

Change 4000/6000 Course

Change a Course

Subject: WFB-Wildlife and Fish Biology
Number: 4160/6160
Effective Term: Fall 2017
Title: Fishery Biology
 Honors Course:
 Add Honors Course:
Last Term Course was taught: 201201

Brief Statement of Change Based on Assessment Results:

I propose changes in course title and credit hours, in order to better reflect what has been taught in this class and the workload.

Rationale for Changing a Course

- Strengthen Program Requirement(s)**
- Alignment of Student Learning Outcomes**
- Alternative Delivery of Content**
- Improve Time to Degree**
- Evolution of the Discipline**
- Changing Prerequisites**
- Address DWF Rates**
- General Education Modifications**
- Other (Please specify.)**

Change Catalog Title

From Fishery Biology
To Fisheries Techniques

Change Transcript Title

From Fishery Biology
To Fisheries Techniques

Change of Credit

From
 Fixed Credit Course

Credit Hrs	Contact Hrs
3	2

 Variable Credit Course

Credit Hrs	Contact Hrs	Min	Max

To
 Fixed Credit Course

Credit Hrs	Contact Hrs
4	3

 Variable Credit Course

Credit Hrs	Contact Hrs	Min	Max

Change Catalog Description

From Principles underlying freshwater fish production. Introduction to major groups of freshwater fishes and their habitats. Topics include identification, age and growth, fecundity, food habits, populations estimation, environmental evaluation, management practices, and fish culture. Preq: WFB 3000 and WFB 3500. Coreq: WFB 4161.
To Application of field and laboratory methods in fisheries sciences and research. Experience with fisheries equipment and techniques, including capture, handling and processing of fishes. Analysis of fisheries data. Preq: WFB 3000 and WFB 3500. Coreq: WFB 4161

Learning Objectives

- Design a sampling strategy for a fisheries survey;
- Sample fish populations and communities using representative gears;
- Survey and quantify aquatic habitat;
- Complete a standard laboratory workup of fish specimens collected in the field;
- Be able to extract fish aging structures and perform age and growth analysis;
- Use Excel and R programs to explore and analyze data;
- Interpret basic fisheries data;
- Gain exposure to fisheries professionals, their professional life and career paths

Topical Outline

- Week 1: Introduction
- Week 2: Fisheries field gears
- Week 3: Basic statistical concepts
- Week 4: Aquatic habitats
- Week 5: Passive fish sampling
- Week 6: Active fish sampling (Midterm exam 1)
- Week 7: Electrofishing
- Week 8: Length, weight and associated indices
- Week 9: Ecological assessment of aquatic communities
- Week 10: Fish marking and tagging
- Week 11: Fish age and growth
- Week 12: Fish diet analysis (Midterm exam 2)
- Week 13: Survival analysis
- Week 14: Observational studies of fish in the field

Week 15: Creel and commercial fisheries surveys
 Week 16: Final exam

Add course requirements for 6000-level courses

Graduate students will complete a research paper (10-20 double-spaced pages from Introduction to Acknowledgment) based on an analysis of fisheries data. Data may come from any source, including thesis/dissertation projects, existing data and data collected during lab sections of this class. Graduate students will answer a hypothesis-based question through quantitative analysis of data.

Evaluation			
4000		6000	
A 90 - 100		A 90 - 100	
B 80 - 89		B 80 - 89	
C 70 - 79		C 70 - 79	
D 60 - 69		F < 70	
F < 60		Field trip write-ups	20%
Field trip write-ups	25%	Laboratory write-ups	20%
Laboratory write-ups	25%	Mid-term exam (2)	20%
Mid-term exam (2)	30%	Final exam (1)	10%
Final exam (1)	20%	Research paper (1)	30%

Syllabus
 Upload File: [WFB 4160 6160 Syllabus-20161019140528.pdf](#)

Form
 User ID: ykanno Name: Yoichiro Kanno
 Date: 10/19/2016 Number: 26874

000173
10/28/16

Alan R. Joh

Chair, Department Curriculum Committee

Date

Ag. Jaur

10/28/16

Department Chair

Date

K. D. Dan Langford

11/11/16

Chair, College Curriculum Committee

Date

Jed Whitwell

11/11/16

College Dean

Date

Director, Calhoun Honors College

Date

John D. Hiffi

12/2/2016

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date

Robert Y. Jones

2/6/17

Provost

Date

President

Date

Change 4000/6000 Course

Change a Course

Subject: WFB-Wildlife and Fish Biology
Number: 4161/6161
Effective Term: Fall 2017
Title: Fishery Biology Lab
 Honors Course:
 Add Honors Course:
Last Term Course was taught: 999999

Brief Statement of Change Based on Assessment Results:
 This is a corresponding change to WFB 4160, which will be changed from Fishery Biology to Fisheries Techniques.

Rationale for Changing a Course

Strengthen Program Requirement(s)
 Alignment of Student Learning Outcomes
 Alternative Delivery of Content
 Improve Time to Degree
 Evolution of the Discipline
 Changing Prerequisites
 Address DWF Rates
 General Education Modifications
 Other (Please specify.)

Change Catalog Title

From Fishery Biology Lab
To Fisheries Techniques Laboratory

Change Transcript Title

From Fishery Biology Lab
To Fisheries Techniques Lab

Learning Objectives

- Design a sampling strategy for a fisheries survey;
- Sample fish populations and communities using representative gears;
- Survey and quantify aquatic habitat;
- Complete a standard laboratory workup of fish specimens collected in the field;
- Be able to extract fish aging structures and perform age and growth analysis;
- Use Excel and R programs to explore and analyze data;
- Interpret basic fisheries data;
- Gain exposure to fisheries professionals, their professional life and career paths

Topical Outline

Week 1: Introduction
 Week 2: Fisheries field gears
 Week 3: Basic statistical concepts
 Week 4: Aquatic habitats
 Week 5: Passive fish sampling
 Week 6: Active fish sampling (Midterm exam 1)
 Week 7: Electrofishing
 Week 8: Length, weight and associated indices
 Week 9: Ecological assessment of aquatic communities
 Week 10: Fish marking and tagging
 Week 11: Fish age and growth
 Week 12: Fish diet analysis (Midterm exam 2)
 Week 13: Survival analysis
 Week 14: Observational studies of fish in the field
 Week 15: Creel and commercial fisheries surveys

Add course requirements for 6000-level courses

Graduate students will complete a research paper (10-20 double-spaced pages from Introduction to Acknowledgment) based on an analysis of fisheries data. Data may come from any source, including thesis/dissertation projects, existing data and data collected during lab sections of this class. Graduate students will answer a hypothesis-based question through quantitative analysis of data.

