LABORATORY COORDINATOR
Dr. Kausalya (Kay) Shenoy
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LABORATORY INSTRUCTORS:
Luc Dunoyer
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Email: jonathan.moorei@uky.edu
Office hours: by appointment

OFFICE LOCATIONS
MDR3: Multi-disciplinary research Building # 3, on the corner of Huguelet Drive and Limestone Avenue; the building doors are locked after 4 PM, so if you are meeting your instructor after that time call them to be let inside.

LABORATORY SCHEDULE
<table>
<thead>
<tr>
<th>Section</th>
<th>Meeting time</th>
<th>Instructor (Primary/ Secondary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>M 9:30AM –12:20 PM</td>
<td>Luc Dunoyer/ Jonathan Moore</td>
</tr>
<tr>
<td>005</td>
<td>F19:30 AM – 12:20 PM</td>
<td>Ben Cloud/ Jonathan Moore</td>
</tr>
</tbody>
</table>

LOCATIONS
9 laboratory sessions will take place on campus in MDS 155A (MDS: Multi-Disciplinary Science Building on Rose Street)
3 laboratory sessions will take place at the Ecological Research and Educational Center (EREC)
1 laboratory session will take place at the UK Arboretum (ARB).

Please see the course schedule for specific dates and venues. Direction to these locations are provided on Canvas.

ECOLOGICAL RESEARCH AND EDUCATIONAL CENTER (EREC)
The UK Ecological Research and Educational Center (EREC) is on Russell Cave Road. Labs will take place there regardless of weather. Information about maps and other logistics have been posted on Canvas under “Locations”.

**Transportation to EREC and the Arboretum (see lab schedule for specific weeks) will be provided by UK Parking and Transportation.** The bus will pick up students at TH Morgan bldg. loading dock at 9:00AM. If you want to avail of the bus service, you must be at the loading dock 5 minutes earlier because the bus will leave right on time.

**COURSE MATERIALS**

**Lab Manual:** Students are required to purchase the lab manual “Ecology Lab and Field” 2nd edition which is available at the UK Bookstore.

**Canvas:** all information for labs will be posted on Canvas

**LEARNING OUTCOMES**

By the end of the semester students will be able to:

1. Understand ecological concepts through hands-on experience in lab and field
2. Describe and explain a variety of research techniques and how they are used to facilitate understanding of key concepts and issues in contemporary ecology;
3. Design, analyze, interpret, and report data from many types of ecological research projects; and
4. Reinforce concepts from the BIO 325 Ecology class with laboratory exercises

**ABOUT THE LAB**

These laboratory experiences are a guided experience in doing ecology, across most levels of biological organization, using a broad range of techniques both in lab and field, carrying through from understanding concepts and experimental design to data gathering to analysis to interpretation to communication of understanding. Our approach is to cover a breadth of experience with rigor of method and connection with important ecological concepts. We expect your commitment to a successful group effort, attendance at every lab, fully active participation, and best-effort work.

The laboratories provide an additional window into the world of Ecology, and are not merely practical examples of topics taught in class. The experiments are categorized by the level of organization—organism, population, community, ecosystem. Due the nature of ecological studies which must depend upon natural systems, and because we have to adhere to seasonal patterns, it is not always possible to synchronize lab experiments perfectly with class topics. This should not impede learning, as practicum and theory can each add to the knowledge gained from the other.

**GRADING, EXAMS, MAKE-UPS, AND LABORATORY RULES**

**GRADES**

Lab grading will be based on

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Number</th>
<th>Points</th>
<th>Sub-total</th>
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</thead>
<tbody>
<tr>
<td>Pre-lab quizzes</td>
<td>12</td>
<td>5</td>
<td>60</td>
</tr>
<tr>
<td>Class assignments: worksheets, exercises, presentation</td>
<td>15</td>
<td>variable</td>
<td>150</td>
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<td>------------------------------------------------------</td>
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</tr>
<tr>
<td>Homework</td>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Take-home assignment</td>
<td>1</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Participation: classes in MDS</td>
<td>9</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Participation: classes in EREC and ARB</td>
<td>4</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>300</td>
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</table>

Lab grades will make up 25% of the total BIO 325 course grade. The points earned in lab will be converted to 25% of the total course grade.

