

## BIOL 1114 Introductory Biology - Spring 2020

### Sections \_\_\_\_\_

Instructor: \_\_\_\_\_

Dept. Office: \_\_\_\_\_

My Office: \_\_\_\_\_

Phone: \_\_\_\_\_

Student Consultation: \_\_\_\_\_

Email: \_\_\_\_\_

**NATURE OF THE COURSE:** This course introduces students to the integration between structure and function among all levels of biological organization. Students will learn to apply principles of evolution, genetics, physiology and ecology to understanding the integrated and interdependent nature of living systems through discussions that emphasize the process of science. Observation and investigation are emphasized in both lecture and lab.

**OBJECTIVES:** We want you to learn and be able to apply certain basic biological **concepts** and research **skills**. These are listed in a **knowledge checklist** that you can find on our website (see below). You can use this very detailed list as a **study guide** to help you keep track of **what you need to know**.

### TEXTS: **Required:**

Connect eBook for Hoefnagels, M., 2018. *Biology: Concepts and Investigations*. 4<sup>th</sup> edition. McGraw-Hill: NY.

Access through link "McGraw-Hill Connect Stillwater/Tulsa" in our Canvas course

French, D. 2019. *Investigating Biology: A Laboratory Resource Manual*. 2019 edition Fountainhead Press: Fort Worth.

1 pkg. **5x8"** index cards, one side lined

Turning Technology Clicker; QT2 (ISBN: 9780997224818) or later model + **License/Subscription**

Register through link "TurningPoint" in our Canvas course

*Journal of Introductory Biology Investigations* (you will receive a free subscription to this).

### **Recommended:**

Pechenik, J.A. 2016. *A Short Guide to Writing about Biology*. 9th Edition. Pearson Longman Publishers: NY.

This is an excellent companion to help you with writing lab reports. It explains in great detail what you should put where, how to describe your data, the format for your literature cited, suggestions for clearer writing, and many other important points. For those continuing on in science, this is a valuable reference discussing term papers, poster sessions, letters of application, research proposals and offering suggestions to help improve many other forms of written or oral communications.

**ATTENDANCE:** You are expected to attend both lab and lecture. Arrive on time and stay for the entire period. **See the specific actions you must take for missing a lab or lecture exercise under Grading (below).**

In the event of **University cancellation** – check <http://biol1114.okstate.edu> for instructions regarding lab.

### EXAMS:

Four exams are scheduled: Three (3) before final exam week and one (1) during finals week. **The dates are noted on the attached schedule.** We care about students who due to circumstances miss an exam. Students who miss an exam are typically under stress (e.g., personal or family tragedy, unavoidable personal obligation); therefore we developed a policy to avoid creating a more stressful situation for students. **Please see our policy under Grading (below).**

All exams cover both theory and lab experiences and are cumulative; e.g., questions on exam 3 will test material covered before exam 1 and 2. **Exam questions typically require interpretation of data and application of concepts rather than rote memory.** While emphasis will be placed on material specifically discussed in lecture, exams will also include questions covering other assigned materials and readings. Read all questions and answers **carefully** before choosing the **single BEST response** for each question. Feel free to ask the instructors present for clarification.

All exams but the final are during a regular class period in the same the room where you attend lecture/theory, and by agreement among the various instructors will be limited to 50 minutes.

You must bring an orange **NCS Answer Sheet** (available in the bookstore SKU: 03784), a **#2 lead pencil**, and **your student ID** to each exam. To get credit for your exam, you must fill out your answer sheet correctly (see form at <http://biol1114.okstate.edu/info/scantron.htm>): 1) Enter your **last name** and **first name** as indicated and darken the corresponding circles. 2) Enter your **CWID** in the spaces indicated for "Student ID" and darken the corresponding circles. 3) Enter **201n** (where n = exam number = 1, 2, 3, or 4) in the spaces indicated for "**Course number**" and darken the corresponding circles. 4) Enter your **Team Number** (no space or dash) in the spaces indicated for CRN and darken the corresponding circles 5) Enter the **form** of the exam **1** or **2** in the spaces indicated for "**Test Version**" and darken the corresponding circles 6) Write your **O-Key Account Username** above the words "Last Name." **Failure to perform this correctly will incur a -10 pt handling fee**

