisting formetting: please re
rerequision submission	Aquatic E site: BIO 3 aught cor ce course current onl B Aquatic E	ntomolo 170 or B 10 current 1, 2(1-3) ine catak I 1 1 160 or 160	gy O 371 or AG Iy with BIO 6 SE Og description G G BIO 370 or E red. May be	374, Canni as needed:	ot receive credit for bo	th BIO 674 and E	mation. Any cont	c Affairs Capston	ested will lose ex	d applications. One
rerequision submission	Aquatic E site: BIO 3 aught corce course current onl b Aquatic E site: BIO d field tr	ntomolo 170 or B 10 current 1, 2(1-3) ine catak I 1 1 160 or 160	gy O 371 or AG Iy with BIO 6 SE Og description G G BIO 370 or E red. May be	374, Canni as needed:	ot receive credit for bo (Strikethrough all deletions an	th BIO 674 and E	mation. Any cont	c Affairs Capston	ested will lose ex	d applications. One
rerequision submission	Aquatic E site: BIO 3 aught corce course current onl b Aquatic E site: BIO d field tr	ntomolo 170 or B 10 current 1, 2(1-3) ine catak I 1 1 160 or 160	gy O 371 or AG Iy with BIO 6 SE Og description G G BIO 370 or E red. May be	374, Canni as needed:	ot receive credit for bo (Strikethrough all deletions an	th BIO 674 and E	mation. Any cont	c Affairs Capston	ested will lose ex	d applications. One
rerequision size the combination of the combination	Aquatic E site: BIO 3 aught cor ce course by B Aquatic E site: BIO d field tr ce course	ntomolo 70 or B ncurrent , 2(1-3) ine catalo I ntomolo . 369 or ip requi . 2(1-3)	gy O 371 or AG Iy with BIO 6 SE Og description G G BIO 370 or E red. May be	as needed:	ot receive credit for bo (Strikethrough all deletions an	th BIO 674 and E	mation. Any cont	c Affairs Capston	ested will lose ex	d applications. One
rerequision size the companies of the co	Aquatic E site: BIO 3 aught cor ce course by B Aquatic E site: BIO d field tr ce course	ntomolo 70 or B ncurrent 2(1-3) ine catalo I ntomolo 369 or ip requi 2(1-3)	gy O 371 or AG ly with BIO 6 SE g description S gy BIO 370 or E red, May be SE D	as needed:	ot receive credit for bo (Strikethrough all deletions an	th BIO 674 and E	mation. Any cont	c Affairs Capston	ested will lose ex	d applications. One

Prerequisites: updated in light of a course that no longer exists (AGR 383) and to include other useful options (Ecology, BIO 369, and Applied Entomology, AGP 581). Description: added text for students to be aware of a weekend fieldtrip requirement. Periodicity: changed to "D" for flexibility to schedule on student demand. Does this change affect course assessment (e.g. student learning evidence/outcomes)? ® No O Yes How did you determine the need for this change? Check all boxes that apply or specify other. Routine or annual review/assessment of curriculum Faculty Input Accreditation/certification compliance Review of catalog information \Box \mathcal{L} Check if this is a non-substantive change. What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY) **Current Status:** College Council Review **Proposal Progress:** 01/05/2018 - Submitted by Department Head (S Mathis) **Review Comments:** No comments have been added to this proposal.

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors,</u> Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>







Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Course Proposal Form

'All fields requi	
	re input
This proposal ap	oplies to:
An exist	ing COURSE
O An exist	ing REGULAR (e.g. permanent) SECTION of a variable content course.
Existing Course:	
BIO235 Genetics	
current online catal BIO 235 Genetic: Prerequisite; BIC MTH 135 or high epigenetics, Lab	
Current online catal BIO 235 Genetic Prerequisite; BIC MTH 135 or high epigenetics, Lab Supplemental co	og description: s P121 or BMS 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher, and der. Concepts of classical, molecular and population genetics, genomics, biotechnology and oratory emphasis is on the chemical characteristics and in vitro manipulation of nucleic acids.
Current online catals BIO 235 Genetics Prerequisite; BIC MTH 135 or high epigenetics, Lab Supplemental co	og description: \$ 2121 or BMS 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher, and ler. Concepts of classical, molecular and population genetics, genomics, biotechnology and ler. Concepts of classical, molecular and population genetics, genomics, biotechnology and leverage or the chemical characteristics and in vitro manipulation of nucleic acids. Source fee. 4(3-3) F.S. Source fee. 4(3-3) F.S.
Prerequisite: BIC MTH 135 or high epigenetics: Lab Supplemental co	og description: \$ 121 or BMS: 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher, and er. Concepts of classical, molecular and population genetics, genomics, blotechnology, and oratory emphasis is on the chemical characteristics and in vitro manipulation of nucleic acids. burse fee, 4(3-3) F.S unline catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review p
Prerequisite: BIC MTH 135 or high epigenetics. Lab Supplemental colors with the current of a submission.) BIO 235 Genetic BIC Prerequisites: BI Principles of clas majors in life sci Credit hours: 3 Lecture contact I Lab contact hour	og description: \$ 121 or BMS: 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher, and per Concepts of classical, molecular and population genetics; genomics, biotechnology and poratory emphasis is on the chemical characteristics and in vitro manipulation of nucleic acids. purse fee, 4(3-3) F.S purse fee, 4(3-3) F.S In 121 or BMS: 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher, and MTH 135 or higher. Is sized and molecular genetics, epigenetics and biotechnology. Course content is fundational to concepts of modern biology, recommended for all ence-related fields. hours: 3 s: 0

S3	Credit Hours/Contact Hours	O	Periodicity	Ø	Description		(15)
The property of the regenetic course overloading.	nt, BIO 235 includes a lab component alone lab course (BIO 236) in a sepa ason for splitting the lecture and the cs courses from other institutions. F he student is informed to take the lab schedule, the maximum enrollment ad, and the transferred course + BIO	t The corrigate cur e lab into resently b as BIO number o 197 hav eamline 1	e BIO 235 into a lecture-only course wi intent of this lab component is propose ricular proposal. It is separate courses is to simplify the tra- requests to transfer lecture-only gene 197 (a variable content course), the 197 for those sections has to be fixed on- ie to be substituted for the genetics rec this process. We can simply accept the	d to be commission of creditions of credition of credition that the southeast of the comment.	verted into a new dit for lecture-only re denied on-line, s to be built in the ne lab doesn't separate stand-		
Does t	this change affect course assessment (e.g	ı, student	learning evidence/outcomes)?	es			
How did	you determine the need for this change?	Check all	boxes that apply or specify other.				
O	Routine or annual review/assessment of	curriculu	m	2	Faculty Input	☐ Stu	dent Input
	Accreditation/certification compliance				Review of catalog in	formation	
3	Other (be specific): Input from the department head a	nd clerk	;al staff.				
П	Check if this is a non-substantive chang	e.					
What is t	the date that this course change was app	roved by o	departmental or program faculty? (MM/DD/Y	YYY) ·		12/01/2017	
	Status: Council Review						
roposal	l Progress:		•	•			
1/08/20	18 - Submitted by Department He	ad (S M	lathis)				
eview C	Comments:						
	18 - Department Head Review - S y Biology. The program change fo		- This change requires program char be submitted later today,	nges. Genet	ics (lecture and la	b) is required fo	or every degree

