FD 902

Bio. 203-Cellular & Organismic Biology
MWF 9:00-9:50 a.m., 10:00-10:50 a.m.
Lisa Nagai, M.S., R.D.
e-mail: lnagai@chaminade.edu
cell phone: 255-4244

COURSE OUTLINE AND SYLLABUS

TEXT: Campbell, Neil A., Jane B. Reece, and Lawrence G. Mitchell 2002 (6th ed.). *Biology*. Benjamin Cummings, Menlo Park, CA.

COURSE DESCRIPTION:

Biology 203 is a 3-credit introductory biological science course for those students desiring advanced studies in the sciences, e.g. biology, forensic science, medicine, dentistry, environmental health, and other areas. It is followed by Biology 204 in the second semester.

AIMS/GOALS OF THE COURSE: This course is designed to fulfill the following goals:

1. To present the basic concepts and principles of biology for use in the present and for future courses.

2. To prepare the student to continue into advanced biology or related fields, such as biochemistry.

3. To examine and analyze specific content areas, such as molecular or cellular biology, evolution, physiology, and related areas of biochemistry and biophysics. Cellular biology will be stressed during the first semester (Bi 203) while organismal biology, based on organ systems, will be emphasized in the second semester (Bi 204)

4. To impart an understanding of the accomplishments, failures, ambiguities, and the future of the biological sciences drawing on examples and applications of principles in the area of marine sciences, biomedical sciences and other disciplines.

OBJECTIVES FOR STUDENTS: At the completion of the course, the student will be able to do the following:

1. Understand the scientific method;
2. Use cellular biology terminology;
3. Understand chemical components of the cell;
4. Identify cellular structures and understand their functions;
5. Understand cellular respiration;
6. Understand photosynthesis;
7. Understand cellular reproduction, mitosis and meiosis;
8. Understand major principles of evolution

LECTURES:

1. Lectures are 50 minutes duration, three times per week.

2. Text assignments and lecture topics are listed in the course outline. Consult the outline for assignments, announced quizzes, exam dates, and holidays.

3. Supplemental readings may be assigned during the course of the semester.

4. Supplemental reference texts are on reserve in the library at the front desk and will include study guides with sample exam questions. These may be used for additional readings, references for lab reports, or for an alternative approach to your text. Please complete required assignments before using supplemental references.

5. Adjustments may be made to the lecture outline, such as changes in exam dates, or assignments.

GRADE DETERMINATION:

1. Separate grades will be given for lecture and laboratory. It is therefore possible to receive different grades for lecture and laboratory.

2. Quizzes, both announced and unannounced, will be given during the semester. **Quizzes will be administered during the first 15 minutes of class. There will be no make up quizzes allowed.** At the end of the semester, the student may substitute the total quiz score average, based on 100%, for one of the lower scored lecture exams, not including the final exam.

3. Each student will submit 5 summaries of current events in biology. Each summary will be worth 10 points and instructions and requirements for the written summaries are given on a separate page. Summaries will be included as a portion of the lecture grade.

4. The lecture grade will be determined in the following manner.

1st lecture exam	100 pts.
2nd lecture exam	100 pts.
3rd lecture exam	100 pts.
5 summaries @ 10 pts.	50 pts.
Two Hour Comprehensive Final Exam	150 pts.
	500 pts.

Scale
A = 90%
B = 80%
C = 70%
D = 50%
F = below 50%

5. Lecture exams will include 10 extra credit points each, while the final exam will not include extra credit points. The final examination is a two hour cumulative exam with 50% of the exam including questions repeated from the previous 3 lecture exams.

6. Any exam that the student fails to complete at the expected time can be made up only with a written physician's excuse or valid reason to be determined by the instructor.

POLICIES, CLASS STANDING, OFFICE HOURS, AND EXTRA HELP:

1. Attendance is mandatory for each lecture and laboratory. Attendance will be monitored as required for federal guidelines. Attendance for laboratory is especially important. Unexcused absences for both lecture and laboratory will result in grade penalties to be determined by the instructor.

2. Quizzes missed can not be made up. In cases of excused absences, quizzes will not be counted.

3. Incompletes and early exams are not given. Extra credit work is not normally permitted.

4. Students may obtain their grades any time by consulting the instructor. Those with deficient grades will be notified prior to the withdrawal deadline. Students receiving deficiencies must consult with the instructor.

5. Peer tutoring is available. Please consult the instructor for tutoring from the Learning Center or upperdivision biology students.

6. Please note that it is biology department policy to reduce grades by one grade level for late assignments within 24 hours of the deadline. An F grade is recorded for assignments later than 24 hours. This is for summaries, lab reports, and other assignments.

7. Those students with special needs, e.g., learning disabilities, should consult with the instructor during the first or second week of classes.

8. Academic dishonesty including cheating, plagiarism, and other serious offenses, such as allowing another student to copy a paper, will not be tolerated. Appropriate action will be taken.

