



## University Courses & Curricula Committee 2020-2021

August 12, 2020  
Meeting hosted via Zoom  
12:45pm-2:45pm

### Call to Order 12:45pm

- Welcome from Chair Wendy Krause
- Remarks and Updates from OUCCAS/DASA
- Establish Quorum / Voting Standard
- Approval of UCCC April 29<sup>th</sup> 2020 Minutes
- Course and Curricular Business

### New Business

Consent Agenda		
<a href="#">HESS 230 Pilates</a>	Minor	Change in Title
<a href="#">HON 398 Honors Special Topics</a>	Minor	Change in Grading Method

College of Humanities and Social Sciences			
Presenter	Reviewers	Action	Type
Knowles	Kuzenski, Roise, Duggins	<a href="#">ENG/EL 392 Major World Author</a>	Revisions

College of Agriculture and Life Sciences			
Presenter	Reviewers	Action	Type
Merrill	Hergeth, Reynolds, Rucker	<a href="#">PP 222 Kingdom of Fungi</a>	Revisions

University College			
Presenter	Reviewers	Action	Type
Domingue	Driscoll, Pratt, Muse	<a href="#">USC 201 Exploring Majors, Careers, and Identities</a>	New Course

College of Sciences			
Presenter	Reviewers	Action	Type
Muse	Schaffer, Hessling, Harrington	Paleontology Minor	New Minor

### SLO= Student Learning Outcomes

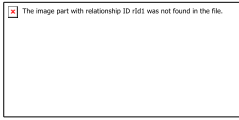
**\*=Course Action Initiated Before October 1, 2019**

**Discussion:** Open Nominations for Chair Elect, CIM for Courses and CIM for Programs (Li)

#### Notes:

- All linked course actions are viewable in CIM.
- To view actions, please click on the hyperlink. You may need to use your Unity ID to log in.
- If you experience issues logging in, please go to <https://next-catalog.ncsu.edu/courseadmin/> and type the course prefix and number into the search bar.

**SLO = Student Learning Outcomes**



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## University Courses and Curricula Committee

April 29, 2020  
Electronically Hosted  
Call to Order: 12:45 PM

**Members Present:** Chair Rudi Seracino, Marta Klesath (past chair), Kanton Reynolds, Melissa Merrill, Daniel Gruehn, Catherine Driscoll, Peter Hessling, Wendy Krause, Peggy Domingue, Rucker Rob, Annie Carlson Welch, Peter Janca, Gary Blank, Coleman Simpson, Spencer Muse, Jackie Bruce, Kristen Schaffer,

**Members Absent:** David Fitzpatrick, Tej Shah, Lisa Marshall

**Guests:** Lisa Bullard, Kasey Harris, Robin Clements, Michael Kanters, Jason DeRousie, Kathleen Rieder, Ellen Frost, Rob Sandruck, Russell Flinchum, Alice Lee, Richard Warr, Rob Sandruck,

**Ex-Officio Members Present:** Li Marcus, Lexi Hergeth, Tim Petty, Kyle Pysner, Bret Smith,

### WELCOME AND INTRODUCTIONS

- **Remarks from Chair** - Welcomed the committee members and reestablished the Zoom standards for voting.
- **Remarks from OUCCAS/DASA-**
- **Approval of the Minutes from April 15<sup>th</sup> 2020 – *Approved Unanimously***
  - Discussion: Member moved to approve by Marta Klesath.

### CONTINUED BUSINESS

- **Professional Golf Management (15SPMGTB – 15SPMGTPGM) - *Approved Unanimously***  
Discussion: Member Gary Blank presented the curricular action.
- **Global Perspectives Certificate - *Approved Unanimously***  
Discussion: Member Annie Carlson Welch presented the Certificate action.
- **ARE 121 Agricultural Finance- *Approved with Suggestion***  
Discussion: Member Jackie Bruce presented the new course action. Member made a suggestion to say something in the 'instructional resource statement' as to how the new course will be covered. Li Marcus reminded the committee this is not required and will be taken off. For those wishing to include this information they can do so in the additional documents field.
- **ARE 290 Professional Development in Agricultural Business Management- *Approved Pending***  
Discussion: Member Jackie Bruce presented the new course action. Member brought attention to the catalog descriptions having a slight differentiation. The syllabus indicates the course has a USD GEP attribute. The proposer provided an updated syllabus and will upload after the meeting. Member amended the motion to pending the update to the syllabus and the catalog description.
- **PB 407/(507) Medical Ethnobotany- *Approved Unanimously***  
Discussion: Member Melissa Merrill presented the new course action.
- **PB 450/(550) Plant Ecology - *Approved Unanimously***  
Discussion: Member Melissa Merrill presented the new course action.
- **BIO 323 Paleoecology- *Approved Pending***  
Discussion: Member Spencer Muse presented the new course action. Member indicated the schedule should be included in the syllabus. Member motioned to amend the motion to approve pending the inclusion of the schedule provided in the CIM record in the syllabus.