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • <u>Maintained by: Computer Services - MIS</u> • <u>Contact Information</u>

Curricular Action Workflow





Missouri State > Computer Services - MiS > Curricular Action Workflow > CAW - New Course Proposal Form

ubmitted on 0	1/05/2018 by La	szło Kovacs (<u>i</u>	_aszlokovacs@	missouristate	.edu).		
	ppersonal is an estimate of the state of the	at Ma st - National attacks and decisions are secured as					
fields require in	out						
New COURSE							
New REGULAI below	R PERMANENT SECTION	of an existing variabl	e content course. If a	new regular section of	an existing variable topic	s course, enter the	existing course num
se Code:			Course Number: (<u>Cl</u>	neck Availability)			
se Title:							
netics Laborator							05 -55 32 32 52 17 18 57
otavo etokarto esk	part of a program? O N	lo O Yes (A corresp	onding program char	ge form must be subn	itted)	Urrenega un de la companya de la co	- -
his course become	25 H 1812 C 1253 155 1424 156		onding program char	ge form must be subn	atilited)		1981 45 S ER JUG ER 1986
his course become	part of a program? O N		oonding program char	ige form must be subn	iitted)		u sund de diservant dan
his course become his proposal need this proposal need to requisite/Co-requisite/Co	part of a program? O N o be reviewed by CGEIP? o be reviewed by EPPC?	O No O Yes	onding program char	ge form must be subn	iltted)		
this course become this proposal need to this proposal need to equisite/Co-requisit to 235 tog Course Descrip	part of a program? O N o be reviewed by CGEIP? o be reviewed by EPPC?	○ No ○ Yes ② No ○ Yes Ot Pass grading restrictly encouraged. Property on the chemical chi	ctions, repeatable lim oblem-solving and	its, limitation on cours laboratory skills to	applicability, UG/GR par complement lecture	allel course, etc.)	
his course become his proposal need to his proposal need to rquisite/Co-requisit to 235 log Course Descrip neurrent enrolling terial presented	part of a program? O N o be reviewed by CGEIP? o be reviewed by EPPC? e or enter 'None': tion: (Include any Pass/No	○ No ○ Yes ② No ○ Yes Ot Pass grading restrictly encouraged. Property on the chemical chi	ctions, repeatable lim oblem-solving and	its, limitation on cours laboratory skills to	applicability, UG/GR par complement lecture	allel course, etc.)	
his course become his proposal need to his proposal need to quisite/Co-requisite 235 og Course Descrip scurrent enrolling erial presented inot be taken Pa	part of a program? O N o be reviewed by CGEIP? o be reviewed by EPPC? e or enter 'None': tion: (Include any Pass/No	○ No ○ Yes ② No ○ Yes Ot Pass grading restrictly encouraged. Property on the chemical chi	ctions, repeatable lim oblem-solving and gracteristics and in	its, limitation on cours laboratory skills to	applicability, UG/GR par complement lecture		3
this proposal need to this proposal need to the proposal need to requisite/Co-requisit D 235. alog Course Descrip incurrent enrollmenterial presented innot be taken Padit Hours:	part of a program? O No be reviewed by CGEIP? o be reviewed by EPPC? e or enter 'None': tion: (Include any Pass/None': 1 BIO 235 is strong in BIO 235. Emphasis: 6 ss/Not Pass. Suppliering	No O Yes No O Yes No O Yes Ot Pass grading restrictly encouraged. Properties of the chamical characteristics of the characteristics of the characteristics. The characteristics of t	ctions, repeatable limi oblem-solving and aracteristics and in	its, limitation on cours laboratory skills to vitro manipulation	e applicability, UC/GR par complement facture of nucleic acids.		3

https://mis.missouristate.edu/Student/ccr/create/102	25	5
--	----	---

Ø	Spring		Spring (even-numbered ye	ears only)		□ Sp	oring (odd-numbe	red years only)	(13)
	Summer		On Demand only						
									•
BIO 236	e Catalog Description Genetics Laboratory site: BIO 235	n:							
characte Credit h		nipulation o	ly encouraged. Problem-solving f nucleic acids. Cannot be taker b contact hours: 3				presented in BIO	235. Emphasis on th	e chemical
include s	ample syllabus (list to	pics, course	goals.) Use text box OR uploa	d only file types of i	PDF, DOC or DOCX.		Attached	j	
The pi course BIO 23 propos The su will be The re geneti then to course overlo- lab and	s. To accomplish the (BIO 235 is proposed). The content of m of credit hours gason for splitting the courses from our student is inform schedule, the maxid, and the transfer	is, we pro- posed to be the new la enerated at present the lecture lecture lecture lecture de to take mum enro- red cours- ses will strees	isal is to split the lecture are pose to establish a new sta changed into a stand-along becomes will be identical to will remain the same; BIO 23 the BIO 235 is a 4-credit cand the lab into separate calons. Presently, requests to the lab as BIO 197 (a varial liment number for those seas a + BIO 197 have to be subseamline this process. We catake BIO 236.	nd-alone genetic s lecture only co o the lab compor 36 will be a 1 -cre ourse. ourses is to simp transfer lecture ble content cour actions has to be tituted for the g	s lab course, name use in a separate sent of present Bloodiff course, and the lifty the transfer of confront genetics crease), the 197 section fixed on-line so the section requirements.	ed Genetics a course char to 235 in its p de lecture-or f credit for le dit are denie on has to be b hat the lab d out. Separate	Laboratory, ige resent form. ily BIO 235 cture-only d on-line, built in the pesn't		
	hip to Other Departm	gradia :			Kār aratiri		Barysovijanda s		
A simil		DIV COURSE	, but with emphasis on hun	nan genetics (Hu	men gerietics Lat	oratory BM	3 232), is taugh	t by the Blomedic	I Sciences
ls there a	graduate/undergradu	iate parallel	course to this one? 🐵 No 🔾	Yes		•			
			÷					ē.	
lew Cou	rse Resource Info	ormation							
Anticipat	ed Average Enrollmen	t per sectio	n:	24	Maximum Enrollme	ent Limit per se	ection:		24
Anticipal	ed Average Enrollmen	t per semes	iter:	110	Maximum Enrollme	ent Limit per se	emester:		144
Anticipat	ed Average Enrollmen	t per year:		220	Maximum Enrollme	ent Limit per ye	ear:		288
Faculty L	oad Assignment (equ	ated hours)		6		•			
	•					-			



What will this course require in the way of:

Additional library Holdings
None
Additional computer resources
None:
Additional or remodeled facilities
None
Additional equipment or supplies
(None
Additional travel funds
None
Additional faculty; general vs specialized
None
Additional faculty; regular vs per-course
None La Company of the Company of th
Other additional expenses
None

If additional faculty are not required, how will faculty be made available to teach this course?