Evaluation

4000	6000
A 90 - 100	A 90 - 100
B 80 - 89	B 80 - 89
C 70 - 79	C 70 - 79
D 60 - 69	F < 70
F < 60	

Field trip write-ups: 25 %
 - Field 1: 5 %
 - Field 2: 5 %
 - Field 3 : 5 %
 - Field 4: 5 %
 - Field 5: 5 %

Laboratory write-ups
 - Lab 1: 5 %

Field trip write-ups: 25 %
 - Field 1: 5 %
 - Field 2: 5 %
 - Field 3 : 5 %
 - Field 4: 5 %
 - Field 5: 5 %

Laboratory write-ups
 - Lab 1: 5 %
 - Lab 2: 5 %

25%

- Lab 2: 5%
- Lab 3: 5%
- Lab 4: 5%
- Lab 5: 5%

- Lab 3: 5%
- Lab 4: 5%
- Lab 5: 5%

Syllabus

Upload File: [WFB 4160 6160 Syllabus-20161019141157.pdf](#)

Form

User ID: ykanno Name: Yoichiro Kanno
Date: 11/11/2016 Number: 26879

Alan R. Goh

11/11/16

Chair, Department Curriculum Committee

Date

[Signature]

11/11/16

Department Chair

Date

[Signature]

11/11/16

Chair, College Curriculum Committee

Date

[Signature]

11/11/16

College Dean

Date

Director, Calhoun Honors College

[Signature]

12/2/2016

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date

Provost

[Signature]

2/6/17

Date

President

Date

Change Undergraduate Course

Change a Course

Subject: WFB-Wildlife and Fish Biology
Number: 4180
Effective Term: Fall 2017
Title: Fishery Conservation
Honors Course:
 Add Honors Course:
Last Term Course was taught: 201408

Brief Statement of Change Based on Assessment Results:
 Change course name to reflect the breadth of topics that have been covered in this class and by inserting "Management" in the title. This course title is typically used in fisheries curricula in other universities.

Rationale for Changing a Course

- Strengthen Program Requirement(s)
- Alignment of Student Learning Outcomes
- Alternative Delivery of Content
- Improve Time to Degree
- Evolution of the Discipline
- Changing Prerequisites
- Address DWF Rates
- General Education Modifications
- Other (Please specify.)

Change Catalog Title

From Fishery Conservation
To Fisheries Management and Conservation

Change Transcript Title

From Fishery Conservation
To Fisheries Management and Conservation

Change Catalog Description

From Survey of conservation efforts directed toward freshwater and marine fisheries resources. Topics include threatened, endangered, and over-exploited species and introductions of exotic species. Preq: WFB 3000 and WFB 3500.
To History, theory and practice of fisheries management. Synthesis of fish population dynamics and manipulation, habitat management, and human management to achieve fisheries management objectives. Analysis of fisheries data to inform management. Preq: WFB 3000 and WFB 3500.

Learning Objectives

- Grasp current state of marine and freshwater fisheries resources;
- Understand fundamental challenges in fisheries management and conservation;
- Apply critical thinking and problem solving skills to fisheries case studies
- Improve oral and written scientific communication skills;

Topical Outline






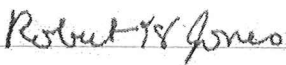
Week 1: Introduction
 Week 2: An overview of marine and freshwater fisheries
 Week 3: What do we need to conserve and manage fisheries?
 Week 4: Overfishing and consumer demand
 Week 5: Live fish trade
 Week 6: Highly migratory marine species
 Week 7: Coral reefs and Marine Protected Areas
 Week 8: Aquaculture and hatcheries
 Week 9: Fisheries law
 Week 10: Habitat loss and fragmentation
 Week 11: Water quality
 Week 12: Alien species
 Week 13: Dams and impoundments
 Week 14: Forest-stream ecosystems
 Week 15: Thanksgiving break
 Week 16: Inland fisheries regulation and wrap-up

Evaluation

Undergraduate	
A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	< 60
Essay (1)	10%
Case studies (6)	30%
Critical reading (5)	25%
Group presentation (1)	35%

Syllabus
Upload File: WFB 4180 proposed syllabus-20160923084038.pdf
Description: Proposed syllabus WFB 4180

Form
User ID: ykanno Name: Yoichiro Kanno
Date: 11/11/2016 Number: 25412

	11/11/16
Chair, Department Curriculum Committee	Date
	11/11/16
Department Chair	Date
	11/11/16
Chair, College Curriculum Committee	Date
	11/11/16
College Dean	Date
Director, Calhoun Honors College	Date
	12/2/2016
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
	2/6/17
Provost	Date
President	Date

Add Undergraduate Course

Course Attributes

Subject Abbreviation: WFB-Wildlife and Fish Biology **Catalog Title:** Fish Ecology **Additional Fee?**
Course Number: 4190 **Transcript Title:** Fish Ecology Justification
Effective Term: Fall 2017 **Cross-reference(s):**
College: Agric, Forestry and Life Sci **Grade Mode:** Standard Letter
Department: Forestry & Environmental Con

Form

User ID: peoples **Name:** Brandon Peoples
Date: 10/27/2016 **Number:** 26726

Hours

Fixed Credit Course
Credit Hrs Contact Hrs

3 3

Variable Credit Course
Credit Hrs Contact Hrs
Min Max Min Max

Rationale for Add Course

- Strengthen Program Requirement(s)
 Alignment of Student Learning Outcomes
 Alternative Delivery of Content
 Improve Time to Degree
 Evolution of the Discipline
 Changing Prerequisites
 Address DWF Rates
 General Education Modifications
 Other (Please specify.)

Schedule Types

- Field Course
 Independent Study
 Internship
 Lab No Fee
 Lab With Fee
 Lecture
 Other
 Seminar
 Studio
 Tutorial

Projected Enrollment

Year 1: 20
Year 2: 20
Year 3: 20
Year 4: 30

Evaluation

Undergraduate
A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F < 60
 Exams: 50%
 Quizzes: 25%
 Homework and other assignments: 25%

Catalog Description

Interactions of fish with the physical and biological environment. Adaptations of organisms, populations, and communities. Impacts of human activities on major aquatic ecosystems and important fishes. Ecological principles for management of important sport, commercial, and non-game fishes.

Prerequisite(s) **Corequisite(s)**

WFB 3000

Statement of need and justification based on assessment of student learning outcomes

This course will complement existing courses, particularly WFB 4160 (Fisheries Techniques) and WFB 4180 (Fisheries Management and Conservation), to offer students a well-rounded education in Fisheries Science. A recent published American Fisheries Society survey identify Fish Ecology to be the most important academic course from the employer's viewpoint

Textbook(s)

NA

Learning Objectives

Upon successful completion of this course, students will be able to:

- express a sound understanding of ecological concepts as they apply to fish in a wide range of wild aquatic environments
- demonstrate familiarity with the fish ecology literature and a strong foundation on which to continue to build knowledge in fish ecology
- explain the processes by which human activities affect fish and their environments and make informed management and conservation decisions.

