

**EXAMPLE COURSE SYLLABUS – VARIES SOME SEMESTER-BY-SEMESTER**  
**LB144: Introductory Organismal Biology**

**COURSE OVERVIEW**

LB144 is formally an introductory organismal biology course, but in reality is a wondrous exploration of life, examining the way that organisms live, survive, and interact with each other and the environment they live in, all within a scientific framework. Specifically, we will study organisms and their environments (ecology), genetic variation and inheritance, and the interactions of ecology and genetics over time (evolution) that led to the diversity of life observed on the planet today. LB144 includes an 80 minute class meeting that meets twice per week and a combined 3 hour lab/ recitation session that meets once per week.

**COURSE LEARNING GOALS & PHILOSOPHY**

My **content learning goals** are for you to understand, describe, and provide examples of how:

- 1) The reproduction of cells, chromosomes, and genes leads to variation among individuals.
- 2) Interactions among organisms and the environment determine individual survival and reproduction.
- 3) Selection (and other mechanisms) acts on individuals and leads to the evolution of populations.
- 4) The interaction of the processes underlying heredity (genetics) with the surrounding environment (ecology) leads to evolution and the diversity of biological organisms observed on this planet.

My **skills learning goals** are for you to excel at:

- 1) Science process skills, especially hypothesis formation and testing, inference, prediction, interpretation, and experimentation.
- 2) Graph building and interpretation,
- 3) Effective and cooperative teamwork (e.g., team building/development, communication and leadership),
- 4) Communication (critical reading, listening, writing, and verbal communication) using current technologies aimed at a variety of audiences important for scientists,
- 5) Using evidence-based arguments.

**Philosophy:** In general, I believe that it is my role to facilitate your learning and critical thinking. I hope to provide you with a solid foundation of concepts and skills with which you may understand the complexity of Earth's organisms. Because knowledge is dynamic, I want you to develop the skills necessary for a lifetime of learning. I also believe that individuals perform best, enjoy the experience, and learn the most when working in a high-functioning cooperative, team-based environment. Therefore, I will work to facilitate such an environment in both the classroom and lab. As your instructor and as a student in this class, it is our *shared responsibility* to develop and maintain a positive learning environment for everyone. I take this responsibility very seriously and will inform members of the class if their behavior is negatively affecting the learning environment. As a fellow learner, you are asked to respect the learning needs of your classmates and assist me in achieving this critical goal.

**MY EXPECTATIONS OF YOU**

- 1) Work to your fullest potential to achieve the course learning goals.
- 2) Submit only your own work on independent projects or that of the group for group projects.
- 3) Attend and engage yourself in all class and lab/recitation meetings.
- 4) Arrive to class and lab on time, ready to learn and participate.
- 5) Finish and turn in assignments on time.
- 6) Work cooperatively in groups and respect the opinions and input of other students.

## LEVELS OF SUPPORT

This is a difficult course and I do not assume that you will understand all of the course material on your own. Below are the steps you should take when you do not understand something (in addition to reading your textbook and reviewing your course notes). At each step, even if the person you ask for help does not know how to help you understand the material, they can provide you with perspective and support! At any time, you are encouraged to attend my office hours; I offer these hours hoping that you will come and talk with me about the course and get to know me better (and I you!).

- 1) If you have a question during the class period, raise your hand to ask it. Other students probably have the same question, and we often learn the most through thoughtful discussion.
- 2) Ask for help from your team members or other study buddies in the class. This strategy will help you *and* the person you ask learn the material because we learn best by teaching others.
- 3) Ask for help at the weekly study sessions (Mondays, 6-7pm C-3) held by the GTAs.
- 4) Ask for help from an UGLA during their open lab hours or at the end of lab/recitation. They have taken the course previously (and succeeded!) and remember clearly what it is like to not understand some of the material.
- 5) Ask your GTA lab/recitation instructor for help during their open lab hours or at the end of lab/recitation.
- 6) See an LB advisor to ask about help with study skills, test-taking tips, and peer tutoring opportunities.

