NORTH CENTRAL TEXAS COLLEGE

COURSE SYLLABUS

Course Title: **General Biology Online**

Course Prefix & Number: **BIOL1408**

Section Number: **342 and 343** ***Semester/Year: Fall 2019***

Semester Credit Hours: 4
Lecture Hours: 3 Lab Hours: 1

Course Description (NCTC Catalog):

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

Course Prerequisite(s):

Required or Recommended Course Materials:

Inquiry Into Life, 15th ed., Mader & Windelspecht

ISBN 9781259426162

Or these are supplemental textbooks :

1. Hoefnagels, Marielle**. *Biology: Concepts and Investigations*.** McGraw-Hill. 2011.

ISBN: 0077431235 / 9780077431235

http://www.mhprofessional.com/mhhe_product.php?isbn=0077431235&cat=108

2. Mader, Sylvia. ***Biology*. McGraw-Hill. 2009.

ISBN: 0077366719 / 9780077366711

http://www.mhprofessional.com/mhhe_product.php?isbn=0077366719&cat=108

both you can get used!

INSTRUCTOR INFORMATION

Name of Instructor: Jessica Sharp

Campus/Office Location: online

Telephone Number:

E-mail Address: jsharp@nctc.edu or use Canvas course email

OFFICE HOURS: I am available to you 24/7 on email, but I can talk to you on the phone after we schedule an appointment.

Monday Tuesday Wednesday Thursday Friday

Online - Online - Online - Online - Online -

STUDENT LEARNING OUTCOMES (From Academic Course Guide Manual/Workforce Education Course Manual/NCTC Catalog

Lecture learning outcomes:

At the successful completion of this course the student will be able to:

1. Identify major cell structures.
2. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
3. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
5. Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
6. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
7. Analyze evidence for evolution and natural selection.

Lab Learning Outcomes

Upon successful completion of this course, students will:

1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and

identify major cell structures.

5. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
6. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
7. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
8. Identify the importance of karyotypes, pedigrees, and biotechnology.
9. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
10. Analyze evidence for evolution and natural selection.

GRADING CRITERIA

# of Graded Percentage or

Course Elements Graded Course Elements Point Values

14 Lecture assignments/quizzes 27%

10 Lab assignments/discussions 22%

4 Exams 51%

COURSE SUBJECT OUTLINE (Major Assignments, Due Dates, and Grading Criteria)

4 exams @ 100 points each	400
Introduction quiz and Intro discussion	20
14 Chapter/Lecture Quizzes @ 15 pts	210
10 Lab Quizzes/discussions @ 15 pts	150

TOTAL POSSIBLE POINTS: 780

A : 699-780 points B: 621-698 points C: 543 -620 points
D: 466 -542 points F: <466 points

Students are expected to take all exams and quizzes by the day they are due unless arrangements

are made with the instructor beforehand.

*If a student wishes to withdraw with and "Incomplete" (I), it must be requested in writing and the instructor must reply in writing in order for the request to be valid.

* You are responsible for adding up your own points that you earn throughout the semester. After adding a zero to an incomplete grade, instead of it being blank, this changes your points or % in the course. The best way to not be surprised at your grade at the end of the semester, is to take a record of your own points for the semester. You add them up and divide them by how many points you could have earned so far in this course. This is so important to know!

*It is also important that you write to me in a positive, respectful manner. Anyone who is threatening or gets angry in an email can be DROPPED from the course immediately.

**Read the ACCOUNCEMENTS each week. I will tell you of any changes and what content to concentrate on. I will also announce what is due each week. Here is your semester listed below. There are 15 weeks and four exams. All quizzes are 15 pts each, unless otherwise noted.

**Exams only cover the online lecture notes that go with each lesson. Labs are not tested on exams.

I hand-calculate every grade myself at the end of the semester to make sure the points are correct. You can use the points system to
calculate your own grades as you go through the semester.

ATTENDANCE POLICY

Regular and punctual attendance is expected of all students in all classes for which they have registered. All absences are considered to be unauthorized unless the student is absent due to illness or emergencies as determined by the instructor. It is the student responsibility to provide documentation as to the emergency for approval and judgement by the faculty member. Approved college sponsored activities are the only absences for which a student should not be held liable and only when provided by a college official ahead of the absence. Valid reasons for absence, however, do not relieve the student of the responsibility for making up required work.

Students will not be allowed to make up an examination missed due to absence unless they have reasons acceptable to the instructor. A student who is compelled to be absent when a test is given should petition the instructor, in advance if possible, for permission to postpone the exam.

Students will be dropped from a class by the Registrar upon recommendation of the instructor who feels the student has been justifiably absent or tardy a sufficient number of times to preclude meeting the course's objectives. Persistent, unjustified absences from classes or laboratories will be considered sufficient cause for College officials to drop a student from the rolls of the College. From Board Policy FC (LOCAL)

Last day to withdraw from a course with a "W" is _____November 1st, 2019_____.

DISABILITY SERVICES (Office for Students with Disabilities)

The Office for Students with Disabilities (OSD) provides support services for students with disabilities, students enrolled in technical areas of study, and students who are classified as special populations (i.e. single parents).

