

# Cover Sheet: Request 10691

## Changes to the CLAS BIO Bachelor of Arts Degree

### Info

Process	Major Curriculum Modify Ugrad/Pro
Status	Pending
Submitter	Spencer, William E, Jr wespencer@ufl.edu
Created	1/26/2016 5:24:00 PM
Updated	8/17/2017 2:58:54 PM
Description of request	Require a minimum number of major courses be taken at UF (Residential or Online). Add a fifth Biology Distribution Course category. Add courses to the new category.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Biology 011690003	Oppenheimer, David G		10/19/2016
Added Jan 26 2016 Changes to BIO BA.docx					1/26/2016
College	Recycled	CLAS - College of Liberal Arts and Sciences	Pharies, David A	This proposal has been recycled by the CLAS curriculum committee. Their comments: 1. Under "pedagogical rationale", explain why you "need" to insure that transfer students take a majority of their major courses at UF. What is wrong with the transferred courses? 2. Also explain why you "need" to broaden the education of students with a "Biology and Society" category. 3. CCC members were dubious about the new category, especially given the courses listed there that do not enjoy a good reputation among faculty. 4. You state that the courses must be taken "at UF". Do you mean in residential classes? taught by UF instructor? while the student is registered at UF? 5. You may not include a course that is not yet approved by the UCC (ZOO 2XXX)	11/9/2016
No document changes					
Department	Approved	CLAS - Biology 011690003	Wayne, Marta L		3/24/2017

Step	Status	Group	User	Comment	Updated
Added March 24th 2017 Changes to BIO BA Degree.pdf					3/24/2017
Deleted Biology Major Ececutive Committe response to the College Curriculum Commitee.pdf					3/24/2017
Deleted Biology Major Excecutive Committe response to the College Curriculum Commitee.pdf					3/24/2017
Deleted Biology Major Executive Committe response to the College Curriculum Commitee.pdf					3/24/2017
Added Biology Major Executive Committee response to the College Curriculum Committee.pdf					3/24/2017
College	Recycled	CLAS - College of Liberal Arts and Sciences	Pharies, David A	This item has been conditionally approved by the CLAS Curriculum committee. The committee asks that you <ul style="list-style-type: none"> <li>o Please include all necessary documents, including full description of major and tracking</li> <li>o Make agreed-upon changes in the proposal (e.g., remove WIS 2552, clarify electives)</li> </ul>	5/1/2017
Deleted April 25th 2017 Changes to BIO BA Degree_Detailed Verison of Foundation and Core Coursework.pdf					4/25/2017
Added April 25th 2017 Changes to BIO BA Degree_Detailed Verison of Foundation and Core Coursework.pdf					4/25/2017
Added Additional Life Sciences Electives List for Bachelor of Arts Degree.pdf					4/25/2017
Added Critical Tracking for Biology BA.pdf					4/25/2017
Added Sample Residency Requirements.pdf					4/25/2017
Department	Approved	CLAS - Biology 011690003	Wayne, Marta L		5/12/2017
Deleted April 25th 2017 Changes to BIO BA Degree_Detailed Version Foundation & Core Coursework and Electives List.pdf					5/12/2017
Added Final copy Changes to BIO BA Degree_Foundation & Core Coursework, Critical Tracking and Electives.pdf					5/12/2017
College	Approved	CLAS - College of Liberal Arts and Sciences	Pharies, David A		8/17/2017
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			8/17/2017
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					

Step	Status	Group	User	Comment	Updated
Academic Assessment Committee Notified					
No document changes					
College Notified					
No document changes					

# Major|Modify\_Curriculum for request 10691

## Info

**Request:** Changes to the CLAS BIO Bachelor of Arts Degree

**Description of request:** Require a minimum number of major courses be taken at UF (Residential or Online). Add a fifth Biology Distribution Course category. Add courses to the new category.

**Submitter:** Mutahi, Teresa T tmutahi@ufl.edu

**Created:** 3/24/2017 12:34:21 PM

**Form version:** 3

## Responses

**Major Name** Biology Bachelor of Arts

**Major Code** BIO

**Degree Program Name** Biology Bachelor of Arts

**Effective Term** Earliest Available

**Effective Year** Earliest Available

**Proposed Changes** 1. Require a minimum number of major courses to be taken at UF.  
2. Add a fifth Biology Distribution Course category.  
3. Add courses to the new category.

**Pedagogical Rationale/Justification** 1. Need to insure that students take a minimum number of their core/major courses at UF.

At least 20 departments in CLAS have some restrictions on taking a minimum number of core courses at UF (whether students are on campus or exclusively online). The faculty within a discipline may have the prerogative of giving guidelines by specifying major course requirements to be taken at their department/ institution.

2. Need to broaden the education of students to include a "Biology and Society" category.

The Biology B.A. is a broad degree and among the students we serve, Biology BA students are likely to go into careers directly working with the public - as teachers, lawyers, or public servants. Students should be provided the opportunity to extend their learning into the many aspects contained at the intersection of biology and society for good citizenship.

3. Need to provide courses for new category.

There is a need to add new courses to this new category.

Biology Major Executive Committee (BMEC) will continue to screen any additional courses to this category.

**Impact on Enrollment, Retention, Graduation** No impact upon freshman and transfer enrollment is expected. Retention is expected to increase by providing an additional course category from which to choose distribution courses. Graduation rates are not expected to change.

## B.A. Electives in the Biological Sciences

Courses	Credits	Prerequisites and Requirements
AGR 4320 Plant Breeding	3	Prereq: AGR 3303 or PCB 3063
ALS 4161 Exotic Species and Biosecurity Issues	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Coreq: One of HOS 3020, ENY 3005/3005L or PLP 3002C
ALS 4162 Consequences of Biological Invasions	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Only one of ALS 4162 and ALS 4163 can apply toward ALS credits
ALS 4163 Challenges in Plant Resource Protection	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Coreq: One of HOS 3020, ENY 3005/ 3005L or PLP 3002C; Only one of ALS 4162 or ALS 4163 can apply toward ALS credits
ANS 3006C Introduction to Animal Science	4	None
ANS 3319C Reproductive Physiology and Endocrinology in Domestic Animals	4	Prereq: ANS 3006C, BSC 2010/2010L or equivalent
ANS 3440 Principles of Animal Nutrition	4	Prereq: CHM 2045 and CHM 2045L or equivalent
ANT 4531 Molecular Genetics of Disease	3	Prereq: BSC 2011 or instructor permission
ANT 4552 Primate Behavior	3	None
ANT 4554C Primate Evolution	3	Prereq: ANT 3514C or instructor permission
ANT 4586 Human Evolution	3	Prereq: ANT 3514C or equivalent
BOT 2710C Practical Plant Taxonomy	3	None
BOT 2800C Plants in Human Affairs	3	None
BOT 3151C Local Flora of North Florida	3	None
BOT 3503 and 3503L Physiology and Molecular Biology of Plants and Laboratory	3 + 2	Prereq: BOT 2010C or BSC 2005 or BSC 2010; and CHM 2046C. Coreq: BOT 3503L (lab may be taken in subsequent term)