### NEW BUSINESS

- **Consent Agenda - Approved with one action pulled.**  
Discussion: Member moved to approve by Spencer Muse, who asked to move the Economics, Business and Accounting from the consent agenda.
- **MB 200 The Fourth Horseman: Plagues that changed the world – Approved Pending with Suggestions**  
Discussion: Member Spencer Muse presented the new course action and introduced guest Alice Lee as the instructor. Member brought up that there are 40 student learning outcomes in the CIM record and 8 in the syllabus. Members indicated this is a rather large number of learning outcomes, and indicated the outcomes in the syllabus and CIM should match. The learning outcomes in the syllabus are the objectives in CIM.  
Motion amended to Pending the addition the section on SLOs in the syllabus to the SLO CIM record and removing the objectives, to avoid duplication. Or copy the 40 outcomes for the CIM record into the syllabus to match. Change to topic outline from 15 to 16 weeks by adding a finals/ final assessment week.  
Suggestion to use the 8 outcomes and to make the abbreviated title more consistent with the new title.
- **ADN 288 History of Art + Design: 1918 to the Contemporary World - Approved with Suggestion**  
Discussion: Member Kristen Schaffer presented the new course action and introduced Guest Russell Flinchum. Member brought attention to the walking distance to get to activities, from Brooks hall, to the Greg museum. The instructor confirmed they would certainly provide additional time for anyone in need of it.  
Suggestion to provide clarification that there will be no field trips off campus in the course structure section of the syllabus and to remove any information about off campus visits.  
Members discussed that since the Greg museum is on campus, so students will be able to get to where the class is being held.
- **Bachelor in Landscape Architecture (12LARB) - Approved Unanimously**  
Discussion: Member Kristen Schaffer presented the curricular action. Member asked if the appropriate term for Discontinuation is Spring 2013, presenter indicated that the last students left the program around July 2016. Li indicated the best effective date will be decided by SCRT.
- **BAE 427/(527) Metabolic Systems Analysis - Approved Unanimously**  
Discussion: Member Jackie Bruce presented the new course action.
- **CS 116 Agronomic Crops - Cotton, Peanuts, and Tobacco - Approved Unanimously**  
Discussion: Member Jackie Bruce presented the new course action.
- **CS 118 Agronomic Crops - Corn, Small Grains and Soybeans – Approved with Suggestion**  
Discussion: Member Melissa Merrill presented the new course action. Member indicated the attendance policy in the syllabus doesn't indicate how a student can earn full credit for attendance (20%). Members found additional information in the syllabus.  
Members discussed if 'attendance' should be 'participation' and provide more detail, members decided since it is specifically called 'attendance', as long as a student shows up to class, the information is acceptable.  
Suggestion that the student evaluation method "details" section can be deleted.
- **BS Crop and Soil Science : Turfgrass Science (11CSSCBS-11CSSCTFG) - Approved Unanimously**  
Discussion: Member Melissa Merrill presented the new curricular action.
- **BS Turfgrass Science (11TFGBS) - Approved Unanimously**  
Discussion: Member Melissa Merrill presented the curricular action. Guest David Crouse explained all students will be moved into the new concentration.
- **Economics, Business, and Accounting- Pulled from Consent agenda. – Approved Pending**  
Discussion- Motion to amend action to remove ST 305 from the possible substitutes by member Spencer Muse. ST 305 will no longer be taught, so it should not be included as a preventative measure.  
Guest Jason DeRousie indicated other actions from the consent agenda will also need to take this under consideration.  
**Motion to open courses on the consent** mentioned by Jason to allow for the adjustment to their requisites lists.  
Both motions passed unanimously with the indication that ST 305 will be removed.
- **MIE 437 Human Resources Analytics - Approved Pending**  
Discussion: Member Peter Janca presented the new course action. Member brought attention to the 15 weeks in the CIM record and update the CIM record and syllabus with a clearly defined 16th week and the addition of the topic outline in CIM.

