
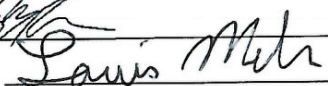


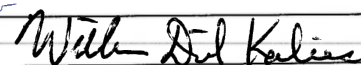
 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	Department Environmental Science Program College Science		
Program Name Master of Science in Environmental Science		<input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program*	Effective Date (TERM & YEAR) Fall 2023
<p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>This proposal requests a revision on the course requirements of the Thesis and Non-Thesis MSES. We are requesting:</p> <ol style="list-style-type: none"> 1) to replace the 'Core Subject Areas' with 'Electives', 2) to keep Data Science as a requirement 3) update course number requirements for Thesis research credits 4) update the course number requirements for electives, 5) the addition of 16 courses as approved electives and 5) remove five courses from the elective course list. <p>A list of the courses accepted towards the MSES Degree is being updated per the attached marked up catalog entries.</p>			
<p>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</p>			
Faculty Contact/Email/Phone Michelle Petersen/mpeter45@fau.edu/561.297.0671		Consult and list departments that may be affected by the change(s) and attach documentation yes	
Approved by Department Chair  College Curriculum Chair  College Dean  UGPC Chair  UGC Chair  Graduate College Dean _____ UFS President _____ Provost _____		Date 2/7/23 2/14/2023 Mar 6, 2023 Mar 7, 2023 Mar 7, 2023	

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

Rationale for Removing Core Subject Areas:

Over the past two years many College of Science Departments (e.g., the Departments of Biological Sciences and Geosciences) have experienced extensive loss of faculty who were affiliated with Environmental Science Program. This resulted in extensive course losses within the four Core Subject Area course requirements (e.g., only 1 core course in the area of physical science is currently offered of the 6 total approved courses). The ES Program recognizes the importance of maintaining a highly interdisciplinary curriculum that has the built-in flexibility to ensure our students are successful and graduate on-time. Therefore, we are proposing to increase the flexibility of the MS degree by removing the Core Subject Area structure of the curriculum by modifying our curriculum to limit the maximum number of credits students can take within a certain prefix to 12 and limiting the maximum number of credits students can take from a given department to 15. The proposed structure ensures students can still earn a Graduate Certificate in Environmental Restoration and a Graduate Certificate in GIS.

Rationale for Keeping Data Science as a Requirement of the Program:

The National Association of Colleges and Employers' (NACE) Job Outlook 2023 report indicated that more than half of employers who responded to NACE's Job Outlook Survey 2023 are seeking candidates with analytical/quantitative skills. The ES Program finds that the Data Science core area (i.e., required courses) fulfills the criteria of analytical/quantitative skills and the omission of this requirement would be a disservice to students earning a MS ES degree.

Rationale for Updating Course Number Requirements for Thesis Research and Elective credits:

Reducing the maximum number of Thesis credits from 12 to 9 and increasing the minimum number of electives, ensures that students are taking enough courses to make their MSES degree truly interdisciplinary.

Course Addition Rationale

The requested courses to be added as accepted courses are offered through the Biology and Geosciences Department and are currently accepted as electives towards the Graduate Certificate in Environmental Restoration. These courses are highly relevant to the Environmental Science Program. They are as follows:

BOT 6506 Advanced Plant Physiology

BOT 6506L Advanced Plant Physiology Lab

GIS 6028C Photogrammetry and Aerial Photography Interpretation

GIS 6032C LIDAR Remote Sensing and Applications

CEG 6124 Soil Stabilization and Geosynthetics is highly relevant to the Environmental Science Program.

CWR 6235 Open-channel Hydraulics is highly relevant to the Environmental Science Program.

EVR 6931 Paleoenvironmental Reconstruction is highly relevant to the Environmental Science Program.

SCE 6644 Trends and Issues in Environmental Education is highly relevant to the Environmental Science Program.

URP 6272 Managing GIS Projects is highly relevant to the Environmental Science Program.

Course Removal Rationale

GEO 5435C Geographic Analysis of Population, although still highly relevant to the Environmental Science Program, this course has not been offered through the Geosciences Department in over five years.

GLY 6707 Regolith Geology, although still highly relevant to the Environmental Science Program, this course has not been offered through the Geosciences Department in over five years.

