

# REQUEST FOR NEW COURSE

## Signature Routing Log

### General Information:

Course Prefix and Number: BIO 303

Proposal Contact Person Name: Ruth E. Beattie


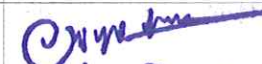

Phone: 257-7647

Email: rebeat1@uky.edu

### INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

### Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Department of Biology Faculty	04/10/09	Chair - Dr. Vincent Cassone / 257-6766 / vincent.cassone@uky.edu	
		/ /	
		/ /	
A&S LPC	10/5/10	gandapaty morthy 174739 / gandapaty.murthy@uky.edu	
A&S Dean	10/5/10	176689 / boseh@uky.edu	

### External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision <sup>6</sup>
Undergraduate Council	11/09/2010		
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

<sup>6</sup> Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

# REQUEST FOR NEW COURSE

## 1. General Information.

- a. Submitted by the College of: Arts and Sciences Today's Date: August 20, 2010
- b. Department/Division: Biology
- c. Contact person name: Ruth E. Beattie Email: rebeat1@uky.edu Phone: 257-7647
- d. Requested Effective Date:  Semester following approval OR  Specific Term/Year<sup>1</sup>: \_\_\_\_\_

## 2. Designation and Description of Proposed Course.

- a. Prefix and Number: BIO 303
- b. Full Title: Introduction to Evolution
- c. Transcript Title (if full title is more than 40 characters): \_\_\_\_\_
- d. To be Cross-Listed<sup>2</sup> with (Prefix and Number): \_\_\_\_\_
- e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours<sup>3</sup> for each meeting pattern type.

3 Lecture      \_\_\_\_\_ Laboratory<sup>1</sup>      3 Recitation      \_\_\_\_\_ Discussion      \_\_\_\_\_ Indep. Study

\_\_\_\_\_ Clinical      \_\_\_\_\_ Colloquium      \_\_\_\_\_ Practicum      \_\_\_\_\_ Research      \_\_\_\_\_ Residency

\_\_\_\_\_ Seminar      \_\_\_\_\_ Studio      \_\_\_\_\_ Other – Please explain: \_\_\_\_\_

- f. Identify a grading system:  Letter (A, B, C, etc.)  Pass/Fail
- g. Number of credits: 4
- h. Is this course repeatable for additional credit? YES  NO
- If YES: Maximum number of credit hours: \_\_\_\_\_
- If YES: Will this course allow multiple registrations during the same semester? YES  NO

- i. Course Description for Bulletin: This course covers topics in evolution, concentrating on the Darwinian theories of evolution including descent with modification, natural selection, and sexual selection. Topics will include: patterns of evolution, the genetic source of variation, measuring evolution, adaptation, speciation, human evolution, "evo-devo", and evolutionary medicine. Lecture, three hours; recitation, three hours. Prereq: BIO 148, BIO 152 and BIO 155 or equivalent.

- j. Prerequisites, if any: BIO 148, BIO 152 and BIO 155
- k. Will this course also be offered through Distance Learning? YES<sup>4</sup>  NO

<sup>1</sup> Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

<sup>2</sup> The chair of the cross-listing department must sign off on the Signature Routing Log.

<sup>3</sup> In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

<sup>4</sup> You must *also* submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

## REQUEST FOR NEW COURSE

1. Supplementary teaching component, if any:  Community-Based Experience  Service Learning  Both

3. Will this course be taught off campus? YES  NO

4. Frequency of Course Offering.

a. Course will be offered (check all that apply):  Fall  Spring  Summer

b. Will the course be offered every year? YES  NO

If NO, explain: \_\_\_\_\_

5. Are facilities and personnel necessary for the proposed new course available? YES  NO

If NO, explain: \_\_\_\_\_

6. What enrollment (per section per semester) may reasonably be expected? 8 sections of 30 students per semester - This will be a required course in the major. The course is being piloted in fall 2010 under the A&S 100 prefix and has an enrollment of 100 students.

7. Anticipated Student Demand.

a. Will this course serve students primarily within the degree program? YES  NO

b. Will it be of interest to a significant number of students outside the degree pgm? YES  NO

If YES, explain: This course may be of interest to students in other life science majors.

