

## **BOT6935/ZOO6927 Biological Nomenclature – Spring 2016**

**Credits:** 2

**Schedule:** Wednesdays, 5<sup>th</sup> & 6<sup>th</sup> Period (11:45 am – 1:40 pm)

**Location:** Carr 221

### **Instructors**

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### **Office hours**

By appointment or drop by office

### **Prerequisites**

There are thus no prerequisites other than a keen interest in organismal systematics and a willingness to participate actively in classes.

### **Course description**

The course covers an overview of the major topics of biological nomenclature, including the methods and principles of rank-based nomenclature, as applied in the traditional nomenclatural codes (International Code of Zoological Nomenclature, International Code of Nomenclature for Algae, Fungi, and Plants, the International Code of Nomenclature of Bacteria) and the methods and principles of phylogenetic nomenclature, as applied in the PhyloCode. Philosophical and conceptual considerations relating to the naming of organisms will also be addressed.

## Objectives and basis for grading

### *Lectures*

Lectures will provide an overview of major topics in biological nomenclature. Papers or book chapters will be suggested as background reading in preparation for each lecture. Additionally, discussions of selected papers and some practical exercises will take place.

### *Exams*

One mid-term exam and one final exam will test the student's understanding of course topics, as covered by lectures, in assigned reading and in discussions. The exams will include multiple questions requiring short answers.

## Grading

### **% by activity**

<b>Activity</b>	<b>% of final grade</b>
Mid-term	50
Final exam	50

94.0-100%	A
90.0-93.9%	A-
87.0-89.9%	B+
84.0-86.9%	B
80.0-83.9 %	B-
77.0-79.9%	C+
74.0-76.9%	C
70.0-73.9%	C-
67.0-69.9%	D+
64.0-66.9%	D
60.0-63.9%	D-
<60%	E

## Assignments and attendance policy

Attendance at class and seminars is expected, and students should be prepared to justify absences. Frequent absences will certainly result in the student being less able to effectively answer exam questions. No make-up exams will be given unless exceptional circumstances arise.

**Course textbook :** No textbook required. Readings will be provided.

## COURSE OUTLINE

The schedule below may be subject to slight changes.

### WEEK 1

January 6 *Introduction to Nomenclature – History* (Judd).

### WEEK 2

January 13 *Introduction to Nomenclature – History* (Cellinese).

### WEEK 3

January 20 *Traditional Nomenclature*: Ranked names – the taxonomic hierarchy; scientific names, their composition and form, special topics relating to species and infraspecific names; generic names; names of families and higher taxa; standardized endings; names groups; stability and rules for changing names, advantages and disadvantages; naming as relating to the aims of the codes (Judd).

### WEEK 4

January 27 *Traditional Nomenclature*: Publication (valid, effective); the type concept and typification (What is a type specimen?), the kinds of types; priority (starting points in various groups), availability of names; conservation and rejection of names; homonyms; superfluous names; tautonyms and their acceptance; misapplied names; dealing with orthographic variants; gender issues (Judd).

### WEEK 5

February 3 *Traditional Nomenclature*: Name changes and synonymy; nomenclatural vs. taxonomic reasons for changes; synonyms (kinds of, taxonomic vs. nomenclatural), dealing with misidentifications; authorities of names, use of “in” and “ex”, use of parentheses, use of brackets, citation of dates of publication, homonyms and their citation; dealing with “sensu” names; names of subordinate taxa containing the type of the name of the immediately higher taxon (Judd).

### WEEK 6

February 10 *Traditional Nomenclature*: Special cases relating to fossils, fungi, lichens, and viruses. An introduction to the International Code of Virus Classification and Nomenclature; an attempt to reconcile the Codes: The BioCode (Judd).

### WEEK 7

February 17 *Traditional Nomenclature*: Botanical Latin, including discussion of formation of generic names, specific epithets, infraspecific epithets; Latin descriptions and diagnoses. (Judd).

### WEEK 8

February 24 **Mid-Term exam**

**WEEK 9**  
SPRING BREAK

**WEEK 10**

March 9     *Hybrids*: Provisions in the codes relating to the naming of hybrids;  
*Cultivated plants, domesticated animals*: International Code of Nomenclature for Cultivated Plants: What is it, and how do its provisions differ from the Botanical and Zoological codes? Scientific naming of domesticated animals (Guest Lecture: Williams)

**WEEK 11**

March 16    *Phylogenetic Nomenclature*: Philosophy and basic principles (Cellinese).

**WEEK 12**

March 23    *Phylogenetic Nomenclature*: Clade names and the implementation of the PhyloCode (Cellinese).

**WEEK 13**

March 30    *Phylogenetic Nomenclature*: The nature of ‘species’ and consequences for nomenclature (Cellinese).

**WEEK 14**

April 6     *Phylogenetic Nomenclature*: New proposed approaches on species names in phylogenetic nomenclature (Cellinese).

**WEEK 15**

April 13     Genomics and the era of ‘Dark taxa’; the role of ontologies in nomenclature (Cellinese).

**WEEK 16**

April 20     Final exam

**Class Demeanor Expected by Instructor:** Students should be considerate, polite, open-minded, objective and show interest in the work of others. UF rules prohibit having food or drinks in classrooms. Use of tobacco products (in any form) in the classroom is prohibited.

**Additional General Information:** The following information applies to all courses at the University of Florida.

**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standard of honesty and integrity.**

**Academic Honesty:** As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

**Copyrighted Materials and Software Use:** All students are required and expected to obey the laws and legal agreements governing copyrighted material and software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

**Accommodations for Students with Disabilities:** Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

**University Counseling Services:** Resources are available on-campus for students having personal problems or lacking clear career and academic goals which interfere with their academic performance. These resources include:

1. University Counseling Center, 301 Peabody Hall, 392-1575, personal and career counseling;
2. Student Mental Health, Student Health Care Center, 392-1171, personal counseling;
3. Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual counseling; and
4. Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.