PCB 6406 Ecological Theory, although still highly relevant to the Environmental Science Program, this course has not been offered through the Biological Science Department in over two years.

URP 6421 Environmental Planning, although still highly relevant to the Environmental Science Program, this course has not been offered through the Urban and Regional Planning Department in over five years.

ZOO 6456 Seminar in Emerging Topics in Avian Ecology, although still highly relevant to the Environmental Science Program, this course has not been offered through the Biological Science Department in over two years.

Current Program

Master of Science with Major in Environmental Science

Thesis Option

A student curriculum currently consists of a minimum of 36 credits taken in the following five categories:

Core Subject Areas: 12-27 graduate credits with at least one course from each of the four core subject areas.

Electives: No more than 15 graduate credits of electives will be counted toward the degree. Up to 3, graduate credits combined of Directed Independent Study (EVS 6905) and Directed Independent Research (EVS 6916) may be counted toward this degree.

Thesis: 6-12 credits (EVS 6971).

Environmental Science Colloquium Series (EVS 6920): 2 credits or more. No more than 4 credits of EVS 6920 may be counted toward this degree. This course is currently only offered in the fall semester. Students must take EVS 6920 during their first fall semester.

Fundamentals of Environmental Research (EVS 6917): 1 credit. This course is currently only offered in the spring semester. Students should take EVS 6917 during their first spring semester.

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

Non-Thesis Option

A student curriculum consists of a minimum of 36 graduate credits taken in the following five categories:

Core Subject Areas: 12-30 graduate credits with at least one course from each of the four core subject areas.

Directed Independent Study (EVS 6905) or Directed Independent Research (EVS 6916): 3 credits combined.

Electives: No more than 18 graduate credits of electives will be counted toward the degree.

Environmental Science Colloquium Series (EVS 6920): 2 credits or more.

Fundamentals of Environmental Research (EVS 6917): 1 credit.

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

Core Subject Areas:

<i>Physical Science</i>	
Chemistry for Environmental Scientists	CHS 6611
Environmental Geochemistry	GLY 5243
Advanced Environmental Geochemistry	GLY 6246
Global Environmental Change	GLY 6746
Methods in Hydrogeology	GLY 6838
Coastal Environments	GLY 6737
<i>Data Science</i>	
Spatial Data Analysis	GIS 6306
Experimental Design and Biometry	PCB 6456
Statistics for Urban Planning	URP 6211
<i>Ecology and Conservation</i>	
Environmental Restoration	EVR 6334
Biogeography	GEO 5305
Ecological Theory	PCB 6406

Conservation Biology	PCB 6045
Advanced Ecology	PCB 6046
<i>Sustainability</i>	
Sustainability and Pollution Prevention	ENV 6932
Human-Environmental Interactions	GEA 6277
Culture, Conservation, and Land Use	GEO 6337
Sustainable Cities	URP 6406
Environmental Policy and Programs	URP 6429
<i>Electives</i>	
Flora of South Florida	BOT 5155
Flora of South Florida Lab	BOT 5155L
Plant Ecology	BOT 6159C
Coastal Plant Ecology	BOT 6606
Coastal Plant Ecology Lab	BOT 6606L
Symbiosis	BSC 6365
Scientific Communication	BSC 6846
Ecological Modeling	EVR 6070
Restoration Implementation and Management	EVR 6358
Geographic Analysis of Population	GEO 5435C

Plants And People	GEO 6317
Digital Image Analysis	GIS 5033C
Remote Sensing of the Environment	GIS 5038C
Principles of Geographic Information Systems	GIS 5051C
Applications in Geographic Information Systems	GIS 5100C
Programming in Geographic Information Systems	GIS 5103C
Advanced Remote Sensing	GIS 6039
Topics in Geoinformation Science	GIS 6120
Hyperspectral Remote Sensing	GIS 6127
Environmental Geophysics	GLY 5457
Shore Erosion and Protection	GLY 5575C
Marine Geology	GLY 5736C
Advanced Topics in Applied, Coastal and Hydrogeology	GLY 5934
Regolith Geology	GLY 6707
Modeling Groundwater Movement	GLY 6836
Coastal Hazards	GLY 6888
Natural History of the Indian River Lagoon	OCB 6810
Marine Global Change	OCE 6019

