BIO 311C INTRODUCTORY BIOLOGY I Fall 2007

Instructor	K. Sathasivan ("Dr. Satā")
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Office Hours	Mon, Fri 2:00 – 3:45 PM and by appointment
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Important Websites	http://www.sbs.utexas.edu/sata https://courses.utexas.edu/webapps/login/ (UT Blackboard) http://www.bio-doc.org (interactive biology animations) www.iClicker.com (register your clickers here) https://hw.utexas.edu (enroll in UT homework system)

Lectures	Welch 2.246	Mon, Wed, Fri	11:00 to 11:50 AM

Teaching Assistant	Samraat Pawar
e-mail	samraat@mail.utexas.edu (best way to contact)
Office Hours:	Wed 4:00 – 6:00 pm and by appointment.

The best way to communicate with us outside class time and office hours is through e-mail. Send emails with appropriate subject line, course # and ask specific questions to get a reply.

Course Description BIO 311C is designed for majors in biological sciences, and for others if required by their departmental programs. This course covers major concepts in introductory and biological chemistry; cellular organization, structure and function; metabolism, respiration and photosynthesis; DNA, RNA and protein synthesis; gene regulation, cell cycle, cancer and recombinant DNA technology. Since the course covers a lot of material in a single semester, you need to keep up with the reading and come prepared for the lectures, discussions and exams.

Prerequisites Concurrent enrolment in or completion of college chemistry is required. This is strictly enforced. Students who do not comply need to withdraw or they will be dropped after 4th class day. If you have any questions, contact the Life Science Advisors (PAI 1.13).

Required Items

1. **Life, The Science of Biology. 8th Edition by Sadava, Heller, Orions, Purves and Hillis, 2008. Volume I.** Published by Sinauer Associates. Available in University CoOp on Guadalupe St. This book comes packaged with iClicker, and free web access with e-book, videos and animations.
2. **Cell and Molecular Biology Course Guide by K. Sathasivan, 2006 published by Kendall-Hunt.** This course packet of lecture notes and worksheets is available in University CoOp store. You need to bring this to class, complete the worksheets and submit them when they are due in the discussion sections.
3. **UT-Homework service registration.** You need to register in UT Homework Service **(https://hw.utexas.edu/)** before coming to next class. See the additional instructions on the class website. The student instructions are at https://hw.utexas.edu/bur/studentInstructions.html. Use only one unique number **51710** to register for this class homework. It does not matter if you are in another discussion section for the same class.
4. **iClicker remote.** The iClickers are available in University CoOp on Guadalupe St as a package deal with the text book. If you purchased the book without clicker or using an equivalent book, you must purchase the iClicker separately. Registration of the clicker can be done at the **www.iClicker.com** web site. Please use your exact last name, first name and UT EID as present in the UT records, along with the serial number printed on the back of the clicker.

BIO 311C – Introductory Biology I - Lecture Schedule - Fall 2007

Week	Date 2007	Lecture # and Tentative Topic	Reading Assignment in Life 8th Edition by Sadava et al
1	8/29	1 – Course Introduction	
	8/31	2 – Concepts in biology	Ch. 1
2	9/3	**Labor Day holiday**	
	9/5	3 – Atoms and molecules	Ch. 2
	9/7	4 – Water and the environment	Ch. 2
3	9/10	5 – Organic compounds	Ch. 3
	9/12	6 – Carbohydrates	Ch. 3
	9/14	7 – Lipids	Ch. 3
4	9/17	8 – Proteins	Ch. 3
	9/19	9 – Nucleic acids	Ch. 3
	9/21	10 – Origins of Life	Ch. 3
5	9/24	11 – Study of cells	Ch. 4
	9/26	***Review, Q & A for Exam 1***	
	9/26 Wed 6:00-7:30 PM	**EXAM 1 (Ch. 1, 2 and 3; Lectures 2-10) 100 points**	
	9/28	12 – Overview of cells	Ch. 4
6	10/1	13 – Eukaryotic cell structures	Ch. 4
	10/3	14 – Eukaryotic cell structures	Ch. 4
	10/5	15 – Cell surface	Ch. 4
7	10/8	16 – Cell membranes	Ch. 5
	10/10	17 – Cell membranes	Ch. 5
	10/12	18 – Cell communication	Ch. 15
8	10/15	19 – Energy concepts	Ch. 6
	10/17	***Review, Q & A for Exam 2***	
	10/17 Wed 6:00-7:30 PM	**EXAM 2 (Ch. 4, 5 and 15; Lectures 11-18) 100 points**	
	10/19	20 – ATP and energy coupling	Ch. 6
9	10/22	21 – Enzymes – regulation	Ch. 6
	10/24	22 – Respiration: electron transfer	Ch. 7
	10/26	23 – Respiration: glycolysis and Krebs cycle	Ch. 7
11	10/29	24 – Respiration: oxidative phosphorylation	Ch. 7
	10/31	25 – Photosynthesis I	Ch. 8
	11/2	26 – Photosynthesis II	Ch. 8
12	11/5	27 – Cell Cycle: Mitosis and Meiosis	Ch. 9
	11/7	***Review, Q & A for Exam 3***	
	11/7 Wed 6:00-7:30 PM	**EXAM 3 (Ch. 6, 7, 8 and 9; Lectures 19-27) 100 points**	
	11/9	28 – DNA structure and replication	Ch.11
13	11/11	29 – DNA structure and replication	Ch. 11
	11/14	30 Gene structure and transcription	Ch. 12
	11/16	31 – RNA: transcription and processing	Ch. 12
14	11/19	32 – Protein synthesis principles	Ch. 12
	11/21	33 – Protein synthesis and processing	Ch. 12
	11/23	**Thanksgiving Holiday**	
		34 – Genetics of Bacteria and viruses	Ch. 13
15	11/26	35 – Gene regulation in bacteria	Ch. 13
	11/28	36 – Eukaryotic Genome	Ch. 14
	11/31	37 – Gene regulation in eukaryotes	Ch. 14
16	12/3	38 – Recombinant DNA technology	Ch. 16
	12/5	39 – Recombinant DNA technology	Ch. 16
	12/7	40 – Recombinant DNA technology	Ch. 16

Final Exam – Comprehensive – Friday, December 14th 2:00 PM to 5:00 PM (140 points)
Details of exam locations will be given later and posted in class blackboard.

