

REQUEST FOR NEW COURSE

Signature Routing Log

General Information:

Course Prefix and Number: BIO 155

Proposal Contact Person Name: Ruth E. Beattie

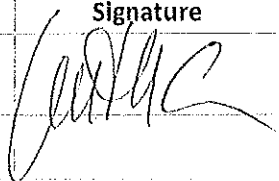
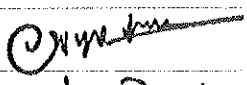
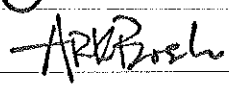
Phone: 257-7647

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
Biology Faculty	04/10/09	Dr. Vincent Cassone / 257-6766 / vincent.cassone@uky.edu	
		/ /	
		/ /	
AAS BPC	10/5/10	garpach murray 17-4751 garpach@ murray.edu	
AAS Dean	10/5/10	laxn Boesch 17-6687 boesch@ uky.edu	

External-to-College Approvals:

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

Comments:

⁶ 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: <u>A&S</u>	Today's Date: <u>August 27, 2010</u>			
b. Department/Division: <u>Biology</u>				
c. Contact person name: <u>Ruth E Beattie</u>	Email: <u>rebeat1@uky.edu</u>	Phone: <u>257-7647</u>		
d. Requested Effective Date: <input type="checkbox"/> Semester following approval OR <input checked="" type="checkbox"/> Specific Term/Year ¹ : <u>Fall 2011</u>				
2. Designation and Description of Proposed Course.				
a. Prefix and Number: <u>BIO 155</u>				
b. Full Title: <u>Laboratory for Introductory Biology I</u>				
c. Transcript Title (if full title is more than 40 characters): <u>same as above</u>				
d. To be Cross-Listed ² with (Prefix and Number): <u>n/a</u>				
e. Courses must be described by <u>at least one</u> of the meeting patterns below. Include number of actual contact hours ³ for each meeting pattern type.				
_____ Lecture	<u>3</u> Laboratory ⁴	_____ Recitation	_____ Discussion	_____ Indep. Study
_____ Clinical	_____ Colloquium	_____ Practicum	_____ Research	_____ Residency
_____ Seminar	_____ Studio	_____ Other -- Please explain: _____		
f. Identify a grading system: <input checked="" type="checkbox"/> Letter (A, B, C, etc.) <input type="checkbox"/> Pass/Fail				
g. Number of credits: <u>1</u>				
h. Is this course repeatable for additional credit? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
If YES: Maximum number of credit hours: _____				
If YES: Will this course allow multiple registrations during the same semester? YES <input type="checkbox"/> NO <input type="checkbox"/>				
i. Course Description for Bulletin: <u>This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information.</u>				
j. Prerequisites, if any: <u>Math ACTE of 23 or above or MA 109, past or current enrollment in CHE 105</u>				
k. Will this course also be offered through Distance Learning? YES ⁴ <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
l. Supplementary teaching component, if any: <input type="checkbox"/> Community-Based Experience <input type="checkbox"/> Service Learning <input type="checkbox"/> Both				
3. Will this course be taught off campus? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				

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

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

³ 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)

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

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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?** Fall: 15 sections of 30 students (450) total); Spring: 15 sections of 30 students (450 total); summer enrolment: 2 sections of 30 (60 total) = 960 annual enrollment

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 will be of interest to students in other science programs and to those planning on entering professional schools in the medical field

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 requirement⁵ for ANY program? YES NO

If YES⁵, list affected programs: B.S. in Biology, B.A. in Biology, Minor in Biology. The program change paperwork has been submitted.

BIO 155 was piloted in Fall 2009 under the A&S 100 prefix (100 students - 4 section of 25) and is being piloted again in Fall 2010 (100 students - 4 sections 25).

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.)

⁵ In order to change a program, a program change form must also be submitted.

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- 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

B10155

General Course Information

- Full and accurate title of the course.
- Departmental and collegé 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) 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.
- Group work & student collaboration.

Dept of Biology
College of Arts and Sciences

Class meetings:

- ❖ Section 1: Monday 8 AM to 10:50 AM, Morgan B03
- ❖ Section 2: Monday 11 AM to 1:50 PM, Morgan B03
- ❖ Section 4: Wednesday 11 AM to 1:50 PM, Morgan B06
- ❖ Section 6: Friday 11 AM to 1:50 PM, Morgan B03

Course Instructor: Dr Jeff Osborn

Room: BS 115A

Preferred method of contact: e-mail: Jeffrey.osborn@uky.edu
257-3988

Office hours: By appointment.