8. Check the category most applicable to this course:

Traditional – Offered in Corresponding Departments at Universities Elsewhere

Relatively New – Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program? YES  NO

If YES, name the proposed new program: \_\_\_\_\_

b. Will this course be a new requirement<sup>5</sup> for ANY program? YES  NO

If YES<sup>5</sup>, list affected programs: BS in Biology, BA in Biology, Minor in Biology The necessary program change paperwork has been submitted with this proposal

For the past three years, the faculty in the Department of Biology have been reviewing and revising the biology majors curriculum. The revised curriculum includes the addition of a required introductory evolution course at the 300-level.

<sup>5</sup> In order to change a program, a program change form must also be submitted.

## REQUEST FOR NEW COURSE

### 10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?

YES

NO

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in **10.b**. You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See *SR 3.1.4.*)

b.  The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached.

# University Senate Syllabi Guidelines

BIO 302

## General Course Information

- Full and accurate title of the course.
- Departmental and college prefix.
- Course prefix, number and section number.
- Scheduled meeting day(s), time and place.

## Instructor Contact Information (if specific details are unknown, "TBA" is acceptable for one or more fields)

- Instructor name.
- Contact information for teaching/graduate assistant, etc.
- Preferred method for reaching instructor.
- Office phone number.
- Office address.
- UK email address.
- Times of regularly scheduled office hours and if prior appointment is required.

## Course Description

- Reasonably detailed overview of the course.
- Student learning outcomes.
- Course goals/objectives.
- Required materials (textbook, lab materials, etc.).
- Outline of the content, which must conform to the Bulletin description.
- Summary description of the components that contribute to the determination of course grade.
- Tentative course schedule that clarifies topics, specifies assignment due dates, examination date(s).
- Final examination information: date, time, duration and location.
- For 100-, 200-, 300-, 400-, 400G- and 500-level courses, numerical grading scale and relationship to letter grades for *undergraduate* students.
- For 400G-, 500-, 600- and 700-level courses, numerical grading scale and relationship to letter grades for *graduate* students. (Graduate students cannot receive a "D" grade.)
- Relative value given to each activity in the calculation of course grades (Midterm=30%; Term Project=20%, etc.).
- Note that undergraduate students will be provided with a Midterm Evaluation (by the midterm date) of course performance based on criteria in syllabus.
- Policy on academic accommodations due to disability. Standard language is below:  
If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address [jkarnes@email.uky.edu](mailto:jkarnes@email.uky.edu)) for coordination of campus disability services available to students with disabilities.

## Course Policies

- Attendance.
- Excused absences.
- Make-up opportunities.
- Verification of absences.
- Submission of assignments.
- Academic integrity, cheating & plagiarism.
- Classroom behavior, decorum and civility.
- Professional preparations NA
- Group work & student collaboration. NA

## BIO 303

## Introduction to Evolution

**Instructor:** Jim Krupa

**TAs:** Sarah Stewart

Dan Wetzel

**Office:** Room 108 of MDR 3

**Office:** 106 of MDR 3

117 of MDR 3

**Phone:** 257-8417

**Phone:** 323-9499

323-9499

**Preferred method of contact:**

**Email:** bio149@uky.edu

**Email:** sarah.martin@uky.edu

dan.wetzel@uky.edu

**Office hours:** by appointment

**Lecture:** Room 116, Morgan Building (aka biology building), T, R 12.30pm – 1.45pm

**Recitations:** Room 109, Morgan Building; AS 300-002, W, noon to 1:50pm; AS 300-003, W, 2pm to 3:50pm  
AS 300-004, F, noon to 1:50pm; AS 300-005, F, 3pm to 4:50pm

**Book:** Evolutionary Analysis by Freeman and Herron, 4<sup>th</sup> edition

### Course overview / objectives

This class will examine a range of topics that are covered by the study of evolution. The class will begin with a review of all the Darwinian theories of evolution including descent with modification, natural selection, and sexual selection. The class will then survey topics such as patterns of evolution, the genetic source of variation, measuring evolution, adaptation, speciation, human evolution, “evo-devo”, and evolutionary medicine.