Topical Outline

Week Topic

- Introduction & aquatic ecosystems
- Form, function, & adaptation to environmental change
- Feeding and bioenergetics
- Movement and growth

- 5 Reproduction
- 6 Life history strategies
- 7 Population dynamics and response to environmental change
- 8 Niche concepts
- 9 Midterm review and exam
- 10 Spring break
- 11 Biotic interactions: predation
- 12 Biotic interactions: competition and mutualism
- 13 Community ecology: diversity and bioassessment
- 14 Ecosystem ecology and terrestrial linkages
- 15 Fish diversity and conservation issues
- 16 Final examinations

Syllabus

Upload File: [Syllabus Fish Ecology Clemson-20161027082350.doc](#)

Alan R. Job 10/28/16
 Chair, Department Curriculum Committee Date

[Signature] 10/28/16
 Department Chair Date

[Signature] 11/11/16
 Chair, College Curriculum Committee Date

[Signature] 11/11/16
 College Dean Date

Director, Calhoun Honors College
[Signature] 12/2/2016
 Chair, Undergraduate Curriculum Committee Date

Chair, Graduate Curriculum Committee
[Signature] 2/6/17
 Provost Date

President Date

000030

Add 4000/6000 Course

Course Attributes

Subject Abbreviation: WFB-Wildlife and Fish Biology
Course Number: 4700 / 6700
Effective Term: Spring 2018
College: Agric, Forestry and Life Sci
Department: Forestry & Environmental Con
Catalog Title: Human Dimensions of Fisheries and Wildlife Management and Conservation
Transcript Title: Human Dimensions of Wildlife
Cross-reference(s):
Grade Mode: Standard Letter

Additional Fee?

Justification

Human Dimensions is an actively growing discipline in wildlife and fisheries sciences, and one which our WFB curriculum currently does not address. To date, this course has only been offered once (summer 2013) in an online format. This request to create a course would result in this course being offered on an annual basis.

Form

User ID: slrodri **Name:** Shari Rodriguez
Date: 11/11/2016 **Number:** 26685

Hours

Fixed Credit Course
Credit Hrs Contact Hrs

3 3

Variable Credit Course
Credit Hrs Contact Hrs
Min Max Min Max

Rationale for Add Course

- Strengthen Program Requirement(s)
- Alignment of Student Learning Outcomes
- Alternative Delivery of Content
- Improve Time to Degree
- Evolution of the Discipline
- Changing Prerequisites
- Address DWF Rates
- General Education Modifications
- Other (Please specify.)

Schedule Types

- Field Course
- Independent Study
- Internship
- Lab No Fee
- Lab With Fee
- Lecture
- Other
- Seminar
- Studio
- Tutorial

General Education

- English Composition
- Oral Communication
- Mathematics
- Natural Science w/Lab
- Math or Natural Science
- A&H (Literature)
- A&H (Non-Literature)
- Social Science
- CCA
- STS

Projected Enrollment

Year 1: 50
Year 2: 50
Year 3: 50
Year 4: 50

**Evaluation**

4000

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F < 60

Midterm (20%), Final (20%), Class Participation (30%), Class Project (30%)

Undergraduate students will collect data, conduct the appropriate analyses, report findings, and reflect on the process.

6000

A 90 - 100

B 80 - 89

C 70 - 79

F < 70

Midterm (15%), Final (15%), Class Participation (20%), Class Project (50%)

Graduate students will have project coordination responsibilities in addition to the same responsibilities that the undergraduate students will have.

Catalog Description

We will examine and study human interactions with wildlife and fisheries, including social principles important for understanding and addressing wildlife management and conservation challenges. We will discuss quantitative and qualitative social research methods, popular views of wildlife, stakeholder involvement, changing environmental behavior, and human attitudes towards hunting and fishing.

Prerequisite(s) **Corequisite(s)**

WFB 3130

Junior standing

Statement of need and justification based on assessment of student learning outcomes

Nearly every wildlife program in the US has a human dimensions of wildlife course. As natural resources, including habitat, becomes more limited, humans and wildlife will increasingly come into conflict for those resources. As such, it is imperative that wildlife professionals have a foundational understanding of the social aspects of conservation and management, as well as an understanding of how to approach, assess and address human wildlife interactions and conflicts.

Textbook(s)

No textbooks are required. Reading material will primarily be scientific literature.

Learning Objectives

Upon completing this course, students will be able to:

1. Describe and apply basic models explaining interactions between humans and wildlife
2. Interpret and analyze how human behaviors impact wildlife
3. Critically evaluate the human dimensions research
4. Apply knowledge of these human dimensions in deriving solutions to wildlife management interactions and conflicts
5. Conduct qualitative and/or quantitative social science research

Topical Outline

Week 1:

What is human dimensions of wildlife and fisheries and where did it come from?

Week 2:

Popular views of wildlife and nature

Research preparation and background

Week 3:

Why do humans threaten wildlife and fisheries conservation?

Decision making—stakeholder involvement

Week 4:

Methods—Qualitative 1

Methods—Quantitative 1

Week 5:

Methods—Quantitative 2

Thinking in Terms of Human-Natural Systems

000157

Week 6:
Human Wildlife Interactions and Conflict

Week 7:
Power and Politics in Wildlife Conservation

Week 8:
Spring Break

Week 9:
Conservation Psychology
Wildlife Communication/Environmental Communication

Week 10:
Dispute Resolution

Week 11:
Public Trust and the North American Model of Wildlife Management

Week 12:
Methods—Quantitative 3: Data analysis
Decision making—Democracy and the Land Community

Week 13:
Risk perception: Whose reality counts?
Hunting ethics

Week 14:
Fishing ethics
Applying Human Dimensions Insights into Wildlife Management

Week 15:
Changing environmental behavior (Environmental Advocacy)
Wildlife Education and Environmental Education

Duplication (if applicable)
n/a

Add course requirements for honors courses (if applicable)
n/a

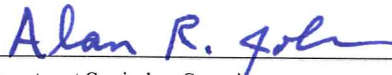
Add course requirements for 6000-level courses
n/a

Learning Activities associated with General Education competencies (if applicable)
n/a

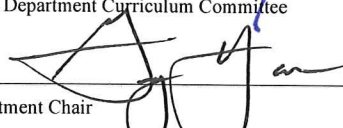
Syllabus

Upload File: [Rodriguez proposed HDW Syllabus Spring 2017 WFB 4700 and 6700 for submission-20161111105003.pdf](#)

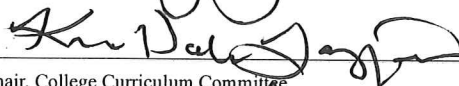
Description: WFB 4700/6700 syllabus



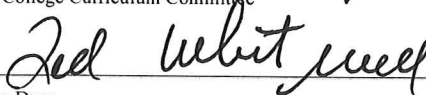
 Chair, Department Curriculum Committee 11/11/16
 Date



 Department Chair 11/11/16
 Date



 Chair, College Curriculum Committee 11/11/16
 Date



 College Dean 11/11/16
 Date

Director, Calhoun Honors College

000184
Date

John D. Staff
Chair, Undergraduate Curriculum Committee

12/2/2016
Date

Chair, Graduate Curriculum Committee

Date

Robert S. Jones
Provost

2/6/17
Date

President

Date

Change 4000/6000 Course

Change a Course

Subject: BIOL-Biology

Number: 4720/6720

Effective Term: Fall 2017

Title:

Honors Course:

Add Honors Course:

Last Term Course was taught: 201101

Brief Statement of Change Based on Assessment Results:

This course is no longer taught in the Department of Biological Sciences and has been transferred to the Department of Forestry and Environmental Conservation.

