**IST 111-201: Living Systems Course Syllabus**

**Spring 2015, Lecture MW 3 – 4:15; Lab: M 10 – 11:50, Science 200**

**Instructor**:  Terry Shank

**Office**:  Morrow 113

**Phone Number**:  (304) 696-3517

**Office Hours**:  MWF 9-950 am, W 10-12, F 2-6
 TR: not on campus
 Other times by appointment ONLY
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**University Policies**: By enrolling in this course, you agree to the University Policies listed

 below.
 Please read the full text of each policy be going to
 <http://www.marshall.edu/academic-affairs> and clicking on “Marshall
 University Policies.” Or, you can access the policies directly by going to
 <http://www.marshall.edu/wpmu/academic-affairs/?page_id=802>

Academic Dishonesty / Excused Absence Policy for Undergraduates /
 Computing Services Acceptable Use / Inclement Weather / Dead Week /
 Students with Disabilities / Academic Forgiveness / Academic Probation and Suspension / Academic Rights and Responsibilities of Students / Affirmative Action / Sexual Harassment

**Textbook:** The following textbooks/readings are required for the course:

 **Biology for the Informed Citizen with Physiology,** Bozzone and Green.

 2014 Oxford University Press.

 **Collapse:** Diamond, Jared Penguin Books, 2005

**Course Description:** I will emphasize the role of Science in the ongoing attempt to understand the environment and our role in it. Critical reasoning will guide our thought processes in determining how biological models have historically been constructed in order to develop our biological knowledge base; and how we can use these same skills to project new models and test hypotheses that deal with novel experiences and questions that are encountered today. The basic principles of science are grounded in observation, so the student will be encouraged to sharpen those skills in both lecture participation and lab.

**Pre/co-requisites:**  N/A

**Credit:** The course is four (4) credit hours. It includes classroom lecture quizzes, exams, homework assignments, labs and a semester project. Students will participate in various aspects of projects that illustrate the implementation of concepts in general principles of biology.

**Desired Objectives/Outcomes:** By the end of this course, you should be able to:

|  |  |  |
| --- | --- | --- |
| **Course Student Learning Outcomes**  | **How Practiced in this Course** | **How Assessed in this Course** |
| Students will Identify problems for which biological model solutions are suitable | In-class examples, discussions, Chapter review questions, labs | Exams, class discussions, project, homework, lab reports  |
| Students will articulate science as a series of interrelated questions created from past experience and observation | In-class examples, discussions, Chapter review questions, labs | Exams, homework, class discussion, lab reports  |
| Students will test a series of possible outcomes to determine which outcomes are most likely and which are not feasible | In-class examples, discussions, Chapter review questions, labs | Homework, Exams, class and lab discussions, lab reports  |
| Students will predict additional outcomes or define new questions | In-class examples, discussions, Chapter review questions, labs | Homework, Exams, lab reports  |
| Students will interpret and create unique questions, test them, and continue the process of scientific inquiry | In-class examples, discussions, Chapter review questions, labs | Exams, homework, lab reports  |
| Students will extrapolate biological principles to reason an explanation of real-world circumstances and their consequences | In-class examples, discussions, project related to readings | Project presentation, lab reports |
| Students will be instilled with an appreciation of the earth and the complex array of life found there. | In-class examples, discussions, labs | Exams, homework, lab reports, class discussions |

**Instruction method:**
There will be 3 contact hours of classroom lecture and a 2 hour lab per week. Projects covering chapters from ‘Collapse’ are part of the course. Students may work on their assignments/projects in University computing facilities or from their place of residence with an Internet connection.

**Evaluation method:**
Evaluation of student's performance will be based on the quality of your performance on projects, homework assignments, labs and exams.

**Grading Policy: (Points)**

 2 in-class Exams (Exam 1–100, Exam 2–125) 225 points

Final Exam 100 points

Quizzes 50 points

Homework Assignments 75 points

Project 100 points

Labs 250 points

Attendance  0 points

Total points 800 points

**Grade Scale %**

|  |  |
| --- | --- |
| 90-100  |  A |
| 80-89 |  B |
| 70-79  |  C |
| 60-69 |  D |
| Below 60  |  F |

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

**Additional Policy Statements:****My Academic Dishonesty Policy**

Academic Dishonesty is defined as any act of a dishonorable nature which gives the student engaged in it an unfair advantage over others engaged in the same or similar course of study and which, if known to the classroom instructor in such course of study, would be prohibited. Academic Dishonesty will not be tolerated as these actions are fundamentally opposed to "assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance" as described in Marshall University's Statement of Philosophy.