GRADEBOOK: To see your exam and manuscript grades early use the [Personal Page](http://biol1114.okstate.edu) link on <http://biol1114.okstate.edu>. Lab grades will be posted approximately one week after final reviews are returned to you. We use Canvas as an electronic gradebook. All grades will be entered and visible there. You have 7 days from the posting of **any** grade to report a grade discrepancy to the appropriate instructor or it may not be changed. 2

DROP POLICY: See [Catalog](#) Registration & Records Section and dates on schedule.

**ACADEMIC INTEGRITY: Read details on page 3 below.**

SPECIAL NEEDS: If you have a documented disability and need special accommodations of any nature, I will work with you and the Office of Student Disability Services, 315 Student Union, to provide reasonable accommodations so that you have a fair opportunity to perform successfully in this class. Please let me know about any necessary accommodations as soon as possible. We cannot retroactively apply accommodations. Do not schedule exams at UAT without my approval. If you have health-related issues that may interfere with participation in certain labs (see materials list on [Lab Resources and Institution Pages](#) on the course website) you should provide documentation to your TA from the Office of Student Disabilities Services **no later than 14 days prior to that week's Investigation** so we can properly prepare accommodations.

THEORY: These meetings will combine mini-lectures, discussions, individual and team activities, multimedia presentations, and demonstrations to give you the opportunity to learn biological concepts in as active a manner as possible. Each segment of the course is structured around one or more scenarios - case studies or vignettes that can be interpreted or solved by applying selected biological concepts. You will have the opportunity to accumulate up to 80 points toward your final semester grade from individual or team activities or homework. **There are no "make ups" for specific assignments (see Grading below).** You may not earn credit for these if you are absent, do not submit assignments when collected, do not sign your own name on the assignment, do not put your team number on the assignment, do not have the assignment in the requested format, or do not bring your clicker (with working batteries) to class. It is your responsibility to insure that these are done correctly. No image, audio, or video recording is allowed without instructor permission.

LAB<sup>1</sup>: This portion of the course is structured to offer you the most **authentic research experience** as possible. You will work in teams as part of "scientific research institutions" under the guidance of lab mentors to answer questions you select. Each three-week long investigation is related to or inspired by research conducted by past or current OSU faculty or students when possible. You will design and conduct experiments, analyze and interpret results, and author reports (each week) in the form of manuscripts. You will submit your manuscripts to be reviewed by experts, who will provide feedback (and evaluation), and have the unique opportunity to have them published in the online *Journal of Introductory Biology Investigations*, <https://undergradsciencejournals.okstate.edu/index.php/jibi>, which was created for OSU students. You can add your articles to portfolios of your work to demonstrate your skills. Your results will be made available to researchers and future students to help them in their research. **Additional details about lab are in the lab syllabus and Investigating Biology: A Laboratory Resource Manual.**

TEAMS: Taking exams is an individual activity. Almost all other activities will involve your participation with other class members in a team. **Permanent** teams will be formed in the first week. Teams will produce weekly lab reports AND complete their lecture exercises collaboratively. **Peer evaluation** will affect your lab grade – See your lab manual for further information.

WEBSITE: A variety of materials are available on our website – <http://biol1114.okstate.edu>. These include exams from past semesters, study guides, flow charts, outlines, note-taking aids, a knowledge checklist, and more. **You will find the reading assignments for each scenario (lecture topics), and the computer-based planning forms here.** You will need your **O-Key Account Username** and password. You will need to download web players for certain items to run. For help with the website email: [zool-tech@okstate.edu](mailto:zool-tech@okstate.edu) or visit our technical support office (213 LSW).

