SYLLABUS - Generic

COURSE DESCRIPTION: Principles of Biology including nature of science, chemistry of life, cell structure and division, cellular respiration, photosynthesis, Mendelian, chromosomal and molecular genetics, evolution, and ecology.

LEARNING OBJECTIVES:
• Understand the properties of life, unity and diversity of life, basic inorganic and organic chemistry, macromolecules, and the properties of water.
• Understand the basic structure, function, and physiology of cells, including cell communication, chemical reactions, and metabolism. Understand cellular respiration and photosynthesis.
• Understand nucleic acid structure, DNA replication, gene expression, and mutation.
• Understand the cell cycle, mitosis, meiosis, and patterns of Mendelian inheritance.
• Understand the origin and history of life, including microevolution and macroevolution.
• Understand species interactions with the biotic and abiotic environment at the population, community, ecosystem, and biosphere levels.
• Understand the importance of biodiversity and conservation strategies.

INSTRUCTOR INFORMATION:
• Your Instructor is: Evan L. Kaplan, Ph.D.
• Office location: Harned Hall, Room 313
• Office telephone: 662-325-3252
• E-mail address: ekaplan@biology.msstate.edu
• Office Hours:
REQUIRED BOOKS AND MATERIALS FOR BIO 1134:

   Third Edition, 2013; Brooker, Widmaier, Graham and Stiling
   (Available at MSU Barnes & Noble Bookstore and other local bookstores)

2) BIO 1134 Lecture Notes (FOUNTAINHEAD PRESS; ISBN: 9781598715880)
   First Edition, 2014; Kaplan
   (Available at MSU Barnes & Noble Bookstore and other local bookstores)

COURSE GRADING:

• The overall grade for the course will be determined as described below. Scantron forms will be provided, but you are responsible to bring a #2 pencil and MSU student ID to exam days.

EXAMINATIONS [400 total percentage points possible]:

• FOUR Lecture Exams (100 percentage points each) will be given on scheduled lecture sessions. Each exam will consist of 70 multiple-choice questions and cover the material presented in lecture and textbook, since the previous exam. Included as part of the 70 questions will be 5 extra credit questions on each exam. A missed exam will result in a percentage points score of zero. If needed, a “make-up” Lecture Exam will be offered in the form of the Optional Final Comprehensive Exam (see below). Completed exams and scantrons will not be given back, but may be looked at during the scheduled Instructor’s office hours.

• ONE Optional Final Comprehensive Exam (100 percentage points) will be offered. The final exam may be used to replace your lowest lecture exam score. The final exam will consist of 100 multiple-choice questions and cover all material presented in the lecture portion of the course. No extra credit questions will be included with this exam. If your Final Comprehensive Exam score is lower than your lowest regular Lecture Exam score, then it will not be used to calculate your final course percentage (i.e. the Final Comprehensive Exam cannot hurt your overall course percentage). If you miss a Lecture Exam, it is strongly suggested that you take the Final Comprehensive Exam. A “make-up” Final Comprehensive Exam will NOT be offered. See the Lecture and Exam schedule below as the date and time of the Final Exam may not follow the regular course schedule.

   ➢ For all exams, you will be required to present your current MSU student ID (for student verification) when you turn in your answers.
**GRADE DETERMINATION AND FINAL GRADING SCALE:**

- The lecture component of the course will determine 80% of your final course grade.
- The lab component of the course will determine 20% of your final grade.
- To determine your final course grade:
  - Add all percentage points together from your four Lecture Exam scores (or three Lecture Exam scores and Optional Final Comprehensive Exam score) and your lab score.
  - Divide your total by 5 to give you your final average %.
  - Using the grade table below, match up your final average % with the appropriate grade.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>FINAL AVERAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>89.5 – 100</td>
</tr>
<tr>
<td>B</td>
<td>79.5 – 89.5</td>
</tr>
<tr>
<td>C</td>
<td>69.5 – 79.5</td>
</tr>
<tr>
<td>D</td>
<td>59.5 – 69.5</td>
</tr>
<tr>
<td>F</td>
<td>Below 59.5</td>
</tr>
</tbody>
</table>

**MAKE-UP POLICY:**

- One make-up exam will be offered in the form of the Optional Comprehensive Final Exam (see above). A missed Lecture Exam will result in a percentage points score of zero and it is strongly suggested that you take the Optional Comprehensive Final Exam. A “make-up” Final Comprehensive Exam will NOT be offered.
ATTENDANCE:

• Attendance to all lecture sessions is expected. You are responsible for all material missed due to an absence(s). Under extreme situations, excused absences will be considered on an individual basis. Written documentation may be requested for verification of excused absences. Please notify the course Instructor prior to or within 24 hours following an absence.

• According to the Mississippi State University Academic Operating Policy and Procedure (AOP), 12.09:
  
  ➢ Upon registration, the student accepts the responsibility of attending all classes and doing any work the Instructor may prescribe. When absence from class is essential, the student is responsible for providing satisfactory evidence to the Instructor to substantiate the reason for absence. The student is also responsible for making arrangements that are satisfactory to the Instructor in regard to work missed. These arrangements should be made prior to the absence when possible. Among the reasons absences are considered excused by the university are the following:

  ▪ Participation in an authorized university activity.
  ▪ Death or major illness in a student’s immediate family.
  ▪ Illness of a dependent family member.
  ▪ Participation in legal proceedings or administrative procedures that require a student’s presence.
  ▪ Religious holy day.
  ▪ Illness that is too severe or contagious for the student to attend class.
  ▪ Required participation in military duties.
  ▪ Mandatory admission interviews for professional or graduate school, which cannot be rescheduled.