Contact hours have already been allocated to teach the lab component of BIO 235 in its present form. No additional contact hours are required.

List names of current faculty qualified and available to teach this course

Laszlo Kovacs, Tina Hopper, Tara Herring plus teaching assistants currently supervisinglab sessions under Kovacs' direction.

What is the anticipated source of students for this course?

This course will be required for non-comprehensive Biology BA and BS majors, comprehensive BIO majors in all three emphasis areas and BIO minors.

If from within the department, will students be taking this course in addition to or in place of other courses?

Biology students will take this course in place of the lab component of the present BIO 235 course.

If from outside the department, which courses in other departments would most likely be affected?)

If BMS students decide to take this course in place of BMS 232 or the lab component of BMS 231, those courses may be affected.

Other comments:	
inone de la companya	



What is the date that this new course was approved by departmental or program faculty? (MM/DD/YYYY)

2/01/2017

Current Status:

College Council Review

Proposal Progress:

01/08/2018 - Submitted by Department Head (S Mathis)

Review Comments:

01/08/2018 - Department Head Review - S Mathis - This change requires program changes. Genetics (lecture and lab) is required for every degree offered by Biology. The program change forms will be submitted later today.



MAKE YOUR

MENT.

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

Genetics Laboratory – BIO 236



Department of Biology, Missouri State University

Syllabus

COURSE CONTENT: BIO 236 is an introduction to problem-solving and hands-on laboratory skills in genetics to complement lecture material presented in BIO 235. The problem-solving exercises focus on inheritance problems, probability calculations and population genetics, whereas the lab skills concentrate on the chemical and physical characteristics of nucleic acids and on technical expertise required for the extraction, cloning, sequencing and computational analysis of DNA. As recombinant DNA technology pervades all areas of life sciences, the course material is foundational for methods used in molecular, micro- and cell biology, genomics, evolution, plant and animal breeding, and biotechnology. Concurrent enrollment in BIO 235 is strongly encouraged.

PREREQUISITES: BIO 121, or BMS 110 and 111; and CHM 116 and 117 or CHM 160 and 161 (recommended) or higher; and MTH 135 or higher.

Location: Temple Hall 244

Section 1 (42284):	12:20 AM - 3:10 PM, Wednesday	Instructor: Laszlo Kovacs
Section 2 (42315):	3:35 PM - 6:25 PM, Wednesday	Instructor:
Section 3 (42320):	9:00 AM - 11:50 AM, Thursday	Instructor:
Section 4 (42321):	1:00 PM - 3:50 PM, Thursday	Instructor:
Section 5 (42909):	1:25 PM - 4:15 PM, Friday	Instructor:
Section 6 (51696):	8:00 AM -10:50 AM, Friday	Instructor:

PROFESSOR: Dr. Laszlo Kovacs

http://biology.missouristate.edu/Kovacs.htm

Office: Temple Hall 252 Phone: 417-836-6289 E-mail: <u>LaszloKovacs@MissouriState.edu</u> Office hours: Monday: 1:00-2:00 PM, Wednesday and Thursday 3:30-4:30 PM, Friday 8:30-10 AM, or by appointment.

REQUIRED LAB MANUAL: *Genetics Laboratory Manual* by L. Kovacs and M. McKnight. Stipes Publishing L.L.C. Available only at the MSU Bookstore.

REQUIRED CLICKER: Also <u>required</u> is a registered Turning Technologies response device. (ISBN 978-1-60904-552-4). Available at the MSU Bookstore.

ATTENDANCE: Attendance of the laboratory sessions is mandatory and enforced. The course includes analytical and quantitative concepts requiring comprehension of probability and basic statistics. Therefore, the students' physical and mental presence at all lectures and lab sessions is necessary to keep up with the study material and succeed in class.

EVALUATION and GRADING: Your mastery of the course information will be measured by 12 lab quizzes, laboratory assignments, and a final lab exam which is scheduled at week 15. You can earn a maximum of 100 points for the final lab method quiz. In addition, you can collect 35



points for lab exercises, and 120 points for the lab quizzes (12 quizzes, 10 points each). Lab quizzes will test your knowledge of the material of the previous lab session. Quizzes will be given during the first ten minutes of the lab period and cannot be made up. Students who arrive while the quiz is being taken will have the opportunity to finish as much of it as they can in the time that remains. Daily lab assignments should be completed during the lab period and will not be accepted after the lab has ended. Lab homework assignments will receive a 10% penalty for every day that they are late (past the original due date). The total number of points that can be earned by participating in the lab sections is 255.

Grades are based on the percentage of total points obtained:

A 90 - 100%

B 80 - 89.9%

C 70 –79.9%

D 60 - 69.9%

F 59.9% and below

Week	Date	Exercise
1	1/18-20/2018	Introduction to genetic databases
2	1/25-27/2018	Mitosis and meiosis
3	2/1-3/2018	Mendelian inheritance, crosses with fruit fly
4	2/8-10/2018	Extraction of genomic DNA from plant tissue
5	2/15-17/2018	PCR amplification of a DNA fragment
6	2/22-24/2018	Cloning a DNA fragment in a plasmid vector
· 7	3/1-3/2018	Plasmid purification and spectrophotometry
8	3/8-10/2018	DNA sequencing and bioinformatics
9	Spring Break	
10	3/22-24/2018	Phylogenetic analysis using nucleotide and amino acid sequnces
11	3/29-31/2018	Genotyping a locus in humans: Marker amplification
12	4/5-7/2018	Genotyping a locus in humans: Data analysis
13	Spring Holiday	
14	4/19-21/2018	Population genetics
15	4/26-28/2018	Review for methods quiz
16	5/3-5/2018	Lab Final

LAB ATTENDANCE AND LATE WORK POLICY: Lab attendance is mandatory. If you miss your lab section, attend another section in the same week. If you cannot make up the lab that same week, there is no other opportunity to make up for a missed lab. If you have an emergency/illness that will cause you to miss all of the lab sections in a given week, please contact your instructor to make arrangements to complete as much of the activity as you can.

DROP POLICY: It is your responsibility to understand the University's procedure for dropping the class. If you stop attending this class, but do not follow proper procedure for dropping the class, you will receive a failing grade and will also be financially obligated to pay for the class. Should you decide to drop this course during the first week of the semester, be sure to follow university policies (http://www.missouristate.edu/registrar/catalog/chnsched.html) to avoid being financially responsible for the course or making a failing grade. If you drop the course before the end of the Change of Schedule Period on November 10, you may receive a withdrawal (W) grade. If you



withdraw from the class after November 10, your professor must assign a grade based on your performance in the class, and may not assign you a W grade. Be sure to keep this in mind and avoid withdrawing from the course late in the semester. It is important for you to avoid dropping a course if at all possible. Should it become necessary, always consult your academic advisor before you make a final decision.

LABORATORY SAFETY RULES. All lab sessions are designed to be safe for all participants. Nonetheless, inappropriate behavior or lack of care may result in personal injury and damage to laboratory equipment. To ensure your and your classmates' safety, you will be asked to read and follow the important rules listed. During the 4th lab session, you will acknowledge with your signature your understanding and your obligation to observe these rules.

