BIOL 1214: INTRODUCTION TO ORGANISMAL BIOLOGY
Lindsey Wilson College, Fall 2013

MEETING TIMES: **Class:** MWF 11:30 a.m.-12:20 p.m., Fugitte 207
Lab: R 8:30 a.m.-10:20 a.m., Fugitte 207

INSTRUCTOR: Dr. Michael Bosela
Fugitte Rm 205, Phone: (270)384-8192
E-mail: boselam@lindsey.edu

OFFICE HOURS: MWF 1:30-3:30 p.m., T 8:00-11:00 a.m., and R 3:30-4:30 p.m.; or by appointment

Course Description

Provides an introductory study of animal and plant kingdoms, emphasizing the structure, function, and reproduction of animals and plants. Lectures are fully integrated with the lab exercises, which include animal and plant dissections as well as plant growth experiments. Organismal Biology is a required course for students majoring in Biology, Psychophysiology, and Secondary Education* and is used to assess the Biology Department's Student Learning Outcome 1.1 (Mastery of Core Course Content and Knowledge). ***Prerequisites:*** Students must complete or test out of the reading sequence before taking this course.

*This course prepares candidates for the Bachelor of Science in Biology Education degree with the knowledge base required in the Kentucky Core Academic Standards and the College Career Readiness Standards. The Conceptual Framework of the Education Program, "Teacher as Leader for the 21st Century", is incorporated. The Division of Natural and Behavioral Science works with the Education Program in preparing teacher candidates with the knowledge base required to meet Kentucky Teacher Standard I and the Education Program's Student Learning Outcome for Content Knowledge. Teacher candidates will be equipped to teach K-12 students and meet requirements for Unbridled Learning.

Textbook

Reece J.B. et al. 2011. Campbell Biology, 9th Ed. (Bundled with MasteringBiology and eText), Pearson Publishing, ISBN: 0321558145

NOTE: This major's text is used in Introduction to Cellular Biology, Plant Diversity, and Animal Diversity classes at LWC. Do NOT sell your textbook at the end of the semester!

Overview

Organismal biology is the study of biology at the level of whole organisms. Topics that fall under this purview include anatomy, morphology, physiology, reproduction, and growth and development. As the first dedicated course within the biology major, Organismal Biology forms a cornerstone for the remainder of the curriculum. This positioning makes sense for a variety of reasons. Biology was first studied at the organismal level and natural selection, the primary force driving adaptation and complexity, occurs at the level of individual organisms.

Due to time limitations we will focus our attention on multicellular organisms, primarily plants and animals. Other kingdoms of organisms (prokaryotes, protozoa, and fungi) are covered in other, higher-level, biology courses, such as Plant Diversity and Microbiology. The chapters on animal organ systems give priority to the human example, but include a survey component this is a **general biology** course. Furthermore, the tissue and organ systems of humans are not always the most advanced, or sophisticated, in the animal kingdom and thus are not worthy of the lion's share of attention. Students interested in the detailed study of human biology should consider taking the Anatomy and Physiology courses taught by the department.

The Theory of Evolution is as a major unifying concept in this course as well as across the whole of biology. One of the implications of this theory is that nothing is entirely new in biology. 'New' species are derivative upon, and in some cases constrained by, the taxa that preceded them. Thus evolution is the 'great tinkerer' and we can learn much about our own structures and functions by studying earlier evolved organisms. This is the reason why lab mice and rats are important models for the study of human diseases. It is also important to remember the evolution can be both progressive and regressive, meaning that structures and functions can be lost through evolution and new species can be less complex than their predecessors.

Comparisons between the organ systems of vertebrates and invertebrates, as well as between those of fish, amphibians, reptiles, birds, and mammals (within the vertebrate lineage) are a standard component of the 'animal half' of the course. In each case, the taxa that are being compared have been subjected to different selection pressures and thus diverged morphologically and physiologically, but still share homologous structures and processes as a consequence of their shared ancestry (inherited from a common ancestor). Comparisons between plants and animals are also possible, but the ecological niches are even more distinct in this case. Since plant and animal lineages diverged prior to the evolution of multicellularity there are no shared organs or tissues between these two kingdoms. Thus any similarities at the tissue and/or organ level are a consequence of convergent evolution. It is important to broaden your thinking to consider differences in cell biology and growth mechanisms when comparing plants and animals.