BOT 4621 Plant Geography	2	Prereq: BSC 2010/2010L and BSC 2011/ 2011L with minimum grades of C, or instructor permission
BOT 4935 Special Topics in Botany	1-4	None
BSC 1920 First Year Introduction: Biology at UF	1	Biology, botany, zoology or exploring science and engineering majors only
BSC 2862 Global Change Ecology and Sustainability	3	None
BSC 3402 Theory and Practice in the Biological Sciences	2	None
BSC 3422C Principles of the Bioscience Industry	2	Prereq: BSC 2011 and BSC 2011L, CHM 2046 and CHM 2046L
BSC 3911 Entering Research in Biology	1	Coreq: BSC 4910 or BOT 4905 or ZOO 4905 or IDH 4912, a seminar course to complement mentored research
BSC 4812C Evolutionary Biogeography	3	Prereq: BSC 2011/2011L with minimum grades of C
BSC 4910 Individual Mentored Research in Biology	0-3	Prereq: BSC 2010/2010L and BSC 2011/ 2011L with minimum grades of C; Coreq: BSC 3911
BSC 4912 Advanced Mentored Research in Biology	0-4	Prereq: BSC 4910 and BSC 3911
ENY 3005 and 3005L Principles of Entomology and Laboratory	2+1	Lecture and lab must be completed together
ENY 3007C Life Science	3	None
ENY 3163 Invertebrate Field Biology	3	None
ENY 3563 Introduction to Tropical Entomology	3	Prereq: ENY 3005/3005L
ENY 3564L Tropical Entomology Field Laboratory	2	Prereq: ENY 3563
ENY 4161 Insect Classification	3	Prereq: ENY 3005/3005L
ENY 4210 Insects and Wildlife	3	Prereq: ENY 3005L or equivalent entomology lab
ENY 4453 Behavioral Ecology and Systematics	3	Prereq: ENY 3005/3005L

ENY 4455C Social Insects	3	None
ENY 4660 and 4660L Medical and Veterinary Entomology and Laboratory	2+1	Prereq: ENY 3005/3005L; Lecture and lab must be completed together
FAS 4202C Biology of Fishes	4	Prereq: BSC 2011 and BSC 2011L
FAS 4305C Introduction to Fishery Science	3	Prereq: refer to the department
FOR 3342C Tree Biology	3	Prereq: BOT 2010C or BSC 2011C
GLY 3603C Paleontology	4	Prereq: refer to department
HOS 3305 Introduction to Plant Molecular Biology	3	Prereq: APB 2150, BOT 2010C or BSC 2010
HOS 4304 Horticultural Physiology	3	Prereq: BOT 2010C or BSC 2010
HOS 4313C Laboratory Methods in Plant Molecular Biology	2	Prereq: AGR 3303 or HOS 3305 and PCB 3063
HUN 4221 Nutrition and Metabolism	3	Prereq: BCH 3025 or BCH 4024; PCB 4723C or APK 2105C; HUN 3403 and HUN 4445
HUM 4445 Nutrition and Disease: Part 1	3	Prereq: HUN 2201 and CHM 2211; Coreq: APK 2105C or PCB4723C; BCH 3025 or BCH 4024
HUM 4446 Nutrition and Disease: Part 2	3	Prereq: HUN 4445; APK 2105C or PCB4723C; BCH 3025 or BCH 4024; Coreq: DIE 4246
MCB 4203 Bacterial and Viral Pathogens	3	Prereq: MCB 3020 or MCB 3023 with minimum grade of C
MCB 4304 Genetics of Microorganisms	3	Prereq: MCB 3020 or MCB 3023, and MCB 3020L or MCB 3023L, with minimum grades of C; BCH 4024 should be taken before MCB 4403
MCB 4320C Bacterial Genome Sequencing and Analysis	3	Prereq: MCB 3020 or MCB 3023 with minimum grades of C
MCB 4403 Prokaryotic Cell Structure and Function	3	Prereq: CHM 2211, and MCB 3020 or MCB 3023, and MCB 3020L or MCB 3023L with minimum grades of C; BCH 4024 should be taken before MCB 4403
MCB 4503 General Virology	3	Prereq: MCB 3020 or MCB 3023 or MCB 4203 or PCB 3023 or BCH 3023 or PCB 3134 with minimum grade of C
NEM 3002 Principles of Nematology	3	None
PCB 3023 Essential Cell Biology	3	Prereq: BSC 2011 and 2011L or equivalent

PCB 3134 Eukaryotic Cell Structure and Function	3	Prereq: BSC 2010 and BSC 2010L, or equivalent, with minimum grades of C; BSC 2011 and BSC 2011L, or equivalent, or AGR 3303 and CHM 2200 or CHM 2210 with minimum grades of C. Coreq: CHM 2211 and CHM 2211L. .
PCB 3601C Plant Ecology	3	Prereq: introductory college biology or botany
PCB 4043C General Ecology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
PCB 4233 Immunology	3	Prereq: MCB 3023, MCB 3020, BCH 4024, CHM 3218, or PCB 3134; minimum grade of C
PCB 4522 Molecular Genetics	3	Prereq: MCB 3020 or MCB 3023 with minimum grade of C
PCB 4674 Evolution	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C; Coreq: one semester of calculus; PCB 3063 recommended
PLP 3002C Fundamentals of Plant Pathology	4	Prereq: BOT 2010C or BSC 2010
PLS 3004C Principles of Plant Science	3	BOT 2010C or BSC 2010
PLS 3223 and 3223L Plant Propagation and Laboratory	2+1	Prereq: BOT 2010C or BSC 2010; Coreq: PLS 3221L; lecture and lab must be completed together
PSB 3002 Physiological Psychology	3	Prereq: PSY 2012
PSB 3340 Behavioral Neuroscience	3	Prereq: BSC 2010; PSB 3340 is recommended for IDS majors in Neurobiological Sciences
PSB 4434 Neurochemistry, Pharmacology and Behavior	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4504 Developmental Psychobiology	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4654 Chemical Senses and Behavior	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4810 Neurobiology of Learning and Memory	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4823 Principles of Integrative Physiological Psychology	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
WIS 3401 and 3401L Wildlife Ecology and Management and Laboratory	3+1	Prereq: BSC 2011 and BSC 2011L