SI SESSIONS: Supplemental Instruction sessions are interactive, team study meetings, led by former students who attend lecture. Students can join sessions whenever they are offered. You can learn more on pg. 8 or at <http://lasso.okstate.edu/si-info>.

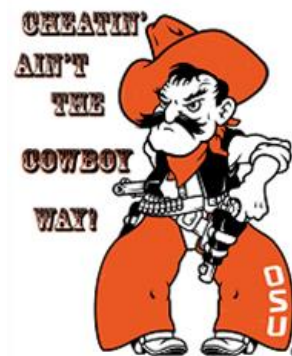
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<sup>1</sup> Development of these investigations is supported in part by a grant to Oklahoma State University from the Howard Hughes Medical Institute through its Science Education Program.

## ACADEMIC INTEGRITY:

*"Being a cowboy isn't in your clothes. It's in your character. It's the passion to do what's right even when it's hard. It's ending the day knowing you gave it everything you had. It's standing out by standing tall. It's integrity. And honor. And courage to see hope even when you're the only one who sees it"*

- [From the Cowboy Code](#)



**Respect others' rights – give credit to the work of others as you would want them to give you.**

**Be sure that you have read and understand this policy, as the penalties for violations of Academic Integrity can be very serious.** We follow the OSU policies on Academic Integrity

(<http://academicintegrity.okstate.edu/>) and the **Cheating & Plagiarism** section (pp.G6 – G10) of your lab manual (French, D. 2019. *Investigating Biology: A Laboratory Resource Manual 2019 Edition*). A “first” offense (in this course or any other course during your time at OSU) will result in either a Level 1 (a “0” for the assignment) or Level 2 (an “F!” for the course) sanction as described in the OSU Academic Integrity Policy. A second violation (in this course or any other course during your time at OSU) may be upgraded to the next sanction level. ALL violations and sanctions become a part of a permanent educational record!

In addition to the policies described in the above sources, some examples of violations of Academic Integrity more specific to this course include, but are not limited to, the following:

- Using information from **ANY** source without properly paraphrasing (writing in your own words) and citing. Refer to **Cheating & Plagiarism** in the lab manual for details, explanations, and advice on avoiding improper use of others' work.
- Using any part of an unpublished manuscript without properly paraphrasing and citing, the permission of the original authors, and the permission of your mentor. This is unauthorized collaboration or plagiarism.
- **Falsifying authorship**, i.e. including as an author a student who did not adequately contribute to the production of a manuscript submitted for credit OR failing to include an author who did is considered **fabricating Information** by all authors on a manuscript. All authors who miss a part of a lab must have their contributions explained truthfully on the authorship form.
- Submitting in-class exercises with the names of members not present in class is considered cheating by all team members whose names appear on the exercise. Each member must write his/her own name on materials his/her team submits.
- Possessing a student response pad (“clicker”) other than the one assigned to you is considered unauthorized collaboration and cheating.
- Misidentifying the exam version (one or two) by indicating the incorrect version on the form or placing it in the alternate team for grading is considered cheating.
- Possessing a form of the exam during the examination period that is inconsistent with the assigned distribution of exams as indicated during the examination period is considered unauthorized collaboration and cheating by all affected individuals.
- Access to any electronic devices (e.g. cell phone, smartwatch, calculator, portable multimedia devices such as an iPod, mini-tablet, or electronic dictionaries) during an exam without explicit prior permission is considered cheating. All such devices must be turned off and out of sight and reach.
- Students who take a conflict exam may not possess a list of their answers, have copies of their exams, or communicate any information about the exam to other students, until after the normally scheduled exam is completed. To do so is considered unauthorized collaboration and cheating.

