College of Liberal Arts & Sciences
Department of Biology
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17 January 2012

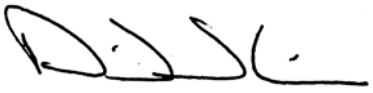
To: Dr. Bernard Mair
Associate Provost for Undergraduate Affairs
Co-Chair, General Education Committee

Re: General Education Proposal for BSC 2009

Dear Bernard,

Please accept this application for a Biological Sciences General Education Classification for the new course BSC 2009 (*Biological Sciences*). This course is intended to provide a general overview of the discipline of biology for non-majors. It will replace BSC2007 (*Biological Sciences: Cells, Organisms and Genetics*) and BSC2008 (*Biological Sciences: Evolution, Ecology and Behavior*), which are the only two existing General Education courses in the Department of Biology. The rationale for combining the courses is to provide students who take only one biology course from our department the opportunity to have a synthetic overview of the field. A small number of undergraduate degree programs currently require their students to take both BSC2007 and BSC2008, but these programs have indicated their support for this change. This new course has been approved by SCNS beginning in the fall semester, 2012.

Sincerely,



David Julian
Associate Professor

Application Form for General Education and Writing/Math Requirement Classification

Current Information:

I. A.) DEPARTMENT NAME: Biology
B.) COURSE NUMBER, and TITLE: BSC 2009 Biological Sciences

C.) CREDIT HOURS: 3 **D.) PREREQUISITES:** None

E.) CURRENT CLASSIFICATION

1. General Education Code: ☐B ☐C ☐D ☐H ☐M ☐N ☐P ☐S **X** None
2. Writing Requirement: ☐ E2 ☐ E4 ☐ E6 **X** None
3. Math Requirement: ☐ M **X** None

Requests:

II. GENERAL EDUCATION

A.) Requested Classification: **X** B ☐ C ☐ D ☐ H ☐ M ☐ N ☐ P ☐ S

B.) Effective Date: **X** Fall ☐ Spring ☐ Summer 2012 (year)

Or

☐ 1-time Approval ☐Fall ☐ Spring ☐ Summer _____(year)

III. WRITING REQUIREMENT ☐ **MATH REQUIREMENT** ☐

A.) Requested Classification ☐ E2 ☐ E4 ☐ E6

B.) Effective Date: ☐Fall ☐ Spring ☐ Summer _____(year)

Or

☐ 1-time Approval ☐Fall ☐ Spring ☐ Summer _____(year)

C.) Assessment:

1.) What type of feedback will be provided to the student (in reference to writing skill)?

_____Grade _____Corrections _____Drafts _____Other

2.) Will a published rubric be used?

IV. ATTACH A DETAILED SYLLABUS

V. SYLLABUS CHECKLIST

Courses that offer students General Education and/or Writing Requirement credit must provide clear and explicit information for the students about the classification and requirements.

A.) For courses with a **General Education** classification, the syllabus should include:

- □ Statement of the General Education Purpose of the Course with attention to the General Education Classification requested
- □ List of assigned General Education Student Learning Outcomes
- □ List of any other relevant Student Learning Outcomes
- □ List of required and optional texts
- □ Weekly course schedule with sufficient detail (e.g. topics, assigned readings, other assignments, due dates)

B.) For courses with **Writing Requirement (WR)** classification, the syllabus should include:

- □ "The Writing Requirement ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning."
- □ “Course grades now have two components: To receive writing credit, a student must receive a grade of “C” or higher and a satisfactory completion of the writing component of the course.”
- □ A statement or statements indicating that the instructor will evaluate and provide feedback on the student's written assignments with respect to grammar, punctuation, usage of standard written English, clarity, coherence, and organization
- □ Assignment word counts, page lengths, submission deadlines and feedback dates

Additionally, the syllabus must clearly show that the course meets the WR to

- □ Evaluate [2,000/4,000/6,000] written words in assignments during the semester
- □ Provide all feedback on assignments prior to the last class meeting

Important note: The following types of writing assignments **CANNOT** be used to meet the WR: teamwork, exam essay questions, take-home exams, and informal, ungraded writing assignments.

VI. SUBMISSION AND APPROVALS

Department Contact:

Contact Name: David Julian
Phone 352-392-5878
Email djulian@ufl.edu

College Contact:

College Name: Liberal Arts and Sciences
College Contact Name: David Pharies
Phone 352-392-2264
Email: pharies@ufl.edu

Course Number and Title

BSC 2009 – Biological Sciences

Catalog Description

A comprehensive introduction to living systems, including the scientific basis of biology, cell structure and function, genetic mechanisms, animal and plant anatomy and physiology, and ecology and evolutionary processes. Recommended for students not majoring in the natural sciences.

Credit Hours

3

Pre-requisites and Co-requisites

None

General Education Classification

This course meets the general education requirements for Biological Sciences.

General Education Learning Objectives

Content Knowledge

- Know the basic concepts, theories and terminology of natural science and the scientific method within the biological sciences.
- Know the major scientific developments within the biological sciences and the impacts on society and the environment.

Critical Thinking

- Formulate empirically-testable hypotheses derived from the study of physical processes and living things within the biological sciences.
- Apply logical reasoning skills effectively through scientific criticism and argument within the biological sciences.
- Apply techniques of discovery and critical thinking effectively to solve experiments and to evaluate outcomes.