- **Bachelor of Business Administration in Global Management Dual Degree Program (SKEMA) - Approved Unanimously**  
Discussion: Member Peter Janca presented the Program action. Guest Rob Sandruck explained the changes for this action that is up for review.
- **BS Bachelor of International Management Dual Degree Program (NEOMA) - Approved Pending**  
Discussion: Member Peter Janca presented the renewal of the existing Program action. Member brought attention to the '0' in the expected annual students and faculty in year 5. Guest indicated this is a typo, and that there will be at least 5.  
Motion to amend the motion to approved pending the update to this in the enrollment table.  
Member indicated there should be some clarification on the enrollment and how many students are entering and how many are participating. More explicate indication of the new students entering compared with the students already in the program.
- **BS Chemical & Biomolecular Engineering (14CHEBS-14CHEBIO) - Approved Pending**  
Discussion: Member Kanton Reynolds presented the curricular action. Guest Lisa Bullard was available for questions. In the Senior Year, Spring semester, the total should be 17, not 16.
- **BS Chemical Engineering Biomanufacturing Sciences (14CHEBS-14CHEBMF) - Approved Pending**  
Discussion: Member Kanton Reynolds presented the curricular action. Member brought attention to the semester display, in the Sophomore year Spring semester, the total is not 14, and should be 17.
- Motion to revisit the previous action and combine with the other 14CHEBS action. Approved.  
Discussion- Amending both to approve pending the correction of the typos in the semester displays for the Senior Year, Spring semester, the total should be 17, not 16 and the Sophomore year Spring semester, the total is not 14, and should be 17.
- **Industrial Engineering 14IEBS - Approved Unanimously**  
Discussion: Member Lisa Marshall presented the curricular action.

Discussion: Special Topics Guidelines have been looked at over the last few weeks and a best practices living document has been created for training. Chair asked for any comments and concerns raised from committee members. Member from PCOM brought attention to "Practicums" and asked for additional information and definition of how this type of course should be set up in CIM.

Member indicated the information provided is good and that a recommendation for a practicum type of course could be added. Chair recommended PCOM work on an example over this summer to be considered in the Fall 2020 semester.

Members discussed why we are using a best practice/recommendation instead of a set of standard rules. Chair explained that there are ways to make rules that can be strictly enforced, however, this allows for there to be flexibility with things like 'independent study'.

Wendy moved for the recommendations to be sent beyond the committee for recommendation. Member indicated the practicum may not be necessary, members decided more suggestions and guidelines will be helpful.

Motion approved.

Chair, Rudi Seracino thanked the committee and XONV members for their work during the semester, especially during this time. The committee thanked the chair for his dedication. Wendy Kraus will serve as the chair for the 2020-2021 academic year.

Meeting adjourned: 2:32 PM.

*Respectfully submitted by Lexi Hergeth*

**NORTH CAROLINA STATE UNIVERSITY  
UNDERGRADUATE CURRICULUM ACTION FORM  
Academic Minor**

DEPARTMENT(S):

Biological Sciences

TITLE OF THE MINOR:

Paleontology

TYPE OF PROPOSAL:

New Minor: X

Revision to Minor:     

Discontinuation:     

PROPOSED EFFECTIVE DATE: upon approval APPROVED EFFECTIVE DATE:     

**ATTACHMENTS INCLUDED:**

1. Statement of Justification
2. Statement of Academic Minor Program Objectives
3. List of Courses constituting the Proposed Minor
4. Catalog Description of Proposed Minor
5. Administration of the Minor (Contact information for Administrator of the Minor)
6. Requirements for Admission and Completion of the Minor
7. Statement on Other Departments Likely to be Affected and Summary of Consultations with those Departments
8. Optional: Projected Resources and Enrollment

**REQUIRED SIGNATURES:**

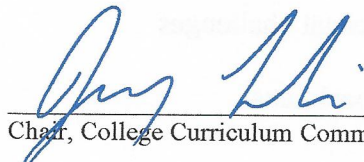
**OTHER REQUIRED SIGNATURES AS NEEDED:**