Labs

The labs are primarily observational (dissections, histology, etc.), but some of the plant labs include an experimental component and thus provide you with an introduction to the research process. The first experiment uses a combination of chemical and physical treatments to study the mechanism by which plant shoots detect and respond to gravity. The second experiment tests the hypothesis that the dwarf phenotypes of two *Zinnia* cultivars (Lilliput and Thumbelina) are a consequence of mutations affecting the biosynthesis of gibberellic acid (GA), a hormone that has positive effects on the degree of stem elongation in plants. The third experiment evaluates the effects of differences in light intensity on the rate of photosynthesis in isolated leaves. For all three experiments, the data will be compiled across student research groups and evaluated for "statistically significant" treatment effects, but the products of your analyses will vary between experiments. Research abstracts will be prepared for the first and third experiments. For the second (GA) experiment, you will prepare graphs and tables of data that you will use to answer a set of assigned questions involving data interpretation. Other components of your lab grade include worksheets, for the plant labs and fetal pig dissection, and a lab practical for the animal component of the lab. The worksheets; consisting of a combination of observations (mostly drawings), thought questions, or problem solving, will be due within one day of the completion of the lab exercises.

Active Learning Pedagogy

Attendance is important in this course. However, being present in bodily form alone is not enough to be successful. To earn high grades, you will need to be attentive and engaged during the class periods and also will need to invest time outside of class on a regular basis, not just for a day or two immediately preceding each exam. You should strive to read every chapter in the book prior to the class period when the material is covered and to be both reflective and proactive about your own learning in the course. To encourage these habits I have incorporated three types of 'low stakes' writing assignments into the course, termed 'Minute Surveys', 'Figure Notes', and 'Instructor Letters', that are described individually below.

'Minute Essays' are short surveys; generally consisting of a single question, that are administered in class and completed quickly, requiring just a minute, or so, of time (at least in theory). The specific questions will vary between class periods but will focus on your response to the lectures. For example, on some days you may be asked to identify those components of the lecture that were the most important or interesting and to describe the basis for your selection. On other days you may be asked to describe those concepts or components from the lecture that were the most confusing, termed 'muddiest points'. In such cases, your feedback will help me to determine if any topics need to be clarified prior to the exam date. In other instances, you may be asked to explain an idea or concept from the lecture in your own words without reference to your notes. The minute essays will generally be administered at the end of each class period and must be submitted to earn full attendance points for the day in question. Your answers should be focused and honest (authentic). The statement that "nothing makes sense" is not an acceptable answer for a 'muddiest point' question, etc. Minute essays will be administered once a week on average, not every class period.

Figure Notes are notes organized around the figures in the textbook. Figure Notes are only required for only six chapters, shown with asterisks on the class schedules (pp.9-10). Detailed instructions, including lists of assigned figures for each chapter and a grading rubric, will be provided in class. In addition, I will prepare sample Figure Notes for the topics of thermoregulation and energy budgets (Chapter 40.2-40.4) so there is no uncertainty about my expectations and will share examples of Figure Notes prepared by students from prior semesters (Figs. 6.13, 6.14) on the Blackboard page for the course.

As something new for this semester, the Figure Notes assignment will be more directly integrated with the course instruction using the flipped classroom model. The flipped classroom is a course design that inverts the normal cycle of content acquisition and application. In a traditional science classroom the material is presented via in class lectures and the students work on homework on their own outside of class. In the flipped classroom, students are provided with video recordings (screencasts, etc.) and/or reading assignments to complete on their own before class, so the class periods can be used for higher order learning objectives; e.g., application, analysis, as well as for clarification of the information content from the videos and readings (if necessary). In keeping with the distinction between content transfer and application, the figures that you will be asked to prepare notes on in this class will generally be limited to the later concepts from each chapter where the topic is evaluated in greater depth, with more of an emphasis on application and analysis. To ensure accountability, with the exception of Chapters 38 and 46, 'open notes' quizzes will be administered AT THE START OF CLASS on those days when Figure Notes are due. The quizzes will be followed by student-lead discussions to ensure that all students understand the full content of the figures and are able to relate the figures both to one another and also to the main themes of the course more generally (integration).

Instructor Letters, the final type of low stakes writing assignment utilized in the course, are short letters; generally less than one page long, addressed to me on topics related to your learning and growth in the course. In general, these letters will be prepared at the end of each content module after your exams have been graded and returned and will involve reflection on your exam performance. Your final (sixth) instructor letter will be more expansive, evaluating your growth as a learner in this course in the context of your prior academic experience and career goals, and will be used together with the plant-animal comparison essays to assess the Biology Student Learning Outcome 1.1 (Mastery of Core Course Content and Knowledge).