## YOUR TEACHING TEAM

### Professor:

Dr. Kendra Spence Cheruvelil (Dr. C)

189 East Holmes Hall

517-353-9528; [ksc@msu.edu](mailto:ksc@msu.edu)

Office hours: During office hours, we can talk about the class (topics you find interesting, topics you find difficult), your learning or career goals, current science topics in the media, etc... Please come visit me so that we can get to know one another!

- Thurs 2 - 4 pm
- Whenever my office door is open/ajar (I get distracted when by door is completely open, but I'd still like to talk with you!)
- By appointment

My expertise is in limnology (freshwater ecology), specifically the roles that aquatic plants play in lake foodwebs and landscape limnology (the spatially-explicit study of aquatic ecosystems as they interact with the aquatic, terrestrial and human components of landscapes to determine the effects of pattern on ecosystem processes across spatial scales).

**Graduate Teaching Assistants (GTAs):** varies by semester

**Undergraduate Learning Assistants (UGLAs):** varies by semester

## CLASS MEETINGS

10:20 – 11:40am or 2:40 – 4pm (varies by semester) T and Th, C-106 Holmes Hall

**Lecture GTA/UGLAs:** varies by semester

## LABS/ RECITATIONS

Section #	Day and Time	Instructors
varies by semester	varies by semester	varies by semester: 1 Prof or GTA + 2UGLAs
<b>Open Lab Hours</b>	varies by semester	varies by semester: $\geq 1$ hr every business day
<b>Weekly Study Session (C-3)</b>	varies by semester	varies by semester: once a week

### REQUIRED TEXTS AND SUPPLIES (*From Fall 2011 – varies by semester*)

**1. Textbook** (available at all campus and off-campus bookstores)

Biology, 8<sup>th</sup> edition. 2008. Campbell & Reece, Pearson/ Benjamin Cummings (ISBN: 0-321-54325-4). This is a large and expensive book, and I recognize that times are difficult financially for many. Here are some options for how you can purchase your textbook (all are fine by me!):

- NEW at a bookstore or online (includes Mastering Biology (online study resource) & e-book),
- USED at a bookstore or online (NO Mastering Biology or e-book),
- NEW at the bookstore but NOT hard bound/covered (includes Mastering Biology & e-book) - this option will be 3-hole punched to be put in a binder (might have to be special ordered),
- Mastering Biology and e-book ONLY at the publisher's website ONLY ([www.masteringbiology.com](http://www.masteringbiology.com)).

**2. Coursepack** (available *only* at The College Store in the Hannah Plaza): The Lab Book 15<sup>th</sup> Edition for Dr Cheruvellil's course. **NOTE:** there is another section being taught by Dr Murphy, who uses a lab manual with the same title, but it has different materials in it!

**3. Clicker** (available at all campus and off-campus bookstores if you don't already have one)

- An iClicker (either version 1 or 2 is fine)
- All students must then go online to <http://www.iclicker.com/registration/> and register your iclicker following the instructions provided there (student ID = your MSU email address without the @msu.edu; Remote ID = the bar code at the bottom of the back of your iClicker).
- We will start using the clickers in class *right away!*

### HONORS OPTION (*From Fall 2011 – varies by semester*)

There is an honors options available: *Experiencing Science thru Seminars*. Every semester, there are hundreds of seminars across the MSU campus. For this honors option, you will attend 10 science seminars and reflect upon them in a written format. If you would like to participate, see me (or send me an email) *no later than September 15<sup>th</sup>* to get more information and to sign up. I anticipate a weekly time commitment of approximately 2 hours for this honors option.