Rationale for Changing a Course

- Strengthen Program Requirement(s)
- Alignment of Student Learning Outcomes
- Alternative Delivery of Content
- Improve Time to Degree
- Evolution of the Discipline
- Changing Prerequisites
- Address DWF Rates
- General Education Modifications
- Other (Please specify.)

Transfer from BIOL to WFB

Change Subject

To WFB-Wildlife and Fish Biology

Change College

From Science

To Agric, Forestry and Life Sci

Learning Objectives

1. Survey the evolutionary history of birds and their dinosaurian relatives
2. Learn about the systematic diversity of living birds
3. Examine the anatomy of birds with an emphasis on locomotion, reproduction and structures associated with communication
4. Become familiar with the ecology and behavior of birds
5. Become proficient at identifying, by sight and call, bird species common to SC
6. Learn to effectively use field guides and binoculars to identify birds in the field

Topical Outline

Week 1: Course introduction and the evolution of birds and other dinosaurs
 Week 2: Characteristics of birds; naming and classification
 Week 3: Feathers, Flight, Physiology, and Senses
 Week 4: Vocalizations and Exam 1
 Week 5: Birds of SC and field observation of birds (field trip to SC Botanical Garden)
 Week 6: The avian musculoskeletal system (dissections)
 Week 7: Avian organ systems (dissections)
 Week 8: Preserving specimens for museum study (dissections) and Mid-term Exam
 Week 9: Fall Break
 Week 10: Avian reproduction
 Week 11: Avian neuroanatomy and cognition
 Week 12: Feeding specializations and Anatomy Exam
 Week 13: Mates, mate choice and sexual selection
 Week 14: Migration and navigation
 Week 15: Issues in Avian Ecology and Conservation (guest lecture by J.D. Lanham)

Add course requirements for 6000-level courses

Research paper worth 20% of final grade

Evaluation

4000	6000
A 90 - 100	A 90 - 100
B 80 - 89	B 80 - 89
C 70 - 79	C 70 - 79

000186

D 60 - 69	F < 70		
F < 60		Lecture Exam 1	= 15 points
Lecture Exam 1	= 25 points	Mid-term Exam	= 15 points
Mid-term Exam	= 25 points	Anatomy Exam	= 25 points
Anatomy Exam	= 25 points	Final Exam	= 25 points
Final Exam	= 25 points	Research Paper	= 20 points

SyllabusUpload File: [OrnithologySyllabus-20161027132823.docx](#)**Form**

User ID: ykanno **Name:** Yoichiro Kanno
Date: 11/11/2016 **Number:** 27335

<i>Alan R. John</i>	<i>11/11/16</i>
Chair, Department Curriculum Committee	Date
<i>[Signature]</i>	<i>11/11/16</i>
Department Chair	Date
<i>[Signature]</i>	<i>11/11/16</i>
Chair, College Curriculum Committee	Date
<i>[Signature]</i>	<i>11/11/16</i>
College Dean	Date
Director, Calhoun Honors College	Date
<i>[Signature]</i>	<i>12/2/2016</i>
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
<i>[Signature]</i>	<i>2/10/17</i>
Provost	Date
President	Date

Change 4000/6000 Course

Change a Course

Subject: BIOL-Biology
Number: 4721/6721
Effective Term: Fall 2017
Title:
 Honors Course:
 Add Honors Course:
Last Term Course was taught: 999999

Brief Statement of Change Based on Assessment Results:
 This course is no longer taught in the Department of Biological Sciences and has been transferred to the Department of Forestry and Environmental Conservation.

Rationale for Changing a Course

Strengthen Program Requirement(s)
 Alignment of Student Learning Outcomes
 Alternative Delivery of Content
 Improve Time to Degree
 Evolution of the Discipline
 Changing Prerequisites
 Address DWF Rates
 General Education Modifications
 Other (Please specify.)
 Transfer from BIOL to WFB

Change Subject

To WFB-Wildlife and Fish Biology

Change College

From Science
To Agric, Forestry and Life Sci

Learning Objectives

1. Survey the evolutionary history of birds and their dinosaurian relatives
2. Learn about the systematic diversity of living birds
3. Examine the anatomy of birds with an emphasis on locomotion, reproduction and structures associated with communication
4. Become familiar with the ecology and behavior of birds
5. Become proficient at identifying, by sight and call, bird species common to SC
6. Learn to effectively use field guides and binoculars to identify birds in the field

Topical Outline

Week 1: Course introduction and the evolution of birds and other dinosaurs
 Week 2: Characteristics of birds; naming and classification
 Week 3: Feathers, Flight, Physiology, and Senses
 Week 4: Vocalizations and Exam 1
 Week 5: Birds of SC and field observation of birds (field trip to SC Botanical Garden)
 Week 6: The avian musculoskeletal system (dissections)
 Week 7: Avian organ systems (dissections)
 Week 8: Preserving specimens for museum study (dissections) and Mid-term Exam
 Week 9: Fall Break
 Week 10: Avian reproduction
 Week 11: Avian neuroanatomy and cognition
 Week 12: Feeding specializations and Anatomy Exam
 Week 13: Mates, mate choice and sexual selection
 Week 14: Migration and navigation
 Week 15: Issues in Avian Ecology and Conservation (guest lecture by J.D. Lanham)

Add course requirements for 6000-level courses

Research paper worth 20 points towards final grade

Evaluation

4000		6000	
A	90 - 100	A	90 - 100
B	80 - 89	B	80 - 89
C	70 - 79	C	70 - 79

D 60 - 69	F < 70
F < 60	Anatomy Exam = 25 points
Anatomy Exam = 25 points	Research Paper = 20 points

Syllabus
Upload File: [OrnithologySyllabus-20161027133504.docx](#)

Form
User ID: ykanno **Name:** Yoichiro Kanno
Date: 11/11/2016 **Number:** 27338

<i>Alan R. John</i>	<i>11/11/16</i>
Chair, Department Curriculum Committee	Date
<i>[Signature]</i>	<i>11/11/16</i>
Department Chair	Date
<i>[Signature]</i>	<i>11/11/16</i>
Chair, College Curriculum Committee	Date
<i>[Signature]</i>	<i>11/11/16</i>
College Dean	Date
Director, Calhoun Honors College	Date
<i>[Signature]</i>	<i>12/2/2016</i>
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
<i>[Signature]</i>	<i>2/6/17</i>
Provost	Date
President	Date

Change 4000/6000 Course

Change a Course

Subject: BIOL-Biology
Number: 4770/6770
Effective Term: Fall 2017

Title:

Honors Course:

Add Honors Course:

Last Term Course was taught: 200908

Brief Statement of Change Based on Assessment Results:

This course is no longer taught in the Department of Biological Sciences and has been transferred to the Department of Forestry and Environmental Conservation

Rationale for Changing a Course

- Strengthen Program Requirement(s)
- Alignment of Student Learning Outcomes
- Alternative Delivery of Content
- Improve Time to Degree
- Evolution of the Discipline
- Changing Prerequisites
- Address DWF Rates
- General Education Modifications

Other (Please specify.)