'Mastering Biology' Website

The publisher of our textbook (Pearson) has developed a companion website for the textbook termed Mastering Biology (http://www. pearsonmylabandmastering.com) that can be accessed via the Blackboard page fir the course per the instructions provided in class. Since Mastering Biology was designed as a standalone course management software some components of the MasteringBiology webpage are redundant with the Blackboard page for the course, such as the calendar, syllabus link, and the gradebook and will not be used. However, Mastering is your portal to homework assignments and a variety of study materials that can accessed via the 'Study Area' hyperlink provided in the navigation window on the left side of the screen, The 'study area' includes a variety of items that you may find helpful for your learning including videos and animations; MP3 tutor sessions (short audio recordings on a topic area), screencasts describing figures or animations related to the subject area (termed 'coaching activities), practice tests and quizzes with 'hints', and vocabulary aids including term lists with definitions and audio recordings, word derivations (syn. etymology), and flash-cards. In addition, individualized web tutoring services can be purchased. The tutoring is free for the first 30 minutes, but cost $35 for each additional hour. If the version of the textbook that you purchased was not bundled with a subscription to Mastering Biology, you can buy access to the website separately ($110 for a period of two years). The subscription also includes access to the electronic version of the textbook; however this option is not recommended for biology majors since the subscription for the e-book runs out after 180 days, but the Campbell Biology textbook is used across multiple courses and years in the biology curriculum. The online version of the textbook (see the 'eText' hyperhlink provided in the navigation panel at the left side of the Mastering Biology homepage for the coruse) is accessed via CourseSmart e-book reader (www.coursesmart.com). The CourseSmart software is easy to use and includes a variety of useful interactive features. You can perform word searches, can highlight portions of the text, can add bookmarks and note 'tabs', and can copy and paste images and text. You can also print copies of the chapters; up to 150% of the number of pages, but only 10 pages at a time.

Cell Phones, Tablets, and Laptop Computer Use Policy

The college's cell phone policy will be strictly enforced to ensure that all students are able to pay full attention in class. With the exception of emergency situations, I will have **zero tolerance** for the use of cell phones and/or mobile internet devices in class. Laptop computers and netbooks can be used, but will be confiscated if you are using them for spurious pursuits (gaming, YouTube, etc.) that might be distracting to other students. To preclude cheating, all mobile electronic devices (cell phones, laptops, etc.) should be left at home or placed in your backpacks and under the table on the day of exams. Cell phones that are not secured in this manner will be confiscated for the duration of the exam period.

Lindsey Wilson College Essential Student Learning Outcomes

A Lindsey Wilson College graduate will…

1. Communicate effectively
2. Employ effective skills of inquiry and analysis
3. Be a culturally aware, engaged citizen of the nation and world
4. Apply and integrate knowledge
5. Have gained depth of knowledge in a discipline

Biology Department Student Learning Outcomes

1.1 Mastery of the core course knowledge and content
2.1 Demonstration of basic laboratory skills and field techniques
3.1 Application of the scientific method
4.1 Communication in an acceptable scientific manner*

**** The Integrative Learning essays will be used to assess Learning Outcome 1.1 (above). For more information on this assignment and the assessment process see p. 6.***

Course Student Learning Outcomes

Students who have successfully completed the course will be able to…

1. Demonstrate a mastery of the content as evidenced by their attainment of passing scores (>60%) on the course exams and the lab practical.

2. Make thoughtful and creative connections between the plant and animal portions of the course as well as between this course and other biology courses that the student has taken as evidenced by their successful completion of the 'Integrative Learning' assignments.

3. Demonstrate basic skills related to the use and care of compound microscopes including knowing the correct sequence of objective lenses to use when evaluating a specimen and the effects of changes in iris diaphragm setting/aperture on image quality (resolution, brightness)

4. Demonstrate basic plant and animal dissection skills. Students should be able to know or do each of the following…

- Prepare 'wet mount' slides of plant tissue and organ samples
- Describe the position of structures in plant tissue samples using the following terms; proximal, distal, apical, basal, median, longitudinal, transverse, and radial.
- Carefully and skillfully dissect animals (and organs), identifying and preserving the different tissues and structures encountered during the dissection
- Describe the position of tissues and organs during an animal dissection using the following terms; anterior, posterior, dorsal, ventral, caudal, longitudinal, median, and sagittal.

5. Demonstrate research and critical thinking skills. Students should be able to do each of the following….

- Understand and discuss key issues related to the design of experiments, including the importance of including 'controls', replication, and statistical analyses.
- Create tables and graphs of summary data, including measures of the amount of variance in the data (standard deviation, etc.), using Microsoft Word and Excel
- Evaluate data for statistical significance both by using confidence intervals and 'p values' (probability values) generated by statistical testing (ANOVA's, t-Tests)
- Accurately and thoughtfully describe and interpret patterns in experimental data.
- Prepare research abstracts that concisely and precisely summarize the results of your research efforts in the lab in relation to the objectives or hypotheses being tested.