Freshwater Ecology	PCB 6307
Freshwater Ecology Lab	PCB 6307L
Marine Ecology	PCB 6317
Marine Ecology Lab and Field Studies	PCB 6317L
Environmental Physiology	PCB 6749C
Environmental Philosophy	PHM 6035
Advanced Methods of Environmental Education	SCE 6344
Perspectives of Environmental Education	SCE 6345
Introduction to GIS in Planning	URP 6270
Environmental Planning and Society	URP 6421
Environmental Analysis in Planning	URP 6425
Introduction to Transportation Planning	URP 6711
Urban and Regional Theory	URP 6840
Women, Environment, Ecofeminism, Environmental Justice	WST 6348
Marine Invertebrate Zoology	ZOO 6256
Marine Invertebrate Zoology Lab	ZOO 6256L
Natural History of Fishes	ZOO 6456
Natural History of Fishes Lab	ZOO 6456L
Seminar in Ichthyology	ZOO 6459

Requested Changes

Master of Science with Major in Environmental Science

Thesis Option

A student curriculum currently consists of a minimum of 36 credits taken in the following ~~five~~ six categories:

Environmental Science Colloquium Series (EVS 6920): 2 credits This course is currently only offered in the fall semester. Students must take EVS 6920 during their first fall semester.

Fundamentals of Environmental Research (EVS 6917): 1 credit. This course is currently only offered in the spring semester. Students should take EVS 6917 during their first spring semester.

Data Science: 3 credits. Students must take either GIS 6306, PCB 6456 or URP 6211.

Electives~~*Core Subject Areas:*~~ 12-21-24 graduate credits with no more than 12 credits per Course Prefix and no more than 15 credits per Department at least one course from each of the four core subject areas. Required courses do not counts towards departmental credit limit.

Direct Independent Study (EVS 6905) or Direct Independent Research (EVS 6916)
~~*Electives:*~~ No more than 15 graduate credits of electives will be counted toward the degree. Up to 3, graduate credits combined ~~of Directed Independent Study (EVS 6905) and Directed Independent Research (EVS 6916)~~ may be counted toward this degree.

Thesis: 6-~~12~~ 9 credits (EVS 6971).

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

Non-Thesis Option

A student curriculum consists of a minimum of 36 graduate credits taken in the following five categories:

Environmental Science Colloquium Series (EVS 6920): 2 credits ~~or more~~.

Fundamentals of Environmental Research (EVS 6917): 1 credit.

Data Science: 3 credits. Students must take either GIS 6306, PCB 6456 or URP 6211.

Electives~~*Core Subject Areas:*~~ 30-27 graduate credits with no more than 12 credits per Course Prefix and no more than 15 credits per Department. at least one course from each of the four core subject areas. Required courses do not counts towards departmental credit limit.

Directed Independent Study (EVS 6905) or Directed Independent Research (EVS 6916): 3 credits combined.

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

|

Departmental Courses: No More than 15 Total Credits From Any One Department				
Biological Sciences:				
<i>Course Prefix: No more than 12 credits per prefix</i>	<i>Course Number</i>	<i>Course Title</i>	<i>Credits</i>	
<u>BOT</u>	5155	Flora of South Florida	3	
	5155L	Flora of South Florida Lab	3	
	6159C	Plant Ecology	3	
	6505	Advanced Plant Physiology	3	
	6505	Advanced Plant Physiology Lab	1	
<u>BSC</u>	6365	Symbiosis	3	
	6846	Scientific Communication	3	
<u>OCB</u>	6019	Marine Global Change	3	
	6673	Data Processing and Modeling of Marine Systems	3	
	6810	Natural History of the Indian River Lagoon	3	
<u>PCB</u>	6045	Conservation Biology	3	
	6046	Advanced Ecology	3	
	6307	Freshwater Ecology	3	
	6307L	Freshwater Ecology Lab	3	
	6317	Marine Ecology	3	
	6317L	Marine Ecology Lab and Field Studies	3	
	6406	Ecological Theory	3	
	6456	Experimental Design and Biometry	3	
	6749C	Environmental Physiology	3	
<u>ZOO</u>	6256	Marine Invertebrate Zoology	3	
	6256L	Marine Invertebrate Zoology Lab	3	
	6456	Natural History of Fishes	3	
	6456L	Natural History of Fishes Lab	3	
	6459	Seminar in Ichthyology	3	
	6544C	Seminar in Emerging Topics in Avian Ecology	3	
Chemistry and Biochemistry				