Moving from BIOL to WFB

Change College

From Science

To Agric, Forestry and Life Sci

Learning Objectives

1. Describe and discuss the major groups of freshwater fishes and the characteristics that distinguish them
2. Demonstrate understanding of the diversity and systematics of fishes, and
3. Identify freshwater fishes to the species level

Topical Outline

Week	Topic
1	Ichthyology and broad systematics
2	Oxygen, metabolism, and energetics
3	Homeostasis and sensory
4	Functional morphology of locomotion and feeding
5	Reproduction
6	Early life history
7	Skeleton, skin, and scales
8	Soft anatomy
9	Midterm review and exam
10	Extinct groups and jawless fishes
11	Chondrichthys: cartilaginous fishes
12	Teleosts: true bony fishes
13	Biogeography
14	Specialized adaptations
15	Ecology and behavior
16	Final examinations

Add course requirements for 6000-level courses

In addition to course activities, graduate students will complete:

1. An independent taxonomic fish collection
2. Additional writing assignments

Evaluation

4000	6000
A 90 - 100	A 90 - 100
B 80 - 89	B 80 - 89

C 70 - 79	C 70 - 79
D 60 - 69	F < 70
F < 60	Exams: 25%
Exams: 50%	Regular quizzes: 25%
Regular quizzes: 25%	Writing and other assignments: 25%
Writing and other assignments: 25%	Fish collection and term paper: 25%

Syllabus
Upload File: [Syllabus Ichthyology \(WFB 4770\)-20161017112623.doc](#)

Form
User ID: peoples **Name:** Brandon Peoples
Date: 10/27/2016 **Number:** 26714

<i>Alan R. John</i>	<i>10/28/16</i>
Chair, Department Curriculum Committee	Date
<i>Jay Jan</i>	<i>10/28/16</i>
Department Chair	Date
<i>Kim Dan Zagar</i>	<i>11/11/16</i>
Chair, College Curriculum Committee	Date
<i>Red Whitman</i>	<i>11/11/16</i>
College Dean	Date
Director, Calhoun Honors College	Date
<i>John D. Hill</i>	<i>12/2/2016</i>
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
<i>Robert S. Jones</i>	<i>2/6/17</i>
Provost	Date
President	Date

Change 4000/6000 Course

Change a Course

Subject: BIOL-Biology

Number: 4771/6771

Effective Term: Fall 2016

Title:

Honors Course:

Add Honors Course:

Last Term Course was taught: 999999

Brief Statement of Change Based on Assessment Results:

This course is no longer taught in the Department of Biological Sciences and has been transferred to the Department of Forestry and Environmental Conservation.

Rationale for Changing a Course

- Strengthen Program Requirement(s)
- Alignment of Student Learning Outcomes
- Alternative Delivery of Content
- Improve Time to Degree
- Evolution of the Discipline
- Changing Prerequisites
- Address DWF Rates
- General Education Modifications
- Other (Please specify.)

See above

Change Subject

To WFB-Wildlife and Fish Biology

Change College

From Science
To Agric, Forestry and Life Sci

Change Schedule Type

From	To
<input type="radio"/> Field Course	<input type="radio"/> Field Course
<input type="radio"/> Independent Study	<input type="radio"/> Independent Study
<input type="radio"/> Internship	<input type="radio"/> Internship
<input checked="" type="radio"/> Lab No Fee	<input type="radio"/> Lab No Fee
<input type="radio"/> Lab With Fee	<input checked="" type="radio"/> Lab With Fee
<input type="radio"/> Lecture	<input type="radio"/> Lecture
<input type="radio"/> Other	<input type="radio"/> Other
<input type="radio"/> Seminar	<input type="radio"/> Seminar
<input type="radio"/> Studio	<input type="radio"/> Studio
<input type="radio"/> Tutorial	<input type="radio"/> Tutorial

Learning Objectives

This course covers the systematics, morphology, physiology, biogeography, and identification of fishes. Having successfully completed this course, you will be able to:

1. Describe and discuss the major groups of freshwater fishes and the characteristics that distinguish them
2. Demonstrate understanding of the diversity and systematics of fishes, and
3. Identify freshwater fishes to the species level

Topical Outline

Week	Topic
1	Introduction, higher orders of fishes, basic morphology
2	Lamprey dissection
3	Shark dissection
4	Review & lab practical 1
5	Petromyzontidae through Anguillidae
6	Clupeidae and Ictaluridae, Lab practical 2
7	Salmonidae and Moronidae
8	Centrarchidae and field trip 1
9	Lab practical 3 and Esocidae
10	Atherinopsidae, Umbriidae, Elasmobranchidae
11	Fundulidae and Poeciliidae, Lab practical 3
12	Catostomidae and Cyprinidae

13	Cyprinidae
14	Field trip 2 and lab practical 4
15	Percidae and Cottidae,
16	Review and final lab practical

Add course requirements for 6000-level courses

In addition to the requirements listed above, graduate students will complete an additional writing assignment to complete the lecture portion of this course. This assignment will cover some aspect of the course material—from biogeography, to taxonomy, or some species-specific issue. Topics will be pre-approved by the instructor before fall break. Graduate students will conduct an independent fish collection to satisfy the lab portion of the course. Students will be provided a list of species to collect, as well as all materials necessary.

Evaluation

4000	6000
A 90 - 100	A 90 - 100
B 80 - 89	B 80 - 89
C 70 - 79	C 70 - 79
D 60 - 69	F < 70
F < 60	Lab quizzes: 30%
Lab quizzes: 30%	Lab practical exams: 50%
Lab practical exams: 70%	Fish collection project: 20%

Syllabus

Upload File: [WFB 4770_6770 Syllabus-20161025152750.doc](#)

Form

User ID: ykanno **Name:** Yoichiro Kanno
Date: 10/26/2016 **Number:** 27187

<i>Alan R. John</i>	<i>10/28/16</i>
Chair, Department Curriculum Committee	Date
<i>[Signature]</i>	<i>10/28/16</i>
Department Chair	Date
<i>[Signature]</i>	<i>11/11/16</i>
Chair, College Curriculum Committee	Date
<i>[Signature]</i>	<i>11/11/16</i>
College Dean	Date
Director, Calhoun Honors College	Date
<i>[Signature]</i>	<i>12/2/2016</i>
Chair, Undergraduate Curriculum Committee	Date
Chair, Graduate Curriculum Committee	Date
<i>[Signature]</i>	<i>2/6/17</i>
Provost	Date
President	Date

Change Major

If Gen Ed requirements are changed a separate Gen Ed Checklist form must accompany this form.

