

Life Science Chemistry, 806-178, Spring 2009

 <p>ASPIRIN</p>	<p>Instructor: Karen Anderson Office: Room 335D (second desk on the right). Office Hours: Mon 11:30, Wed 12:30, or by appointment. Phone: 246-6496 (voicemail) Email: klanderson@matcmadison.edu</p>
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Required Course Components.

Lectures: Room 377.

Mondays 8:30-9:20 am

PLUS Wednesdays & Fridays, 8:00 - 9:15 am.

Labs (one required) from 1:30-4:20

Monday, Room 332

Tuesday, Room 334

Wednesday, Room 331

Thursday, Room 334

From 3:30-4:20, we can move to room 347 to finish writing up labs, etc.

introduces chemical structure as well as physical and chemical behavior of organic molecules. Many of these topics are related to the field of animal science. Some topics in biochemistry will be explored, as well.

Instructor's Philosophy.

With some guidance from a teacher or facilitator, I believe that learners (students) should take responsibility for their own learning. Ultimately, you are the one who will learn what you believe is important for your career. My job is to provide you with opportunities to explore topics in this class while helping you make the connections to your career area.

I am also very intrigued with offering students opportunities to reflect on how they learn; you may make a discovery that changes how you view your learning.

Finally, I will ask for your feedback throughout the semester so adjustments or changes might be made in the course along the way.

Course Prerequisites.

To succeed in this course, you need a strong background in the basic concepts taught in an introductory chemistry course. This means that you've recently taken General Chemistry or a year of high school chemistry and obtained a grade of B or higher. In addition, one year of high school algebra, or its equivalence is required.

Course-Work Emphasis.

You will be asked to use critical thinking skills during in-class activities, homework, quizzes and exams. Generally, I do not use multiple choice questions; instead you will see a combination of true/false, definitions with examples, compare and contrast, and discussion styles of questions. Giving evidence to support your answer is essential to your learning in this course.

Course Overview.

This 5-credit course is for the **VETERINARY TECHNICIAN** and **LABORATORY ANIMAL TECHNICIAN PROGRAMS**. If you are not in one of these programs, or are not planning to be in one of these programs, speak to Karen immediately as this is NOT the chemistry course for you.

Life Science Chemistry (LSC) covers a wide range of topics including inorganic and organic chemistry. During the inorganic portion of the course, topics include measurements and conversions, matter and the kinetic molecular theory, the periodic table, chemical bonding, chemical reactions, solubility, gases, problem-solving and solutions, equilibrium and acid-base behavior. The organic chemistry portion

Help with the cost of this course.

You could split the cost of the Stoker text with another student—perhaps a lab partner or a class "buddy". In addition, there is at least one copy of the text on reserve to be used in the MATC library.

Required Course Materials.

- Textbook: General, Organic, and Biological Chemistry, by Stephen Stoker, 2007, 4th Edition.
- A scientific calculator with exponent (EE, EXP) and logarithmic (LOG) keys.
- A pair of chemical safety goggles that fully enclose your eyes, from the MATC bookstore. Save the box the goggles come in, and bring both the goggles and box to your lab to be stored in the lab. See Blackboard for pictures of acceptable/unacceptable goggles.
- A simple paper pocket folder for Reading Guide homework
- A project portfolio folder: to be shown in class.

Calculator Information.

Calculators may NOT be shared during quizzes or exams. If your calculator does not work, you are on your own. I will NOT show you how to use your calculator during a quiz or exam. In other words, be prepared.

Special Needs/Services.

Please let me know early in the semester if you have specific physical, psychiatric or learning disabilities & require any accommodations, so that your learning needs are met in a timely fashion. You will need to provide me with documentation of your disability to Disability Resource Services.

Distractions/Disruptive Behavior

Beeping watches, cell phones, pagers, etc. are distractions in any class! Set these to a non-audible mode during our lectures and labs. Cell phones are to be stored away during a laboratory and NOT out on the laboratory bench! Ear buds are to be pulled out of your ears during any class or lab! Failure to comply with these rules will invoke the following: one warning; then if compliance is not met, you will be asked to leave lecture or lab for the remaining period.