**Cowboy Values:**  **Honesty**  **Trust**  **Respect**  **Fairness**  **Responsibility**

## Schedule

4

Date	Week	Scenario (for readings see <a href="http://bioweb-cfs.cas.okstate.edu/info/requiredreadings">http://bioweb-cfs.cas.okstate.edu/info/requiredreadings</a> )	Lab Topic
Jan 13	1	1. Psychics and Scientists: A series of short scenarios will center on measurement of psychic phenomena, a faculty research question, a breath holding experiment, analysis of class score data, and what is a theory?	Introduction to Lab & Pre-Assessment
Jan 20	Mon	University Holiday (MLK) – No Class	
Jan 21	T	Last Day to Drop with no grade & 100% Refund	
Jan 21/22	2	2. Surviving Fire and Ice: The scenario focuses on surviving in desert and tundra and adaptations for thermoregulation and water retention.	Planning Form and Manuscript writing
Jan 27	3	3. Out of the Rain Forest: An aboriginal fishing expedition in the rain forest is explored in terms of the action of a toxin produced by plants. Pesticides, coevolution, cell membrane function and cell respiration will be discussed.	Research in the Institute of Comparative Respiratory Research – Week 1
Feb 3	4	Out of the Rain Forest - continued.	Research in the Institute of Comparative Respiratory Research – Continued research
		<b>EXAM #1 – Topics for exams will be those from Scenarios 1-3 [Check with instructor for exact date]</b>	
Feb 11/12	5	4. Chemical Defenses: A Nigerian child eats a poisonous bean, which requires extraordinary treatment by the local physician, framing investigation of cell membrane structure, secretion, intercellular communication, and neurons.	Research in the Institute of Comparative Respiratory Research – Final analysis & Submission
Feb 17	6	5. Marooned in the Galapagos: This trip raises questions about what makes a species or organism successful. Attention to the physical character of these desert islands and animals living there highlights natural selection in action.	Research in the Biofuels Research and Aquatic Quality Collaborative Biofuels Division ONLY – Week 1
Feb 24	7	6. Rainbow Connection: A scuba diving botanist is sent by the Smithsonian to collect algae. Blood is spilled and the biological uses of colored light, including photosynthesis, are explored.	Research in the Biofuels Research and Aquatic Quality Collaborative - Biofuels Division ONLY - Continued research
Mar 2	8	Rainbow Connection - continued.	Research in the Biofuels Research and Aquatic Quality Collaborative - Biofuels Division ONLY Final analysis & Submission
		<b>EXAM #2 – Topics for exams will be those from Scenarios 1-6 [Check with instructor for exact date]</b>	
Mar 10/11	9	7. Emerging Diseases: On the Amazon we meet the Yanomami amidst a breaking TB epidemic, raising the roles of symbiosis, population dynamics and evolution in development of epidemics.	Research in the Acme Brewing and Baking Company – Week 1
Mar 16-20		University Holiday (Spring Break) – No Class	
Mar 23	10	Emerging Diseases – continued	Research in the Acme Brewing and Baking Company - Continued research
Mar 30	11	8. Family Reunion: A family reunion opens the door to talk about cancer, DNA, protein synthesis, genetically determined diseases and biotechnology.	Research in the Acme Brewing and Baking Company - Final analysis & Submission
Apr 6	12	Family Reunion - continued.	Research in the Center for the Study of Sexual Selection in Fishes – Week 1
Apr 10	Fri	Last day to drop with automatic W	
		<b>EXAM #3 – Topics for exams will be those from Scenarios 1-8 [Check with instructor for exact date]</b>	
Apr 14/15	13	9. Hogs & Chickens: Statistics about concentrated animal feeding operations raise questions about nutrients in biogeochemical cycles, the effects of livestock and people on aquatic systems.	Research in the Center for the Study of Sexual Selection in Fishes – Continued research
Apr 20	14	10. Why We Care about Fat: our contemporary preoccupation with fat sets the scene for a discussion of fat metabolism, its genetic, nervous and hormonal control, and behavioral implications.	Research in the Center for the Study of Sexual Selection in Fishes – Final analysis & Submission
Apr 27	15	Why We Care about Fat – continued	Laboratory Final
		<b>FINAL EXAM Topics for exams will be those from All Scenarios [Check with instructor for exact date]</b>	
May 8	Fri	4:00-5:50 OSU Finals Make-Up Exam Period	See Policy under grading
May 13	Wed	12:00 Final Grades calculated and posted in Banner	

All dates are tentative and may be changed via Canvas or email notification

Much information of value can be found at <http://academicaffairs.okstate.edu/content/resources-students> and [OSU Policies and Procedures page](#) including:

Don't Bail or Fail! Find the resources you need to succeed in OSU's [General Syllabus Attachment](#).

