	Course	BIOCHEMISTRY II - BIOL 3362, CHEM 3362
	Professors	Jeff DeJong Mehmet Candas
	Term	Fall 2013
	Meetings	Lecture TTh 2:30 - 3:45p.m. HH 2.402

Contact Information

Dr. Jeff DeJong	
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General Course Information

Pre-requisites	Biochemistry I – BIOL 3362 or CHEM 3362 This course is the second semester of a required sequence for biology majors.
Co-requisites	Biochemistry Workshop II – BIOL 3162 or CHEM 3162

Course Description and Learning Outcomes	The goal of the course is to understand the basic principles of photosynthesis, carbon fixation, the nitrogen cycle, ammonia assimilation, amino acid synthesis, the urea cycle, purine and pyrimidine synthesis, nucleic acid structure, DNA replication, membrane structure and function, membrane proteins, ion channels, transport across membrane, lipid metabolism, breakdown and synthesis of fatty acids, lipid signals, cholesterol and steroid hormones, prostaglandins, endocrine regulation of energy metabolism and integration of metabolism.

Required Text	Biochemistry (by R. H. Garrett and C. M. Grisham, 5th edition, 2012) Earlier editions of the textbook are acceptable. Lecture notes/slides will be posted on eLearning.

Topics and Tentative Schedule

#		Dates	Instructor	Reading	Topics
1	Tue	Aug 27	J. DeJong	Chap. 25	Amino Acid Metabolism
2	Thu	Aug 29	J. DeJong	Chap. 25	Amino Acid Metabolism
3	Tue	Sept 3	J. DeJong	Chap. 26	Nucleotide Metabolism
4	Thu	Sept 5	J. DeJong	Chap. 26	Nucleotide Metabolism
5	Tue	Sept 10	J. DeJong	Chap. 10/11	Nucleic Acids
6	Thu	Sept 12	J. DeJong	Chap. 10/11	Nucleic Acids
7	Tue	**Sept 17**	**J. DeJong**	**EXAM 1**	
8	Thu	Sept 19	J. DeJong	Chap. 10/11	Nucleic Acids
9	Tue	Sept 24	J. DeJong	Chap. 28	DNA Metabolism
10	Thu	Sept 26	J. DeJong	Chaps. 28	DNA Metabolism
11	Tue	Oct 1	J. DeJong	Chaps. 28	DNA Metabolism
12	Thu	Oct 3	J. DeJong	Chap. 21	Photosynthesis
13	Tue	Oct 8	J. DeJong	Chap. 21	Photosynthesis
14	Thu	Oct 10	J. DeJong		Finish Up
15	Tue	Oct 15	J. DeJong	**EXAM 2**	
16	Thu	Oct 17	M. Candas	Chap. 8	Lipid structures
17	Tue	Oct 22	M. Candas	Chap. 8	Lipid structures
18	Thu	Oct 24	M. Candas	Chap. 9	Membrane structure
19	Tue	Oct 29	M. Candas	Chap. 9	Membrane transport
20	Thu	Oct 31	M. Candas	Chap. 9	Membrane transport
21	Tue	Nov 6	M. Candas	Chap. 23	Fatty acid catabolism
22	Thu	Nov 7	M. Candas	Chap. 23	Fatty acid catabolism
23	Tue	Nov 12	M. Candas	**EXAM 3**	
24	Thu	Nov 14	M. Candas	Chap. 24	Biosynthesis of fatty acids and lipids
25	Tue	Nov 19	M. Candas	Chap. 24	Biosynthesis of fatty acids and lipids
26	Thu	Nov 21	M. Candas	Chap. 24	Biosynthesis of fatty acids and lipids
27	Tue	Nov 26		**NO CLASS**	**THANKS GIVING WEEK**
28	Thu	Nov 28		**NO CLASS**	**THANKS GIVING WEKK**
30	Tue	Dec 3	M. Candas	Chap. 24	Biosynthesis of fatty acids and lipids
31	Thu	Dec 5	M. Candas	Chap. 27	Integration of metabolism
32	Tue	Dec 10	M. Candas	Chap. 27	Integration of metabolism
33	Thu	Dec 12	M. Candas	Chap. 27	Integration of metabolism
34	**?**	**Dec ?**	M. Candas	**EXAM 4**	**LAST EXAM**

(***Descriptions and timelines are subject to change at the discretion of the Professors***)

Course Policies

Tests and Grading	There will be four exams. The exams will include questions with multiple choice, short answer and problems as well as identification of structures and pathways. Exam grades will be posted on eLearning. The final letter grade for the lecture and workshop classes will be based on the average of the 4 exams and are posted via Orion/galaxy. Exam scores and posted grades are finalized within 1 week of submission and no score changes will occur after.
Make-up Exams	There will be no make-up exams except for the most extreme of documented circumstances (event of illness, doctor's note required; official university business, e.g., athletic team; professional school interviews, e.g., medical school). Since religious holidays are known in advance, we must be informed of them at the beginning of the semester. If you do miss an exam, the score will be recorded as 0. Make-up exams may be different from regular exams, and may include a verbal component and/or the drawing of structures.
Class Attendance	Attendance is expected and part of your responsibility as a student. Be very punctual on your class attendance on the exam days. Students arriving at the exams later than 15 min after the beginning of exam time will not be admitted to the exam. Furthermore, students will not be admitted to the exams if any other student has completed and turned in exam at that time. There may not be a make-up exam for missed exams unless student provides documented excuse for the circumstance.
Use of Electronic Devices	At the discretion of the Professor, laptop and tablet computers may be allowed during class only for taking notes, following the lecture material, or discussions. Use of all other types of portable electronics, including cellular telephones, PDAs, headphones and pagers are not permitted and such devices must be turned off and put away during lectures, workshops and exams.
Workshops	There is a required workshop for this course. The workshops will go over material presented in the book and the lecture. You will receive the same letter grade in both BIOL/CHEM 3362 and BIOL 3261.
Supplemental Instruction	Supplemental Instruction (SI) is offered for this course. Attendance is voluntary. For information about the days, times, and locations for SI sessions, refer to: www.utdallas.edu/studentsuccess/leaders/si.html

Student Conduct and Discipline	The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year.

	The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391). A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.
Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal	The administration of this institution has set deadlines for withdrawal of any

from Class	college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, we cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.
Student Grievance Procedures	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.
Incomplete Grades	Incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within 8 weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.
Disability Services	The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m. The contact information for the Office of Disability Services is: The University of Texas at Dallas, SU 22 PO Box 830688

	Richardson, Texas 75083-0688 (972) 883-2098 (voice or TTY) Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance. It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.
Religious Holy Days	The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.
Off-Campus Instruction and Course Activities	Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be

	found at http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean.

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