

COURSE: General Botany, BIO 161, Spring 2008

Bio 161.01 MWF 8:00-8:50, LDB 207

Bio 161.03 MWF 10:00-10:50, LDB 214

Instructor: Dr. Joan Hudson bio_jxn@shsu.edu

Office: Rm 129 - Lee Drain Building, (936) - 294-1541

Office Hours: TTh 8-10, M 1-2:30 or by appointment

TEXT: *Biology of Plants* by P.R. Raven, R.E. Evert, S. E. Eichhorn (7th edition), W.H. Freeman & Co/Worth Publ. 2005

COURSE OBJECTIVES: learn about:

1. basic chemistry and four groups of macromolecules present in living organisms
2. parts of the plant cell and their functions
3. basic membrane structure and function
4. seed morphology and germination
5. plant cell types and morphology of dicot and monocot roots, stems and leaves
6. energy conversions in plants
7. plant reproduction and genetics
8. taxonomy and life cycles of photosynthetic organisms and fungi
9. DNA replication and protein synthesis
10. plant hormones and their functions
11. plant movement
12. plant nutrition
13. plant ecology

The student should be better able to evaluate botanical information in the news and in everyday life.

GRADING: Four HOURLY exams (100 points each), Fourth exam is the FINAL EXAM.

Final grade determination:

A = 90% - 100% (360-400 points)

B = 80% - 89% (320-359 points)

C = 70% - 79% (280-319 points)

D = 60% - 69% (240-279 points)

F = 0% - 59% (0-239 points)

EXAMS: Exams will be multiple choice with Scantron 882. The questions on the exams will come from the lecture notes. The vast majority of lecture notes will come from the text. (Conclusion: Come to class and take good note. Read your book before and after lecture)

ATTENDANCE: Regular and punctual attendance is expected. Perpetual tardiness will be recorded as absences. Good attendance is no more than 2 classes missed. If you will be absent for a university event (ex. music, sport, rodeo etc.), please let me know ahead of time.

Repeat: One hundred percent of the exam material comes from the lectures and approx. 90% of the lecture information comes from the text. (Conclusion: Repeat: Come to class and take good note. Read your book before and after lecture.)

MAKE-UP POLICY: Lecture exams can be taken at a different time, only with an excused absence. If scantrons have already been returned (usually the next class meeting), your lowest exam grade at the end of the semester will be counted twice. There are no exceptions. (Conclusion: take the exam during the regularly scheduled time or make arrangements before the exam day to take it early.)

ACADEMIC DISHONESTY: The Student Code and Faculty Handbook will be followed in the event of academic dishonesty. (Conclusion: Any form of cheating will not be tolerated.)

STUDENTS WITH DISABILITIES: Students with any type of disability that may prevent them from fully demonstrating their abilities in this class should contact me as soon as possible. We can work together to come up with a plan to assist you with this course. (Conclusion: Please let me know if you have special needs.)

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WEEK READING	Week of:	LECTURE
1	16 January	Introduction Chapter 1
2	23 January	Chemistry Chapter 2
3	28 January	Cells, Membranes, Membrane function Chapters 3, 4
4	4 February Leaves, Plant Body	Chapters 22, 23, 24, 25 Cell types, Stems, Roots,
5	11 February	Secondary Growth, Xylem and Phloem function Chapters 26, 30
EXAM I - Wednesday, 13 February 2008 - covering weeks 1-4		
6	18 February	Energy, Respiration Chapters 5, 6
7	25 February	Photosynthesis Chapter 7
8	3 March	Mitosis and Meiosis, Genetics Chapters 8, 9
EXAM II - Friday, 7 March 2008 - covering weeks 5-7		
Spring Break: 10-14 March 2008		
9	17 March	Prokaryotes, Fungi, Lichens Chapters 13, 14
10	24 March	Protista Chapter 15
11	31 March	Bryophytes, Seedless Vascular Plants Chapters 16, 17
12	7 April	Gymnosperms and Angiosperms Chapters 18, 19
EXAM III - Friday, 11 April 2008 - covering weeks 8-11		
13	14 April	DNA replication, Protein synthesis Chapter 9
14	21 April	Hormones Chapter 27
15	28 April	Tropisms, Nutrition Chapters 28, 29
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16	5 May	Ecology, Plants and Humans Chapters 31, 32
FINAL EXAM - University Schedule - covering weeks 12-16		

BIOLOGY 161, General Botany, Dr. Joan Hudson

How to make the grade you want in Biology 161.