[Academic Forgiveness](#) – Find out if you qualify for an academic reprieve or renewal.

[Academic Retention Criteria and Procedures](#) – Includes procedure and policy for petition for reinstatement.

[Adding, Dropping and Withdrawing from Courses](#) – Information about adding/dropping courses, deadlines, retroactive drop/withdrawal.

[Family Educational Rights and Privacy Act \(FERPA\)](#) – Information about FERPA and frequently asked questions

[Final Exam Overload and Common Final/Common Evening Exam Conflict Policy](#) – When and how to reschedule a final exam

[Grade Appeal](#) – Find out how to go through the grade appeal process, and the policies and procedures for filing a grade appeal.

[Policy and Procedures Letter 2-0217: Attendance Policy for Students](#) – If not stated on the syllabus.

[Policies and Procedures in regard to Academic Accommodations for Students with Disabilities](#) – Information about eligibility and actions

[Student Computing Systems](#) – Explains the uses of the O-Key, SIS, and Canvas computer systems for students.

**GRADING:**

Component	Format	Available Points	Maximum Points allowed	Notes
Lecture Activities	1-5 pt. quizzes/ homework	About 90	80	Can only earn up to 80 pts in this category
Exam 1	40 questions worth 2 points each	80	80	Each tests over ALL material covered previously.
Exam 2	40 questions worth 3 points each	120	120	
Exam 3	40 questions worth 3 points each	120	120	
Final Exam	50 questions worth 4 points each	200	200	
<b>Lecture Subtotal:</b>		About 610	600	Can only earn up to 600 points in the lecture portion
Planning form	Weekly write-up	<u>Required to enter lab</u>	-	Must be turned in by 5:00 pm the day before lab.
Manuscripts	Weekly reports, final submission worth 100 points each	400	400	Must be submitted BEFORE you leaving lab.
Lab Final	Multiple choice, short answer, essay	50	50	Bonus – “disaster insurance”
<b>Lab Subtotal:</b>		450	400	Can only earn up to 400 points (including bonus) in the lab portion
<b>TOTAL:</b>		About 1,060	<b>1,000</b>	

**\* Note: Lab grades are adjusted by peer evaluations; please see your lab manual and lab syllabus for details.**

**What do you do if you miss an exam? If for ANY reason you miss any of the first three exams, and notify me** within a week, the entire final exam will be used to determine a substitute grade for the missed exam. **If for ANY reason, you miss or expect to miss the final,** you must contact me via email no later than 24 hr after the final indicating which of the following you choose:

- 1) Take the final, consisting of questions from one or more of the other lecture sections, at OSU’s designated makeup period in LSW 212 (Friday May 8 4:00-5:50).
- 2) Complete the final, consisting of questions from one or more of the other lecture sections, at OSU’s testing center (\$20 fee) on Friday May 8 by 4:00 PM.
- 3) Accept an incomplete (“I”) and take the final when I offer it next (Dec 2020, May 2021).

**What do you do if you miss an in-class exercise or homework assignment?**

Specific exercises or assignments cannot be made up or submitted late. I will offer about 90 points, although only 80 points will be used in calculating your grade. This way you can accumulate points even if you miss some for ANY reason. Use every opportunity throughout the semester to complete these activities to be sure you will have 80 points by the end.