WIS 3402 and 3402L Wildlife of Florida and Laboratory	3+1	None
WIS 3553C Introduction to Conservation Genetics	4	Prereq: STA 2023, and either FOR 3153C, PCB 3601C or PCB 4044C
WIS 4203C Introduction to Landscape Ecology	3	Prereq: STA 2023, and either FOR 3153C, PCB 3601C or PCB 4044C; and FOR 3434C, GIS 3043, GIS 3072C or URP 4273
WIS 4443C Wetland Wildlife Ecology	4	Prereq: WIS 3401
WIS 4501 Introduction to Wildlife Population Ecology	3	Prereq: PCB 3034C and WIS 3401; and FOR 3153C, PCB 3601C or PCB 4044C
WIS 4547C Avian Field Techniques	2	Prereq: One course each in ecology and vertebrate ecology
WIS 4554 Conservation Biology	3	Prereq: PCB 3063 or WIS 3553C; and FOR 3153C, PCB 3034C, PCB 3601C or PCB 4044C; and WIS 3401
WIS 4601C Quantitative Wildlife Ecology	3	Prereq: STA 2023 and WIS 3401
WIS 4945C Wildlife Techniques	4	Prereq: WSC 3402
ZOO 3513C Animal Behavior	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C, and PCB 4674
ZOO 3603C Evolutionary Developmental Biology	4	Prereq: BSC 2011/ 2011L or equivalent with minimum grades of C
ZOO 3713C Functional Vertebrate Anatomy	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
ZOO 4205C Invertebrate Biodiversity	4	Prereq: BSC 2011 and BSC 2011L with minimum grades of C and PCB 4674 with minimum grade of C (recommended)
ZOO 4232 Human Parasitology	3	Prereq: BSC 2010/2010L or equivalent; BSC 2011/2011L, or equivalent, or AGR 3303 with minimum grades of C
ZOO 4307C Vertebrate Biodiversity	4	Prereq: BSC 2011/ 2011L or equivalent with minimum grades of C
ZOO 4403C Marine Biology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
ZOO 4472C Avian Biology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C, and PCB 4674 (recommended)
ZOO 4926 Special Topics in Zoology	1-4	Can be repeated with change in content up to 8 credits; Prereq: BSC 2011/2011L, or equivalent, with minimum grades of C and instructor permission

ENY 2890 Scientific Engagement	3	None
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## Critical Tracking for Biology B.A.

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To graduate with this major, students must complete all university, college and major requirements. For degree requirements outside of the major, refer to CLAS Degree Requirements — [Structure of a CLAS Degree](#).

Equivalent critical tracking courses as determined by the State of Florida [Common Course Prerequisites](#) may be used for transfer students.

### Semester 1

- 2.0 UF GPA required
- Complete one of the following: BSC 2010/2010L; or CHM 1025 or CHM 1030 or CHM 2045/2045L; or MAC 1147; or equivalent or higher MAC course

### Semester 2

- 2.0 UF GPA required
- Complete BSC 2010/2010L and one of the following: CHM 1030 or CHM 2045/2045L; or MAC 1147 or equivalent or higher MAC course.

### Semester 3

- 2.0 UF GPA required
- Complete BSC 2010/2010L, CHM 1030 or CHM 2045/2045L and MAC 1147 or equivalent or higher MAC course

### Semester 4

- 2.0 UF GPA required
- Complete CHM 1031 or CHM 2046/2046L; BSC 2011/2011L; MAC 1147 or equivalent or higher MAC course with a 2.5 GPA on all critical-tracking courses.

### Semester 5

- 2.0 UF GPA required
- 2.5 GPA on all critical-tracking coursework
- Complete at least one Biology Distribution Course

## Recommended Semester Plan

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Students are expected to complete the writing and math requirement while in the process of taking the courses below. Students are also expected to complete the general education international (GE-N) and diversity (GE-D) requirements concurrently with another general education requirement (typically, GE-C, H or S).

Semester 1	Credits
CHM 1030 Basic Chemistry Concepts and Applications 1 (3) or CHM 2045+2045L General Chemistry 1 (3) and General Chemistry 1 Lab (1) (GE-P)	3-4

MAC 1147 Analytical Geometry and Calculus 1 (GE-M)	4
HUM 2305 What is the Good Life (GE-H)	3
Composition (GE-C, WR)	3
Biology elective (BSC1920 First Year Introduction: Biology at UF recommended)	1
<b>Total</b>	<b>14-15</b>
<b>Semester 2</b>	<b>Credits</b>
CHM 1031 Basic Chemistry Concepts and Applications 2 (3) or CHM 2046 and 2046L General Chemistry 2 (3) and General Chemistry 2 Lab (1) (GE-P)	3-4
STA 2023 Introduction to Statistics 1 (3) (GE-M)	3
Composition (GE-C, WR)	3
Social and Behavioral Sciences (GE-S)	3
Elective	4-3
<b>Total</b>	<b>16</b>
<b>Semester 3</b>	<b>Credits</b>
BSC 2010 and 2010L Integrated Principles of Biology 1 (3) and Integrated Principles of Biology 1 Laboratory (1) (GE-B)	4
Foreign Language	5
Social and Behavioral Sciences (GE-S)	3
Elective	2
<b>Total</b>	<b>14</b>
<b>Semester 4</b>	<b>Credits</b>

BSC 2011 and 2011L Integrated Principles of Biology 2 (3) and Integrated Principles of Biology 2 Laboratory (1) (GE-B)	4
Foreign Language	5
Social and Behavioral Sciences (GE-S)	3
Humanities (GE-H)	3
Total	15
<b>Semester 5</b>	<b>Credits</b>
PHY 2004 Applied Physics 1 (3) and PHY 2004L Applied Physics 1 Lab (1)	4
Biology Distribution Course, two	6-8
Elective (3000 level or above, not in major)	3
Total	16-18
<b>Semester 6</b>	<b>Credits</b>
PHY 2005 Applied Physics 2 (3) and PHY 2005L Applied Physics 2 Lab (1)	4
Biology Distribution Course	3-5
Elective	3
Electives (3000 level or above, not in major)	3-
Humanities (GE-H)	3
Total	16-18
<b>Semester 7</b>	<b>Credits</b>
Biology Electives	9

Electives (3000 level or above, not in major)	6
Total	15
<b>Semester 8</b>	<b>Credits</b>
Biology Electives	6
BSC 4936 Critical Analysis of Biological Research	2
Electives (3000 level or above, not in major)	6
Total	14

Note: Additional electives may be needed to complete the 120 hours required for graduation.