### POLICIES

1) *Accommodations:* I strive to create an inclusive learning environment. However, it is your responsibility to let me know right away if you have a disability, religious observance, or other situation that requires accommodation. MSU is committed to providing equal opportunity for participation in all programs, services, and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation (“VISA”) form. Please present this form to me at the start of the semester and/or two weeks prior to the

accommodation date (test, paper, etc...). Requests received after this date will be honored whenever possible.

- 2) *Attendance*: Attendance is not mandatory. However, missing class will most definitely result in decreased learning (and a corresponding lower grade for the class). No in-class activities can be made up if missed. Come to class on time since we will start *right* away. I consider every minute to be important, and in particular, the first 5 minutes of each lecture and lab/recitation is the most crucial since they establish direction for that session. Therefore, if you come in late, certain things may not make sense, you will miss important announcements, and in some instances you may miss the opportunity to take a quiz that cannot be made up. If you are unable to attend class or are not interested in attending class on a particular day it is YOUR responsibility to make up the work missed (and meet all deadlines). Before seeing me about what you missed for the day, check the ANGEL website for the day's information and speak with another student in the class about getting notes and assignments. If you are still unclear about class topics or assignments, attend office hours or schedule an office appointment. The burden of staying current in this class rests on your shoulders.
- 3) *Expectations outside of class*: Expect to spend *at least* 2 hours of out-of-class time for every one credit hour. Therefore, because there are 4 class hours/week, expect to spend *at least* 8 hours/week working on the class outside of class time. Come to class having already read for class (textbook, lecture notes, lab manual) – this will greatly increase your understanding (and result in a better grade).
- 4) *Classroom conduct*: Throughout the semester, please be courteous to your fellow students and to me so we can create a positive learning environment. All technology (cell phones, beepers, laptops) must be turned off and stowed away prior to entering the classroom/lab. Anyone caught Facebooking, texting, emailing, etc... will be asked to leave the class immediately.
- 5) *Class communication*: We will make announcements regarding the course on the Angel course website and with email. Therefore, please be sure to check the Angel course website and your MSU email frequently (*preferably once daily, but at least twice per week*). Supplemental course materials will be made available through the Angel course website. For example, we will post figures and tables that accompany class, lab/recitation in the Lessons section of Angel.
- 6) *Email correspondence*: I would like to remind students that emails are permanent records of communication; therefore emails should be written professionally. A professional email includes a proper greetings (i.e., Dear Dr C,) and signature (i.e., Thank you, Mary), a descriptive subject (i.e., Question about a difficult concept in LB144), and is written using complete words and sentences and all appropriate punctuation. I will only respond to student emails that come from MSU accounts. Do not expect me to respond immediately (often I will not be able to respond until at least 24 hours after you send us an email) or over weekends.
- 7) *Evolution*: During this semester we will discuss evolution in some detail. Evolution is the basis for biology/science and is distinct from all religious/spiritual beliefs. You may choose to not agree religiously/spiritually with some aspects of evolution. However, to receive credit in this course, all assignments must be answered from a purely biological/scientific stand point.
- 8) *Academic Integrity*: Academic integrity means being honest about your intellectual work. Working with a learning partner and as a member of a cooperative team is an effective method of learning biology or any subject. Interacting with other people is a natural way for humans to learn, but each person must construct her or his own knowledge in the process. In Briggs Biology, we encourage you to work and study together both in and out of a more formal classroom setting. The written materials you alone produce as homework assignments, in-class exercises and projects will be an outcome of these interactions, while also being a means of evaluating your personal knowledge. This is when the topic of academic integrity becomes an issue. LBC has the following honor code, developed by your peers: "*As a member of the Lyman Briggs College community, I vow to hold*