Communication

- Communicate scientific findings clearly and effectively using oral, written and/or graphic forms.
- Write effectively in several forms, such as research papers and laboratory reports.

Specific Course Learning Objectives

- Explain the scientific method and its application to understanding the biological sciences.
- Identify groups of carbon compounds in foods and on food labels.
- Label the various components of a typical eukaryotic cell.
- Explain how energy is produced during cellular respiration.
- Describe the process of photosynthesis.
- Recognize the stages of the cell life cycle.
- Use Mendelian genetics to predict phenotypes.
- Describe the conditions required for natural selection
- Discuss mechanisms of evolutionary change
- Explain how the scientific theory of evolution is supported by the various lines of evidence.
- Relate structure to function for various components of plants and animals.
- Evaluate the environmental impact in their local community

- Collaborate with other students to develop a plan for using resources more efficiently in the local community.
- Use observations of the natural world to formulate empirically-testable hypotheses.
- Develop materials to support or reject existing scientific hypotheses.
- Apply critical thinking skills in evaluating data that test a scientific hypothesis.

Instructor Information

Name: Dr. Jill Holliday

Office location: 520 Carr Hall

Telephone: 352.392.1187

E-mail address: jaholliday@ufl.edu

Office hours: TBA

Course Meeting Time(s)

TBA

Course Meeting Location(s)

TBA

Course Website

Course materials and related information will be posted on the course E-Learning (Sakai) website at http://lss.at.ufl.edu. You are responsible for all announcements made in class and/or posted on the course website for this course.

Fees

Material and Supply Fee

None

Required Materials

Textbook or Other Readings

Biology for a Changing World: Shuster, M., Vigna, J., Sinha, G., Tontonoz, M.

ISBN# 978-0-7167-7324-5

Course Outline (topics covered by week or by class period)

Week	Topic
1	Process of Science
2	Chemistry and Molecules of Life
3	Cell Function and Structure
4	Nutrition, Metabolism, Enzymes
5	Energy Flow and Photosynthesis
6	Dietary Energy and Cellular Respiration
7	DNA Structure and Replication
8	Genes to Proteins
9	Cell Division and Mitosis
10	Genetic Mutations and Cancer
11	Single-Gene Inheritance and Meiosis
12	Natural Selection and Adaptation
13	Evidence for Evolution
14	Population, Community, and Ecosystem Ecology
15	Sustainability

Attendance Policy

Students are responsible for participating in all weekly discussions, as well as reading all text and announcements posted online.

Make-up Policy

Due dates for discussions, assessments, and assignments will be extended for students with a valid, excused absence.

Grading

Activity	Quantity	Points each	Total points	Percent of final grade
Quizzes	10	20	200	50%
Activities	14	10	140	35%
Special Projects	2	20	40	10%
Class Participation	10	2	20	5%

Grading Scale

Point Range (%)	Letter Grade	GPA equivalent
≥ 90.00	A	4.0
86.7 – 89.9	A-	3.67
83.3 – 86.6	B+	3.33
80.0 – 83.2	B	3.0
76.7 – 79.9	B-	2.67
73.3 – 76.6	C+	2.33
70.0 – 73.2	C	2.0
66.7 – 69.9	C-	1.67
63.3 – 66.6	D+	1.33
60.0 – 63.2	D	1.0
56.7 – 59.9	D-	0.67
< 56.7	E	0

Note that a "C-" will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

Activities

Students will complete 14 activities each worth 10 points; this represents 35% of their final grade. The purpose of these activities is to encourage students to think about Biology outside the framework imposed by the textbook or instructor lectures by giving them the opportunity to develop their own materials to support or reject existing scientific hypotheses.

For each activity, students are provided with specific instructions for completing the activity and a grading rubric. The grading rubrics are designed to evaluate the student's mastery of specific content and their ability to produce bodies of work within the guidelines specified in the instructions. Some examples of activities types include: web quests, expository writing, video reviews, inquiry activity sheets, and construction of figures and tables. Each activity is due at the end of the week in which it was assigned.

Special Projects

Students will complete two special projects each worth 20 points; this represents 10% of their final grade. Each project may be a paper, video or other creative product. The purpose of the special projects is to challenge students to relate what they learned from the assigned activities to global issues, such as, overpopulation, reducing landfills, ocean acidification, and human disease. The special projects are structured around open-ended type questions and students are encouraged to represent multiple perspectives on these issues.

There are no predefined rubrics for these projects. However, student projects must meet the following two criteria: the project must be an extension of one of the topics covered in the assigned activities, and the project must demonstrate the student's exemplary use of technology. The first project is due at the end of Week 7 and must be derived from one of the first seven activities. The

second project is due at the end of Week 14 and must be derived from one of the remaining seven activities.

UF Counseling Services

- Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:
  - UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
  - Career Resource Center, Reitz Union, 392-1601, career and job search services.
- Many students experience test anxiety and other stress related problems. "A Self Help Guide for Students" is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their web site: http://www.counsel.ufl.edu/.

Honesty Policy

- All students registered at the University of Florida have agreed to comply with 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."
- In addition, on all work submitted for credit the following pledge is either required or implied: "*On my honor I have neither given nor received unauthorized aid in doing this assignment*."
- If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: http://www.dso.ufl.edu/judicial/procedures/academicguide.html.

Accommodation for Students with Disabilities

- Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: http://www.dso.ufl.edu/drp/services/.
- It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing 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.