5/6/2020

Head, Department/Program


Date



5/7/2020

Chair, College Curriculum Committee

Date



5/11/2020

College Dean

Date

Chair, University Courses & Curricula Committee

Date

Dean, Division of Academic and Student Affairs (DASA)

Date

## **Minor in Paleontology (17PALM)**

### ***1. Justification***

99.9% of all life that has ever existed on this planet is now extinct, yet the vast majority of biological sciences focus exclusively on living organisms. By accessing data preserved in the fossil record, we can trace the evolution of life across its more than 3.8 billion year history, starting from simple single cells and becoming the great diversity of organisms inhabiting the planet today. Within this record rests the bulk of scientific evidence for evolution, not just adaptation, but speciation and extinction, convergent evolution, sexual selection, and macroevolutionary change. In fact, the discovery of fossil mammals in South America was key data that inspired Charles Darwin to propose the Theory of Natural Selection. North Carolina State University has a strong faculty research and teaching presence in paleontology, which students will be able to harness with the advent of this minor. In addition to learning generally about the fossil record, faculty expertise will allow students to experience excavating fossils in the field, learn methods of molecular paleontology, practice statistical methods for analyzing the evolutionary record, illustrate basic anatomy from across the tree of life, and finally, reflect on the history of studying paleontology and its role in society. Students participating in this minor will receive a multidisciplinary education, being prepared to tackle the increasingly connected world of the future. In particular, we plan to purposely link the study of ancient life in our curriculum to current environmental crises resulting from climate change and the environmental impacts of human society, such as disease processes, food security, and habitat and biodiversity loss, producing NC State students with the unique capability to connect the past with our shared future.

### ***2. Program Objectives***

Students completing a minor in Paleontology will be able to:

- Demonstrate an understanding of the fossil record of life including major life transitions, mass extinctions, and general patterns of ecosystem evolution
- Describe how studying ancient life provides predictive data to inform modern societal challenges
- Explain the geologic timescale and apply the concept of deep time evolution
- Identify basic anatomy from a variety of life forms based on modern and fossil specimens
- Generate and explain a phylogenetic tree
- Correctly use a variety of statistical methods to test hypotheses about ancient life
- Demonstrate professional skills such as reviewing papers and explaining complex subjects in simple terms

### ***3. List of courses -- see page 3***

### ***4. Catalog Description -- see page 3***

### ***5. Administration of the Minor -- see page 4***

### ***6a. Requirements for Admission -- see top of page 4***

### ***6b. Requirements for Completion of the Minor -- see page 3***

### ***7. Other Departments Likely Affected***

Paleontology is a multidisciplinary science. As such there are classes in other departments and colleges that will count toward minor credits. Within the College of Sciences, the department other than Biological Sciences that will participate is Marine, Earth, and Atmospheric Sciences, and we have had several discussions on how best to structure the minor. We will also have a course offering from the Department of Plant and Microbial Biology within the College of Agriculture and Life Sciences, the Department of Fisheries and Wildlife in the College of

CNR as well as several from the Department of History and Department of Sociology and Anthropology within the College of Humanities and Social Sciences.

#### Consultations from MEAS, CALS, CNR, and CHASS

##### MEAS

The Department of Marine, Earth and Atmospheric Sciences supports your proposal to establish a Minor in Paleontology. We currently have capacity in the listed MEA courses given expected enrollments. We anticipate some of our geology and marine science students will be excited to see this minor added to the catalog.

##### CHASS

The department of Sociology and Anthropology has no objection to the Paleontology minor and the inclusion of the courses mentioned, and suggest that they also consider including ANT475 Environmental Archaeology. I will also mention that ANT428 may not be offered for a few years as we have virtually no faculty to teach it currently.

##### CALS

Plant and Microbial Biology supports the proposal for this minor and the inclusion of PB 445/545 - Paleobotany in the minor electives list. I reached out to Jim Mickle, who is a paleobotanist and the instructor for the Paleobotany course. We have a few comments about the proposal that we hope can be addressed:

1. PB 445/545 is a 4 credit hour course rather than 3 hours.
2. If a student is involved in paleobotany research with Jim, they would most likely enroll for PB 493 credit. Would such credit count toward the minor electives in this minor? We hope that it would, even on a case by case basis.
3. Jim writes: "I would suggest moving BIO 330 from the Must Choose to the Can Choose list, because this would force a student to choose at least one paleo course from the Must Choose list. Otherwise, a student could get the minor with only the two required paleo courses, BIO 323 and MEA 369, by taking BIO 330, MEA 450 and HI 482."