Major Name: Wildlife and Fish Biol
Degree: Bachelor of Science
Effective Catalog Year: 2017-2018
 Change Major Name to: WFB **Curriculum Map:** WFB Curriculum Map-revised-Oct2016-20161028114801.docx
 Change Degree to: Bachelor of Science **Description:** proposed 2017-2018 Curriculum Map
 Change Curriculum Requirements **Additional Information:** Proposed Change to WFB Curriculum Map-20161028114801.docx
 Change General Education Requirements **Description:** reason for curriculum map change
 Add, Change, or Delete Concentration(s)
 Add, Change, or Delete Emphasis Area(s)

Summary/Explanation

The Curriculum Map is changed to reflect the proposed change to required course WFB 4160, which will change title from Fishery Biology to Fisheries Techniques, and increase from 3 to 4 credit hours.

Rationale for Change Major

- Strengthen Program Requirement(s)**
- Alignment of Student Learning Outcomes**
- Alternative Delivery of Content**
- Improve Time to Degree**
- Evolution of the Discipline**
- Changing Prerequisites**
- Address DWF Rates**
- General Education Modifications**
- Other (Please specify.)**

Form

User ID: alanj **Name:** Alan Johnson
Date: 10/28/2016 **Number:** 27397

Alan R. Jones

10/28/16

Chair, Department Curriculum Committee

Date

[Signature]

10/28/16

Department Chair

Date

[Signature]

11/11/16

Chair, College Curriculum Committee

Date

[Signature]

11/11/16

College Dean

Date

Director, Calhoun Honors College

[Signature]

12/2/2016

Date

Chair, Undergraduate Curriculum Committee

Date

Chair, Graduate Curriculum Committee

Date

[Signature]

2/6/17

Provost

Date

President

Date

Wildlife and Fisheries Biology				Proposed 2017-18	
Freshman Year					
First Semester			Second Semester		
BIOL 1030	General Biology I	3	BIOL 1040	General Biology II	3
BIOL 1050	General Biology Lab. I	1	BIOL 1060	General Biology Lab. II	1
CH 1010	General Chemistry	4	CH 1020 OR PHYS 2000	General Chemistry Introductory Physics	4 4
ENR 1010	Intro to Environment & Natural Resources	1	ENGL 1030	Accelerated Composition	3
MATH 1020	Intro. to Mathematical Analysis	3	STAT 2300	Statistical Methods I	3
Oral Communication Requirement ¹		3	Elective		1
Semester Hours: 15			Semester Hours: 15		
Sophomore Year					
First Semester			Second Semester		
FNR 2040 or PES 2020	Soil Information Systems or Soils	4	GEN 3000	Fundamental Genetics	3
FOR 2050	Dendrology (make sure if you take section 1 of lecture, you have to have section 2 of LAB and etc.	2	AGRB 2020 OR ECON 2110	Natural Resources, Environment & Economics or Principles of Microeconomics	3
FOR 2210	Forest Biology	3	FOR 2060	Forest Ecology	3
WFB 3000	Wildlife Biology	3	WFB 3500	Principles of Fish & Wildlife Biology	3
WFB 3010	Wildlife Biology Laboratory	1	Social Science Requirement ¹		3
Arts and Humanities (Non-Lit.) Requirement ¹		3	Semester Hours: 15		
Semester Hours: 16					
Junior Year					
First Semester			Second Semester		
BIOL 3200	Field Botany	4	WFB 3130	Conservation Biology	3
ENGL 3140	Technical Writing	3	WFB 4120	Wildlife Management	3
BIOL 3030	Vertebrate Biology	3	WFB 4160	Fishery Biology Fisheries Techniques	3 4
WFB 4100	Wildlife Management Techniques	3	WFB 4620	Wetland Wildlife Biology	3
Arts and Humanities (Lit.) Requirement ¹		3	Approved Requirement	Select from departmental approved list	3
Semester Hours: 16			Semester Hours: 15 16		
Senior Year					
First Semester			Second Semester		
	Approved Requirement ²	3	FNR 4990	Natural Resources Seminar	1
AVS 3010	Anat. & Phys. of Domestic Animals	4	WFB 4300	Wildlife Conservation Policy	3
FOR 4340	GIS for Landscape Planning	3	Approved Requirement ²		6
			Policy and Law Requirement ²		3
Approved Requirement ²		6	Semester Hours: 13		
Semester Hours: 16					

421-122 Total Semester Hours

¹ See General Education Requirements. Three of these credit hours must also satisfy the Cross-Cultural Awareness Requirement; three credits must also satisfy the Science and Technology in Society Requirement

(Note: Social Science Requirement must be in an area other than economics or applied economics.)

² Select from department-approved list.

Wildlife and Fisheries Biology (Continued)

Approved Requirements for Wildlife and Fisheries Biology						
APEC 4750	Wildlife Economics & Policy	3		BIOL 4720	Ornithology	4
AGM 3010	Soil and Water Conservation	3		BIOL 4770	Ichthyology	3
BIOL 3020, H3020	Invertebrate Biology	3		BIOL 4860	Natural History	3
BIOL 3060	Invertebrate Biology Laboratory	1		AGRB 3570	Natural Resources Economics	3
BIOL 3070	Vertebrate Biology Laboratory	1		ENR 4130	Restoration Ecology	3
BIOL 4100, 6100	Limnology	3		ENR 4290	Environmental Law	3
BIOL 4110	Limnological Analyses Lab	2		ENR 4500, 6500	Conservation Issues	3
BIOL 4170	Marine Biology	3		ENT 3000	Environmental Entomology	3
BIOL 4420, H4420, 6420	Biogeography	3		ENT (WFB) 4690	Aquatic Insects	3
BIOL 4430	Freshwater Ecology	3		FNR 4660	Stream Ecology	3
BIOL 4750	Comparative Physiology	3		-FOR 4060	Forested Watershed Mgt.	2
BIOL 4760	Comparative Physiology Lab	2		FOR 4150	Forest Wildlife Mgt.	3
BIOL 4640	Mammalogy	3		FOR 4160	Forest Policy and Administration (also satisfies the STS requirement)	3
BIOL 4680	Herpetology	3		FOR 4330	GPS Applications	3
BIOL 4700	Animal Behavior	3		WFB 4150	Quality Deer Management	
BIOL 4710	Animal Behavior Laboratory	1				
For students considering "AFS" Certification which requires 15 hours of Physical Sciences:						
GEOL 1010 AND GEOL 1030	Physical Geology Physical Geology Lab	3 1	OR	PHYSICS 2000+2001	Introductory Physics + Lab	4
Approved Requirements for Policy and Law (PAL) ¹						
APEC 4750	Economics of Wildlife Management	3		FOR 4160	Forest Policy and Administration (also satisfies the STS requirement)	3
AGRB 3570	Natural Resources Economics	3		WFB 4300	Wildlife Conservation Policy	3
ENR 4290	Environmental Law and Policy	3				
ENR 4500	Conservation Issues	3				
¹ (as long as not used to fill another requirement in curriculum)						

Note: Any 3000 or 4000 level WFB course counts as an Approved Requirement if it is not used to meet another requirement in the curriculum.