	Course Prefix: No more than 12 credits per prefix	Course Number	Course Title	Credits
	<u>CHS</u>	6611	Chemistry for Environmental Scientists	3
Civil, Environmental & Geomatics Engineering				
	Course Prefix: No more than 12 credits per prefix	Course Number	Course Title	Credits
	<u>CEG</u>	6124	Soil Stabilization and Geosynthetics	3
	<u>CWR</u>	6235	Open-Channel Hydraulics	3
	<u>ENV</u>	6932	Sustainability and Pollution Prevention	3
Curriculum and Instruction				
	Course Prefix: No more than 12 credits per prefix	Course Number	Course Title	Credits
	<u>SCE</u>	6344 6345 6644	Advanced Methods of Environmental Education Perspectives of Environmental Education Trends & Issues in EE	3 3 3
Geosciences				
	Course Prefix: No more than 12 credits per prefix	Course Number	Course Title	Credits
	<u>EVR</u>	6334 6358 6417 6931	Environmental Restoration Restoration Implementation and Management Paleoenvironments and People Paleoenvironmental Reconstruction	3 3 3 3
	<u>GEA</u>	6277 5305	Human-Environmental Interactions Biogeography	3 3
	<u>GEO</u>	5435C 6317 6337	Geographic Analysis of Population Plants And People Culture, Conservation, and Land Use	3 3 3

		5033C	Digital Image Analysis	3
		5038C	Remote Sensing of the Environment	3
		5051C	Principles of Geographic Information Systems	3
		5100C	Applications in Geographic Information Systems	3
		5103C	Programming in Geographic Information Systems	3
		6028C	Photogrammetry and Aerial Photography Interpretation	3
		6032C	LIDAR Remote Sensing and Applications	3
		6039	Advanced Remote Sensing	3
		6120	Topics in Geoinformation Science	3
		6127	Hyperspectral Remote Sensing	3
		6306	Spatial Data Analysis	3
		5243	Environmental Geochemistry	3
		5457	Environmental Geophysics	3
		5575C	Shore Erosion and Protection	3
		5736C	Marine Geology	3
		5934	Advanced Topics in Applied, Coastal and Hydrogeology	3
		6246	Advanced Environmental Geochemistry	3
		6707	Regolith Geology	3
		6737	Coastal Environments	3
		6746	Global Environmental Change	3
		6836	Modeling Groundwater Movement	3
		6838	Methods in Hydrogeology	3
		6888	Coastal Hazards	3
		6897	Benchmark Developments in Hydrogeology	3
		Philosophy		
		Course Prefix: No more than 12 credits per prefix	Course Title	Credits
		PHM	Environmental Philosophy	3
		Urban and Regional Planning		
			Course Title	Credits

	Course Prefix: No more than 12 credits per prefix	Course Number		
	<u>URP</u>	6211	Statistics for Urban Planning	3
		6270	Introduction to GIS in Planning	3
		6272	Managing GIS Projects	3
		6406	Sustainable Cities	3
		6421	Environmental Analysis in Planning	3
		6429	Environmental Policy and Programs	3
		6711	Introduction to Transportation Planning	3
		6840	Urban and Regional Theory	3
Women, Gender, & Sexuality				
	Course Prefix: No more than 12 credits per prefix	Course Number	Course Title	Credits
	WST	6348	Women, Environment, Ecofeminism, Environmental Justice	3

Requested Changes

Master of Science with Major in Environmental Science

Thesis Option

A student curriculum currently consists of a minimum of 36 credits taken in the following six categories:

Environmental Science Colloquium Series (EVS 6920): 2 credits This course is currently only offered in the fall semester. Students must take EVS 6920 during their first fall semester.

Fundamentals of Environmental Research (EVS 6917): 1 credit. This course is currently only offered in the spring semester. Students should take EVS 6917 during their first spring semester.

Data Science: 3 credits. Students must take either GIS 6306, PCB 6456 or URP 6211.

Electives: 21-24 graduate credits with no more than 12 credits per Course Prefix and no more than 15 credits per Department. Required courses do not counts towards departmental credit limit.