**LAB ASSIGNMENTS**

- **Pre-lab quizzes**: please see the lab schedule on for weeks when pre-lab quizzes are assigned. These are designed to ensure that students have read the background material for the lab. Students are required to have read the material before coming to lab, and they will be *quizzed on the material that is yet to be covered that day*.

- **Class assignments**: These include exercises, worksheets, and presentations. The exercises and worksheets are in question-answer format, and cover your understanding and basic findings from the lab. Students will work on most of these as a group, but a few must be submitted individually; you will be notified of these. There will be one group presentation during the semester; these will cover the findings from a particular lab. By default, worksheets and exercises are due at the end of lab on the same day. In cases where data will be pooled with other sections, students will be allowed to turn in the assignments at the beginning of class the next week; you will be informed in such cases. Two “long-worksheets” (also in question-answer format) will be assigned which will be due the following week, and must be completed individually.

- **Homework**: There are 5 homeworks worth 3 points each that will be assigned throughout the semester (see lab schedule). These are designed as preparatory exercises for the upcoming lab to ensure smooth running and better understanding of the tasks that students are required to perform. The homeworks are online and will be assigned one week prior to the lab for which it is meant to prepare you. It must be completed and submitted before lab begins in the week that it is due (see lab schedule).

- **Take-home assignment**: There will be one take-home assignment (worth 25 points) at the end of the semester. This assignment is designed to challenge students to think across concepts and apply their learning from the lab to different situations.

- Late assignments will not be accepted, unless a valid excuse is provided with documentation.

- **Participation**: students are awarded 5 points for participation every lab session at EREC or the Arboretum, and 3 points for participation every lab session in MDS. Points reflect the student’s preparedness, enthusiasm, and involvement in that day’s lab session. Loss of participation points is often related to non-compliance with the “Classroom Etiquette” rules.

**BONUS POINTS**

Because several of the labs are outdoor field exercises, we encourage environmentally friendly transport such as walking, biking, or riding a bus by offering bonus points. **For each outdoor lab (EREC and ARB) that you arrive by riding the provided transportation by UK, riding the Lextran bus, riding a bike, or walking, you will receive 1 bonus point for that lab.** We may or may not offer other opportunities for bonus points. In case we do, you will be notified ahead of time.
Attendance is required for lab, and there are no positive points gained for attendance. However, **five (5) 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 point deduction, you will lose points from any quizzes or assignments, and participation points, associated with the lab that you missed.**

The following are University accepted reasons for excused absences:

- Serious illness of the student (doctor’s note required).
- Illness or death of a family member (doctor’s note or other documentation required).
- Events where the student is representing the University (official note required).
- Major religious holidays/days of worship. Students MUST notify the instructor IN WRITING of all such holidays during the first week of the semester to assure being excused.
- Any other circumstances which the instructor finds reasonable cause for nonattendance (these are very special cases and will be determined as excusable after your instructor discusses it with Dr. Shenoy).

**NOTE:** All doctor’s notes WILL be verified!

_Students missing assignments due to an excused absence bear the responsibility of informing the instructor about their excused absence within 3 calendar days following the period of the excused absence (except where prior notification is required), and arranging for making up the missed work. Your documentation for the excuse must be provided to your instructor within 7 calendar days of the absence._

**IMPORTANT NOTE:** Because attendance is required for the labs, we follow the University policy that if a student has **excused absences** in excess of 20% of the class contact hours, the student may receive an “I” (Incomplete) or a “W” (Withdraw) in the course. It is the student’s responsibility to provide all necessary documentation to support the reason(s) for the absences, **failing which the absences will be considered unexcused.** If a student has **unexcused absences** in excess of 20% of the class contact hours for that course, the student may receive an “E” in the course.