Grading

Grades will be assigned on a standard scale; A = 90-100% (900-1000 points), B = 80-90%, etc., with the following + and – grade categories; A^- (90-93%), B^+ (87-89%), B^- (80-83%), and C^+ (77-79%). **All assignments, quizzes, and exams must be completed to pass the course.**

Assignment/Task	Points	Approx. Percentage
Attendance (Lecture)[1]	60 (30 x 2 pts)	6 %
Attendance (Lab)[1]	30 (10 x 3 pts)	3 %
Figure Notes[2]	40 (4 x 10 pts)	4 %
Figure Note Quizzes[3]	40 (4 x 10 pts)	4 %
Mid-Topic Quizzes[4]	30 (2 x 15 pts)	3 %
Topic Area Quizzes[5]	75 (3 x 25 pts)	7.5 %
Exams[6]	450 (5 x 90 pts)	45 %
Lab Practical	40 pts	4 %
Lab Abstracts	50 (2 x 25 pts)	5 %
Lab Worksheets (Plant Labs)	30 (3 x 10 pts)	3 %
Lab Worksheet (Pig Dissection)	20 pts	2 %
GA Experiment Hypothesis Assignment	10 pts	1 %
GA Experiment Graphing and Tables	15 pts	1.5 %
GA Experiment Data Analysis	20 pts	2 %
Integrative Learning Essay	50 pts	5 %
Instructor Letters	40 (4 x 5 pts, 1 x 20 pts)	4 %
Course Evaluation[7]	0 pts	0 %
TOTAL	**~1,000 pts**	

*** Footnotes table provided on the next page…**

Grading Footnotes:

[1] Attendance points will be awarded for class periods that do not include a quiz, exam, or practical. However, to receive the full point allotment (2-3 points per day); you will be expected to arrive on time, to stay until the class is dismissed, and to complete any minute surveys before leaving class. Since the number of lecture and lab periods used to calculate the point allotments is less than the total number of class or lab periods, you can miss one lab and up to six lecture periods and still earn all of the attendance points (90 points total). For most students, the attendance grades would be expected positively impact their course grade. However, negative impacts are also possible with one exception; students who have earned 'A' grades prior to the calculation of attendance points, will not be assigned lower grades irrespective of their attendance scores.

[2] For six chapters, marked with asterisks on the class schedules (above and next page), you are expected to prepare notes for a subset of the figures, as discussed under 'Active Learning Pedagogy' (p. 3) and also described in more detail the instruction sheets that will be passed out in class.

[3] The Figure Notes quizzes are short, open-note quizzes that will be administered at the start of class on days when Figure Notes assignments are due. **The specific dates, cannot be predicted in advance, and will be announced using the class calendar in Blackboard.**

[4] Mid-topic quizzes will be administered for Chapters 10 (photosynthesis) and Chapter 48 (electrical signaling). The level of detail and number and complexity of physiological mechanisms is greater for these topics than for the other chapters, as evidenced by the large number of class periods allocated for each of these chapters. The quizzes will ensure that you have studied the earlier concepts before moving onto the later concepts from the chapters.

[5] Three Content Quizzes will be administered during the semester. In contrast with the Figure Note and Mid-Topic quizzes, the material covered will not be included in the exams. Accordingly, these quizzes will be more substantial and take longer to complete than is typical for the Figure Notes or Mid-Topic quizzes. The first Content Quiz will be over the topics of evolution and thermoregulation, covered during the first two weeks of the semester ('Tentative Class Schedule', p. 9). The remaining Content Quizzes will be over the topics of reproduction and development; as evaluated separately in plants (Chapter 38) and animals (Chapter 46). These topics will be covered in the lab not the lecture (See 'Tentative Lab Schedule, 10/10 and 12/5 Lab Periods)

[6] The exams will be multiple choice in format, but will include bonus short essay questions worth 10% of the point total for the exam (9 pts out of 90). Students who score 70% or lower on an exam can earn additional bonus points; up to 5 points per exam, for each subsequent exam by completing their exam study guides "on time" as each chapter is completed , as documented either in person; within two days of the completion of the lectures for the chapter, or electronically by taking photographs of their completed study guides for uploading to the Blackboard Page for the course. Grades will be calculated based on the highest five exam scores for each student provided that the student did not deliberately tank on one of the exams, with 'tanking' being defined as the procurement of a score more than 40% below the class average for the exam. Study guides will be provided for all of the exams and will include lists of bonus questions so you are able to plan your answers ahead of time. The study guides will be passed out at, or near, the start of each module so that you are able to prepare for the exams at an ongoing basis. I will also provide practice exam questions for each chapter and am willing to offer 'out of class' study sessions and 'morning of the exam question and answer sessions, if there is sufficient interest.