# MEMORANDUM

TO: David Pharies, Associate Dean, CLAS

FROM: Teresa Mutahi, Assistant Director, UF Biology Major

DATE: April 25, 2017

SUBJECT: Proposed changes to the CLAS BIO Bachelor of Arts degree (Residential and UFO)

Regarding the CLAS BIO Bachelor of Arts degree (residential and UFO) the Biology Major Executive Committee recommended that 1) a minimum number of major courses must be taken at UF, 2) a fifth Biology Distribution Course category “Biology and Society” was needed, and 3) courses were needed for the new Biology Distribution Course category. Coordination with the various departments offering the courses has been initiated.

The following edited catalog copy includes the recommended changes. Proposed changes are in red text; red strike-through indicates removal, and underlined red indicates additions.

BMEC requests your concurrence with these changes by way of the Academic Approval System.

## Bachelor of Arts Biology (BIO BA degree)

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This specialization is designed for biology majors interested in a career in education, the allied health professions, and interdisciplinary fields such as environmental or biotechnology law, science journalism, and bioscience management.

All coursework for the major must be completed with minimum grades of C.

### Required Foundation Coursework

- **General Biology:** BSC 2010/2010L and BSC 2011/2011L
- **General Chemistry:** CHM 1030 and CHM 1031 –or– CHM 2045/2045L and CHM 2046/2046L
- **Mathematics:** MAC 1147 –or– MAC 1114 and MAC 1140 –or– higher math course
- **Physics:** PHY 2004/2004L and PHY 2005/2005L –or– PHY 2053/2053L and PHY 2054/2054L
- **Statistics:** STA 2023

### Required Core Coursework

This major requires a minimum of 30 credits in core courses. **At least 18 of the 30 credits of the required core coursework must be taken at UF.** Any additional credits remaining after completion of required coursework must be met by taking courses from the approved additional life sciences electives.

- **Biology Distribution Courses – At least two Biology Distribution Courses must be taken at UF. Only one 2000-level course may be applied to the Biology Distribution Course requirement.** Students must complete at least one course from **three of the four five** following groups:  
**Please note: Courses vary from 3-5 credits in each category.**
  - **Molecular Biology, Cellular Biology and Genetics:** AGR 3303, BCH 3023, PCB 3023\*, PCB 3063, PCB 3134, PCB 4522, or PCB 4553
  - **Organismal Biology:** BOT 3303C, BOT 3503 and 3503L\*, BSC 3096, MCB 2000 and MCB 2000L, MCB 3020 and 3020L\*, PCB 3134\*, PCB 3713C\*, PCB 4712\*, PCB 4723C\*, ZOO 3603C, or ZOO 3713C
  - **Ecology:** BSC 3307C, PCB 3601C, or PCB 4043C
  - **Evolution and Diversity:** BOT 2011C, BOT 2710C, BOT 3151C, PCB 4674\*, ZOO 3513C, ZOO 4205C, or ZOO 4307C
  - **Biology and Society:**
    - **AGG 3501 Environment, Food, and Society**
    - **AGR 2332 Seeds of Change**
    - **BOT 2800C Plants in Human Affairs**
    - **PLP 2000 Plants, Plagues, People**
    - **PLP 2060 Fungus Among Us: Mushrooms, Molds, and Civilization**
    - **VEC 2100 World Herbs and Vegetables**
- **Biology B.A. Electives:** 15 credit hours minimum approved biological science courses (**see electives list attachment**) **At least nine credits of B.A. Electives must be taken at UF.**
- **Capstone:** BSC 4936 Critical Analysis of Biological Research

*\*Course has specific prerequisites. Students should consult the course description when planning their programs to ensure that they may select this course.*



**Subject:** BMEC response to the CCC comments on changes to the BIO BA  
**From:** Teresa Mutahi, Assistant Director, UF Biology major  
**Cc:** Patrick Inglett, Director, UF Biology Major

**1. Under “pedagogical rationale”, explain why you “need” to insure that transfer students take a majority of their major courses at UF. What is wrong with the transferred courses?**

At least 20 departments in CLAS have some restrictions on taking a minimum number of core courses at UF (whether students are on campus or exclusively online). The faculty within a discipline may have the prerogative of giving guidelines by specifying major course requirements taken at their department/ institution.

**2. Also explain why you “need” to broaden the education of students with a “Biology and Society” category.**

The Biology B.A. is a broad degree, and students should be provided the opportunity to extend their learning into the many aspects contained at the intersection of biology and society. Biology affects many life processes and functions, from agriculture to medicine. Among the students we serve in the Biology major programs, Biology BA students are the most likely to go into careers directly working with the public - as teachers, lawyers, or public servants. Meaningful learning of everyday impacts that organisms and biological systems have on human lives is crucial for practical application of biological concepts, and an appreciation of their importance for good citizenship.

**3. CCC members were dubious about the new category, especially given the courses listed there that do not enjoy a good reputation among faculty.**

The syllabus for the courses listed in the Biology and Society category have been screened and approved by the Biology Major Executive Committee (BMEC). The committee will continue to screen any additional courses to this category. WIS 2040 was removed from the list.

**4. You state that the courses must be taken “at UF”. Do you mean in residential classes? taught by UF instructor? while the student is registered at UF?**

“Taken at UF” means that it is a UF course offered either online or residential. The courses should be taught by a UF instructor. Students who take UF courses have some type of UF registration. UF courses are taught in departments that have approved the instructor. Unless students receive permission from the Undergraduate Coordinator, classes must be taught by a UF instructor.