### Sources of grades:

#### Lecture:

Exams	400 points
Reading Quizzes	70 points

#### Recitation:

Participation during reading discussions	10 points
Attendance	20 points
Reading questions	20 points
Sexual selection write-up	20 points
Snail activity write-up	20 points
Phylogeny write-up	20 points
Film summaries	20 points

<b>Total points:</b>	<b>600 points</b>
----------------------	-------------------

### Grading:

A = 100% to 90%  
B = 89.9% to 80%  
C = 79.9% to 70%  
D = 69.9% to 60%  
E = 59.9% to 0%

**Attendance:** Even though attendance is not kept, you must attend in order to get a good grade. In the past, most of the students that got low grades are the ones that do not attend. Getting class notes from other students is not a successful substitute. Often I will give hints about upcoming exams and sometimes give actual exam questions. If

you miss lectures, you will miss this information. I do not give out my lecture notes. Also, reading newspapers during lectures, reading books, talking to others, and sleeping will not be tolerated. Those doing so will be asked to leave the lecture.

**Cheating:** Cheating as defined in the student handbook section 6.3.2, is defined as follows: "cheating is defined by its general usage. It includes, but is not limited to the wrongfully giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade. Any question of definition shall be referred to the University Appeals Board. I have a *zero-tolerance* policy in this class.

**Missing exams or recitations:** If you are ill you *must* provide convincing documentation within 7 days of missing. Make-ups for missed exams will be at a late time that I will determine. The make-up will have different questions from what was on the original exam. Further, you are expected to contact me *in advance*. Failure to comply with these simple rules just means that your absence is unexcused (e.g., zero on assignments/exams). By the same reasoning, if your car/alarm-clock/roommate/mother fails to get you to class, that's sad, but still unexcused.

**Reading quizzes:** Each quiz will be given at the *very beginning* of class on most Thursdays. The format will be mostly multiple-choice/true-false questions. Questions will be drawn only from the material assigned since the preceding quiz. There will be approximately 8 quizzes. I will drop the lowest score. If you miss class the day of a quiz, the resulting 0% will be the one dropped.

**Grade protests:** If you think I have mis-graded any piece of your work, I ask that you follow 4 simple steps:

- (1) Write a brief explanation of the problem on a sheet of paper;
- (2) attach the quiz/exam/assignment in question to it;
- (3) leave both with me; and
- (4) go away while I read and think about it. I'll return it with my decision later.

**Deadline for any** re-grade request is one week (7 days) after the initial grading was *returned to the class*.

**Responsibilities:** A Texas legislator once said, "I can *explain* it to you, but I can't *understand* it for you!" -- a pearl of wisdom that might as well have been coined by a teacher. The process of learning by formal instruction is a two-way street with burdens on both sides. I take my part seriously and expect you to do the same. Thus,

**My job is:**

1. To organize an informative, challenging, and hopefully stimulating course of study on the topic;
2. To *explain* things as clearly as I possibly can and to be prepared with other ways of getting the message across if the first way doesn't work (see point 4 on your list below);
3. To show up on time and prepared for each class;
4. To be fair & objective; and
5. To provide accurate feedback (grades) promptly, so you know how you're doing at all times.

**Your job is:**

1. To show up **on time** and prepared for every class period;
2. To **do** all the assigned reading (allow ca 3-4 hr per class period) at least once;
3. To *think* about the material, both as you read and as you participate in class;
4. To let me know when material is not clear to you (see #2 of my list above), especially by raising questions in class and/or in office hours; and
5. To be honest during tests.

## Learning outcomes

By the end of the course you should be able to:

1. Demonstrate a thorough understanding of all Darwinian and non-Darwinian theories of evolution
2. Describe the evidence all disciplines of biology provide for evolution
3. Discuss why evolution is considered a cornerstone of science and foundation of biology
4. Describe how physics, chemistry, geology, and mathematics provide support for evolution
5. Discuss how evolutionary theory is applied to medicine, agriculture, and conservation
6. Describe the mechanisms that shape microevolution and macroevolution

**Disabilities:** If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address (jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

### **\*\*\*A Note Concerning Academic Offenses (READ THIS INFORMATION CAREFULLY)**

**PLAGIARISM and CHEATING are serious academic offenses.**

The following is an excerpt taken from the "*Students Rights and Responsibilities Handbook, University of Kentucky*" regarding cheating.