[7] The course evaluations used by the college for faculty evaluation are administered online for a period of a few weeks at the end of each semester. For most classes students complete the evaluations on their own outside of class time, a combination that results in low completion rates, generally ranging from 10-30% for most of my courses. To get better participation rates and, thus, more valid data, I have decided to make the evaluations obligate. They have not been assigned a point value but must be completed to pass the course. After the evaluations have been submitted a message box is displayed on your computer screen confirming that the evaluation was successful submitted. Use the Print Screen button to capture a screen image showing the confirmation message, paste the image into a word document, and upload the file using the Assignment Submission folder on the Blackboard page for the course. This way I will know that you completed the evaluations buy your responses will remain anonymous.

Attendance Records

Regular attendance is expected and contributes positively to your grade both directly, via the allotment attendance points, and indirectly via positive effects on your learning. These points will be excused only for absences resulting from illness, medical emergency, or LWC-sanctioned extracurricular activities (choir, team athletics, etc.) and only if acceptable documentation, such as an e-mail from a coach or a doctor's note, is provided. Students who are not able to arrange to visit a doctor when they are sick can also obtain documentation of their illness from the school nurse, Kay Gaines (Blue Raider Sports Medicine Center, Phillips Basement, 270-384-8238). Absences related to emotional stress (family or marital issues, etc.) are also excusable, but you will need to contact me to discuss your situation individually. **Advance notification should be provided for all absences by e-mail or phone message.**

Animal-Plant Comparison Essay

In this assignment you are asked to consider the similarities and differences between plants and animals as organisms that occupy highly distinctive biological niches. This essay and your sixth instructor letter, evaluating your growth as a learner in this course, will be used as the 'signature assignments' to assess the Biology Department Student Learning Outcome 1.1 (Mastery of Core Course Content and Knowledge), per the criteria established in the AACU Integrative Learning Rubric which will be available on the Blackboard page for the course. This rubric is used by the biology department to evaluate the degree to which we are meeting our instructional goals. It is **NOT** a tool for assigning grades.

Your plant-animal comparison essays are due during the last week of the semester but can be turned in at any point after the fifth exam has been completed. A separate handout with more detailed instructions will be provided in class. We will use the thermoregulation and cell biology topics to make direct comparisons across the plant and animal kingdoms; in contrast with the main body of the course where the plant and animal content is presented separately. Additionally, a sample plant-animal comparison essay on the topic of thermoregulation will be provided in class.

Tentative Class Schedule

Week	Topic(s)	Chapters
1 (8/21-8/23)	Introduction, Temperature and Thermoregulation	40
2 (8/26-8/30)	Plant Cells **Quiz #1 (Evolution, Thermoregulation)**	6*
3 (9/2-9/6)	Plant Morphology and Anatomy **No Class on M 9/2 (Labor Day)**	35
4 (9/9-9/13)	Plant Growth, Hormones and Tropisms **Exam 1 (Plant Structure)**	35, 39*
5 (9/16-9/20)	Photosynthesis	10
6 (9/23-9/27)	Photosynthesis (cont'd), Transport **Exam 2 (Hormones - Photosynthesis I)**	10, 36
7 (9/30-10/4)	Mineral Nutrition	37 (7)
8 (10/7-10/11)	Animal Cells and Tissues **Exam 3 (Photosynthesis II -Mineral Nutrition)**	40, 41
9 (10/14-10/18)	**FALL BREAK**	
10 (10/21-10/25)	Digestion	41
11 (10/28-11/1)	Circulation	42
12 (11/4-11/8)	Respiration **Exam 4 (Animal Tissues-Circulation)**	42
13 (11/11-11/15)	Excretion and Osmoregulation **11/11/13 – Last day to Drop/Withdraw**	44*
14 (11/18-11/22)	Neurons and Nervous Systems	48, 49
15 (11/25-11/29)	Sensory Perception, Muscularskeletal System **Exam 5 (Respiration-Excretion)** **No Class on F 11/29 (Thanksgiving)**	50*
16 (12/2-12/6)	Hormones (Endocrine System) **Lab Practical (M 12/2)**	45
17 (Finals Week)	**Exam 6 (Nervous Tissues-Hormones)** M 12/9/13, 11:00 a.m.-1:30 p.m.	

Asterisks denote chapters for which Figure Notes are required (See 'Active Learning Pedagogy', p. 3). Figure Notes are also required for Chapters 38 and 46, which are covered in the lab. **The due dates will be announced on the class calendar as the semester progresses.**

The PowerPoint® files containing the lecture slides will be made available via the Blackboard page for the course. In general, the files will be posted at least a week ahead of time for down-loading or printing. **However I am looking into the possibility of having the slides printed and bound as separate plant and animal 'slide sets'. If I did so you would be required to buy the slide sets, but the price would be cheaper than the cost of printing the slides in the computer labs and the slide sets would facilitate cross-referencing between topic areas.**

Four of the exams will be administered during the regular class meeting times, on Mondays. The second and fifth, will be administered on Tuesdays, outside of the regular class times. In general, the exams will be graded and returned on Wednesday and your instructor letters will be due on the following Monday (one week after the exam) with the exception of the final instructor letter which is due during finals week (12/9/13).