**What do you do if you miss any part of a lab?** Since your work is a team effort, if you are absent from any part of a lab period for ANY reason, your co-authors (team members + TA mentor) will determine the **extra contribution you must make to compensate for each absence**. If you do not accomplish what is specified, you will lose 1/3 of the manuscript score for each absence. We are not judging the legitimacy or nature of the excuse for being absent, just whether you have contributed appropriately to the final products. The minimum recommended alternative contribution to a manuscript for each absence of any kind (which is what is expected if no alternative is specified) are 5 pages of literature review (see lab manual for format) to be included in the introduction or discussion when the manuscript is submitted to JIBI. The review should be based on a minimum of 5 reference sources from peer-reviewed science journals, not including JIBI or found in the lab manual or on the BIOL 1114 website. Your team must explicitly **describe your extra contribution as part of the authorship form** you must submit with each final manuscript. In addition, you will have the opportunity to earn up to **50 extra points on the lab final**, which can be applied to absences.

**In the event of University cancellation – check <http://biol1114.okstate.edu> for instructions regarding lab.**

Grading Scale

A	90 to 100%	900 to 1000 points
B	80 to 89.9%	800 to 899 points
C	70 to 79.9%	700 to 799 points
D	60 to 69.9%	600 to 699 points
F	< 60%	0 to 599 points



## Common Themes

The emphasis in this course is on your seeing biological principles in a context so that you can learn to apply the concepts in a novel situation. There are several common themes, threads or principles that we feel are important enough to repeat in various contexts. These include:

- I. **"Scientific Method"** or your ability to state a hypothesis, design an experiment and interpret data.
- II. **Surface-to-Volume ratio.** This ratio is fine-tuned by natural or artificial selection so that an optimum ratio is achieved that maximizes or minimizes (as needed) the rate at which some material or energy is gained or lost.
- III. **Gradients** - Living things create or respond to these differences in concentration or amount of a substance over some area. You need to know how gradients are created in certain instances and/or what occurs when the gradient is present or absent.
- IV. **Laws of Thermodynamics.** You need to know the rules that apply to energy and its transfer. You need to know what phenomena these laws help explain and how they help shape our understanding of how chemical reactions can be related to each other.
- V. **Protein structure and function and their use in membranes.** You need to know what effect changing a protein's shape has on the protein and what controls change. You need to know what functions proteins serve when they are positioned in membranes and how these functions are achieved.
- VI. **Natural Selection.** You need to be able to explain how this process leads to any adaptation, to explain its action and result in every scenario, and how fitness is involved. You need to understand and identify trade-offs in the costs and benefits that exist in every adaptation, structure or function.
- VII. **Homeostasis** - Living systems must maintain a constant internal environment between limits or to return things to normal following disturbance. You need to recognize where that happens in our investigations.
- VIII. **Metabolism** - Chemical and energy transformations appear in several scenarios and are an essential characteristic of all living things. You need to know where and when this is applied and discussed. You need to understand the metabolic processes we discuss.
- IX. **Inputs and Outputs.** This is not a principle, but it is a recurring theme in our discussions. You need to know what is the result or product of some certain processes or reactions. You need to identify or predict the starting ingredients, conditions or reactants when a process or reaction occurs. We frequently will ask you to explain or list these.
- X. **Interfering with the System.** This too is a recurring theme in our discussions - what would happen if some system or process were broken or blocked? What would not happen?

This list should help you in studying; we hope it does. It is not meant to be all-inclusive or tremendously detailed. There may be themes you will see that we have not listed. You should however recognize the items discussed and understand how they provide answers to the types of questions we ask. An extensive list of what you should know or be able to do is available on <http://biol1114.okstate.edu> under the link [What do I have to know?](#) You should use that as a **study guide** when reviewing after every class and for each exam.

We hope you will enjoy working through the different scenarios and that you will learn from doing so. We wish you the best of luck in this course. Don't hesitate to call on any of us for help, or to provide constructive feedback on the course.