The lab and lecture together make the BIO325 course; since your attendance in lecture is not monitored, we will set a number of lab sessions that correspond to 20% of all contact hours (lab and lecture combined) in the course. This amounts to 5 lab sessions. **Hence, any student missing 5 or more lab sessions, will be subject to the above policy.**

**Making up missed labs**

- Only labs that were missed due to excused absences will be allowed to be made-up. For cases when the student knows in advance that he/she will miss, arrangements MUST be made in advance for make-up work. It is the student’s responsibility to arrange for make-up work.

- **The most preferable method for making up missed labs is attending the lab in another section during the same week.** It is the student’s responsibility to contact their instructor ahead of time, or as soon as is possible, and arrange to attend another section. Please see the syllabus for the times when the other sections meet.

- If attending another section is not possible, you will be given a make-up assignment to complete.
• All make-up work MUST be turned in to your instructor **within 1 week of being given the make-up assignment.**
• Failure to provide documentation for the excused absence within 1 week of the absence will lead to the absence being treated as unexcused, incurring all the associated penalties, even if the student attended another section to make up the missed lab.

**ATTENDING OTHER LAB SECTIONS**
• You must attend only the section in which you have been enrolled. You may not switch sections without permission from your instructor or Dr. Shenoy.
• In case of excused absences, you must inform your instructor as soon as possible to arrange to attend another section. **There is a limit of 3 extra students allowed per section, so your instructor will need to check if there is availability.**
• If you miss a lab for a reason not listed under “University accepted reasons for excused absences”, then you may discuss with your instructor the reason for the absence. **If your instructor is convinced that your circumstance is/was extenuating,** then you may be allowed to make up the lab by attending another section, IF there is availability in the other section. In such cases, you will NOT incur the -5 penalty points. But, you will NOT receive the option of a make-up assignment if the other sections are full or if you have class conflicts.

**LABORATORY ATTIRE**
OSHA-regulated attire is required for ALL laboratory and field exercises. **This includes full-length pants, which cover your legs until the ankles, and closed toed shoes.** If you are found to be violating these rules, you will be asked to leave the class and your absence from class will be considered an unexcused absence, incurring all the loss of points associated with unexcused absences.

**OUTDOOR LABORATORY ATTIRE**
For lab sessions that occur outdoors (ARB and EREC; see lab schedule), in addition to OSHA regulations, **students are required to wear full sleeved shirts that cover the entire arms, and full length pants that cover the legs down to the ankles, and shoes that cover the entire feet from heel to toes. Students should check the weather forecast before each outdoor lab so that they can dress accordingly.**
**NOTE:** Please wear clothes that can withstand rough use. You are advised to bring an extra set of clothes in case you get wet or muddy, or your clothes get covered in burs.

**LABORATORY ETIQUETTE AND PARTICIPATION POINTS**
Your instructor can make deductions from your participation points for the following (please note that these deductions will come out of total points if participation points have been exhausted):
• Not contributing to group discussions or lab work.
• Texting, reading or sending email, or web surfing sites not related to class work on computers or cell phones. Determining proper and legitimate uses of cell phones related to course content is subject to instructor discretion.
• Leaving during the lab period to take a non-emergency phone call. If you are expecting an emergency phone call (kids are sick, wife is pregnant, etc.), turn your phone to “vibrate” mode and inform your instructor at the beginning of class.
• Leaving early from lab when there is still work to be completed in your groups, such as preparing for a group activity in the next class or completing an assignment as a group. If you are in doubt, ask your instructor.
• Eating or drinking in lab.
• Coming to class late with no valid excuse.
• Not cleaning up your workstation at the end of lab.
• Talking while your instructor is talking or being disruptive in any other way as defined by your instructor.