Tentative Lab Schedule

Date	Topic(s)
8/22	Gibberellic Acid (GA) Experiment: Seed Sowing, and Hypothesis Exercise
8/29	Plant Cells
9/5	Plant Growth and Development Treatment Application, GA Experiment
9/12	Tropic Responses (Shoot Gravitropism Experiment) Treatment Application, GA Experiment
9/19	Evaluation of Shoot Gravitropism Data Treatment Application, GA Experiment
9/26	Photosynthesis **Gravitropism Abstract Due**
10/3	Data Collection, GA Experiment Evaluation of Photosynthesis Data
10/10	**Plant Reproduction/Development** **Figure Notes Discussion and Quiz – Chapter 38***
10/17	**FALL BREAK** – Have Fun!
10/24	**Photosynthesis Abstract Due** Data Analysis, GA Experiment
10/31	Animal Histology Lab **GA Worksheet Due**
11/7	Pig Dissection – Part I (Respiration, Digestion)
11/14	Pig Dissection – Part II (Excretory, Reproduction)
11/21	Open Lab, Lecture Catch Up
11/28	**THANKSGIVING** – No Lab
12/5	**Animal Reproduction/Development** **Figure Notes Discussion and Quiz – Chapter 46***

The 10/10 and 12/5 labs will be used for topics (Sexual Reproduction and Development) that we do not have time to cover in the regular lecture periods. You are expected to prepare handwritten Figure Notes for both chapters and to bring them with you to lab. After a period of time has been allotted for discussion and elaboration, video and slide observations, etc.; open-note quizzes, worth 25 points, will be administered.

LINDSEY WILSON COLLEGE
STATEMENTS FOR INCLUSION IN THE SYLLABUS
2013-2014

Academic Integrity
Academic integrity is essential to the existence of an academic community. Every student is responsible for fostering a culture of academic honesty, and for maintaining the integrity and academic reputation of Lindsey Wilson College. Maintaining a culture that supports learning and growth requires that each student make a commitment to the fundamental academic values: honesty, integrity, responsibility, trust, respect for self and others, fairness and justice.

To foster commitment to academic integrity, faculty are asked to require each student to place and sign the following Honor Code on tests, exams and other assignments as appropriate: **On my honor as a student, I have neither given nor received any unauthorized aid on this assignment/exam.**

Violations of the academic integrity policy include cheating, plagiarism or lying about academic matters. Plagiarism is defined as any use of another writer's words, concepts, or sequence of ideas without acknowledging that writer by the use of proper documentation. Not only the direct quotation of another writer's words, but also any paraphrase or summary of another writer's concepts or ideas without documentation is plagiarizing that writer's materials. Academic dishonesty is a profoundly serious offense because it involved an act of fraud that jeopardizes genuine efforts by faculty and students to teach and learn together. It is not tolerated at Lindsey Wilson College.

Students who are determined to have plagiarized an assignment or otherwise cheated in their academic work or examinations may expect an "F" for the activity in question or an "F" for the course, at the discretion of the instructor. All incidents of cheating or plagiarism are reported by the instructor to the Academic Affairs Office along with copies of all relevant materials. Each instance of cheating or plagiarism is counted separately. A student who cheats or plagiarizes in two assignments or tests during the same semester will be deemed guilty of two offenses. If the evidence is unclear, or if a second offense occurs, the VP for Academic Affairs or Associate Dean will work in cooperation with the Dean of Students to move the student before the campus Judicial Board for review. Violations will ordinarily result in disciplinary suspension or expulsion from the College, depending on the severity of the violation involved. **Note:** The College has purchased Turnitin.com, a web product used to detect plagiarized documents.

Questioning a Grade -- The Student Academic Complaint Policy
A student, who wishes to question **an assignment grade, or other academic issue**, should follow the procedure below:

1. Whenever possible, the student will first go to the faculty member who has assigned the disputed grade. Complaints regarding grades should be made within seven (7) days of receipt of the disputed grade and, if possible, will be decided by the faculty member within seven (7) days of receipt. If the disputed grade is the final grade for the course, "receipt" is defined by when the final grade is posted online by the registrar. (Please refer to the next section for appealing a final grade.)

2. Unless there are extenuating circumstances, the student may, within seven (7) days request in writing a review of such decision by the Chair of the division in which the grade was assigned. Upon receipt of such request, that Chair will direct the faculty member and the student to each submit, within seven (7) days, if possible, a written account of the incident, providing specific information as to the nature of the dispute.