- Always follow verbal and written instructions given by your supervisor. Handle biological samples, chemicals, and equipment only as directed by your lab supervisor. If you do not understand a given task or a procedure, ask for clarification.
- Wear appropriate clothing that protects you from accidental chemical spills. You are not allowed to work in the lab in sandals or open shoes. Avoid wearing dangling jewelry or baggy clothes and tie your hair back if it is long.
- Do not eat, drink or chew gum in the lab, and refrain from foolish behavior, practical jokes or pranks during lab exercises.
- Wear protective clothing (gloves, goggles) as instructed by the supervisor. When such
 protective gear is required, you are not allowed to take part in the lab exercise without them.
 Gloves will be occasionally required not only for your safety, but to protect your sample
 from enzymes and DNA that are naturally part of your skin.
- When using Bunsen burners, make sure that they are extinguished before you leave the lab.
- Keep your work area clean. Dispose of waste material by pouring/throwing it in designated waste containers and dry up all spills from the bench that might have occurred during your work. Upon completion of your experiment, clean up your bench to leave a dry, neat, and safe work area for the students in the following section.
- When using a centrifuge, you should always balance your sample tube with a tube of similar weight.
- Adjustable volume pipets should be held and stored up-right or in horizontal position, and never in a slanted or upside down position which allows liquid flow down the barrel of the pipets.
- The volume of pipets should never be adjusted outside their designated range.
- Important: Your lab supervisor will check the condition of all pipets at the end of each class.
 If a pipet is found adjusted out of its designated range, all four members of a working group at that location will have 20 points deducted from their lab score.



Curricular Action Workflow

` (6)	designed by Computer Services
\ \	

Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Department:		
Biology		
Type of Program Choose One:		
Non-Comprehensive Undergraduate Major	Option	• Certification
O Comprehensive Undergraduate Major	ා Minor	O Academic Rules
○ Graduate Program	O Certificate	Other
Does this program include any new courses? • No •• Yes (A corresponding new course for	ກ must be submitted to create ea	ch new course.)

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Bachelor of Arts		$\mathcal{L}_{\mathcal{L}}$
General Education Program and Requirements Major Requirements PIO 12000 12200 22573 20055 3 20000 2000		
BIO 121(4), 122(4), 235(4), 310(5) or 320(4), 369(4) Select elective courses in biology to total a minin courses. Electives may be selected from one of t	num of 32 hours and include at least 12 hours of	
to emphasize areas that best meet their interest (pre-medical, pre-veterinary, pre-physical therap	and career goals. Popular areas of emphasis incl	
environmental/conservation biology, and zoology Related Requirements: CHM 201(3) and 202(2), c	, but other areas of emphasis are also possible.	and 124(4) or PHY
203(5) and 204(5); MTH 261(5) or 287(3) Public Affairs Capatone Experience will be fulfille		
from the following: BIO 300(1), 355(4), 370(4), 37 509(4), 511(4), 512(3), 520(3), 527(1-4), 539(3), 54	7(3), 561(2), 573(3), 574(2), 575(3), 576(3), 577(3)	
584(3), 589(3). Course may also be used to satisf Minor Required (or second major)	y the elective courses in biology,	
Specific Bachelor of Arts Degree Requirements General Baccalaureate Degree Requirements		
		Not Attached
complete New Catalog Description: (Either pro		trikethrough all deletions and insert/bold new information - any e as an attachment below)
♦ ♦ B I S		
include pre-health studies (pre-medical, pre-veteri zoology, but other areas of emphasis are also poss Related Requirements: CHM 201(3) and 202(2), or Public Affairs Capstone Experience will be fulfilled to	m of 32 hours and include at least 12 hours of 30 into to select electives to emphasize areas that best nary, pre-physical therapy, etc.), microbiology, cellible. CHM 342(5) and 343(5) or 344(3); PHY 123(4) a by completion of BIO 369(4) and 494(1) and one at 1-3), 501(2), 505(3), 508(3), 509(4), 511(4), 512	D level or higher courses. Electives may be selected from one of meet their interest and career goals. Popular areas of emphasis //molecular biology, environmental/conservation biology, and and 124(4) or PHY 203(5) and 204(5); MTH 261(5) or 287(3) dditional course from the following: BIO 300(1), 355(4), 370(4), (3), 520(3), 527(1-4), 539(3), 547(3), 561(2), 573(3), 574(2), tive courses in biology.
Minor Required (or second major) Specific Bachelor of Arts Degree Requirements General Baccalaureate Degree Requirements		
	4	
Not Attached		AND
		Total Hours: no change
What is changing? Check all boxes that apply	*	
□ Title change	☐ From option to program (major)	
☑ Course changes of under 18 hours	☐ From program (major) to option	□ Other
☐ Course changes of 18 hours or more		

Reason for Proposed Change:

We are splitting the current BIO 235(4) into separate fecture BIO 235(3) and lab BIO 236(1) sections. Both fecture and lab are still required for Biology majors and minors. The change will make it easier for students who transfer a lecture-only genetics course to take the lab-only portion at MSU to complete the requirement.



What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

19/01/2017

Current Status:

College Council Review

Proposal Progress:

01/08/2018 - Submitted by Department Head (S Mathis)

Review Comments:

01/08/2018 - Department Head Review - S Mathis - Accompanies course change (BIO 235) and new course (BIO 236) proposals. Note that the strikethrough on the "4" on the "235(4 3) on the "complete new catalog description" is not visible because it goes through the horizontal line on the "4".

MAKE YOUR

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>
© 2018 <u>Board of Governors</u>, Missouri State University • Maintained by: <u>Computer Services - MIS</u> • <u>Contact Information</u>



Curricular Action Workflow

` (S	dutyred by Computer Services
\V	Computer Services

Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Submitted on 01/08/2018 by Rachel	Rigby (RachelRigby@Mis	souriState.edu).
Department:		
Biology		
PRODUCTOR PARRAMENTAL SERVICE CONTRACTOR CONTRACTOR AND SERVICE CONTRACTOR CO	r to propose the same and decreased in a social management of the statement of an a social state	的现在分词 自己的现在分词 1995年 1
Type of Program		
Chaose One:		•
Non-Comprehensive Undergraduate Major	Option	O Certification
O Comprehensive Undergraduate Major	O Minor	○ Academic Rules
○ Graduate Program	ः Certificate	Other
Does this program include any new courses?		
○ No ○ Yes (A corresponding new course for	m must be submitted to create	each new course.)
litle of Program Affected:	•	
Biology-BS-Minor Required		