Teaching Assistants:

Ms. Melanie O'Day
melanietoday@gmail.com

Mr. Josh Williams
joshua.williams2@uky.edu

Textbooks: Biological Science, Fourth Edition by Scott Freeman

Course Description/ Overview

This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information.

Grades

Grades for all assignments will be made available through Blackboard. Space is provided in the table below for you to track your course progress through the semester.

Assignment	Max point value	Your Points Earned
Initial Writing Assessment	5	
Bibliography assignment	5	
CPR assignment #1	15	
CPR assignment #2	15	
CPR assignment #3	15	
CPR assignment #4	15	
Phylogeny Assignment #1	10	
Phylogeny Assignment #2	10	
Lab Participation/Attendance	10	
Total Points for Course	100	

The grading scale will be as follows:

A = 90 - 100 points	D = 60 - 69 points
B = 80 - 89 points	E = less than 60 points
C = 70 - 79 points	

Outline of Content

All students will complete regular independent literature searches, and complete calibrated peer review (CPR) level writing projects (4/semester). Writing projects will require data access from genomic database sites, interpretation of those data, and appropriate application of the genomic structures to authentic 21st century life science problems. In CPR, students will be provided with solid examples of various quality level writing samples and use these scientific writing examples to build their own writing skills as well as anonymously assess and evaluate peer writing skills. For more information on the HHMI/NSF/UCLA model CPR program see <http://cpr.molsci.ucla.edu/>.

1. Rescheduling Course Assignments

Students with documented excusable absences are allowed to make up missed assignments according to the following guidelines. For non-emergencies, students must notify the instructor at least 1 week (7 days) before the assignment of conflict. For emergencies related absences, student must notify the instructor no later than 48 hours after the missed assignment. Documentation, when requested, must be submitted no later than 1 week, 7 days, after missed assignment. Excused, missed assignments must be completed within one weeks (7 days) of the original scheduled due date, unless other arrangements have been made with the instructor. Attendance is required for lab. **Five points will be deducted from your total points for each unexcused absence from lab** (see below for University Senate rules on excused absences). In addition to the 5-point deduction, you will lose points from any quizzes or assignments that you missed due to your absence.

For excused and documented absences, this course adheres to the University policy as follows:

- A. Illness of the student or serious illness of a member of the student's immediate family. The instructor shall have the right to request appropriate verification.
- B. The death of a member of the student's immediate family. The instructor shall have the right to request appropriate verification.
- C. Trips for members of student organizations sponsored by an academic unit, trips for University classes, and trips for participation in intercollegiate athletic events. When feasible, the student must notify the instructor prior to the occurrence of such absences, but in no case shall such notification occur more than one week after the absence. Instructors may request formal notification from appropriate university personnel to document the student's participation in such trips.
- D. Major Religious Holidays. Students are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class.
- E. Any other circumstances which the instructor finds reasonable

cause for nonattendance.

Students missing class-work due to an excused absence bear the responsibility of informing the instructor about their excused absence within one week following the period of the excused absence (except where prior notification is required), and of making up the missed work. The instructor shall give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Students that miss an assignment due date as a result of an unexcused absence, or those failing to provide proper documentation for excusable absences will not be allowed to make-up the missed work or submit work late. Late assignments submitted as a result of unexcused absences will not be accepted. Such submissions (if submitted anyways) will receive an automatic zero points.

2. Punctuality and Attendance

Please do not arrive late or leave early. This is disruptive toward other members of the class. If you must enter late or leave early, please sit near the exits to minimize class disruption. Get your materials out and be ready to take notes **before** you enter the classroom.

3. Academic Honesty

Cheating or acts of plagiarism on any graded material are not tolerated. All students are expected to uphold a basic standard of academic honesty as outlined by the University of Kentucky Senate Rules (<http://www.uky.edu/USC/New/SenateRulesMain.htm>).

University Senate Rules Regarding Plagiarism (SR 6.3.1)

– **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. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

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.