Direct Independent Study (EVS 6905) or Direct Independent Research (EVS 6916): Up to 3 graduate credits combined may be counted toward this degree.

Thesis: 6-9 credits (EVS 6971).

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

Non-Thesis Option

A student curriculum consists of a minimum of 36 graduate credits taken in the following five categories:

Environmental Science Colloquium Series (EVS 6920): 2 credits.

Fundamentals of Environmental Research (EVS 6917): 1 credit.

Data Science: 3 credits. Students must take either GIS 6306, PCB 6456 or URP 6211.

Electives: 27 graduate credits with no more than 12 credits per Course Prefix and no more than 15 credits per Department. Required courses do not counts towards departmental credit limit.

Directed Independent Study (EVS 6905) or Directed Independent Research (EVS

6916): 3 credits combined.

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the **only official source** for determining degree requirements.

Departmental Courses: No More Than 15 Total Credits From Any One Department				
Biological Sciences:				
<i>Course Prefix: No more than 12 credits per prefix</i>	<i>Course Number</i>	<i>Course Title</i>	<i>Credits</i>	
<u>BOT</u>	5155	Flora of South Florida	3	
	5155L	Flora of South Florida Lab	3	
	6159C	Plant Ecology	3	
	6505	Advanced Plant Physiology	3	
	6505L	Advanced Plant Physiology Lab	1	
<u>BSC</u>	6365	Symbiosis	3	
	6846	Scientific Communication	3	
<u>OCB</u>	6019	Marine Global Change	3	
	6673	Data Processing and Modeling of Marine Systems	3	
	6810	Natural History of the Indian River Lagoon	3	
<u>PCB</u>	6045	Conservation Biology	3	
	6046	Advanced Ecology	3	
	6307	Freshwater Ecology	3	
	6307L	Freshwater Ecology Lab	3	
	6317	Marine Ecology	3	
	6317L	Marine Ecology Lab and Field Studies	3	
	6456	Experimental Design and Biometry	3	
	6749C	Environmental Physiology	3	
<u>ZOO</u>	6256	Marine Invertebrate Zoology	3	
	6256L	Marine Invertebrate Zoology Lab	3	
	6456	Natural History of Fishes	3	
	6456L	Natural History of Fishes Lab	3	
	6459	Seminar in Ichthyology	3	
Chemistry and Biochemistry				
		Course Title	Credits	

	Course Prefix: No more than 12 credits per prefix	CHS	Course Number	6611	Chemistry for Environmental Scientists	3
Civil, Environmental & Geomatics Engineering						
	Course Prefix: No more than 12 credits per prefix		Course Number		Course Title	Credits
		CEG	6124		Soil Stabilization and Geosynthetics	3
		CWR	6235		Open-Channel Hydraulics	
		ENV	6932		Sustainability and Pollution Prevention	3
Curriculum and Instruction						
	Course Prefix: No more than 12 credits per prefix		Course Number		Course Title	Credits
		SCE	6344		Advanced Methods of Environmental Education	3
			6345		Perspectives of Environmental Education	3
			6644		Trends & Issues in Environmental Education	3
Geosciences						
	Course Prefix: No more than 12 credits per prefix		Course Number		Course Title	Credits
		EVR	6334		Environmental Restoration	3
			6358		Restoration Implementation and Management	3
			6417		Paleoenvironments and People	3
			6931		Paleoenvironmental Reconstruction	3
		GEA	6277		Human-Environmental Interactions	3
		GEO	5305		Biogeography	3
			6317		Plants and People	3
			6337		Culture, Conservation, and Land Use	3
		GIS	5033C		Digital Image Analysis	3
5038C			Remote Sensing of the Environment	3		