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

1 of 3

Bachelor of Science General Education Program and Req Major Requirements BIO 121(4), 122(4), 235(4), 310(5) or 3), 550(3)				(5)
Select elective courses in biology to courses. Advisors can assist student goals. Popular areas of emphasis inclinicrobiology, cell/molecular biology, also possible.	s to select elective ude pre-health stud	s to emphasize areas lies (pre-medical, pre	that best meet their e-veterinary, pre-phys	interest and career sical therapy, etc.),		
Public Affairs Capstone Experience v from the following: BIO 300(1), 355(4 509(4), 511(4), 512(3), 520(3), 527(1-4 584(3), 589(3), Course may also be u	, 370(4), 373(3), 39), 539(3), 547(3), 56	8(1), 399(1-3), 485(1- 1(2), 573(3), 574(2), 5	3), 498(3), 499(1-3), 5 575(3), 576(3), 577(3),	501(2), 505(3), 508(3),		
Related Requirements: CHM 201(3) a 203(5) and 204(5); MTH 261(5) or 28	CONTRACTOR SERVICES	342(5) and 343(5) or	344(3); PHY 123(4) a	and 124(4) or PHY		
Minor Required (or second major) General Baccalaureate Degree Requi	ements.				Not Attached	
Complete New Catalog Description content that is copied and pasted will lose $ \Rightarrow B I S $					and insert/bold new in	ormation - any
content that is copied and pasted will lose	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest sell/molecular bloog be fulfilled by comg 98(3), 499(1-3), 50 1), 584(3), 589(3), dd 202(2), or CHM 3	please review prior to s 369(4), 494(1), 550 5 hours and include at and career goals. Pop y, environmental/considetion of BIO 369(4) 01(2), 505(3), 508(3) Course may also be u	submission] OR provide (3) t least 12 hours of 30(pular areas of emphas servation biology, and and 494(1) and one a , 599(4), 511(4), 512 sed to satisfy the elec	o-level or higher courses is include pre-health stu-zoology, but other areas dditional course from the (3), 520(3), 527(1-4), 5 tive courses in blology.	. Advisors can assist dies (pre-medical, pr of emphasis are als e following: BIO 300(39(3), 547(3), 561(2	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),
Bachelor of Science General Education Program and Requi Major Requirements BIO 121(4), 122(4), 235(4 3), 236(1 Select elective courses in biology to to electives to emphasize areas that best physical therapy, etc.), microbiology, Public Affairs Capstone Experience will 373(3), 398(1), 399(1-3), 485(1-3), 4 575(3), 576(3), 577(3), 578(4), 579(Related Requirements: CHM 201(3) ar Minor Required (or second major)	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest sell/molecular bloog be fulfilled by comg 98(3), 499(1-3), 50 1), 584(3), 589(3), dd 202(2), or CHM 3	please review prior to s 369(4), 494(1), 550 5 hours and include at and career goals. Pop y, environmental/considetion of BIO 369(4) 01(2), 505(3), 508(3) Course may also be u	submission] OR provide (3) t least 12 hours of 30(pular areas of emphas servation biology, and and 494(1) and one a , 599(4), 511(4), 512 sed to satisfy the elec	o-level or higher courses is include pre-health stu-zoology, but other areas dditional course from the (3), 520(3), 527(1-4), 5 tive courses in blology.	. Advisors can assist dies (pre-medical, pr of emphasis are als e following: BIO 300(39(3), 547(3), 561(2	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),
Bachelor of Science General Education Program and Requi Major Requirements BIO 121(4), 122(4), 235(4 3), 236(1 Select elective courses in biology to to electives to emphasize areas that best physical therapy, etc.), microbiology, Public Affairs Capstone Experience will 373(3), 398(1), 399(1-3), 485(1-3), 4 575(3), 576(3), 577(3), 578(4), 579(Related Requirements: CHM 201(3) ar Minor Required (or second major)	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest sell/molecular bloog be fulfilled by comg 98(3), 499(1-3), 50 1), 584(3), 589(3), dd 202(2), or CHM 3	please review prior to s 369(4), 494(1), 550 5 hours and include at and career goals. Pop y, environmental/considetion of BIO 369(4) 01(2), 505(3), 508(3) Course may also be u	submission] OR provide (3) t least 12 hours of 30(pular areas of emphas servation biology, and and 494(1) and one a , 599(4), 511(4), 512 sed to satisfy the elec	O-level or higher courses is include pre-health sturzoology, but other areas dditional course from the (3), 520(3), 527(1-4), 5 tive courses in biology, and 124(4) or PHY 203(5)	. Advisors can assist dies (pre-medical, pr of emphasis are als e following: BIO 300(39(3), 547(3), 561(2	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),
Bachelor of Science General Education Program and Requi Major Requirements BIO 121(4), 122(4), 235(4 3), 236(1 Select elective courses in biology to to electives to emphasize areas that best physical therapy, etc.), microbiology, Public Affairs Capstone Experience will 373(3), 398(1), 399(1-3), 485(1-3), 4 575(3), 576(3), 577(3), 578(4), 579(Related Requirements: CHM 201(3) ar Minor Required (or second major) General Baccalaureate Degree Require	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest tell/molecular biolog be fulfilled by comg 98(3), 499(1-3), 50 1), 584(3), 589(3), id 202(2), or CHM 3 ments	please review prior to s 369(4), 494(1), 550 5 hours and include at and career goals. Pop y, environmental/considetion of BIO 369(4) 01(2), 505(3), 508(3) Course may also be u	submission] OR provide (3) t least 12 hours of 30(pular areas of emphas servation biology, and and 494(1) and one a , 599(4), 511(4), 512 sed to satisfy the elec	O-level or higher courses is include pre-health sturzoology, but other areas dditional course from the (3), 520(3), 527(1-4), 5 tive courses in biology, and 124(4) or PHY 203(5)	Advisors can assist dies (pre-medical, properties of emphasis are alse following: BIO 3000 (39(3), 547(3), 561(2) and 204(5); MTH 26	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),
B I S Bachelor of Science General Education Program and Requi Major Requirements BIO 121(4), 122(4), 235(4 3), 236(1 Select elective courses in biology to to electives to emphasize areas that best physical therapy, etc.), microbiology, Public Affairs Capstone Experience will 373(3), 398(1), 399(1-3), 485(1-3), 4 575(3), 576(3), 577(3), 578(4), 579(Related Requirements: CHM 201(3) an Minor Required (or second major) General Baccalaureate Degree Require	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest rell/molecular bloog be fulfilled by come 98(3), 499(1-3), 50 1), 584(3), 589(3), d 202(2), or CHM 3 ments s that apply:	please review prior to s 369(4), 494(1), 550 5 hours and include at and career goals. Pop y, environmental/considetion of BIO 369(4) 01(2), 505(3), 508(3) Course may also be u	submission] OR provide t least 12 hours of 300 pular areas of emphas servation biology, and and 494(1) and one a , 509(4), 511(4), 512 sed to satisfy the elec 344(3); PHY 123(4) at	O-level or higher courses is include pre-health sturzoology, but other areas dditional course from the (3), 520(3), 527(1-4), 5 tive courses in biology, and 124(4) or PHY 203(5)	Advisors can assist dies (pre-medical, properties of emphasis are alse following: BIO 3000 (39(3), 547(3), 561(2) and 204(5); MTH 26	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),
B I S Bachelor of Science General Education Program and Requi Major Requirements BIO 121(4), 122(4), 235(4 3), 236(1 Select elective courses in biology to to electives to emphasize areas that best physical therapy, etc.), microbiology, Public Affairs Capstone Experience will 373(3), 398(1), 399(1-3), 485(1-3), 4 575(3), 576(3), 577(3), 578(4), 579(Related Requirements: CHM 201(3) an Minor Required (or second major) General Baccalaureate Degree Require	existing formatting; rements), 310(5) or 320(4), tal a minimum of 36 meet their interest sell/molecular biolog be fulfilled by comp 98(3), 499(1-3), 50 1), 584(3), 589(3), id 202(2), or CHM 3 ments	please review prior to s . 369(4), 494(1), 550 is hours and include at and career goals. Pop y, environmental/con- bletion of BIO 369(4) o1(2), 505(3), 508(3) Course may also be u 42(5) and 343(5) or 3	submission] OR provide (3) I least 12 hours of 300 pular areas of emphas servation biology, and and 494(1) and one a, 509(4), 511(4), 512 sed to satisfy the elect 344(3); PHY 123(4) and 494(3); PHY 123(4) and 494(4); PHY 123(4) and 494(4); PHY 123(4) and 494(4); PHY 123(4);	D-level or higher courses is include pre-health stur zoology, but other areas diditional course from the (3), 520(3), 527(1-4), 5 tive courses in biology, and 124(4) or PHY 203(5)	Advisors can assist dies (pre-medical, properties of emphasis are alse following: BIO 3000 (39(3), 547(3), 561(2) and 204(5); MTH 26	students to select e-veterinary, pre- o possible. 1), 355(4), 370(4), 2), 573(3), 574(2),