–The BIOL 1114 Faculty

## Which of the following describe your preparation:

- ☐ I viewed or attended a “How to Study Smarter not Harder” session.
- ☐ I attend every class meeting.
- ☐ I come to class prepared.
  - I review the previous lecture.
  - I have my clicker and other needed materials out and ready.
  - I have completed my out of class assignments.
  - I have questions to ask that I have already attempted to answer.
- ☐ I participate in class.
  - I enter my answer every time a “clicker” question is presented.
  - I perform the in-class exercises and do not just wait to be told an answer.
  - I contribute to the discussion in my team whenever we are performing an activity.
  - I allow and encourage others in my team to contribute to discussions.
  - I avoid texting, social media, or off-task internet use during class.
- ☐ I take and use good notes from lectures.
  - I use the Cornell (<http://www.uwec.edu/ASC/resources/upload/Cornell-Note-Taking-System.pdf>) or similar method for recording, structuring, and analyzing notes.
  - I compare my notes to those of other students to fill in gaps and verify accuracy.
- ☐ I spend 6 hours a week engaged in quality study time for this course.
  - ☐ I study in an environment without distraction.
    - no one interrupting me
    - no social media access (FB, twitter, snapchat, Instagram, etc.) OR texting (reading or responding)
    - no entertainment media (TV, Netflix, YouTube, Hulu, music I sing to, etc.)
  - ☐ I use study techniques that research shows improve performance.
    - I write summaries of notes, text, videos, etc., from memory, repeatedly.
    - I diagram processes I am studying from memory, repeatedly.
    - I interleave my studying of different topics (I alternate what I practice recalling).
- ☐ I use the resources available to me.
  - I use the portions of the textbook that address the questions I have.
  - I review the knowledge checklist on the course website.
  - I view and take notes on the reviewvies that address the questions I have.
  - I fill out the handouts and note organizers found on the course website.
  - I talk through the flowcharts found on the course website.
  - I use the practice exams regularly.
- ☐ I use the practice exams properly to assess my knowledge and skills.
  - I examine practice exams at the start of each scenario to see what I will be expected to do.
  - I practice using multiple exams before each test.
  - I start using practice exams 5 days before the exam.
  - I select and complete each exam in under 50 minutes, before submitting it.
  - I review each question I answered incorrectly so I can explain what is wrong about the answer I chose and why the correct answer is correct.
  - I review any question in which I was not confident in my choice so I can explain what is wrong about the answer I chose and why the correct answer is correct.
  - I use the data provided about performance in different topic areas to plan my studying.
- ☐ I study notes in a timely and appropriate fashion.
  - I review my notes within 12 (at most 24) hours of taking them.
  - I review my notes again before the next lecture.
  - I reorganize my notes into tables, charts, lists, diagrams.
  - I write questions in my notes and seek answers 1) in textbook 2) on website 3) in class 4) at SI Sessions.
- ☐ I am deliberate in all my studying.
  - I think about how each knowledge item fits into the overall picture.
  - I think about how to apply each knowledge item.
  - I don't just memorize each step in a process, I think about the role of each and how they are interrelated.
  - I determine my areas of weakness and focus my studying efforts on them.

Supplemental Instruction (SI) study sessions are being offered to students enrolled in BIOL 1114 this semester. SI sessions are interactive, peer-led, team study opportunities facilitated by an SI Leader. Each SI Leader assigned to your class will hold SI sessions **three (3) times per week** throughout the semester and students can attend sessions anytime they are offered. Weekly SI sessions focus on engaging students in reviewing current course material, strengthening students' understanding of key course concepts, developing and practicing innovative learning strategies, and preparing for course exams.

An SI Leader is a student who has already successfully completed this course and mastered the course material. In addition to facilitating SI sessions, your SI Leaders attend lecture weekly to serve as an in-class resource for you. Your SI Leader(s) also hold weekly office hours in the Academic Development Center (second floor of Kerr-Drummond Mezzanine) to help address any questions you have about course content.