Change Undergraduate Course

Change a Course		Rationale for Changing a Course	
Subject:	FDESC-Food Science	<input checked="" type="checkbox"/> Strengthen Program Requirement(s)	
Number:	4040	<input type="checkbox"/> Alignment of Student Learning Outcomes	
Effective Term:	Fall 2017	<input type="checkbox"/> Alternative Delivery of Content	
Title:	Food Prsv & Process	<input type="checkbox"/> Improve Time to Degree	
Honors Course:		<input type="checkbox"/> Evolution of the Discipline	
<input type="checkbox"/> Add Honors Course:		<input type="checkbox"/> Changing Prerequisites	
Last Term Course was taught:	201605	<input type="checkbox"/> Address DWF Rates	
Brief Statement of Change Based on Assessment Results: course content and description is more aligned with the Institute of Food Technologist curriculum approval		<input type="checkbox"/> General Education Modifications	
		<input type="checkbox"/> Other (Please specify):	

Change Catalog Description

From: Principles of food preservation applied to flow processes, ingredient functions, and importance of composition and physical characteristics of foods related to their processing; product recalls and product development concepts.
 To: Principles of food preservation applied to canning, dehydration, freezing, fermentation, irradiation, packaging, additives and extrusion, and the importance of plant sanitation and water treatment.

Learning Objectives

- Understand the difference between food intoxication and food infection, sporeformers and nonsporeforming microorganism, and how that affects the type of food process you employ.
- Be able to explain how each type of food processing employed acts to preserve the food.
- Understand the role and importance of equipment cleaning and sanitation for all types of food processes with an emphasis on biofilm removal.
- Be able to identify and explain the preservation hurdles employed for the production of a safe food product and the different processes, packaging, and additives applied.
- Know some solid and liquid waste streams produced by food processing and how each stream can be treated.

Topical Outline

Principles of food preservation applied to canning, dehydration, freezing, fermentation, irradiation, packaging, additives and extrusion, and the importance of plant sanitation and water treatment.

Evaluation

Undergraduate

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	< 60

Four tests each worth 100 points and 50 points for participating in class discussion questions

Syllabus

Upload File: [FDSC 4040 6040 Syllabus Fall 2016-20160927092436.pdf](#)

Form

User ID: pometto Name: Anthony Pometto
 Date: 09/29/2016 Number: 25583

000207

10/26/16

Date

Chair, Department Curriculum Committee

10/26/16

Date

Department Chair

11/11/16

Date

Chair, College Curriculum Committee

11/11/16

Date

College Dean

Director, Calhoun Honors College

Date

12/2/2016

Date

Chair, Undergraduate Curriculum Committee

Chair, Graduate Curriculum Committee

Date

2/6/17

Date

Provost

President

Date

Ann C Perez

From: Matthew Klein
Sent: Monday, November 14, 2016 2:58 PM
To: Rhonda Todd
Cc: Ann C Perez
Subject: Re: DECEMBER UNDERGRADUATE CURRICULUM AGENDA ITEMS DUE TODAY
Attachments: ENTR Course Proposals for December UCC Meeting; ENTR - Chad Navis (Spiro Professor) Prepared Remarks.pdf; ENTR 1090 - Creative Inquiry in Entrepreneurship - SIGNED v2.pdf; ENTR 2010 - Special Topics in Entrepreneurship - SIGNED v2.pdf; ENTR 2010 - Special Topics Syllabus - Entrepreneurship in Japan.pdf; ENTR 2020 - Internship in Entrepreneurship - SIGNED v2.pdf

Hi Rhonda,

I just wanted to confirm that you have us on the agenda. I've been thinking of you and praying for a speedy recovery.

Take care,
 Matt

--

Dr. Appling

We appreciate your help and support. As discussed in the November UCC meeting, the form modifications have been updated for the December UCC meeting. If we have any other inadvertent omissions and/or errors, we would appreciate heads up before the December UCC meeting deadline.

ENTR 1090 - Creative Inquiry in Entrepreneurship

Typo: Statement of need and justification based on assessment of student learning outcomes

ENTR 2010 - Special Topics in Entrepreneurship

Variable Course Title (check box)

Exemplar of evaluation scheme

Sample Syllabus

ENTR 2020 - Internship in Entrepreneurship

Exemplar of evaluation scheme

--

Submissions for December UCC Meeting

1. ENTR - Chad Navis (Spiro Professor) Prepared Remarks
2. ENTR 1090 - Creative Inquiry in Entrepreneurship - SIGNED v2
3. ENTR 2010 - Special Topics in Entrepreneurship - SIGNED v2
4. ENTR 2010 - Special Topics Syllabus - Entrepreneurship in Japan
5. ENTR 2020 - Internship in Entrepreneurship - SIGNED v2

Thank you
 Matt

Matthew C. Klein

Arthur M. Spiro Institute for Entrepreneurial Leadership
Clemson University
1 North Main St.
Greenville, SC 29601
Phone: 843-327-8451
Email: mcklein@clemson.edu

000204

From: Rhonda Todd <RTODD@clemson.edu>

Date: Monday, November 14, 2016 at 7:58 AM

To: Andrew Levin <alevin@clemson.edu>, Becky Pearson <pbecky@clemson.edu>, BLAKE SNIDER <sniderb@clemson.edu>, Bruce Whisler <bwhisle@clemson.edu>, Calvin Becker <bcalvin@clemson.edu>, Cameron Bushnell <cbushne@clemson.edu>, C Cooper <COOPER2@clemson.edu>, Carol Pelletier <pelleti@clemson.edu>, Cecelia Hamby <rceceli@clemson.edu>, Chad Sosolik <sosolik@clemson.edu>, Christopher Kitchens <ckitche@clemson.edu>, Christopher Vinson <vinsonc@clemson.edu>, Dale Layfield <dlayfie@clemson.edu>, Dana Simpson <daberna@clemson.edu>, Daniel Wueste <ernest@clemson.edu>, David Knox <knox2@clemson.edu>, Debbie Wright <debbiew@clemson.edu>, Debra Sparacino <dcspara@clemson.edu>, Donna Barrett <dbarret@clemson.edu>, Hugh Spitler <hspitle@clemson.edu>, Jack Wolf <jackw@clemson.edu>, Jeffrey Appling <japplin@clemson.edu>, Jessica Martin <jessicm@clemson.edu>, "John D. Griffin" <docg@clemson.edu>, "John M. Coggeshall" <raucus@clemson.edu>, "Joseph Wilson - Clemson University (jrw6@clemson.edu)" <jrw6@clemson.edu>, "Lee A. Crandall" <LAC@clemson.edu>, Leland Dunwoodie <ldunwoo@clemson.edu>, Matthew Klein <mcklein@clemson.edu>, Michael Sehorn <msehorn@clemson.edu>, Melinda Spearman <mjspear@clemson.edu>, Pamela Dunston <pdunsto@clemson.edu>, Pamela Mack <pammack@clemson.edu>, Paula Agudelo <pagudel@clemson.edu>, Penelope W Brunner <pbrunne@clemson.edu>, Reagan Blondeau <bregan@clemson.edu>, Rhonda Todd <RTODD@clemson.edu>, RITA SUMNER <rsumner@clemson.edu>, Robert Kosinski <rjksn@clemson.edu>, Robert Silance <silancr@clemson.edu>, Robert Wilmott <rwilmot@clemson.edu>, Roger Gomes <rgomes@clemson.edu>, Shannon Clark <clark4@clemson.edu>, Tracy L Dodson <tlodso@clemson.edu>, William Lasser <lasser@clemson.edu>