**5. You may not include a course that is not yet approved by the UCC (ZOO 2XXX)**

ZOO 2XXX, *Animals in Human Affairs*, has been removed from the list.

Additional courses to the Biology and Society category may be added after review and approval by BMEC and the UCC.

# MEMORANDUM

TO: David Pharies, Associate Dean, CLAS

FROM: Teresa Mutahi, Assistant Director, UF Biology Major

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All coursework for the major must be completed with minimum grades of C.

### Required Foundation Coursework

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- **Physics:** PHY 2004/2004L and PHY 2005/2005L –or– PHY 2053/2053L and PHY 2054/2054L
- **Statistics:** STA 2023

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  - **Organismal Biology:** BOT 3303C, BOT 3503 and 3503L\*, BSC 3096, MCB 2000 and MCB 2000L, MCB 3020 and 3020L\*, PCB 3134\*, PCB 3713C\*, PCB 4712\*, PCB 4723C\*, ZOO 3603C, or ZOO 3713C
  - **Ecology:** BSC 3307C, PCB 3601C, or PCB 4043C
  - **Evolution and Diversity:** BOT 2011C, BOT 2710C, BOT 3151C, PCB 4674\*, ZOO 3513C, ZOO 4205C, or ZOO 4307C
  - **Biology and Society:**
    - **AGG 3501 Environment, Food, and Society**
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- **Biology B.A. Electives:** 15 credit hours minimum approved biological science courses (**see electives list attachment**) **At least nine credits of B.A. Electives must be taken at UF.**
- **Capstone:** BSC 4936 Critical Analysis of Biological Research

*\*Course has specific prerequisites. Students should consult the course description when planning their programs to ensure that they may select this course.*

## Critical Tracking for Biology B.A.

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To graduate with this major, students must complete all university, college and major requirements. For degree requirements outside of the major, refer to CLAS Degree Requirements — [Structure of a CLAS Degree](#).

Equivalent critical tracking courses as determined by the State of Florida [Common Course Prerequisites](#) may be used for transfer students.

### Semester 1

- 2.0 UF GPA required
- Complete one of the following: BSC 2010/2010L; or CHM 1025 or CHM 1030 or CHM 2045/2045L; or MAC 1147; or equivalent or higher MAC course

### Semester 2

- 2.0 UF GPA required
- Complete BSC 2010/2010L and one of the following: CHM 1030 or CHM 2045/2045L; or MAC 1147 or equivalent or higher MAC course.

### Semester 3

- 2.0 UF GPA required
- Complete BSC 2010/2010L, CHM 1030 or CHM 2045/2045L and MAC 1147 or equivalent or higher MAC course

### Semester 4

- 2.0 UF GPA required
- Complete CHM 1031 or CHM 2046/2046L; BSC 2011/2011L; MAC 1147 or equivalent or higher MAC course with a 2.5 GPA on all critical-tracking courses.

### Semester 5

- 2.0 UF GPA required
- 2.5 GPA on all critical-tracking coursework
- Complete at least one Biology Distribution Course

## Recommended Semester Plan

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Students are expected to complete the writing and math requirement while in the process of taking the courses below. Students are also expected to complete the general education international (GE-N) and diversity (GE-D) requirements concurrently with another general education requirement (typically, GE-C, H or S).

Semester 1	Credits
CHM 1030 Basic Chemistry Concepts and Applications 1 (3) or CHM 2045+2045L General Chemistry 1 (3) and General Chemistry 1 Lab (1) (GE-P)	3-4

MAC 1147 Analytical Geometry and Calculus 1 (GE-M)	4
HUM 2305 What is the Good Life (GE-H)	3
Composition (GE-C, WR)	3
Biology elective (BSC1920 First Year Introduction: Biology at UF recommended)	1
<b>Total</b>	<b>14-15</b>
<b>Semester 2</b>	<b>Credits</b>
CHM 1031 Basic Chemistry Concepts and Applications 2 (3) or CHM 2046 and 2046L General Chemistry 2 (3) and General Chemistry 2 Lab (1) (GE-P)	3-4
STA 2023 Introduction to Statistics 1 (3) (GE-M)	3
Composition (GE-C, WR)	3
Social and Behavioral Sciences (GE-S)	3
Elective	4-3
<b>Total</b>	<b>16</b>
<b>Semester 3</b>	<b>Credits</b>
BSC 2010 and 2010L Integrated Principles of Biology 1 (3) and Integrated Principles of Biology 1 Laboratory (1) (GE-B)	4
Foreign Language	5
Social and Behavioral Sciences (GE-S)	3
Elective	2
<b>Total</b>	<b>14</b>
<b>Semester 4</b>	<b>Credits</b>

BSC 2011 and 2011L Integrated Principles of Biology 2 (3) and Integrated Principles of Biology 2 Laboratory (1) (GE-B)	4
Foreign Language	5
Social and Behavioral Sciences (GE-S)	3
Humanities (GE-H)	3
Total	15
<b>Semester 5</b>	<b>Credits</b>
PHY 2004 Applied Physics 1 (3) and PHY 2004L Applied Physics 1 Lab (1)	4
Biology Distribution Course, two	6-8
Elective (3000 level or above, not in major)	3
Total	16-18
<b>Semester 6</b>	<b>Credits</b>
PHY 2005 Applied Physics 2 (3) and PHY 2005L Applied Physics 2 Lab (1)	4
Biology Distribution Course	3-5
Elective	3
Electives (3000 level or above, not in major)	3-
Humanities (GE-H)	3
Total	16-18
<b>Semester 7</b>	<b>Credits</b>
Biology Electives	9

Electives (3000 level or above, not in major)	6
Total	15
<b>Semester 8</b>	<b>Credits</b>
Biology Electives	6
BSC 4936 Critical Analysis of Biological Research	2
Electives (3000 level or above, not in major)	6
Total	14

Note: Additional electives may be needed to complete the 120 hours required for graduation.