		5051C	Principles of Geographic Information Systems	3
		5100C	Applications in Geographic Information Systems	3
		5103C	Programming in Geographic Information Systems	3
		6028C	Photogrammetry and Aerial Photography Interpretation	3
		6032C	LIDAR Remote Sensing and Applications	3
		6039	Advanced Remote Sensing	3
		6120	Topics in Geoinformation Science	3
		6127	Hyperspectral Remote Sensing	3
		6306	Spatial Data Analysis	3
		5243	Environmental Geochemistry	3
		5457	Environmental Geophysics	3
		5575C	Shore Erosion and Protection	3
		5736C	Marine Geology	3
		5934	Advanced Topics in Applied, Coastal and Hydrogeology	3
	<u>GLY</u>	6246	Advanced Environmental Geochemistry	3
		6737	Coastal Environments	3
		6746	Global Environmental Change	3
		6836	Modeling Groundwater Movement	3
		6838	Methods in Hydrogeology	3
		6888	Coastal Hazards	3
Philosophy				
	<i>Course Prefix: No more than 12 credits per prefix</i>	Course Number	Course Title	Credits
	<u>PHIM</u>	6035	Environmental Philosophy	3
Urban and Regional Planning				
	<i>Course Prefix: No more than 12 credits per prefix</i>	Course Number	Course Title	Credits
	<u>URP</u>	6211	Statistics for Urban Planning	3
		6270	Introduction to GIS in Planning	3

			6272	Managing GIS Projects	3
			6406	Sustainable Cities	3
			6429	Environmental Policy and Programs	3
			6711	Introduction to Transportation Planning	3
			6840	Urban and Regional Theory	3
Women, Gender, & Sexuality					
	<i>Course Prefix: No more than 12 credits per prefix</i>		Course Number	Course Title	Credits
	WST		6348	Women, Environment, Ecofeminism, Environmental Justice	3

Michelle Petersen

From: Sarah Milton
Sent: Tuesday, February 7, 2023 10:21 AM
To: Michelle Petersen
Cc: Marianne Porter; Tiffany Roberts Briggs
Subject: Re: ES Program Change Request

Good morning - Biology has no objection to the removal of the electives:

PCB 6406 Ecological Theory
ZOO 6456 Seminar in Emerging Topics in Avian Ecology

Biology has no objection to the addition of the following courses as electives into the Graduate Certificate in Environmental Sciences:

Advanced Plant Physiology (BOT 6506) and Advanced Plant Physiology Lab (BOT 6506L)

The plant physiology courses are usually small courses, so this addition will strengthen our program as well.

Regards,

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
FAU

From: Michelle Petersen <mpeter45@fau.edu>
Sent: Tuesday, February 7, 2023 9:38 AM
To: Sarah Milton <smilton@fau.edu>
Cc: Marianne Porter <mporte26@fau.edu>; Tiffany Roberts Briggs <briggst@fau.edu>
Subject: ES Program Change Request

Good morning Sarah,

The ES Program would like to officially add Advanced Plant Physiology (BOT 6506) and Advanced Plant Physiology Lab (BOT 6506L) as electives for the program as the proposed courses are approved for the Graduate Certificate in Environmental Science and many students take the courses but they are not on our course list. To do so, we need to consult and list departments that may be affected by the change and attach documentation to the Change Program Request. Would you be able to write up a short paragraph approving the use of the following courses to be added?

Additionally, the ES Program is requesting the following Biology courses be removed because there is no longer faculty to teach the courses. Would you also approve the removal of the listed courses below?

PCB 6406 Ecological Theory
ZOO 6456 Seminar in Emerging Topics in Avian Ecology

I attached the Change Program Request for you to see the proposed addition and removal of mentioned courses.

Michelle Petersen, Ph.D.
Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
Florida Atlantic University

777 Glades Rd
Boca Raton, FL 33431
Tel: 561.297.0671

Michelle Petersen

From: Charles Dukes
Sent: Friday, February 3, 2023 11:40 AM
To: Michelle Petersen
Subject: Re: Permission to Add Course to ES Program

Hello,
Sorry for the delay. The faculty have reviewed and approve.

Charles Dukes, EdD, PhD
Interim Chair, Department of Curriculum and Instruction
Doctoral Coordinator & Professor, Department of Special Education
Florida Atlantic University
777 Glades Road Boca Raton, FL 33431
E-mail: cdukes@fau.edu
office-561 297 1081
fax-561 297 2507

To learn more about me and my research,
go to <https://www.fau.edu/education/faculty/dukes/>

For information about FAU-ESE Degree Programs, Events/Activities,
or faculty/research visit: <http://www.fau.edu/education/academicdepartments/ease/contacts/>
or scan this QR code:



From: Michelle Petersen <mpeter45@fau.edu>
Date: Monday, January 30, 2023 at 12:34 PM
To: Charles Dukes <cdukes@fau.edu>
Cc: Tiffany Roberts Briggs <briggst@fau.edu>
Subject: RE: Permission to Add Course to ES Program

Good Afternoon Charles,

I am just following up on the ES Program change to add SCE 6644 to our curriculum?