DISCUSSION SECTIONS

Unique	Day	Time	Location
51710	T	8:00 - 9:00	WRW 113
51715	W	8:00 - 9:00	RLM 7.120
51720	W	9:00 - 10:00	RLM 7.118
51725	T	10:00 - 11:00	RLM 5.118

Discussion sections are designed to review and answer your questions on the materials covered in lectures and textbook. There will be a total of 12 quizzes during discussion sections. Each DS will have a **quiz or activity** except the weeks after the exams. You need to complete the assigned worksheet and bring to the discussion section. The quizzes, activities and worksheets will be graded. There is no discussion section in the first week of the semester. The quizzes will include short answer/problem solving questions. The graded quizzes will be returned during discussion sections. Topics from Tuesday discussions will be repeated on Wednesday, and students who need to miss their normally scheduled section may attend another section in the same week. No additional make-ups will be given during the semester.

Homework
There will be homework assigned almost every week for you to keep up with the course material. The homework will be online and answers can be submitted online. In addition to online homework, you will be asked to complete worksheets given at the end of course guide and bring to the discussion section. There will be 12 home works assigned and 10 best ones will be used for a maximum of 15 points.

Attendance and Absence Policy
Attendance will be taken in all the lectures and discussions. This will be more than the number of classes you need to obtain maximum attendance points. The iClicker will be used to register your presence. Do not use other people's clickers. You must take all the exams on scheduled dates, and quizzes during one of the discussion sections covering that topic.

Make-up Policy
- No make-up exam or quiz will be given *after* the assigned dates. *Early* exams may be arranged once a semester for those who have three or more exams in one day or for other valid reason.
- If you miss a quiz, that will be assigned a grade of zero.

Academic Integrity
Students who violate University rules are subject to disciplinary penalties. Refer to the Student Judicial Services Website http://www.utexas.edu/depts/dos/sjs/ for further details or call 471-2841 office SSB 4.400 on 100B West Dean Keeton St.

Student Accommodation Policy
Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the Office of Students with Disabilities at (OSD phone# 471 6259, office SSB 4.104 on 100B West Dean Keeton St) as soon as possible and bring the documentation. For more information, visit http://www.utexas.edu/depts/dos/ssd/.

Incomplete Grade Policy
If for any valid reason, you can not take the final exam, you will be assigned an incomplete grade. Also, contact the instructor immediately, if any other major problem occurs during the semester, which interferes with your academic performance.

Drop Dates

SEPTEMBER 4	TUESDAY. Last day of the official add/drop period; after this date, changes in registration require the approval of the department chair and usually the student's dean.
SEPTEMBER 14	FRIDAY. Twelfth class day; this is the date the official enrollment count is taken. Last day an undergraduate student may add a course except for rare and extenuating circumstances. Last day to drop a course for a possible refund.
SEPTEMBER 26	WEDNESDAY. Last day to drop a course without a possible academic penalty.

Exams and Grading Policy

The exams 1-3 and the final exam will include only multiple choice questions (MCQ).

		Points
Exams 1, 2 and 3 (best 50 of 52 MCQs in each)	**3 X 100 points**	**300**
Final Exam (best 70 of 73 MCQs)	**1 X 140 points**	**140**
Discussion section quizzes (best 10 of 12)	**10 X 3 points**	**30**
Worksheets and group work (details given later)		**15**
Homework – Online (best 10 of 12)	**10 X 2 points**	**15**
Attendance (lecture and discussions)	**50 X 0.2 points**	**10**
Total		**510**

The final course grades will be assigned as follows. {Total points 510/ 5 = % average}.

90-100% = **A** 450 points or more; *Excellent job!! Pat on your back.*
80-89% = **B** 400 – 449 points; *Very good but do better next time.*
70-79% = **C** 350 – 399 points; *You are barely making it but you can move on.*
60-69% = **D** 300 – 349 points; *It is not worth it. Get help soon and work hard.*
Below 60 = **F** < 300 points *Don't even think about it; drop the course before it is too late.*

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12 Rules to Succeed in This Class

1. Read the lecture materials ahead of time and after each class to keep up.
2. Come to class regularly, on time and pack only after the bell rings or lecture ends.
3. Since the class proceeds rapidly, pay close attention to lectures and actively take notes.
4. Complete the assigned home work and worksheets on time.
5. When not clear, ask questions – either in class, after class, or in discussions.
6. Do not doze off or sleep!! Stay alert by taking notes and participating in class.
7. Do not read any newspapers or other books once class begins. It disrupts the class.
8. Turn off your cell phones and pagers. It is annoying in the middle of a lecture.
9. Read to understand, remember key terms, draw concept maps and apply the course content.
10. After each exam, analyze the results to see how you can improve in the next exam.
11. You need to come see the instructor or TA as soon as you have trouble with the course.
12. Remember why you are taking this course – Give it your best shot; make your dreams come true.