## B.A. Electives in the Biological Sciences

Courses	Credits	Prerequisites and Requirements
AGR 4320 Plant Breeding	3	Prereq: AGR 3303 or PCB 3063
ALS 4161 Exotic Species and Biosecurity Issues	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Coreq: One of HOS 3020, ENY 3005/3005L or PLP 3002C
ALS 4162 Consequences of Biological Invasions	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Only one of ALS 4162 and ALS 4163 can apply toward ALS credits
ALS 4163 Challenges in Plant Resource Protection	3	Prereq: BSC 2010/2010L and BSC 2011/2011L or equivalent; Coreq: One of HOS 3020, ENY 3005/ 3005L or PLP 3002C; Only one of ALS 4162 or ALS 4163 can apply toward ALS credits
ANS 3006C Introduction to Animal Science	4	None
ANS 3319C Reproductive Physiology and Endocrinology in Domestic Animals	4	Prereq: ANS 3006C, BSC 2010/2010L or equivalent
ANS 3440 Principles of Animal Nutrition	4	Prereq: CHM 2045 and CHM 2045L or equivalent
ANT 4531 Molecular Genetics of Disease	3	Prereq: BSC 2011 or instructor permission
ANT 4552 Primate Behavior	3	None
ANT 4554C Primate Evolution	3	Prereq: ANT 3514C or instructor permission
ANT 4586 Human Evolution	3	Prereq: ANT 3514C or equivalent
BOT 2710C Practical Plant Taxonomy	3	None
BOT 2800C Plants in Human Affairs	3	None
BOT 3151C Local Flora of North Florida	3	None
BOT 3503 and 3503L Physiology and Molecular Biology of Plants and Laboratory	3 + 2	Prereq: BOT 2010C or BSC 2005 or BSC 2010; and CHM 2046C. Coreq: BOT 3503L (lab may be taken in subsequent term)
BOT 4621 Plant Geography	2	Prereq: BSC 2010/2010L and BSC 2011/ 2011L with minimum grades of C, or instructor permission
BOT 4935 Special Topics in Botany	1-4	None



BSC 1920 First Year Introduction: Biology at UF	1	Biology, botany, zoology or exploring science and engineering majors only
BSC 2862 Global Change Ecology and Sustainability	3	None
BSC 3402 Theory and Practice in the Biological Sciences	2	None
BSC 3422C Principles of the Bioscience Industry	2	Prereq: BSC 2011 and BSC 2011L, CHM 2046 and CHM 2046L
BSC 3911 Entering Research in Biology	1	Coreq: BSC 4910 or BOT 4905 or ZOO 4905 or IDH 4912, a seminar course to complement mentored research
BSC 4812C Evolutionary Biogeography	3	Prereq: BSC 2011/2011L with minimum grades of C
BSC 4910 Individual Mentored Research in Biology	0-3	Prereq: BSC 2010/2010L and BSC 2011/ 2011L with minimum grades of C; Coreq: BSC 3911
BSC 4912 Advanced Mentored Research in Biology	0-4	Prereq: BSC 4910 and BSC 3911
ENY 3005 and 3005L Principles of Entomology and Laboratory	2+1	Lecture and lab must be completed together
ENY 3007C Life Science	3	None
ENY 3163 Invertebrate Field Biology	3	None
ENY 3563 Introduction to Tropical Entomology	3	Prereq: ENY 3005/3005L
ENY 3564L Tropical Entomology Field Laboratory	2	Prereq: ENY 3563
ENY 4161 Insect Classification	3	Prereq: ENY 3005/3005L
ENY 4210 Insects and Wildlife	3	Prereq: ENY 3005L or equivalent entomology lab
ENY 4453 Behavioral Ecology and Systematics	3	Prereq: ENY 3005/3005L
ENY 4455C Social Insects	3	None
ENY 4660 and 4660L Medical and Veterinary Entomology and Laboratory	2+1	Prereq: ENY 3005/3005L; Lecture and lab must be completed together
FAS 4202C Biology of Fishes	4	Prereq: BSC 2011 and BSC 2011L
FAS 4305C Introduction to Fishery Science	3	Prereq: refer to the department
FOR 3342C Tree Biology	3	Prereq: BOT 2010C or BSC 2011C
GLY 3603C Paleontology	4	Prereq: refer to department

HOS 3305 Introduction to Plant Molecular Biology	3	Prereq: APB 2150, BOT 2010C or BSC 2010
HOS 4304 Horticultural Physiology	3	Prereq: BOT 2010C or BSC 2010
HOS 4313C Laboratory Methods in Plant Molecular Biology	2	Prereq: AGR 3303 or HOS 3305 and PCB 3063
HUN 4221 Nutrition and Metabolism	3	Prereq: BCH 3025 or BCH 4024; PCB 4723C or APK 2105C; HUN 3403 and HUN 4445
HUM 4445 Nutrition and Disease: Part 1	3	Prereq: HUN 2201 and CHM 2211; Coreq: APK 2105C or PCB4723C; BCH 3025 or BCH 4024
HUM 4446 Nutrition and Disease: Part 2	3	Prereq: HUN 4445; APK 2105C or PCB4723C; BCH 3025 or BCH 4024; Coreq: DIE 4246
MCB 4203 Bacterial and Viral Pathogens	3	Prereq: MCB 3020 or MCB 3023 with minimum grade of C
MCB 4304 Genetics of Microorganisms	3	Prereq: MCB 3020 or MCB 3023, and MCB 3020L or MCB 3023L, with minimum grades of C; BCH 4024 should be taken before MCB 4403
MCB 4320C Bacterial Genome Sequencing and Analysis	3	Prereq: MCB 3020 or MCB 3023 with minimum grades of C
MCB 4403 Prokaryotic Cell Structure and Function	3	Prereq: CHM 2211, and MCB 3020 or MCB 3023, and MCB 3020L or MCB 3023L with minimum grades of C; BCH 4024 should be taken before MCB 4403
MCB 4503 General Virology	3	Prereq: MCB 3020 or MCB 3023 or MCB 4203 or PCB 3023 or BCH 3023 or PCB 3134 with minimum grade of C
NEM 3002 Principles of Nematology	3	None
PCB 3023 Essential Cell Biology	3	Prereq: BSC 2011 and 2011L or equivalent
PCB 3134 Eukaryotic Cell Structure and Function	3	Prereq: BSC 2010 and BSC 2010L, or equivalent, with minimum grades of C; BSC 2011 and BSC 2011L, or equivalent, or AGR 3303 and CHM 2200 or CHM 2210 with minimum grades of C. Coreq: CHM 2211 and CHM 2211L. .
PCB 3601C Plant Ecology	3	Prereq: introductory college biology or botany
PCB 4043C General Ecology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
PCB 4233 Immunology	3	Prereq: MCB 3023, MCB 3020, BCH 4024, CHM 3218, or PCB 3134; minimum grade of C
PCB 4522 Molecular Genetics	3	Prereq: MCB 3020 or MCB 3023 with minimum grade of C
PCB 4674 Evolution	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C; Coreq: one semester of calculus; PCB 3063 recommended
PLP 3002C Fundamentals of Plant Pathology	4	Prereq: BOT 2010C or BSC 2010