Best,
Michelle

Michelle Petersen, Ph.D.
Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431
Tel: 561.297.0671

From: Charles Dukes <cdukes@fau.edu>
Sent: Thursday, January 12, 2023 10:50 AM
To: Michelle Petersen <mpeter45@fau.edu>
Cc: Tiffany Roberts Briggs <briggst@fau.edu>
Subject: Re: Permission to Add Course to ES Program

Hello,

I would like to consult department faculty before moving forward. I will reach out to faculty and then get back to you.

Charles Dukes, EdD, PhD

Interim Chair, Department of Curriculum and Instruction
Doctoral Coordinator & Professor, Department of Special Education
Florida Atlantic University
777 Glades Road Boca Raton, FL 33431
E-mail: cdukes@fau.edu
office-561 297 1081
fax-561 297 2507

To learn more about me and my research,
go to <https://www.fau.edu/education/faculty/dukes/>

For information about FAU-ESE Degree Programs, Events/Activities,
or faculty/research visit: <http://www.fau.edu/education/academicdepartments/ese/contacts/>
or scan this QR code:



From: Michelle Petersen <mpeter45@fau.edu>
Date: Thursday, January 12, 2023 at 10:00 AM
To: Charles Dukes <cdukes@fau.edu>
Cc: Tiffany Roberts Briggs <briggst@fau.edu>
Subject: Permission to Add Course to ES Program

Good morning Dr. Dukes,

The Environmental Science Program would like to officially add SCE 6644 (Trends and Issues in Environmental Education) as an elective for the ES Program as this course is highly relevant but is not currently on our course list. To do so, we need to consult and list departments that may be affected by the change and attach documentation to the Change Program Request. Would you be able to write up a short paragraph approving the use of the following course to be added?

I attached the Change Program Request for you to see the proposed addition of mentioned courses. These approvals are needed by Tuesday, Jan 17 and I sincerely apologize for the short notice.

Best,
Michelle Petersen

Michelle Petersen, Ph.D.

Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431
Tel: 561.297.0671

Michelle Petersen

From: Masoud Jahandar Lashaki
Sent: Saturday, February 4, 2023 7:45 PM
To: Michelle Petersen
Subject: RE: Permission to Add Courses to ES Program

Hi Michelle,

Thank you for your email. After consulting with our departmental Graduate Committee, I would like to approve your request. As the instructor of "ENV 6932: Sustainability and Pollution Prevention", which is already on your course list, I had several Environmental Science students in my class. The students were consistently among the top performers and their perspectives enriched our class discussions. We are looking forward to having more Environmental Science students in our classes. Please let me know if you need any additional information in this regard.

Best regards,
Masoud

Masoud Jahandar Lashaki, Ph.D.
Assistant Professor and Graduate Program Director
Department of Civil, Environmental and Geomatics Engineering (CEGE)
Florida Atlantic University
Main Office: 101 N Beach Road, SeaTech Campus, Room 202; Dania Beach, FL 33004
Second Office: 777 Glades Road, Building 36 (EG), Room 216; Boca Raton, FL 33431
Cell: 954-669-0935

From: Michelle Petersen <mpeter45@fau.edu>
Sent: Friday, February 3, 2023 2:20 PM
To: Masoud Jahandar Lashaki <mjahandarlashaki@fau.edu>
Subject: Permission to Add Courses to ES Program

Good afternoon Masoud,

The ES Program would like to officially add CEG 6124 (Soil Stabilization and Geosynthetics) and CWR 6235 (Open-channel Hydraulics) as electives in our Master's Program. These courses are highly relevant to the Environmental Science Program but they are not currently on our course list. To do so, we need to consult and list departments that may be affected by the change and attach documentation to the Change Program Request. Would you be able to write up a short paragraph approving the use of the following courses to be added?

I attached the Change Program Request for you to see the proposed addition of mentioned courses. These approvals are needed by Tuesday, Feb 7.