*myself and my peers to the highest measures of honesty and integrity. I understand that this benchmark is set forth to advance the credibility and pride associated with our College. I will neither give nor receive any unauthorized assistance in completing my work, which includes, but is not limited to: papers, reports, exams, group-work, and classroom conduct.*" In addition, MSU has an all university policy concerning Academic Honesty and Integrity: Article 2.3.3 of the Academic Freedom Report states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, LB adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: [www.msu.edu](http://www.msu.edu)). Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the <http://www.allmsu.com> web site to complete any course work in LB144. Students who violate MSU rules may receive a penalty grade, including--but not limited to--a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also <http://www.msu.edu/unit/ombud/honestylinks.html> ). As a student of MSU, it is your responsibility to become familiar with, understand, and abide by the General Student Regulations which protect both you and the university if an infraction has occurred. *Ignorance of these regulations is not a defense in cases of infringement.*

- 9) *Recitations/Labs:* LB144 includes a combined 3 hour recitation/lab session that meets once per week. Plan for these weekly sessions to last the entire 3 hours. They are made up of a 1) a pre-lab quiz, 2) 20-60 minute recitation, and 3) hands-on, guided inquiry-based lab activities. All lab materials must be thoroughly read prior to this session. The short pre-lab quiz will be based on the lab manual, will focus on making sure that students will meet learning and skills goals, will be handed out during the first 5 minutes of lab only, and cannot be made up. Any make-up or extra lab work must be conducted during open lab hours managed by the UGLA/GTAs (see above schedule).
- 10) *Base groups:* The purpose of long-term cooperative learning groups (base groups) is to provide students the support, encouragement, and assistance they need to succeed in this course and beyond. During this course, you will be part of a class base group (4 students). These groups will be assigned during the second week of class based on background and skills and will be maintained for the semester. Within the group, each student will take on particular roles to balance the workload, and assessment of team functioning will occur regularly. The members of your base group should exchange phone numbers, room numbers, and information about schedules as you may wish to meet outside of class. Your base group should be a resource for preparing for class, sharing course materials, and studying for exams. If a group member must arrive late or leave early on occasions, the base group can provide information about what that student missed. You must sit with your base group members during class sessions. If you experience difficulty working effectively as a group, please see me *right away* so that we can help resolve any problems and get your group back on track.
- 11) *Clickers:* You are responsible for your clicker. Bring it to ALL classes. If your clicker malfunctions, check the battery and power button and then ask for help from your lecture TA or UGLA. Each student will be allowed to turn in only 2 in-class clicker exercises or quizzes using paper.
- 12) *Requesting Review of an Assignment for Possible Grade Change:* Upon receipt of a graded assignment, it is in your best interest to review your work to 1) ensure the points were added

correctly and 2) to ensure that points were not taken away incorrectly (i.e., you feel your answer is correct but was not graded correctly). At the same time, you should also match the score of your work with the score posted on ANGEL to confirm correct entry into the grading spreadsheet. If you identify a discrepancy you must follow the protocol listed below.

- a. On the top of the first page of your assignment, clearly indicate in writing the discrepancy. If you are requesting a re-grade for points that you think were unfairly lost, you must use *scientific evidence* to argue your case, and I reserve the right to re-grade your entire piece of work. You may include this as a note on a separate sheet of paper if needed. If I am unclear about what you are asking to review, I will request a meeting with you for further explanation. Out of fairness to you and your grade, I will not answer change in grade issues “on the spot”. I request time to thoroughly look at your concern and give it fair consideration before making a decision.
- b. You have one (1) week from the date the assignment is returned to the class to grieve your case. For example, if a graded assignment is returned to the class on Wednesday October 6 you have until Wednesday October 13 at 5 pm to return your assignment and concern to me. If you miss class on October 6, it is still your responsibility to turn in your grade change request by October 13. Change in grade requests must be accompanied by the document you want reviewed. Failure to include the assignment will result in no review. *If one week passes since the assignment or exam was returned to the class and you have NOT submitted a change in grade review request, you are acknowledging that you are in agreement with the grade received.*
- c. I will return all change of grade requests within 1 week of the date the request was received with either a change in grade or a reason why your grade stands as indicated.