If you are found cheating on projects or plagiarizing answers from the Internet or other sources (among other things), there will be no second chance. Your penalty is that you will receive a failing grade for the activity, a second infraction will result in a failing grade for the course. In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs. Notice of an act of academic dishonesty will be reported to the Department Chair, Dean of the College of Science, and to the Office of Academic Affairs. Please refer to the Marshall University Undergraduate Catalog for a full definition of academic dishonesty.

**Exams***:* There are **THREE** exams worth 40% of your overall grade. The first will come after Chapter 9, the second after Chapter 18, and a Final exam will be based on the book Collapse (Diamond). Exact dates and times of exams will be announced in class. Tentative dates are shown in Schedule.

**Make-up Exams and Late Penalty***:* Make‑up exams will not be given except under unusual circumstances and satisfactory written justification. Any student who misses an exam due to an unexcused absence will receive a grade of zero for that exam with no opportunity for make-up or substitution. University excused absences or those occurring with a good ( my discretion) reason (and that reason must be given prior to missing the exam **–**email and leave a message if you have to) will be excused. Make up exams must be taken within one week of the original scheduled date. The decision whether to give a make-up exam rests with the instructor.

**Attendance Statement:**
As with previous semesters, I am NOT making class attendance mandatory. However, I will keep a record of who is attending and who is not. **If you miss class**, it is your responsibility to catch up on material missed, and it will **not** be my responsibility to catch you up on material missed during office hours, or re-lecture to you.

**Withdrawal Policy:**
The University withdrawal policy is followed in this course

**University Holidays:**
The class is officially dismissed on the following dates:
 1/19 MLK Day, 3/23-3/27 Spring Break

**Important!!!!!!!**

**Every student is responsible for all materials presented in class, including lectures, notes, and handouts. In case you are not present for a class, you should contact other students to receive information about the material presented in that class. Class attendance is very important but will not be graded.   I will be using Blackboard and you Marshall email to supply you with assignments and notifications.**

**Note about cell phones in class:**
In compliance with Marshall University’s cell phone policy, please set your cell phone ringer to "Vibrate Only" mode (**or turn it off**) before you enter the classroom. If it vibrates in your pocket, you can check for importance and respond outside the classroom without disturbing the other students. If I hear it ring in class or vibrate on top of your desk, at my discretion I get to answer it - no exceptions.

**Topics and Methodology:**
The following outline delineates the tentative class schedule with topics to be addressed during the course. Please note this is a tentative schedule and it may change upon class progress:

WEEK 1: Introduction, Chapter 1, Introduction-Collapse

1/12-16 Lab 1, Chapter 2

WEEK 2: **1/19, MLK DAY, NO CLASS OR LAB**

1/19-23 Chapter 3

WEEK 3: Chapter 4 **PRESENTATION-GROUP 1**

1/26-30 Lab 3

WEEK 4: Chapter 5/ 6

2/2-6 Lab 4

WEEK 5: **PRESENTATION- GROUP 2**

2/9-13 Chapters 7/8, Lab 5

WEEK 6: Chapter 9

2/16-20 Lab 6

WEEK 7: **PRESENTATION-GROUP 3**

2/23-27 Chapter 9/10,Lab 7

WEEK 8: Chapter 10/11

3/2-6 Lab 8: Test 1- in lab Chapters 1-9

WEEK 9: **PRESENTATION-GROUP 4**

3/9-13 Chapter 12/13

WEEK 10: **SPRING BREAK**

3/16-20

WEEK 11: Chapter 14/15

 Lab 10

WEEK 12:  **PRESENTATION-GROUP 5**

3/30-4/3 Chapter 15, Lab 11

WEEK 13: Chapter 16

3/30-4/3 Lab 12

WEEK 14: **PRESENTATION-GROUP 6**

4/6-10 Lab 13

WEEK 15: Chapter 17

4/13-17 Lab 15

WEEK 17: **PRESENTATION - GROUP 7**

4/27-5/1 Chapters 18, Lab 16

**FINAL: Scheduled for Monday, May 4 @ 3:00** (Test 2, Chapters 10-18)