Best,
Michelle Petersen

Michelle Petersen, Ph.D.
Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
Florida Atlantic University

777 Glades Rd
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Tel: 561.297.0671

Michelle Petersen

From: Zhixiao Xie
Sent: Thursday, January 12, 2023 9:36 AM
To: Michelle Petersen
Cc: Tiffany Roberts Briggs
Subject: RE: ES Program: Permission to Add/Remove Geoscience Courses

Good Morning Michelle,

The Geosciences department approves the request for changes to the following Geosciences courses in MS ES program.
Add:

EVR 6931 Paleoenvironmental Reconstruction
GIS 6028C Photogrammetry and Aerial Photography Interpretation
GIS 6032C LIDAR Remote Sensing and Applications

Remove:

GEO 5435C Geographic Analysis of Population
GLY 6707 Regolith Geology

Best Regards,
Zhixiao

Dr. Zhixiao Xie
Professor and Chair
Geosciences Department
Charles E. Schmidt College of Science
Florida Atlantic University
Tel: 561-297-2852
Office: SE 456A

From: Michelle Petersen <mpeter45@fau.edu>
Sent: Thursday, January 12, 2023 9:30 AM
To: Zhixiao Xie <xie@fau.edu>
Cc: Tiffany Roberts Briggs <briggst@fau.edu>
Subject: ES Program: Permission to Add/Remove Geoscience Courses

Good morning Xie,

The ES Program would like to officially add Geoscience courses as electives for the program as many students take the courses but they are not currently on our course list. To do so, we need to consult and list departments that may be affected by the change and attach documentation to the Change Program Request. Would you be able to write up a short paragraph approving the use of the following courses to be added?

EVR 6931 Paleoenvironmental Reconstruction
GIS 6028C Photogrammetry and Aerial Photography Interpretation
GIS 6032C LIDAR Remote Sensing and Applications

Additionally, the ES Program is requesting the following Geoscience courses be removed because there is no longer faculty to teach the courses. Would you also approve the removal of the listed courses below?

GEO 5435C Geographic Analysis of Population
GLY 6707 Regolith Geology

I attached the Change Program Request for you to see the proposed addition and removal of mentioned courses. These approvals are needed by Tuesday, Jan 17 and I sincerely apologize for the short notice.

Best,
Michelle

Michelle Petersen, Ph.D.
Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431
Tel: 561.297.0671

Michelle Petersen

From: Jesse Saginor
Sent: Thursday, January 12, 2023 11:17 AM
To: Michelle Petersen
Cc: Tiffany Roberts Briggs
Subject: Re: ES Program: Permission to Add/Remove Geoscience Courses

Dear Michelle,

Based on consultation with Dr. Diana Mitsova, the instructor of record for this class, the Department of Urban and Regional Planning approves the request to add URP 6272 - Managing GIS Projects and remove URP 6421 - Environmental Planning.

Please let me know if you need me to write additional justification. I can do that, but hopefully this sentence will suffice. I usually choose brevity if I can make enough sense in a sentence.

Best,
Jesse

Jesse Saginor, Ph.D., AICP
Chair and Professor
[Department of Urban and Regional Planning](#)
Charles E. Schmidt College of Science
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Email: jsaginor@fau.edu
Phone: 561-325-8897

[Faculty Page](#) | [Google Scholar](#) | [ResearchGate](#)

From: Michelle Petersen <mpeter45@fau.edu>
Sent: Thursday, January 12, 2023 10:14 AM
To: Jesse Saginor <jsaginor@fau.edu>
Cc: Tiffany Roberts Briggs <briggst@fau.edu>
Subject: ES Program: Permission to Add/Remove Geoscience Courses

Good morning Dr. Saginor,

The ES Program would like to officially add URP 6272 (Managing GIS Projects) as an elective for the program as it is relevant to the program but it is not currently on our course list. The Program would also like to remove URP 6421 (Environmental Planning) as it does not appear to have been taught for a while. To do so, we need to consult and list departments that may be affected by the change and attach documentation to the Change Program Request. Would you be able to write up a short paragraph approving URP 6272 and removing URP 6421?

I attached the Change Program Request for you to see the proposed addition and removal of mentioned courses. These approvals are needed by Tuesday, Jan 17 and I sincerely apologize for the short notice.

Best,
Michelle Petersen

Michelle Petersen, Ph.D.
Assistant Scientist, Department of Biological Sciences
Program Coordinator, Environmental Science
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