##### CNR

We have no concerns in CNR with this new minor and listing FW 444/544 as an elective.

***Proposed:***

**Paleontology Minor (17PALM)**

**Description**

The Minor in Paleontology provides undergraduate students with a foundational knowledge of the fossil record and modern techniques used to study the evolutionary patterns recorded within the fossil record. The Paleontology Minor is available to undergraduate students in all majors at NC State University, but may be especially appropriate for students majoring in the life sciences, agricultural sciences, physical sciences, natural resources, or science education. Students should be aware that many of the courses in the Paleontology Minor have pre-requisites and others are taught in alternate years, so plan accordingly.

**Requirements (18 credit hours total)**

The Paleontology Minor consists of a minimum of 18 credit hours.

- A grade of C- or better is required for all minor courses with a 2.0 GPA required in the minor for graduation.
- No course used in the minor can be taken for credit only (S/U).
- Courses taken for the minor can also be used toward major requirements, GEP Electives, or Free Electives.
- At least 9 credit hours of the minor must be completed at NC State.

**Required Courses (9 credit hours)**

- BIO 270 Introduction to Evolution (3 cr)
- BIO 323 Paleoecology (3 cr)
- MEA 369 Principles of Paleontology (3 cr)

**Elective Courses (9 credit hours)**

Elective List A: Students must choose at least two of the following courses

- BIO 230 The Science of Studying Dinosaurs (3 cr)
- BIO 325 Paleontological Field Methods (4 cr)
- MEA 202 Geology II: Historical (3 cr)
- MEA 450 Introductory Sedimentology and Stratigraphy (4 cr)
- PB 445/545 Paleobotany (4 cr)
- ANT 475 Environmental Archaeology (3 cr)
- Paleontology Research or Teaching Experience (maximum 3 cr)

The focus of the research or teaching experience must be in paleontology and **the experience must be approved by the Minor Coordinator (usually through a signed contract) prior to beginning the work.**

These credits can be earned through BSC 478 Research Fundamentals in Biological Sciences: Vertebrate Paleontology and Taphonomy or through other departmental experiential learning offerings.

Elective List B: Students can choose one or more of the following courses

- BIO 330 Evolutionary Biology (3 cr)
- BIO 370 Developmental Anatomy of the Vertebrates (3 cr)
- BIO 440 The Human Animal: An Evolutionary Perspective (3 cr)
- ZO 250 Animal Anatomy and Physiology (4 cr)
- ZO 317 Primate Ecology and Evolution (3 cr)
- ZO 350 Animal Phylogeny and Diversity (4 cr)
- ZO 402 Invertebrate Biology (4 cr)



- FW 444/544 Mammalogy (3 cr)
- MEA 211 Geology II: Historical Lab (1 cr)
- HI 344 Dinomania! A cultural and scientific history of dinosaurs (3 cr)
- HI 323 Science, American Style (3 cr)
- HI 482 Darwinism in Science and Society (3 cr)
- ANT 421 Human Osteology (3 cr)
- ANT 428 Human Paleopathology (3 cr)
- ST 308 Introduction to Statistical Programming - R (1 cr)
- ST 312 Introduction to Statistics II (3 cr)

Other relevant courses, including some capstone and special topics course offerings, can be approved by the Minor Coordinator on a case-by-case basis.

### **Admissions**

Students who plan to minor in Paleontology should contact the Minor Coordinator listed below for information on how to enroll. Students must have credit for BIO 181 or BIO 230 or BIO 270 before enrolling in the Paleontology minor. Students are strongly encouraged to declare the minor early in their studies so they receive information on relevant courses, events, and other opportunities from the Department of Biological Sciences.

### **Certification**

All requirements for the minor must be completed no later than the semester in which the student expects to graduate from his or her major degree program. Students apply to graduate in the minor through MyPack at the same time that they apply to graduate in their major program.

### **Contact Person**

Dennis Kauffman  
 Bostian Hall 2727  
 919-515-3341  
[BioSciHelp@ncsu.edu](mailto:BioSciHelp@ncsu.edu)

### **Coordinator**

Dr. Terry Gates  
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