Any disputes brought to our attention verbally or via email (or taken up with a lab instructor or UGLA) will not be considered.

- 13) *Late assignments:* All assignments must be turned in on time. Assignments due in class are due at the beginning of class (at time of entering room) unless otherwise specified. Late assignments will lose points at a rate of 10% per day. If you are absent on the day that an assignment is due, you are still expected to turn the assignment in on time. For planned absences, an alternative deadline must be arranged and agreed on with the instructors before the absence, and if that alternative deadline is not met, then the normal late policy begins.

**SCHEDULE (Tentative; From Fall 2011 – varies by semester)**

LB 144 is broken up into three sections for both class and lab/recitation, all of which are connected by the overarching theme of evolution. Please see the Angel calendar for weekly themes/topics, daily readings, and course assignments. This calendar will be updated frequently, but will also be complete/final at least one week ahead of the current date (i.e., on Sept 16, the calendar is set thru Sept 23):

Class Topic(s)	Book Chapters	Class Dates	Lab/recitation Topic(s)	Lab Dates
Intro to Organismal Bio, Genetics & Evolution	1, 12-15, 22-25, case study	Sept 1 – Oct 6	Doing Biology (includes Genetics)	Sept 6 – Sept 29
Ecology & Animal Behavior	51 – 54, case study	Oct 13 – Nov 8	Ecology & Animal Behavior	Oct 1 – Nov 3
Diversity of Life	26 - 34, case study	Nov 15 – Dec 8	Comparative Biology	Nov 8 – Dec 8

The three exams will be held Oct 11, Nov 10, and during the MSU-designated date/time of Friday Dec 16 7:45-9:45 am (wish I could change that!). All exams are in C-106 & C-3.

### EVALUATION OF YOUR WORK (*From Fall 2011 – varies by semester*)

Your course grade will be based on a combination of exams, classroom exercises and quizzes, homeworks, lab exercises and assignments, and lab quizzes and exams. Although exams are announced, we reserve the right to hold pop quizzes in class and/or lab at any time. In-class activities and homeworks may be assigned throughout the semester. Exams will be a combination of multiple choice, graph interpretation, True/False, fill in the blank, and short answer/essay. There will be *no extra credit assignments given at any time during the semester*, so complete each assignment accordingly.

Description	Points
Exams (450 pts total)	
Exam 1: Intro to Organismal Bio, Genetics, & Evolution	150
Exam 2: Ecology & Animal Behavior	150
Final Exam*: Small cumulative section & Diversity of Life	150
Class Activities/Exercises/Homeworks	50
<b>Class Total (50% of total grade)</b>	<b>500</b>
Laboratory Streams (410 pts total)	
Stream 1: Doing Biology	110
Stream 2: Ecology & Animal Behavior	120
Stream 3: Comparative Biology	120
Lab Quizzes (12*5 pts each)	60
Lab Exams (90 pts total)**	
Exam 1 – Doing Biology	30
Exam 2 - Ecology & Animal Behavior	30
Exam 3 – Comparative Biology	30
<b>Lab Total (50% of total grade)</b>	<b>500</b>
<b>Grand Total</b>	<b>1000</b>

\* Final held during the MSU-appointed final exam time (*believe me, I wish I could change it!!*): Friday Dec 16 7:45-9:45 am

\*\*Lab exams are held during class (lecture), rather than during lab/recitation.

The course is graded on a straight scale (no curve!). This means that EVERY student can (*and is encouraged to*) earn a 4.0 grade for the course by earning at least 92% of the class points.

<b>Total Points (total %)</b>	<b>Course Grade</b>
920-1000 ( $\geq 92$ )	4.0
850-919 (85-91.99)	3.5
800-849 (80-84.99)	3.0
750-799 (75-79.99)	2.5
700-749 (70-74.99)	2.0
650-699 (65-69.99)	1.5
600-649 (60-64.99)	1.0
0-599 ( $<60$ )	0.0