DISABILITIES
Students with a documented disability that requires academic accommodations must notify the instructor during the first week of the semester. To receive accommodations in this course, provide the instructor with a Letter of Accommodation from the Disability Resource Center, for coordination of campus disability services available to students with disabilities.

Disability Resource Center: http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/index.html
Suite 407 Multidisciplinary Science Building (physical address: 725 Rose Street); Phone: 257-2754;
Email: dtbeach1@uky.edu

ACADEMIC OFFENSES

Students are required to be familiar with the University’s Code of Student Rights and Responsibilities.
The regulations on cheating (note part II, section 6 of the Code) and other basic academic rules will be rigorously enforced. Plagiarism and other forms of cheating are serious academic offenses. The following is an excerpt taken from the Students Rights and Responsibilities Handbook, University of Kentucky regarding cheating and plagiarism.

"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. 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. Using someone else’s words and citing the author parenthetically is still plagiarism if their words are not included within quotes. 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. The instructors have a zero-tolerance policy regarding academic offenses.

COURSE POLICY ON CLASSROOM CIVILITY AND DECORUM
The University, College, and Department have 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. 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. 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 factors.
<table>
<thead>
<tr>
<th>Week #</th>
<th>Week of...</th>
<th>info</th>
<th>Location</th>
<th>Lab</th>
<th>Lab manual chapters</th>
</tr>
</thead>
</table>
| 1     | 1/25      |      | MDS      | Introduction  
Density-dependent population dynamics: Hypothesis  
testing and experimental design  
Density-dependent population dynamics: Setting up the semester-long experiment | 2.1  
2.2 |
| 2     | 2/1       | *#   | MDS      | Climate | 1 |
| 3     | 2/8       | *#   | MDS      | Dominance and aggression in animal social groups | 9 |
| 4     | 2/15      | *#   | MDS      | Human population dynamics and sampling techniques | 11 |
| 5     | 2/22      | *    | MDS      | Mating behavior in a promiscuous mating system | 10 |
| 6     | 2/29      | *    | ARB      | Natural history and biogeography of Kentucky and the Bluegrass region  
Plant physiological trade-offs I | 3.1  
7 |
| 7     | 3/7       | *#   | MDS      | Density-dependent population dynamics: Monitoring the beetle populations  
Plant physiological trade-offs II | 2.3  
7 |
| 8     | 3/21      | *    | EREC     | Optimal foraging theory I | 8 |
| 9     | 3/28      | *#   | MDS      | Optimal foraging theory II | 8 |
| 10    | 4/4       | *    | EREC     | Ecological study design in the field | 6.1 |
| 11    | 4/11      | *#   | EREC     | Plant and animal diversity I | 5 |
| 12    | 4/18      | *    | MDS      | Plant and animal diversity II | 5 |
| 13    | 4/25      | *    | MDS      | Density-dependent population dynamics: Analysis of semester-long experiment | 2.4 |

**Location:** Labs that occur at EREC or ARB are outdoor abs. Please dress accordingly.

**Lab manual chapters:** when the chapter numbers are written in decimal format, it denotes chapter number followed by module number; for example, 2.3 means chapter 2 module 3.

**Info:** Specific information for some weeks
* pre-lab quiz
# homework due before lab begins that week

**NOTE:** homework due on 2/15 is data collected from the Lexington Cemetery. Your instructors will inform you more about this.

**THIS SCHEDULE IS SUBJECT TO CHANGE. STUDENTS WILL BE DULY NOTIFIED IN CASE OF ANY CHANGES.**

Outdoor field labs will occur regardless of weather. However, if the instructor decides that the weather conditions are counter-productive to gathering data on any particular day, the lab may be replaced with an indoors exercise. In these cases, it will not be possible to inform students ahead of time as the decision will be taken just prior to the start of the lab. Students will not be penalized for lack of preparation for the replacement lab.