University Senate Rules Regarding Cheating (SR 6.3.2)

--**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. The fact that a student could not have benefited from an action is not by itself proof that the action does not constitute cheating. Any question of definition shall be referred to the University Appeals Board.

Charges of an academic offense may be made against any student that cheats or commits plagiarism on any graded course material. Penalties for such an offense will be assessed according to the University Rules regarding Academic Offenses. For more information

regarding specific procedures, visit the website:
http://www.uky.edu/Faculty/Senate/rules_regulations/index.htm
and click on any of the "University Senate Rules" links.

Extra Credit: There is not any extra credit.

Cell phones: Cell phone use and texting has been a particular problem in the past. To remediate this problem, cell phone and texting will not be permitted inside the classroom at anytime before, during, or after class. If you have something important to say to someone using a phone, do it outside of the classroom and turn it off, or put it on silent mode, before entering the classroom. If you use your phone for any reason inside the classroom you may be asked to leave class, or your phone may be removed from you.

Responsibility: College life is intended to accomplish many goals. These include learning the material in class, learning to think, becoming enlightened as to the ways of the world, and developing a sense of responsibility. Most students are responsible and do not need to develop this aspect of one's self. Unfortunately some students lack this quality. Thus it is our job to help instill an appreciation for this attribute. It is your responsibility to attend class, study hard, take exams when scheduled, and get all information from lectures when the information is given. *Handouts, additional page assignments, tips and hints to help prepare for the exam will be given only in class.* If you miss class, you must get the information from other students with no guarantee that they will be willing to supply this information. I do not supply handouts other than on the day they are given and I do not make class notes available. It also is your responsibility to pick up your returned exams and keep them until you have received your final grade for the class. Cheating is one of the most irresponsible behaviors regularly seen in college. This is an act that will warrant the most severe response!

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.

Final important point: Read this syllabus carefully. It is your class contract. By accepting the guidelines detailed above, you are accepting the terms of your class contract. If you do not find any aspect of this acceptable, you should withdraw from the class.

Course Goals

The students will learn methods of biological information search, retrieval and analysis. They will critically evaluate primary literature in the discipline, and will learn the skills necessary for technical writing in the discipline.

Learning Outcomes:

At the completion of the course, the student will be able to:

- 1) Write a critical review of the scientific literature
- 2) Write a scientific report.
- 3) Acquire genomic and proteomic data from public databases.
- 4) Analyze and compare protein and gene sequences.

BIO 155 Weekly Schedule

Week	Lab Topic
8/30-9/3	Introduction to Calibrated Peer Review (CPR), CPR password and other software to be used during the course. Trial writing assignment and peer evaluation
9/6-9/10	Labor Day Holiday - No Lab.
9/13-9/17	Introduction to PubMed, Google Scholar, ISI Web of Knowledge and EndNote. Search strategies, citations and meaning of impact factors. Generation of Bibliography from online resources.
9/20-9/24	Animation of DNA Sequence, Replication, Transcription and Translation. Begin CPR writing assignment #1
9/27-10/1	CPR Review #1. Introduction to NCBI and GenBank.
10/4-10/8	Introduction to DNA sequencing, BLAST, Sequence alignments, and Clustal W. Begin CPR writing assignment #2.
10/11-10/15	CPR Review #2. <u>Midterm grades posted based on criteria listed in syllabus</u>
10/18-10-22	Phylogenetic analysis of morphological data. Phylogeny assignment #1
10/25-10/29	Review of phylogeny assignment #1.
11/1-11/5	Phylogenetic analysis of sequence data. Phylogeny assignment #2
11/8-11/12	CPR assignment #3
11/15-11/19	CPR Review #3
11/22-11/26	Thanksgiving Recess (11/24-11/27) No Lab
11/29-12/3	Evaluation of literature: Natural Selection on color patterns in <i>Poecilia reticulata</i> . Natural selection simulations. Begin CPR

	assignment #4
12/6-12/10	Final Project/Paper: CPR Review #4.
12/13 – 12/17	Final Exam Week

Key Dates

Aug 25	First day of classes
Aug 31	Last day to add a class
Sept 15	Last day to drop without W
Nov 5	Last day to drop with W
Dec 10	Last day of classes
Dec 13-17	Final Exams: No final exam: Final project/ paper (CPR Review #4) due during dead Week.