NEW TEXT SUPPLEMENTS:

1. Several student study guides will be placed in the library on closed reserve exclusively for student use.

2. Each purchased text includes an interactive study partner CD-ROM with interactive exercises, animations, lab, and simulations keyed to the text. Included are a **glossary** and 20 **test questions** per chapter, feedback for answers, and page references for studying.

CHAMINADE UNIVERSITY OF HONOLULU *SESSION: FALL 2002*

BIO 20302 (3 Crs) Cellular & Organismic Biology Ms. L. Nagai

Week #1			
AUG 26 M	Introduction: Syllabus & Course Outline	Ch. 1	pp. 1-99
AUG 28 W	Scientific Method, Characteristics of Life & Evolution	Ch. 22	pp. 412-427
AUG 30 F	Continue Scientific Method		
Week #2			
SEPT 2 M	**LABOR DAY HOLIDAY, NO CLASSES**		
			QUIZ ON WED
SEPT 4 W	Continue Evolution	Ch. 2	pp. 20-36
SEPT 6 F	Chemical Structure/Function:Atoms, Chemical Bonds, Water	Ch. 3	pp. 37-47
Week #3			
SEPT 9 M	Chemical Structure/Function: Organic Compounds & CHO	Ch. 4	pp. 48-57
SEPT 11 W	Chemical Structure/Function: Lipids & Proteins		**SUMMARY 1 DUE**
SEPT 13 F	Chemical Structure/Function: Nucleic Acids	Ch. 5	pp. 58-82
Week #4			
SEPT 16 M	Chemical Reactions & Enzymes- Structure & Kinetics	Ch. 6	pp. 83-99
SEPT 18 W	Microscopy		
SEPT 20 F	Cell Theory & Structure	Ch.7	pp. 100-129
Week #5			
SEPT 23 M	**FIRST LECTURE EXAM INCLUDING 9/20/02**		
SEPT 25 W	Cell Structure: Organelles, Cytoskeleton, & Junctions	Ch. 8	pp.130-146
SEPT 27 F	Cell Structure: Cell Membranes		
Week #6			
SEPT 30 M	Cell Processes: Osmosis & Transport		**SUMMARY 2 DUE**
OCT 2 W	Histology	Ch. 35, 40	pp.678-692,778-783
OCT 4 F	Cell Respiration: Anaerobic Pathways	Ch. 9	pp. 147-167

Week #7

OCT 7 M	Cell Respiration: Aerobic Pathways			
OCT 9 W	Cell Respiration: Fats & Proteins			**QUIZ**
OCT 11 F	Photosynthesis	Ch. 10	pp. 168-187	

Week #8

OCT 14 M	**HOLIDAY. Columbus Day**			
OCT 16 W	Photosynthesis: C-3 Pathway			**SUMMARY 3 DUE**
OCT 18 F	Photosynthesis: C-4 & CAM			

Week #9

OCT 21 M	**SECOND LECTURE EXAM including 10/18/02**			
OCT 23 W	Cell Communication	Ch. 11	pp. 188-205	
OCT 25 F	Cell Division: Mitosis	Ch. 12	pp. 206-223	

Week #10

OCT 28 M	Cell Division: Meiosis	Ch. 13	pp. 226-238	**QUIZ**
OCT 30 W	Cell division: meiosis, cont.			
NOV 1 F	Genetics: Medel	Ch. 14	pp. 239-260	

Week #11

NOV 4 M	Genetics: Mendel, cont.			
NOV 6 W	Genetics: Mendelian Crosses			**SUMMARY 4 DUE**
NOV 8 F	Genetics: Mendelian Crosses **LAST WEEK TO WITHDRAW FROM CLASSES**	Ch. 15	pp. 261-277	

Week #12

NOV 11 M	**VETERAN'S DAY HOLIDAY, NO CLASSES**
NOV 13 W	Genetics: Chromosomes
NOV 15 F	**THIRD LECTURE EXAM**

Week #13

NOV 18 M	Molecular Genetics	Ch. 16	pp. 278-293
NOV 20 W	Molecular Genetics: Transcription	Ch. 17	pp. 294-318
NOV 22 F	Molecular Genetics: Translation	Ch. 19	pp. 344-363

Week #14

NOV 25 M	Genetic Control	Ch. 20	**SUMMARY 5 DUE**
NOV 27 W	Genetic Control, cont		**QUIZ**
NOV 28 and 29	**THANKSGIVING BREAK**		

Week #15

DEC 2 M	Genetic Technology & Topics in genetics		
DEC 4 W	Genetic Basis of Development	Ch. 21	pp. 388-411
DEC 6 F	Review		

Week #16

DECEMBER ____, time: _____TWO-HOUR CUMULATIVE FINAL EXAMINATION IN HENRY HALL RM 17

IMPORTANT DATES: SEPT _____ LAST DAY TO REGISTER, ADD/DROP CLASSES

NOV _____ LAST DAY TO WITHDRAW FROM CLASSES

DEC _____ BEGIN FINAL EXAM WEEK