### Why should you attend SI?

1. On average, students who regularly attended SI in this course last year **earned higher final course grades** than students who did not attend SI.
2. Students who regularly attended SI in this course last year **successfully completed the course at a higher rate** than students who did not attend SI.
3. SI is **open** to everyone taking this course. It's **voluntary** and it's **completely FREE!**

### What should I expect in an SI session?

1. Your SI Leader will act as a facilitator. Your Leader won't re-lecture the current week's material, but will get you and your fellow students engaged in reviewing key concepts from class lectures using interactive, proven study methods.
2. You and your classmates will work together to find solutions to problems and will help each other gain a better understanding of challenging class material.
3. An SI session is a "no pressure" zone. Your SI Leader is a near-peer who has been where you are now. Your Leader isn't a TA and has no access to or influence over your course grades. SI sessions are a time to ask questions in an open environment. There's no need to feel nervous. You're all there to improve and help each other out.
4. You'll get the most out of each session by coming prepared. Bring your textbooks, your reading and lecture notes, and your questions.

Your SI Leader(s) will poll the class during the first week of lecture to identify the SI session times that will work best for members of the class. SI sessions will start during the second week of class. Your SI Leader(s) will announce session days and times, which will be posted at [http://biol1114.okstate.edu/Session\\_Schedule.cfm](http://biol1114.okstate.edu/Session_Schedule.cfm)

**You may attend sessions offered by the SI leaders attending this section or any other section.**

You can find out more information about SI by visiting: <http://lasso.okstate.edu/si-info>.



You are required to sign and return this sheet to me, acknowledging that you have been provided the syllabus.

NAME (PRINT) \_\_\_\_\_ CRN \_\_\_\_\_ Lab Section \_\_\_\_\_

**I acknowledge that I have received and am responsible for the material in the class syllabus and that I will abide by the class policies, including those in the BIOL 1114 specific Academic Integrity Policy Statement.**

NAME (SIGNATURE) \_\_\_\_\_ **Please check EACH box below:**

- ☐ I will come to lab & lecture prepared to work with my team
- ☐ I will participate with my team and allow other members to participate
- ☐ I will evaluate my team members fairly and accept their evaluations of me.
- ☐ I am aware and accept that peer evaluations from my team members can affect my grade
- ☐ I will consult my syllabus for answers to any policy or schedule questions I may have .
- ☐ I will properly **paraphrase** (write in my own words) **and cite** all information that I use from **ANY** source in my teams' manuscript. Failure to do this is **plagiarism**
- ☐ I will properly paraphrase and cite, obtain the permission of the original authors, and obtain the permission of my mentor when I use any part of an unpublished manuscript. Failure to do so is **unauthorized collaboration or plagiarism**.
- ☐ I will include as authors all and only students who contribute adequately to the production of a manuscript submitted for credit. Failure to do so would be **falsifying authorship** and would be considered fabricating information by all authors on a manuscript. All authors who miss a part of a lab must have their contributions explained truthfully on the authorship form.
- ☐ I will only include on in-class exercises the names of those members of my team who participated in completing the exercise. Including the names of others is considered **cheating** by **all team members** whose names appear on the exercise. Each member of a team must write his/her own name on materials submitted by the team.
- ☐ I will possess only a student response pad ("clicker") that is registered to me. To possess a clicker belonging to another student is considered **unauthorized collaboration and cheating**.
- ☐ I will not misidentify the exam version (001 or 002) by indicating the incorrect version on the form or placing it in the alternate team for grading. To do so is considered **cheating**.
- ☐ I will not possess a form of the exam during the examination period that is inconsistent with the assigned distribution of exams as indicated during the examination period. This is considered **unauthorized collaboration and cheating** by all affected individuals.
- ☐ I will not access any electronic devices (for example smartphone, cell phone, smart watch, calculator, portable multimedia devices such as an iPod, iPad, wireless headphones/earphones, electronic dictionaries) during an exam without explicit prior permission. This is considered **cheating**. All such devices must be turned off and out of sight or reach.
- ☐ If I take a conflict exam, I will not possess a list of answers, have copies of exams, or communicate any information about the exam to other students, until after the normally scheduled exam is completed. To do so is considered **unauthorized collaboration and cheating**.