PLS 3004C Principles of Plant Science	3	BOT 2010C or BSC 2010
PLS 3223 and 3223L Plant Propagation and Laboratory	2+1	Prereq: BOT 2010C or BSC 2010; Coreq: PLS 3221L; lecture and lab must be completed together
PSB 3002 Physiological Psychology	3	Prereq: PSY 2012
PSB 3340 Behavioral Neuroscience	3	Prereq: BSC 2010; PSB 3340 is recommended for IDS majors in Neurobiological Sciences
PSB 4434 Neurochemistry, Pharmacology and Behavior	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4504 Developmental Psychobiology	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4654 Chemical Senses and Behavior	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4810 Neurobiology of Learning and Memory	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
PSB 4823 Principles of Integrative Physiological Psychology	3	Prereq: PSB 3002 or PSB 3340, or instructor permission
WIS 3401 and 3401L Wildlife Ecology and Management and Laboratory	3+1	Prereq: BSC 2011 and BSC 2011L
WIS 3402 and 3402L Wildlife of Florida and Laboratory	3+1	None
WIS 3553C Introduction to Conservation Genetics	4	Prereq: STA 2023, and either FOR 3153C, PCB 3601C or PCB 4044C
WIS 4203C Introduction to Landscape Ecology	3	Prereq: STA 2023, and either FOR 3153C, PCB 3601C or PCB 4044C; and FOR 3434C, GIS 3043, GIS 3072C or URP 4273
WIS 4443C Wetland Wildlife Ecology	4	Prereq: WIS 3401
WIS 4501 Introduction to Wildlife Population Ecology	3	Prereq: PCB 3034C and WIS 3401; and FOR 3153C, PCB 3601C or PCB 4044C
WIS 4547C Avian Field Techniques	2	Prereq: One course each in ecology and vertebrate ecology
WIS 4554 Conservation Biology	3	Prereq: PCB 3063 or WIS 3553C; and FOR 3153C, PCB 3034C, PCB 3601C or PCB 4044C; and WIS 3401
WIS 4601C Quantitative Wildlife Ecology	3	Prereq: STA 2023 and WIS 3401
WIS 4945C Wildlife Techniques	4	Prereq: WSC 3402
ZOO 3513C Animal Behavior	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C, and PCB 4674
ZOO 3603C Evolutionary Developmental Biology	4	Prereq: BSC 2011/ 2011L or equivalent with minimum grades of C

ZOO 3713C Functional Vertebrate Anatomy	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
ZOO 4205C Invertebrate Biodiversity	4	Prereq: BSC 2011 and BSC 2011L with minimum grades of C and PCB 4674 with minimum grade of C (recommended)
ZOO 4232 Human Parasitology	3	Prereq: BSC 2010/2010L or equivalent; BSC 2011/2011L, or equivalent, or AGR 3303 with minimum grades of C
ZOO 4307C Vertebrate Biodiversity	4	Prereq: BSC 2011/ 2011L or equivalent with minimum grades of C
ZOO 4403C Marine Biology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C
ZOO 4472C Avian Biology	4	Prereq: BSC 2011/2011L or equivalent with minimum grades of C, and PCB 4674 (recommended)
ZOO 4926 Special Topics in Zoology	1-4	Can be repeated with change in content up to 8 credits; Prereq: BSC 2011/2011L, or equivalent, with minimum grades of C and instructor permission
ENY 2890 Scientific Engagement	3	None

## MEMORANDUM

TO: David Pharies, Associate Dean, CLAS

FROM: William Spencer, Assistant Director, UF Biology Major

DATE: January 26, 2016

SUBJECT: Proposed changes to the CLAS BIO Bachelor of Arts degree (Residential and UFO)

Regarding the CLAS BIO Bachelor of Arts degree (residential and UFO) the Biology Major Executive Committee recommended that 1) a minimum number of major courses must be taken at UF, 2) a fifth Biology Distribution Course category "Biology and Society" was needed, and 3) courses were needed for the new Biology Distribution Course category. Coordination with the various departments offering the courses has been initiated.

The following edited catalog copy includes the recommended changes. Proposed changes are in red text; red strike-through indicates removal, and underlined red indicates additions.

BMEC requests your concurrence with these changes by way of the Academic Approval System.

### Required Core Coursework

This major requires a minimum of 30 credits in core courses. At least 23 of the 30 credits of the required core coursework must be taken at UF. Any additional credits remaining after completion of the required core coursework must be met by taking courses from the approved B.A. electives in the biological sciences.

- Biology Distribution Courses: At least two Biology Distribution Courses must be taken at UF. Only one 2000-level course may be applied to the Biology Distribution Course requirement. Students must complete at least one course from three of these four-five groups:
  - Molecular Biology, Cellular Biology and Genetics: AGR 3303, BCH 3023, PCB 3023 \*, PCB 3063, PCB 3134, PCB 4522 or PCB 4553, 3-4 credits
  - Organismal Biology: BOT 3503 and 3503L \*, BSC 3096, MCB 2000 and MCB 2000L, MCB 3020 and 3020L \*, PCB 3134 \*, PCB 3713C \*, PCB 4712 \*, PCB 4723C \*, ZOO 3603C or ZOO 3713C, 3-5 credits
  - Ecology: BSC 3307C, PCB 3601C or PCB 4043C, 3-4 credits
  - Evolution and Diversity: BOT 2011C, BOT 2710C, BOT 3151C, PCB 4674 \*, ZOO 3513C, ZOO 4205C or ZOO 4307C, 3-4 credits
  - Biology and Society:
    - AGG 3501 Environment, Food and Society,
    - AGR 2332 Seeds of Change,
    - BOT 2800C Plants in Human Affairs,
    - PLP 2000 Plants, Plagues and People,
    - PLP 2060 Fungus Among Us: Mushrooms, Molds and Civilization,
    - WIS 2040 Wildlife Issues in a Changing World,
    - WIS 2552 Biodiversity Conservation: Global Perspectives,
    - VEC 2100 World Herbs and Vegetables,
    - ZOO 2xxx Animals in Human Affairs (new course being developed)
- B.A. Electives: 15 credits minimum approved biological science courses. At least nine credits of B.A. electives must be taken at UF.
- Capstone: BSC 4936 Critical Analysis of Biological Research
  - \* *Course has specific prerequisites. Students should consult the course description when planning their programs to ensure that they may select this course.*