3. Upon receipt of these written accounts, the Chair will meet, if possible, within seven (7) days with the faculty member and the student in an effort to resolve the dispute and will render his or her decision in writing.

4. If either the student or the faculty member desires to appeal the decision of the Division Chair, the student or faculty member may, within seven (7) days by written request to the chair, ask that the matter be reviewed by a Grade Appeals Panel convened by the Academic Affairs Office.

5. If the disputed grade is assigned at the end of a fall or spring semester and the student and faculty member cannot meet to resolve the issue, the student should contact the faculty member by e-mail within seven (7) days of receipt of the disputed grade. If the issue cannot be resolved by e-mail within the time limit, steps 2, 3 and 4 of the appeal may extend into the beginning of the semester immediately following receipt of the disputed grade by following the timeline above.

A student who wishes to question a **final grade** should follow the procedure below:

1. Confer with the faculty member who assigned the disputed grade.

2. If the disputed grade cannot be resolved, a written request for a grade appeal must be submitted to the Academic Affairs Office before the first day of the semester following the one in which the grade was issued. The written request must include the specific basis for the appeal.

3. The Academic Affairs Office will convene a Grade Appeals Panel, comprised of the Vice President for Academic Affairs, the Associate Academic Dean, and the chair of the academic unit which houses the course for which the grade is appealed. If one of the members is the faculty member who issued the grade, an alternate will be appointed. The student and the faculty member may appear separately before the panel to explain their positions. The hearing is non-adversarial. Neither the faculty member nor the student may be accompanied by other individuals to the meeting of the Grade Appeals Panel. The Grade Appeals Panel will notify the student of its decision, if possible, within seven (7) days of the meeting.

Policy for Verification of Student Identity and Protection of Privacy
In compliance with United States Federal Higher Education Opportunity Act (HEOA), Public Law 110-315, all credit-bearing courses and programs offered through distance learning methods must verify that the student who registers for a distance education course or program is the same student who participates in and completes the course or program and receives academic credit. One or more of the following methods must be used:

a) A secure login and pass code;
b) Proctored examinations; and/or
c) Remote proctoring of one of more examinations using Tegrity or other technologies

Verification of student identity in distance learning must protect the privacy of student information. Personally identifiable information collected by the College may be used, at the discretion of the institution, as the basis for identity verification. For instance, a student requesting that their learning system password be reset may be asked to provide two or more pieces of information for comparison with data on file. It is a violation of College policy for a student to give his or her password to another student.

Detailed information on privacy may be located at:
http://www.lindsey.edu/media/319883/Online%20Services%20Privacy%20Policy%204.20.12.pdf

Institutional Review Board (IRB) Policies
The Lindsey Wilson College Institutional Review Board (IRB) safeguards the rights and welfare of human participants in research and other research activities. Lindsey Wilson College faculty, staff, and students, which comprise its academic unites, and facilities, are subject to the IRB policies. This includes any research for which a research agreement (e.g. MOU) identifies Lindsey Wilson College Institutional Review Board (IRB) as the IRB of record. All student-led human subject research mush have a LWC faculty sponsor. All faculty members and students conducting human subject research are required to submit documentation of training on research involving human subjects that has been completed within two years of the onset of the proposed research. Online training is available at http://php.nihtraining.com/users/login.php.

Statement on Learning/Physical Disabilities
Lindsey Wilson College accepts students with learning disabilities and provides reasonable accommodation to help them be successful. Depending on the nature of the disability, some students may need to take a lighter course load and may need more than four years to graduate. Students needing accommodation should apply as early as possible, usually before May 15. Immediately after acceptance, students need to identify and document the nature of their disabilities. It is the responsibility of the student to provide to the College appropriate materials documenting the learning disability, usually a recent high school Individualized Education Program (IEP) and results from testing done by a psychologist, psychiatrist, or qualified, licensed person. The College does not provide assessment services for students who may be learning disabled. Although LWC provides limited personal counseling for all students, the College does not have structured programs available for students with emotional or behavioral disabilities. For more information, call Ben Martin at 270-384-7479.

Academic Success Center
The Academic Success Center, located in the Everett Building, offers peer tutoring to aid students in completing class assignments, preparing for exams and improving their understanding of content covered in a particular course. In addition, computers are available for student use.

Students are encouraged to utilize this Center as a resource for improving study strategies and reading techniques. The Center also offers assistance with other academic problems resulting from documented learning disabilities, provided that they have completed the application process outlined above under 'Statement on Learning/Physical Disabilities'. All services are free of charge, but students will be asked to show their student ID when signing up for tutoring services. Please contact Maretta Garner, Tutor Coordinator at 384-8037 for further information and assistance.