Suggestions from former students who have been happy with their grades.

1. Come to class. Pay attention. Be prompt and do not leave early.

2. Take good notes. Because the majority of the lecture information comes directly from the text (including figures) some students choose to write in their books during lecture, but the student should be prepared to take notes of material not included in the text. Writing/underlining in the text may be useful with some material, but will not substitute for good note taking.

Take your own notes. The notes from your neighbor are never complete.

Ask questions if unsure, unclear or confused.

3. Read the book. Concentrate while you are reading. Think about the material.

4. You rewrite/revise your notes in your own time. Use the book to help fill in gaps and provide further examples. This is revision work and is not considered true "study time". This must be done in order to have notes which are in an appropriate form for study.

Here is an example. When you go into the kitchen to cook dinner, if the kitchen is a mess, the dishes must be washed and the kitchen put in proper order before you can begin to cook. Washing the dishes and cleaning up are not "cooking" but both are necessary in order to "cook" properly and most efficiently. The same concept applies with lecture notes and studying. In the vast majority of cases, the notes must be rewritten/revise in order for them to be in an appropriate form for "study".

Another example: Preparing for an athletic event.

Photocopy (or redraw) figures from the text which are studied in class and insert these into your revised notes. The old saying "a picture is worth a thousand words" often (but not always) applies in this class. This allows you to study the figure each time you study your notes without having to keep finding the figures in the text.

IMPORTANT - Start early, this is time consuming but well worth the effort. If you wait until the last week to rewrite your notes, you will not have enough time to study. Start rewriting your notes and reading your book after each lecture or at least at the end of the week.

5. After reading the book and rewriting/revise your notes, now you can **STUDY** your notes. This means you must focus on the material and avoid outside distractions. After you have studied a set of material, ask yourself if you can write down key words/concepts concerning the material. If you can write down 50% of the words/concepts, you know approximately 50% of the material, not enough for a passing grade of 60%. More studying is required.

How many hours of study will a student need in order to understand the material? This varies from student to student. Also studying for biology may require more time than other classes you may have taken, or it may require less. Use the suggestion above in No. 5 to test yourself.

6. Tutors may also help but they cost \$.

General Botany, BIO 161, Dr. Joan Hudson, Figures/tables to accompany lecture notes, Raven et al, 2005. May have additions and/or deletions.

Ch. 2: 1, 2, 3, 4, 5, 7, 8, 9, 12, 13, 14, 15, 17, 18, 19, 20

Ch. 3: 7, 36, 38, 41, 46

Ch. 4: 7, 9, 11

Ch. 5: 6, 12

Ch. 6: 4, 7, 12, 13, 14, 15

Ch. 7: 4, 7, 10, 11, 12, 14, 18

Ch. 8: 5, 7

Ch. 9: 3, 4, 6, 9, 10, 11, 12, 13

Ch. 13: 7, 10, 13

Ch. 14: 11, 14, 18, 34, 35

Ch. 15: 5, 6, 20, 24, 41, 52

Ch. 16: 15, 18, 25

Ch. 17: 15, 18, 30, 40

Ch. 18: 2, 17

Ch. 19: 6, 22

Ch. 22: 7, 11, 12

Ch. 23: 1

Ch. 24: 2, 10, 11

Ch. 25: 3, 7, 10, 13, 16, 18, 19, 20, 27

Ch. 26: 6, 12, 16

Ch. 27: 27-1 (table), 2, 7, 8, 12, 14

Ch. 28: 14

Ch. 29: 1 (table), 2 (table), 5, 6, 8, 14

Ch. 30: 14, 20, 21