Support services for students with disabilities might include appropriate and reasonable accommodations, or they may be in the form of personal counseling, academic counseling, career counseling, etc. Furthermore, OSD Counselors work with students to encourage self-advocacy and promote empowerment. The Counselors also provides resource information, disability-related information, and adaptive technology for students who qualify.

If you feel you have needs for services that the institution provides, please reach out to either Wayne Smith (940) 498-6207 or Yvonne Sandman (940) 668-3300. Alternative students may stop by Room 170 in Corinth or Room 111 in Gainesville.

CORE CURRICULUM FOUNDATIONAL COMPONENT AREA (For classes in the Core)_____

Communication

Mathematics Government/Political Science

Life and Physical Science Social and Behavioral Sciences

Language, Philosophy & Culture Component Area Option

Creative Arts

American History

REQUIRED CORE OBJECTIVES (For classes in the Core)

Critical Thinking Teamwork

Communication Personal Responsibility

Empirical and Quantitative Social Responsibility

COURSE TYPE

Academic General Education Course (from ACGM but not in NCTC Core)

☐ Academic NCTC Core Curriculum Course

☐ WECM Course

☐

STUDENT HANDBOOK

Students are expected to follow all rules and regulations found in the student handbook and published online.

ACADEMIC DISHONESTY

Scholastic dishonesty shall include, but is not limited to cheating, plagiarism, academic falsification, intellectual property dishonesty, academic dishonesty facilitation and collusion. Faculty members may document and bring charges against a student who is engaged in or is suspected to be engaged in academic dishonesty. See Student Handbook, "Student Rights & Responsibilities: Student Conduct ([FLB(LOCAL)]".

Consequences for academic dishonesty may include:

1) Forced withdrawal from the course
2) Zero on the assignment/exam grade

QUESTIONS, CONCERNS, or COMPLAINTS

Name of Chair/Coordinator: Dr. Lisa Bellows

Office Location: Gainesville Science Building Office 408

Telephone Number: 940-668-4252

E-mail Address: lbellows@nctc.edu

Tentative Calendar

Weekly Schedule of Lecture & Lab

*The Weekly Quizzes are always due the **Monday** night of the last date of the week by midnight. No exceptions.

Date	Chapters/quiz due	Lab& lab quizzes due
Lesson 1 (August 26 – September 2)	Study Lesson 1 online interactive notes "A view of life". No chapter 1 quiz is given. Please get familiar with the online course.	Orientation quiz (10 points) and Introduction Discussion (10pts) Lab 1 – Corn lab Quiz (15pts)
Lesson 2 (September 3-9)	Lesson 2 Quiz on basic chemistry	Lab 2 –Nutrition and digestion virtual lab quiz
Lesson 3 (September 10-16)	Lesson 3 Quiz on Organic molecules	Lab 3 – Precycling Discussion (20pts)
Lesson 4 (September 17 - 23)	Lesson 4 Quiz on cells	Lab 4 – Cell structure and function lab quiz
Exam 1 **(Wed, September 25)**	**3pm-11pm open time frame**	Exam 1 covers lessons 1, 2, 3, and 4
Lesson 5 (September 24 - 30)	Lesson 5 - Energy flow/enzymes Quiz	Lab 5: Enzyme controlled reactions virtual lab and quiz
Lesson 6 (October 1-7)	Lesson 6 Diffusion/osmosis/ Membranes Quiz	*No lab this week
Lesson 7 (October 8-14)	Lesson 7: photosynthesis/plant adaptation Quiz	Plant transpiration virtual lab quiz
Lesson 8 (October 15 - 21)	Lesson 8: aerobic respiration Quiz	Blood pressure lab quiz due

Exam 2 **(Wed, October 23)**	**3pm-11pm open time frame**	Exam 2 is over lessons 5, 6, 7, and 8
Lesson 9 (October 22-28)	Lesson 9: cell cycle and mitosis quiz	The cell cycle and cancer lab and quiz
Lesson 10 (October 29- November 4)	Lesson 10: DNA quiz	Pig Virtual dissection lab: study all systems
Lesson 11 (November 5 - 11)	Lesson 11 (gene expression) Quiz	**Pig dissection lab discussion**
Lesson 12 (November 12 - 18)	Lesson 12 part I: meiosis Quiz	Shark dissection quiz
Exam 3 **(Wed, November 20)**	**3pm to 11pm open time frame**	Exam 3 is over Lessons 9, 10, 11, and 12 part 1
Lesson 13 (November 19- 25)	Lesson 12 part II (reproduction in plants and animals) Quiz	No lab this week. *2 weeks for thanksgiving
Lesson 14 (November 26 – Dec 2)	Lesson 13: alleles/test crosses: Quiz	Punnett squares lab and quiz
Lesson 15 (December 3-9)	Environmental week: chapters of Ch 34 and 36: Quiz	**Study! no lab this week**
Exam 4 **Final is Wednesday December 11**	**3pm to 11pm open time frame**	The final exam is over Lessons 12 part II, lesson 13, and Chapters 34 and 36