Cc: Ann C Perez <acperez@clemson.edu>

Subject: DECEMBER UNDERGRADUATE CURRICULUM AGENDA ITEMS DUE TODAY

Good morning,

I wanted to remind everyone that December UCC agenda items are due today. I am still out of the office this week, but my student workers are helping me by bringing work to my home, so please make sure everything is turned in in a timely manner to avoid confusion later. I am back on email this week, but it may take a while to respond since I have occupational therapist and nurses in and out of my home right now.

Thank you in advance for your patience and help during this recovery time! This committee has truly become part of my work family.

All smiles,
Rhonda
Rhonda Todd
Administrative Coordinator
Vice Provost and Dean of Undergraduate Studies
E101 Martin Hall
Clemson, SC 29634
rtodd@clemson.edu
P 656-3942
F 656-1363

Prepared comments: Chad Navis for UCC meeting

After the September UCC meeting, at which time the entrepreneurship faculty in the Management Department expressed some reservations about the ENTR proposals that were being presented, Matt Klein and I were asked to work through these differences before returning with any proposals. Since then, Matt and I have been working closely together to identify a set of ENTR proposals that are consistent with the mission, goals, and distinct capabilities of the Spiro Institute, and which the entrepreneurship faculty in the Management Department can also support. The ENTR proposals being presented today represent the culmination of this effort.

Before summarizing two of the more noteworthy of these proposals along with some general governance considerations, I want to first highlight some of the key criteria that my entrepreneurship faculty colleagues in the Management Department have been using to evaluate these proposals. Namely, that these curricular offerings are:

- Appropriate for Freshman- and Sophomore-level, interdisciplinary students.
- Sufficiently rigorous and valuable to our students.
- Appropriately governed to safeguard the quality of the offerings, now and in the future.
- Structured to support, rather than detract from, our own entrepreneurship minor and emphasis area curriculum and programs.

In my view, all of these criteria have been met.

ENTR 1090: Creative Inquiry

Regarding the proposed Creative Inquiry course, my colleagues and I sought details on the nature of past Spiro-guided CIs along with expectations for future CIs. We learned that the plan is to only continue with the 1 credit hour “How to Start a Startup” course, which is currently offered under the course number MGMT 2970. Five key facets of this proposal explain our group’s ability to support it:

- First, the CI committee carefully governs all CIs on campus (e.g., through proposal requirements each semester and ongoing monitoring and reporting). This gives us some comfort about the nature and rigor of any such offerings.
- Second, the one credit nature of this course makes it unlikely to sufficiently duplicate any of the material in our Entrepreneurship Minor or Emphasis Area. A review of past syllabi confirms this.
- Third, and building on the above point, and speaking to the implications of this and other ENTR courses for our own ELE offerings and programs, many of the non-business students who pursue these CIs either may be less naturally inclined or able to pursue our offerings or are likely to be more encouraged to do so after exposure to an early-level ENTR course.
- Fourth, changing this CI from a MGMT designation to an ENT one not only better reflects the content of the CI, but it also better reflects the faculty responsible for it.
- Finally, the above change also removes the administrative burden of managing the funds from these CI projects out of our department.

ENTR 2010: Special Topics in Entrepreneurship

Regarding the proposed special topics course, my colleagues and I gave particular scrutiny to this proposal. Such a course is consistent with some of the “one-off” opportunities that may uniquely flow through the Spiro Institute, and it also has the benefit of preventing a proliferation of new and specialized ENTR courses from going and remaining on the books (like the ENTR 1020, 1030, and 1040 courses that we have requested to be removed). This was an important concern of ours. A greater number of ENTR courses not only dilute the presence of our own ELE courses, Entrepreneurship

Minor (for non-business students), and Entrepreneurship Emphasis Area (for business students), but it also creates added administrative complexity and confusion for students and advisors. In contrast, with an ENTR special topics course, we have been assured that there will never be more than 4 ENTR courses on the books in total (those reflected in the current proposals, along with ENTR 1010). We anticipate that this limited scope also has pedagogical benefits—enhancing the potential for Spiro instructors to execute exceptionally well on these given courses.

We also inquired on the specifics of the first of the anticipated special topics courses to be offered. We learned that the course is one that will take approximately 20 students, all expenses paid, to Japan over spring break. It will cover “Japanese Entrepreneurship” in the context of the companies the students will be visiting. The instructor, John Hannon, speaks Japanese and helped secure sponsorship for the course from the Japanese government. Moreover, my colleagues and I find assurances in the fact that the course is being arranged in conjunction with Sallie Turnbull, our International Programs Coordinator, and the study abroad office. The "Japanese Entrepreneurship" course will only happen once and is similar to the faculty-directed programs that the study abroad office arranges. These experiences are typically associated with credit in particular Clemson courses. As such, if the special topics course was approved, it would allow "Japanese Entrepreneurship" to be the name of the course for this given semester iteration, where students would be given course credit based on their participation in this course experience abroad.

Finally, any future special topics—beyond this particular one—would be brought before the ENTR curriculum committee on a case-by-case basis. This committee is comprised of faculty from other colleges. As Chair of this committee, I intend to assure that any future special topic course offerings satisfy the same criteria outlined earlier (e.g., level-appropriate, sufficient rigor and value, required governance, and compatibility with other campus courses/programs).

General Governance Considerations

I want to conclude by outlining some of the governance considerations that played into our assessment of these courses. These considerations stemmed from the fact that curriculum-related matters pertaining to an institute—versus a traditional department—sometimes tread into ambiguous, uncharted waters. One of our concerns was that the original ENTR committee was self-appointed, based on faculty in various colleges that had interests, experiences, and/or research connections to entrepreneurship. Going forward, however, membership on this committee will be based on appointments by their college, consistent with the faculty manual. Another concern we had pertained to the evaluation process for instructors teaching the ENTR courses. Here, too, we have better assurances now around this process. The processes outlined in the faculty manual are being adhered to, and I have recently agreed to chair the TPR committee for these instructors, along with faculty from two other colleges. Matt can expand on these details as necessary. I should emphasize that our group requested these evaluation protocols not based on any concerns over the instructional quality of ENTR courses to date—which have been received quite favorably—but rather to gain greater clarity about the process being followed.

In closing...

Given my group’s assessment of these courses and related considerations, I can say that I am now comfortable providing my support behind these proposals. In fact, I am personally confident these courses will provide exceptional learning opportunities for a wide array of students across campus for many years to come.