  ➢ It is the student’s responsibility to secure documentation of an illness from a physician. The documentation must contain the date and time the student sought treatment. Based upon the documentation, the Instructor will decide whether makeup work will be allowed.
COURSE HELP:

• Students who are in need of course help are encouraged to attend the course Instructor’s office hours.

• Tutoring is available through The Learning Center (TLC) and the Student Association's Peer Tutoring and Academic Mentoring (PTAM) program.
  - TLC office: 266 Allen Hall, 662-325-2957
    - www.tlc.msstate.edu/services/tutoring.php
  - PTAM office: 662-325-2930
    - www.sa.msstate.edu/services/tutoring/peer/

ADA NOTIFICATION:

• Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Office of Student Support Services and Disability Support Services, who will inform the course Instructor of any special conditions pertaining to their learning.
  - SSS office: 01 Montgomery Hall, 662-325-3335
    - www.sss.msstate.edu

FERPA STATEMENT:

• The Family Educational Rights and Privacy Act (FERPA) is a Federal law designated to protect the privacy of a student’s education records and academic work. All files, records, and academic work completed within this course are considered educational records and are protected under FERPA. It is your right as a student in this course to expect that any materials you submit in this course, as well as your name and other identifying information, will not be viewable by guests or other individuals permitted access to the course. The exception will be only when you have given explicit, written, signed consent. Verbal consent or email is insufficient.
MISSISSIPPI STATE UNIVERSITY HONOR CODE:

• Mississippi State University has an approved Student Honor Code that applies to all students. The code is as follows:
  
  • “As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.”
  
  • “Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Student Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Student Honor Code. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Mississippi State University community from the requirements or the processes of the Student Honor Code.”

  ➢ www.honorcode.msstate.edu/pdf/honor-code.pdf

CLASSROOM CIVILITY STATEMENT:

• You are encouraged to help create an environment that promotes learning, dignity, and mutual respect for everyone in the learning environment. Students who speak at inappropriate times, take frequent breaks, interrupt the class by coming to class late or leaving early, engaged in loud or distracting behaviors, use cell phones or pagers (other noise-making devices like watches with alarms), listen to headphones/CDs, play with computers or hand held games, use inappropriate language, are verbally abusive, display defiance or disrespect to others, or behave aggressively toward others during the class period may be asked to leave the class and subjected to disciplinary proceedings under the Mississippi State University Policies Relating to Students (see below).

GENERAL COURSE AND COLLEGE POLICIES AND REGULATIONS:

• **CHEATING, PLAGIARISM, AND DISHONESTY will not be tolerated.**

  Cheating, plagiarism, and dishonesty will be subject to disciplinary proceedings under the Mississippi State University policies.

• For all academic rules, regulations, and policies, read the Mississippi State University Policies Relating to Students.
  
  • www.msstate.edu/web/security/student_policies.html

• The course Instructor reserves the right to modify the course content, lectures and/or examination schedule of the course during the semester.

• If a Lecture session is cancelled on the day of an exam, the exam will be given at the next scheduled session.
# BIO 1134

**LECTURE and EXAM SCHEDULE**

**Lectures** are held in 102 Harned Hall.  
**Labs** are held in 355 Harned Hall.

<table>
<thead>
<tr>
<th>Date:</th>
<th>Lecture Topics:</th>
</tr>
</thead>
</table>
| Week #1     | • Course Introduction  
              • Chapter 1 – An Introduction to Biology  
              • Chapter 2 – The Chemical Basis of Life I  
              • Chapter 3 – The Chemical Basis of Life II  
              • Chapter 4 – General Features of Cells                                                         |
| Week #2     | • **Exam #1** (Chapters 1, 2, 3 and 4)  
              • Chapter 5 – Membrane Structure, Synthesis, and Transport  
              • Chapter 6 – An Introduction to Energy, Enzymes, and Metabolism  
              • Chapter 7 – Cellular Respiration and Fermentation  
              • Chapter 8 – Photosynthesis  
              • Chapter 9 – Cell Communication                                                                 |
| Week #3     | • **Exam #2** (Chapters 5, 6, 7, 8 and 9)  
              • Chapter 11 – Nucleic Acid Structure and DNA Replication  
              • Chapter 12 – Gene Expression at the Molecular Level  
              • Chapter 14 – Mutation, DNA Repair, and Cancer  
              • Chapter 15 – The Eukaryotic Cell Cycle, Mitosis, and Meiosis  
              • Chapter 16 – Simple Patterns of Inheritance                                                     |
| Week #4     | • **Exam #3** (Chapters 11, 12, 14, 15 and 16)  
              • Chapter 22 – The Origin and History of Life on Earth  
              • Chapter 23 – An Introduction to Evolution  
              • Chapter 24 – Population Genetics  
              • Chapter 25 – Origin of Species and Macroevolution  
              • Chapter 54 – An Introduction to Ecology and Biomes                                              |
| Week #5     | • Chapter 56 – Population Ecology  
              • Chapter 57 – Species Interactions  
              • Chapter 58 – Community Ecology  
              • **Exam #4** (Chapters 22, 23, 24, 25, 54, 56, 57 and 58)  
              • **Optional Final Comprehensive Exam** (All covered Chapters)                                    |

* All of the above is subjected to change depending upon term and is intended to give the student a general idea of the course.