Reason for Proposed Change:

We are splitting the current BIO 235(4) into separate lecture BIO 235(3) and lab BIO 236(1) sections. Both lecture and lab are still required for Biology majors and minors. The change will make it easier for students who transfer a lecture-only genetics course to take the lab-only portion at MSU to complete the requirement.



What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

12/01/2017

Current Status:

College Council Review

Proposal Progress:

01/08/2018 - Submitted by Department Head (S Mathis)

Review Comments:

01/08/2018 - Department Head Review - S Mathis - Accompanies course change (BIO 235) and new course (BIO 236) proposals. Note that the strikethrough on the "4" on the "235(4 3) on the "complete new catalog description" is not visible because it goes through the horizontal line on the "4".

MAKE YOUR

MENT

Last Modified: 07/17/2015 • Disclaimer • Accessibility • EO/AA/M/F/Veterans/Disability

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

Curricular Action Workflow





Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

Department:		
Biology		
Type of Program Choose One:		
Non-Comprehensive Undergraduate Major	Option	Certification
O Comprehensive Undergraduate Major	Minor	্ Academic Rules
○ Graduate Program	○ Certificate	○ Other
Choose All That Apply:		
☑ Bachelor of Arts	☐ Bachelor of Music Education	☐ Bach of Science in Athl Traing
Bachelor of Applied Science	☐ Bachelor of Music	☐ Bach of Science in Education
Bachelor of Fine Arts	Bachelor of Science	☐ Bachelor of Science in Nursing
☐ Bachelor of Social Work Does this program include any new courses? ○ No ○ Yes (A corresponding new course for	m must be submitted to create each new co	urse.)

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Minor(s)		
Biology		(6)
Bachelor of Arts		
BIO 121(4), 122(4), 235(4) Additional biology electives to total 15 hours.		
Biology Bachelor of Science		
BIO 121(4), 122(4), 235(4) Additional biology electives to total 19 hours.		
Financia (1996)		Not Attached
	rovide the revised description in the text area below [strike rmatting; please review prior to submission] OR provide as a	•
♦ ♦ B <i>I</i> S		
Minor(s)	,	
Biology Bachelor of Arts BIO 121(4), 122(4), 235(-4 3), 236(1)		
Additional biology electives to total 15 hours. Biology Bachelor of Science		
BIO 121(4), 122(4), 235(-4 3), 236(1) Additional biology electives to total 19 hours.		
	alminimity and a survey and a second as the properties of the second second second second second second second	, ti
Not Attached		
·		Total Hours: no change
	•	
What is changing? Check all boxes that app	lly:	
What is changing? Check all boxes that app	oly:	□ Other
☐ Title change	☐ From option to program (major)	
☐ Title change ☐ Course changes of under 18 hours	☐ From option to program (major)	
☐ Title change ☐ Course changes of under 18 hours	☐ From option to program (major)	
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BiQ 235(4) into separations.	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections.	Other Both lecture and lab.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BiQ 235(4) into separations.	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans	Other Both lecture and lab.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BIO 235(4) into separe still required for Biology majors and minors, genetics course to take the lab-only portion at h	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans MSU to complete the requirement.	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BIO 235(4) into separe still required for Biology majors and minors, genetics course to take the lab-only portion at h	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We'are splitting the current BIQ 235(4) Into separate still required for Biology majors and minors, genetics course to take the lab-only portion at how the still the date that this new program was 12/01/2017.	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans MSU to complete the requirement.	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BiQ 235(4) into separare still required for Biology majors and minors, genetics course to take the lab-only portion at h What is the date that this new program was 12/01/2017 ☐ Current Status:	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans MSU to complete the requirement.	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BIQ 235(4) into separe still required for Biology majors and minors, genetics course to take the lab-only portion at 19 What is the date that this new program was 12/01/2017 ☐ Current Status: ☐ College Council Review	☐ From option to program (major) ☐ From program (major) to option arate lecture BIO 235(3) and lab BIO 236(1) sections, E The change will make it easier for students who trans MSU to complete the requirement.	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BIQ 235(4) into separe still required for Biology majors and minors; ☐ genetics course to take the lab-only portion at h What is the date that this new program was ☐ 12/01/2017 ☐ Current Status: ☐ College Council Review ☐ Proposal Progress:	From option to program (major) From program (major) to option From program (major) From program (major)	Other Both lecture and lab sfer a lecture-only.
☐ Title change ☐ Course changes of under 18 hours ☐ Course changes of 18 hours or more ☐ Reason for Proposed Change: ☐ We are splitting the current BIQ 235(4) into separe still required for Biology majors and minors, genetics course to take the lab-only portion at 19 What is the date that this new program was 12/01/2017 ☐ Current Status: ☐ College Council Review	From option to program (major) From program (major) to option From program (major) From program (major)	Other Both lecture and lab sfer a lecture-only.

CAW - Change Program Proposal Form - Curricular Action Workflow... https://mis.missouristate.edu/Student/ccr/changeProgramProposal/10395

01/08/2018 - Department Head Review - S Mathis - Accompanies course change (BIO 235) and new course (BIO 236) proposals. Note that the strikethrough on the "4" on the "235(4 3) on the "complete new catalog description" is not visible because it goes through the horizontal line on the "4".



MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

Curricular Action Workflow



Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Change Program Proposal Form

Change Program Proposal Form

0 1 1 04/04/0440 0 1	•	
Submitted on U1/09/2018 by Georgia	nna Saunders (<u>Gigisaun</u>	<u>ders@missouristate.edu)</u> .
partment:		
ology		
pe of Program oose One:		
Non-Comprehensive Undergraduate Major	O Option	○ Certification
Comprehensive Undergraduate Major	O Minor	○ Academic Rules
Graduate Program	○ Certificate	Other
plogy/Environmental Biology and Evolution-BS	present description from online ca	stalog OR provide as an attachment below) Attached
ology/Environmental Biology, and Evolution-BS rrent Catalog Description: (Either cut and paste e attachment mplete New Catalog Description: (Either provi	de the revised description in the te	Attached ext area below [strikethrough all deletions and insert/bold new information - any
plogy/Environmental Biology and Evolution-BS rent Catalog Description: (Either cut and paste a attachment mplete New Catalog Description: (Either provi	de the revised description in the te	Attached ext area below [strikethrough all deletions and insert/bold new information - any
Diogy/Environmental Biology and Evolution-BS rrent Catalog Description: (Either cut and paste e attachment mplete New Catalog Description: (Either provi	de the revised description in the te	Attached ext area below [strikethrough all deletions and insert/bold new information - any
biogy/Environmental Biology, and Evolution-BS rrent Catalog Description: (Either cut and paste e attachment mplete New Catalog Description: (Either provi	de the revised description in the te	Attached ext area below [strikethrough all deletions and insert/bold new information - any
tent that is copied and pasted will lose existing forma	de the revised description in the te	Attached ext area below [strikethrough all deletions and insert/bold new information - any

What is changing? Check all boxes that apply:

MAKE YOUR

Review Comments:

No comments have been added to this proposal.

MENT

Last Modified: 07/17/2015 • <u>Disclaimer</u> • <u>Accessibility</u> • <u>EO/AA/M/F/Veterans/Disability</u>

© 2018 Board of Governors, Missouri State University • Maintained by: Computer Services - MIS • Contact Information

Biology (Comprehensive) (BS)



Bachelor of Science

- A. General Education Program and Requirements
- B. Major Requirements
 - 1. BIO 121(4), 122(4), 235(4), 494(1), 550(3)
 - 2. PHY 123(4) and 124(4) or PHY 203(5) and 204(5)
 - 3. MTH 138(5) or 181(3), or eligibility for MTH 261 on mathematics placement test
 - 4. BIO 310(5) or 320(4) or 361(4) or 544(4); consult options below before selecting course
 - 5. CHM 116(4) and 117(1), or CHM160(4) and 161(1); consult options below before selecting course
 - 6. CHM 201(3) and 202(2), or 302(5) or 342(5); consult options below before selecting course
 - 7. Public Affairs Capstone Experience will be fulfilled by completion of BIO 494(1) and two additional courses from the following: BIO 300(1), 355(4), 369(4), 370(4), 373(3), 398(1), 399(1-3), 485(1-3), 498(3), 499(1-3), 501(2), 505(3), 508(3), 509(4), 511(4), 512(3), 520(3), 527(1-4), 539(2), 547(3), 561(2), 573(3), 574(2), 575(3), 576(3), 577(3), 578(4), 579(4), 584(3), 589(3). Courses may also be used to satisfy option requirements.
 - 8. Complete requirements in one of the following options*: Note: With approval of advisor, up to 3 hours of the following can be substituted for one of the BIO courses listed in any option: BIO 300, 399, 499, or 597.
 - a. Environmental Biology and Evolution (71-85 hours total)
 - 1. Required courses: BIO 369(4), 515(3)
 - 2. Complete courses in biodiversity and evolution totaling at least 3 hours from the following: BIO 334(3), 339(2), 370(4), 371(3), 380(5), 530(3), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 534(2), 535(1), 555(3), 556(3), 587(3), 588(3)



- 3. Complete courses in population biology totaling at least 3 hours from the following: BIO 436(4), 505(3), 532(3), 540(4), 560(3), 563(3), 567(4), 578(4), 584(3), 589(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 557(2), 558(2)
- 4. Complete courses in community/ecosystem biology totaling at least 3 hours from the following: BIO 373(3), 485(1-3), 508(3), 509(4), 533(3), 539(3), 547(3), 562(4), 579(4); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 537(2), 538(2), 565(3), 566(2)
- 5. Students must take at least one biology course with a substantial field component. A course used to satisfy this requirement also may be counted toward the biodiversity, population biology, and community/ecosystem biology concentration areas described above. Complete one of the following: BIO 334(3), 339(2), 370(4), 436(4), 509(3), 527(1-4), 562(4), 574(2), 575(3), 576(3), 577(3), any biology course taught at the Gulf Coast Research Laboratory, any biology course taught at the Bull Shoals Field station or another field station (with the approval of your advisor)
- 6. Complete 0-7 hours of elective BIO courses at the level of 300 or above to total a minimum of 43 hours in biology
- 7. Complete at least one of the following related requirements in Mathematics, Statistics, or Computer programming: MTH 261(5) or 287(3) or 546(3) or 547(3) or CSC 125(4) or CSC 130(3) or BIO 551(2) or PSY 527(3)
- 8. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1)
- Complete one of the following related science courses: AGN 215(3), ANT 375(3); CHM 260(3) or 460(3); GLG 171(3), GRY 351(3)
- Complete one of the following courses from related fields of study: ECO 540(3), LAW 537(3), PHI 302(3), PHI 325(3), PLS 555(3), PSY 379(3)
- b. Microbiology and Biotechnology (71-87 hours total)
 - 1. Required courses: BIO 310(5), 320(4)



- Complete 21 additional hours in BIO courses with a minimum of 18 hours from the following: BIO 355(4), 508(3), 511(4), 512(3), 505(3) or 515(3), 517(4), 518(2), 520(3), 530(3), 540(4); BMS 524(3) may be substituted for one of these courses; CHM 302(5) or 502(4) or 505(4) may be substituted for one of these courses
- 3. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 342(5) and 343(5), or CHM 342(5) and 344(3); CHM 352(3), or CHM 452(3) and 552(3)
- c. Pre-Teacher Education (71 73 hours total)*:
 - 1. Required courses: BIO 310(5), 361(4), 369(4), 515(3)
 - 2. Complete a minimum of 9 additional hours of upper level Biology courses (with approval of advisor).
 - 3. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 302(5)
 - 4. Complete the following related science courses: GLG 110(3); GRY 135(3); SCI 505(3)
 - 5. Complete at least one of the following related requirements in Mathematics: MTH 181(3), or eligibility for MTH 261 on mathematics placement test
 - * This option is designed for students preparing to enter post-graduate studies to become a high school science teacher. This program does not include courses in teacher education that are required by the state of Missouri for certification as a teacher. Certification requirements can be met through post-baccalaureate programs or masters programs at Missouri State University.
- d. Wildlife Biology (67-87 hours total)
 - 1. Required courses: BIO 320(4) or 361(4), 369(4)
 - 2. Complete two courses in plant biology from: BIO 334(3), 339(2), 530(3), 544(4)
 - 3. Complete three courses in animal biology from: BIO 370(4), 371(3), 380(5), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3)
 - 4. Complete a minimum of 5 hours in management from: BIO 373(3), 485(1-3), 509(4), 532(3), 562(4), 589(3)