Writing Center and Mathematics Center
The Writing Center (located in the Slider Humanities & Fine Arts Building), and the Mathematics Center (located in the Fugitte Science Building) are available for specialized tutoring at no charge to students provided that they have valid Lindsey Wilson College Student ID cards. Please contact Jared Odd, Writing Center Coordinator, at 384-8209 or Linda Kessler, Math Tutor Coordinator, at 384-8115 for further information and assistance.

Final Exams
Final Exams for day classes are scheduled for the Fall 2013 semester on **December 9-13 and May 5-9** for the Spring 2014 semester. The academic calendar, which contains the schedule for finals, is in the College Catalog and course schedule listing. Please make any necessary flight arrangements **after** the final exam week. **Students will not be permitted to take early finals** unless extenuating circumstances exist. "Extenuating circumstance" means illness, a verified family emergency or participation in officially sponsored travel in support of an event arranged by the College. **Travel arrangements must be made in sufficient time** that tickets may be obtained after final exams and the semester is officially over. All requests for early finals must be made in person to the Academic Affairs Office.

Email Policy
All Lindsey Wilson College students are required to communicate with LWC faculty and staff via LWC (Lindsey.edu) email addresses only. Alternative email addresses should not be used when communicating with LWC faculty and staff.

Cell Phone Policy
Student cell phones will be off during class time unless prior arrangement is made with the instructor.

Adding/Dropping a Course
Students enrolled in the following courses cannot drop these classes during the semester: READ 0713, 0723, 0733, 0903, 1013 and 1023; STSK 1003; ENGL 0903 and 0904; and ESL 0803, 0804 and 0854.

For undergraduate classes at the Columbia campus, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the advisor and the instructor for each course involved as indicated on the Add/Drop Form. The change must be reported to the Business Office and the Registrar's Office on an Add/Drop Form, which may be obtained from the Registrar's Office. For AIM courses, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Director of the Evening Program. For courses taught at Community sites, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Site Coordinator for the campus. Permission to add courses will not be given after the last date for late registration. Authorization for dropping a course will not be approved after more than 75% of the instructional days for a course are completed, as outlined below:

Course	Deadline	Submitted by the Student to
Columbia undergraduate and graduate full semester courses	Not later than 30 days before the end of the semester	Registrar
AIM courses	By the sixth week of class	Registrar
Courses at Community Campuses	By the third weekend of class	Site Coordinator or the Registrar

If changes are not properly approved and officially reported as stated above, students will receive a grade of F in the courses for which they are officially registered, and they will be charged for all such courses. Students will not receive credit for changed or added courses unless they officially register for those courses.

COMMENTS FOR IN CLASS, ETC.

Distributing learning, practice tests, and explanation (why statements are true, how to objects or processes or related, or problem solving) have been well documented to improve learning. Statements on first day…

May want to focus the figure notes so that they are used in class not just turned in and returned weeks later. We will use them as springboard for high order learning objectives or competences. (Show them Blooms Taxomomy). Build a flipped classroom design around the figure notes assignment. To do so I will need to focus on figures from the second half of each chapter (application or in depth), after the first part of each chapter has been covered (overview, background, and survey) and will have to administer quizzes right when they come into the classroom but with the potential for it being open notes and also making sure that the read the textbook (not just the figure legends) and looked up definitions. Have students go in front of the class to describe the figures (reading from their notes or at least hitting on all four areas). Have them come to class with a printed version and then add annotations as necessary. I can help with the placing in a context and also with relating to other slides.

Talk about the assignment submission box at Blackboard and how to use it. Can take a picture, download and paste in word then upload

Mention about TurnItIn for integrative learning essay.

Indicate that specific due dates will be indicated on the class calendar (put dates to show them on Day 1). Set up a pretty well populated page (folders mostly in place plus Mastering Links figured out)

Show them how to access Mastering via the website and also how to submit assignments including documentation of their studying. Mention about inline grading if I am able to figure it out before class. Also that I will try to use the gradebook in Blackboard. Let them know that it works best with Firefox or Chrome and also give them the pdf sheets for accessing.

Set up the basic structure of the Blackboard page for the course and show it to them on Day 1.

Have them indicate their major, favorite plant and why, favorite animal and why, and to indicate and questions or concerns related to the course content, structure, or mechanics.

Decide on slide sets for sale?

Relate content for figure notes relation to MCAT content. Also what about the DAT exam and PharmCAT?

FIGURE NOTES: Most introductory biology textbooks have the same basic set of figures but they differ in their details, details that should be captured in your notes. As if describing via radio broadcast or to someone who is blind.

Talk about how I might record some lectures over simple chapters such as plant morphology and parts of circulation or digestion if I have slide sets.