*"Cheating is defined by its general usage. It includes, but is not limited to, the wrongful giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade."*

The following is an excerpt taken from the "*Students Rights and Responsibilities Handbook, University of Kentucky*" regarding plagiarism.

*"All academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression."*

*When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.*

*Plagiarism includes reproducing someone else's work..... If the words of someone else are used, the student MUST put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic."*

**Charges of an academic offense will be made against any student that cheats or commits plagiarism. Penalties for such an offense will be assessed according to University Regulations regarding Academic Offenses. The most severe penalties include suspension or dismissal from the University. I have a zero-tolerance policy regarding academic offenses.**

**NOTE\*** In addition to the circumstances listed above, the following activities are considered evidence of cheating:

- 1) **Any talking** to another student during an examination.
- 2) **Looking** at another students work during an examination, or **allowing** another student to look at your work.



- 3) **Use of a cell phone or any electronic device during an examination** (this includes receiving calls). All cell phones and electronic devices **MUST** be turned off and put away during an examination period. They must not be turned back on again until after exiting the examination room.
- 4) **Collaborating with another student on a homework assignment and/or submitting an assignment that is similar in wording or sentence construction to the work of another student**, even if you acknowledge the participation of the other student. **ALL SUBMITTED WORK MUST BE DONE BY YOU ALONE.**

**Course Policy on Classroom civility and decorum:**

The university, college and department has a commitment to respect the dignity of all and to value differences among members of our academic community. There exists the role of discussion and debate in academic discovery and the right of all to respectfully disagree from time-to-time. Students clearly have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students (S.R. 6.1.2). Equally, a faculty member has the right -- and the responsibility -- to ensure that all academic discourse occurs in a context characterized by respect and civility. Obviously, the accepted level of civility would not include attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin or other such irrelevant factors.

**BIO 303**

**Introduction to Evolution**

<b>Week</b>	<b>Lecture Topics</b>	<b>Readings</b>
1	Evolution and HIV	Chapter 1
2	Patterns of evolution	Chapter 2
3	Evolutionary theories	Chapter 3
4	Sources of evolution	Chapter 5
5	<b>Exam 1 (Tuesday, 21 September)</b>	
	Population genetics	Chapter 6
6	Population genetics	Chapter 7
7	Adaptation	Chapter 10
7	Sexual selection	Chapter 11
8	<b>Exam 2 (Tuesday, 12 October)</b>	
	Speciation	Chapter 16
	<b><u>Midterm Grades Posted (based on criteria in syllabus)</u></b>	
9	Sexual Selection	Chapter 11
10	Behavior	Chapter 12
11	Cambrian explosion	Chapter 18
12	<b>Exam 3 (Tuesday, 9 November)</b>	
	Human evolution	Chapter 20
13	Human evolution, continued	
14	No class (Thanksgiving break)	
15	Developmental biology and evolution, continued	Chapter 19
16	Evolutionary medicine	Chapter 14
Finals week	<b>Exam 4 (1pm to 3pm; Tuesday, 14 December)</b>	

**Introduction to Evolution  
Recitation Schedule**

<b>Week</b>	<b>Topics</b>
1	<b>No recitation</b>
2	<b>DVD – What Darwin Never Knew.</b>
3	Discussion of assigned reading: Evolution of human sex
4	<i>Exam preparation and review</i>
5	Measuring variation in a population of grove snails
6	<b>DVD – Evolution of the eye; evolution of sex</b>
7	<i>Exam preparation and review</i>
8	Constructing phylogenetic trees: humid skulls and conch shells
9	Computer simulation: sexual selection
10	<b>DVD – How the earth was formed</b>
11	<i>Exam preparation and review</i>
12	<b>DVD – The Human Spark</b>
13	Discussion of assigned readings: Evolution of human skin color
14	No recitation (Thanksgiving break)
15	Discussion and readings: Evolution, intelligent design, and creationism
16	<b>DVD – Creation: film based on Randall Keynes's book on Charles Darwin titled "Annie's box"</b>