
GENERAL BIOLOGY I for MAJORS

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Course Description – Principles of structure and function of living things at molecular, cellular and organismic levels of organization. Prerequisites: None. One semester college chemistry or one year high school chemistry is strongly recommended.

Text: *Biology* 6th ed. by Neil A. Campbell

Lab Manual: *Inquiries Into Life's Secrets* by Ponder, Brown, Wegener & Dinchak

Note: Bio 181 is the first semester of a two-semester sequence, Bio181/182. It is highly recommended that you take both semesters of General Biology at the same college.

You must have the same instructor (me) for both lecture and laboratory.

Lecture section	6768	MTWR	5:30 – 6:45	LS108
Laboratory sections	6769	MW	7:10 – 10:00	LS205
	6770	TR	7:10 – 10:00	LS205

Attendance Policy

Attendance is not mandatory, but I will make note of attendance at each class. If you have a good excuse for not attending on a particular day, please, send me an e-mail stating your reasons for not attending. I will frequently give in class assignments in lecture and quizzes in laboratory. If you are not attending class on the day an assignment or quiz is given, you **cannot** make it up and will receive a zero (unless I have given you an excused absence because you have sent me an e-mail). I highly recommend attending class.

Assignment due dates and late policy

In class assignments will be given frequently during the semester. In each case a due date will be provided. Assignments turned in up to and on this date are eligible for full credit. Assignments

turned in one to seven days late will be eligible for 80% credit. Assignments will not be accepted more than one week late. No excuses are accepted.

Reasonable accommodations for disabilities can be arranged. Please see Special Services Office as well as me to make arrangements.

Academic dishonesty will not be tolerated. A first offense will result in a zero for the assignment. A second offense will result in an F for the course and a report to the Dean of Students. Please avoid even the appearance of academic dishonesty.

See the Student Handbook for campus- and District-wide policies.

Grading Policy

Your grade in Bio 181 will be determined **entirely** by the number of points you earn. **There will be NO scale, curve, dropped exams or extra credit.**

Hour exams will cover material from lecture and reading assignments. These exams will consist of matching, multiple choice, fill in, short answer, essay, or any other kind of question I can think up. If necessary, you may take ONE make-up exam during the semester. Arrangements must be made before the scheduled exam date; otherwise the maximum exam score will be reduced by 20%. Make-up exams will consist of 20 short answer questions.

The final exam will be one half over new material and one half comprehensive.

Lab quizzes will be discussed in the laboratory.

Writing assignments will be discussed at a later date.

Points Possible

Examination I	=	50
Examination II	=	60
Examination III	=	60
Final Exam	=	100
Lab Quizzes and Reports	=	150
Writing Assignments	=	50
<u>Miscellaneous</u>	=	<u>30</u>
TOTAL POINTS POSSIBLE	=	500

Grading Scale

90 – 100%	=	A
80 – 89%	=	B
70 – 79%	=	C
60 – 69%	=	D
0 – 59%	=	F

Withdrawal Policy

Should it become necessary for you to withdraw from the course, it is your responsibility to fill out the required paperwork. Students who simply stop attending class will receive either an F or an Y (withdrawn failing) for the course.

Cell Phones and Pagers

So that class is not disrupted, please turn your cell phone and pagers to vibrate or turn them off during class. If your phone or pager beeps during class I will subtract 5 points from your score. If my phone rings the whole class will receive ten points.

To succeed in this course you must:

Attend laboratories and lectures
Actively participate in exercises and discussions
Read the text and lab manual
Take good notes
Study frequently
Ask questions

To be successful in this class, you may have to spend more time on this class than on your other non-science courses. Remember, I am always here to help so don't be afraid to ask me for it.

Course content may vary from this outline to meet the needs of this particular group.

MTWR Lecture Schedule

Week	Lecture Topic	Reading
May 31(holiday) June 1 June 2 June 3	Course Introduction and Overview of Topics Major Themes in Biology Chemical Bonds & The Properties of Water Carbon: Building Block of Life	Chapter 1 Chapters 2 & 3 Chapter 4
June 6 June 7 June 8 June 9	Types of Macromolecules and Their Uses in Organisms Life and the Cell Cell Structures and Their Functions EXAMINATION I	Chapter 5 Chapter 7
June 13 June 14 June 15 June 16	Structure and Function of Biological Membranes The Importance of Enzymes in Metabolism Cellular Respiration: Energy Conversion in Cells	Chapter 8 Chapter 6 Chapter 9
June 20 June 21 June 22 June 23	Photosynthesis: Capturing Light Energy & Storing It EXAMINATION II	Chapter 10
June 27 June 28 June 29 June 30	Mitosis & Cell Division Meiosis & Sexual Life Cycles Mendel & The Gene	Chapter 12 Chapter 13 Chapter 14
July 4 (holiday) July 5 July 6 July 7	Human Inheritance Chromosomes & Inheritance Molecular Genetics	Chapter 15 Chapter 16
July 11 July 12 July 13 July 14	Protein Synthesis EXAMINATION III Evidence of Change & Common Descent The Modern Evolutionary Synthesis	Chapter 17 Chapter 22 Chapter 23
July 18 July 19 July 20 July 21	Adaptation The Nature of Biological Species/Speciation FINAL EXAM	Chapter 24

Laboratory Schedule*

Week 1	May 31 – Holiday	No lab
	June 1	Unit 1: Introduction
	June 2 – 3	Unit 7: The Study of Enzymes
Week 2	June 6 – 7	Unit 10: DNA Isolation, Set up Essential Elements Lab, Handout
	June 8 – 9	Unit 5: Chemistry and Living Organisms, Water plants
Week 3	June 13 – 14	Unit 4: Biochemistry of Cells, Water plants
	June 15 – 16	Unit 6: What Factors Affect the Movement of Water Through Membranes? Water Plants
Week 4	June 20 – 21	Unit 8: What are the Effects of Light and Pigments on Photosynthesis? Water and Measure Plants
	June 22 – 23	Unit 11: Introduction to Biotechnology, Movie: Secret of Photo 51 Water Plants
Week 5	June 27 – 28	Unit 12: DNA Technology I: Whodunit? Water Plants
	June 29- 30	Unit 9: Mitosis and Meiosis, Water Plants
Week 6	July 4 - Holiday	
	July 5	Final Measurements and Observations for Essential Elements Lab (Both Monday and Tuesday Labs)
	July 6 – 7	Unit 15: Natural Selection/Population Genetics
Week 7	July 11 – 12	Unit 2: Monera I
	July 13 – 14	<u>Units 2 & 3</u> : Monera II and Protista
Week 8	July 18 – 19	Unit 14: Sonoran Desert Plants
	July 20 – 21	Review, Pick-up labs

* This schedule is tentative and may be altered.

It is expected that you will read the appropriate Unit in the lab manual before coming to the laboratory.