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cc: Michael Miyamoto, Director, UF Biology Major Executive Committee

## MEMORANDUM

TO: David Pharies, Associate Dean, CLAS

FROM: Teresa Mutahi, Assistant Director, UF Biology Major

DATE: March 24, 2017

SUBJECT: Proposed changes to the CLAS BIO Bachelor of Arts degree (Residential and UFO)

Regarding the CLAS BIO Bachelor of Arts degree (residential and UFO) the Biology Major Executive Committee recommended that 1) a minimum number of major courses must be taken at UF, 2) a fifth Biology Distribution Course category “Biology and Society” was needed, and 3) courses were needed for the new Biology Distribution Course category. Coordination with the various departments offering the courses has been initiated.

The following edited catalog copy includes the recommended changes. Proposed changes are in red text; red strike-through indicates removal, and underlined red indicates additions.

BMEC requests your concurrence with these changes by way of the Academic Approval System

### Required Core Coursework

This major requires a minimum of 30 credits in core courses. At least 18 of the 30 credits of the required core coursework must be taken at UF. Any additional credits remaining after completion of the required core coursework must be met by taking courses from the approved B.A. electives in the biological sciences.

- Biology Distribution Courses: At least two Biology Distribution Courses must be taken at UF. Only one 2000-level course may be applied to the Biology Distribution Course requirement. Students must complete at least one course from three of these four-five groups:
    - Molecular Biology, Cellular Biology and Genetics: AGR 3303, BCH 3023, PCB 3023 \*, PCB 3063, PCB 3134, PCB 4522 or PCB 4553, 3-4 credits
    - Organismal Biology: BOT 3503 and 3503L \*, BSC 3096, MCB 2000 and MCB 2000L, MCB 3020 and 3020L \*, PCB 3134 \*, PCB 3713C \*, PCB 4712 \*, PCB 4723C \*, ZOO 3603C or ZOO 3713C, 3-5 credits
    - Ecology: BSC 3307C, PCB 3601C or PCB 4043C, 3-4 credits
    - Evolution and Diversity: BOT 2011C, BOT 2710C, BOT 3151C, PCB 4674 \*, ZOO 3513C, ZOO 4205C or ZOO 4307C, 3-4 credits
    - Biology and Society:
      - AGG 3501 Environment, Food and Society.
      - AGR 2332 Seeds of Change.
      - BOT 2800C Plants in Human Affairs.
      - PLP 2000 Plants, Plagues and People.
      - PLP 2060 Fungus Among Us: Mushrooms, Molds and Civilization.
      - WIS 2552 Biodiversity Conservation: Global Perspectives.
      - VEC 2100 World Herbs and Vegetables.
  - B.A. Electives: 15 credits minimum approved biological science courses. At least nine credits of B.A. electives must be taken at UF.
  - Capstone: BSC 4936 Critical Analysis of Biological Research
- \* Course has specific prerequisites. Students should consult the course description when planning their programs to ensure that they may select this course.*

## A quick review of the catalog and most of the CLAS majors

Below is a list of departments that have minimum residency requirements. The text copied below is directly from the catalog.

<https://catalog.ufl.edu/ugrad/current/Pages/majors.aspx>

<https://catalog.ufl.edu/ugrad/current/Pages/majors-online.aspx>

**African American studies** - A minimum of **15 credits** of coursework in the major must be completed at UF.

**Anthropology** - A minimum of **18 credits** of anthropology coursework must be completed at UF.

**Classical Studies** - The Department of Classics requires that a minimum **15 credits** of major-related courses be completed at the University of Florida.

**Criminology** - A maximum of 12 credits of criminology courses can be transferred toward the major. There are restrictions on which lower-division courses will transfer to the major. Students who transfer 6 credits of 1000/2000-level credits into the major should not take UF's CJL 2000.

**English** - Students must take at least **five** of their 3000-level or above English **courses** at UF.

**Foreign Language and Literature** - Students must complete **four** upper-division **courses** in the specialization while in residence at UF.

**History** - Majors must take a minimum of **21 credits** of history at UF. History majors may enroll in a maximum of three history courses per semester.

**Jewish Studies** - A minimum of **15 credits** for the major must be taken at the University of Florida.

**Physics** - Transfer students must take a minimum of **15 credits** of required physics courses at UF.

**Political Sciences** - A minimum of **15 credits** of political science courses (of the 30 required) must be completed at UF, per the department's residency requirement.

**Portuguese** - Students who transfer credits toward the Portuguese major will be expected to take at least **four** 4000-level **courses** at UF.

**Psychology** - At least **18** of the 36 credits must be taken at the University of Florida. Courses used toward the major must be earned with minimum grades of C.

**Sociology** - At least 23 credits of sociology credit must be in courses numbered 3000 or higher and at least **18 credits** must be completed at UF.

**Sustainability Studies** - All courses must be completed with minimum grades of C and a minimum of **15 credits** of sustainability studies courses must be completed at UF.

## **UFO Requirements:**

**Anthropology** - A minimum of **18 credits** of anthropology coursework must be completed at UF.

**Computer Science**- This major requires a minimum of 29 credits in foundation coursework, 35 credits in core coursework and 6 credits of major electives. A student can **transfer** in a **maximum of six courses** toward required core or required major elective coursework.

**Criminology** - A maximum of 12 credits of criminology courses can be transferred toward the major. There are restrictions on which lower-division courses will transfer to the major. Students who transfer 6 credits of 1000/2000-level credits into the major should not take UF's CJL 2000. At least **22** of the 34 must be taken from UF.

**Psychology** - At least **18** of the 36 credits must be taken at the University of Florida. Courses used toward the major must be earned with minimum grades of C.

**Sociology** - At least 23 credits of sociology credit must be in courses numbered 3000 or higher and at least **18 credits** must be completed at UF.