- 5. Complete two courses in ecology and evolution from: BIO 436(4), 515(3), 539(3), 563(3), 567(4), 578(4), 579(4), 584(3)
- Complete one course in human dimensions from the following: AGN 335(3), BIO 547(3), BIO 561(2), CRM 210(3), ECO 540(3), GRY 108(3), GRY 351(2), PHI 302(3), PLS 555(3), LAW 537(3)
- 7. Complete one course in earth/environmental science: AGN 215(3), CHM 260(3), GLG 110(4), GRY 142(4)
- C. General Baccalaureate Degree Requirements



Biology (Comprehensive) (BS)

Bachelor of Science

- A. General Education Program and Requirements
- B. Major Requirements
 - 1. BIO 121(4), 122(4), 235(-4-3), 236(1), 302(1), 492(0), 494(1), 550(3)
 - 2. PHY 123(4) or 203(5), and PHY 124(4) or PHY 203(5) and 204(5)
 - 3. MTH 138(5) or 181(3), or eligibility for MTH 261 on mathematics placement test
 - 4. BIO 310(5) or 320(4) or 361(4) or 544(4); consult options below before selecting course
 - 5. CHM 116(4) and 117(1), or CHM 160(4) and 161(1); consult options below before selecting course
 - 6. CHM 201(3) and 202(2), or 302(5) or 342(5); consult options below before selecting course
 - 7. Public Affairs Capstone Experience will be fulfilled by completion of BIO **302**494(1) and two additional courses from the following: BIO 300(1), 355(4), **367(3)**, 369(4), 370(4), 373(3), 398(1), 399(1-3), 485(1-3), 498(3), 499(1-3), 501(2), 505(3), 508(3), 509(4), 511(4), 512(3), 520(3), 527(1-4), 539(2), 547(3), 561(2), 573(3), 574(2), 575(3), 576(3), 577(3), 578(4), 579(4), 584(3), 589(3). Courses may also be used to satisfy option requirements.
 - 8. Complete requirements in one of the following options*: (Note: With approval of advisor, up to 3 hours of the following can be substituted for one of the BIO courses listed in any option: BIO 300, 399, 499, or 597.)
 - a. Environmental Biology and Evolution (7472-85 hours total)
 - 1. Required courses: BIO **367(3)**, **368(1)**, 369(4), 515(3)
 - 2. Complete **one of the following options** courses in biodiversity and evolution totaling at least 3 hours from the following: BIO 334(3), 339(2), 370(4), 371(3), 380(5), 530(3), 571(4), 573(3), 574(23), 575(3), 576(3), 577(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 534(2), and 535(1), 555(3), 556(3), 587(3), 588(3)



- 3. Complete **one of the following options** courses in population biology totaling at least 3 hours from the following: BIO 436(4), 505(3), 532(3), 540(4), 560(3), 563(3), 567(4), 578(4), 584(3), 589(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 557(2)₇ and 558(2)
- 4. Complete courses in community/ecosystem biology totaling at least 3 hours from the following: BIO 373(3), 485(1-3), 508(3), 509(4), 533(3), 539(3), 547(3), 562(4), 564(2), 579(4); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 537(2), 538(2), 565(3), 566(2)
- 5. Students must take at least one biology course with a substantial field component. A course used to satisfy this requirement also may be counted toward the biodiversity, population biology, and community/ecosystem biology concentration areas described above. Complete one of the following: BIO 334(3), 339(2), 370(4), 436(4), 509(43), 527(1-4), 562(4), 564(2), 574(2), 575(3), 576(3), 577(3), any biology course taught at the Gulf Coast Research Laboratory, any biology course taught at the Bull Shoals Field station or another field station (with the approval of your advisor)
- Complete 0-87 hours of elective BIO courses at the level of 300 or above to total a minimum of 43 hours in biology
- Complete at least one of the following related requirements in Mathematics, Statistics, or Computer programming: MTH 261(5) or 287(3), or 546(3) or 547(3) or CSC 125(4), or CSC 130(3), CSC 587(3), or BIO 551(2), or PSY 527(3)
- 8. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1)
- Complete one of the following related science courses: AGN 215(3), ANT 240(3), ANT 375(3); CHM 260(3) or 460(3); GLG 171(3), GRY 351(3)
- 10. Complete one of the following courses from related fields of study: **BIO 561(2),** ECO 540(3), **GRY 363(4),** LAW 537(3), PHI 302(3), PHI 325(3), PLS 555(3), PSY 379(3)
- b. Microbiology and Biotechnology (71-87 hours total)



- 1. Required courses: BIO 310(5), 320(4)
- 2. Complete 21 additional hours in BIO courses with a minimum of 18 hours from the following: BIO 355(4), 508(3), 511(4), 512(3), 505(3) or 515(3), 517(4), 518(2), 520(3), 530(3), 540(4); BMS 524(3) may be substituted for one of these courses; CHM 302(5) or 502(4) or 505(4) may be substituted for one of these courses
- 3. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 342(5) and 343(5), or CHM 342(5) and 344(3); CHM 352(3), or CHM 452(3) and 552(3)
- c. Pre-Teacher Education (71 73 hours total)*:
 - 1. Required courses: BIO 310(5), 361(4), **367(3)**, **368(1)**, 369(4), 515(3)
 - 2. Complete a minimum of 9 additional hours of upper level Biology courses (with approval of advisor).
 - 3. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 302(5)
 - Complete the following related science courses: GLG 110(3); GRY 135(3); SCI 505(3)
 - 5. Complete at least one of the following related requirements in Mathematics: MTH 181(3), or eligibility for MTH 261 on mathematics placement test
 - * This option is designed for students preparing to enter post-graduate studies to become a high school science teacher. This program does not include courses in teacher education that are required by the state of Missouri for certification as a teacher. Certification requirements can be met through post-baccalaureate programs or masters programs at Missouri State University.
- d. Wildlife Biology (67-87 hours total)
 - 1. Required courses: BIO 320(4) or 361(4), 367(3), 368(1) 369(4)
 - 2. Complete two courses in plant biology from: BIO 334(3), 339(2), 530(3), 544(4)
 - 3. Complete three courses in animal biology from: BIO 370(4), 371(3), 380(5), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3)



- 4. Complete a minimum of 5 hours in management from: BIO 373(3), 485(1-3), 509(4), 532(3), 562(4), 589(3)
- 5. Complete two courses in ecology and evolution from: BIO 436(4), 515(3), 539(3), 563(3), 567(4), 578(4), 579(4), 584(3)
- Complete one course in human dimensions from the following: AGN 335(3), BIO 547(3), BIO 561(2), CRM 210(3), ECO 540(3), GRY 108(3), GRY 351(2), PHI 302(3), PLS 555(3), LAW 537(3)
- 7. Complete one course in earth/environmental science: AGN 215(3), CHM 260(3), GLG 110(4), GRY 142(4)
- C. General Baccalaureate Degree Requirements