I will assign seats only in the event that students converse amongst themselves and are disruptive during the lecture or lab time. I will ask a person(s) to stop such distracting behavior only once. After that, I will assign a permanent seat of my choice to ensure that the appropriate learning atmosphere is maintained. In addition, if students around you are distracting you: 1) ask them, kindly but firmly to cease the distracting action, and 2), if that doesn't work, please enlist my help in doing so.

It is worth mentioning that I expect members in our class to be respectful and courteous of others at all times! This seems like common sense to many, however, on occasion, I find it necessary to remind folks just what this means: no foul language, rude noises, cat-calls, talking when others are speaking, etc.

Student Rights & Responsibilities

Click on

<http://matcmadison.edu/matc/studentresources/rights/> for a range of listings from academic integrity, classroom disruptions, to conflict management services. Check out this helpful resource.

Class Schedule & Blackboard.

Lecture and laboratory schedules are subject to change. All material will be covered, time permitting.

Blackboard is a required for this course. If you have not used this tool before, you will become acquainted with it during the first week of class. Assignments, class handouts, announcements, and other items will be posted on a regular basis.

Attendance.

•I will pass around a class attendance sheet in lecture. MAKE SURE THAT YOU SIGN IT. If you come in late, it's your responsibility to seek it out and sign it.

In the laboratory, I ask that you sit in the same seat each lab period. I will also take attendance in lab.

•Be PROMPT for lecture and for lab.

Chronic tardiness will not be tolerated, as it interrupts me and those already engaged in the class/lab. In addition, there are safety issues in the lab that are explained at the beginning of each lab. When you are late, you will receive a YELLOW CARD to fill out and return to me. If you reach 2 yellow cards, I will ask you to have a conversation with me, at my choosing, about why you are late for lecture or lab.

Please be advised that I may ask you to leave lecture or lab if you are tardy, and not attend that class period.

•If you are absent for any period of time, please make a good faith effort to contact me (voice mail, email) and let me know what is going on.

•If you decide to drop the course let me know. Don't just disappear! Some students get to a point where they feel they must drop a course. Often this is a legitimate conclusion and the course should be dropped. On occasion, however, things aren't quite as bad as they seem and with a little guidance or encouragement from an instructor (like me or Dr. Clark), you may not need to drop and will successfully complete the course. So, please contact me with a phone call, an email, or a conversation if you are contemplating dropping this class!

Late Assignments.

There are three categories of late assignments: those on which you may use an NQA coupon, those that you will receive a % penalty, and those that won't be accepted for grading at all!!

I will accept late completed assignments when an NQA (no questions asked) coupon applies. Otherwise, be forewarned: depending on the assignment, a % penalty will be applied or the late assignment won't be accepted. Plan accordingly, don't procrastinate and use your two coupons only when "life happens". When you run out of these two coupons, that's it.

Make-up Policy.

•No make-ups for missed lecture or lab quizzes. Note that you are able to drop the lowest (or missed) score, one for each.

•If miss an exam, call or email Karen within 24 hours of the exam or you may forfeit your right to a make-up exam. Make-up exams are often more difficult than the regular exam and it takes me longer to grade and return these exams. In addition, I reserve the right to give a make-up exam during the week of final exams depending on the circumstances.

•LSC has 4 lab sections during the week. If you miss a lab and wish to make it up during another lab, you must let me know. A make-up depends on available space in that lab (only 16 students per section); you need to clear your attendance with me before you attend.

Bank of Points (BOPs).

I DO NOT give out extra credit. I do keep a BANK of POINTS (BOPs) that you can earn by being the first to spot any errors from the textbook, my handouts, etc. On a piece of paper, write your name, date, the error, source, page #, and what the correction should be and turn this in to the appropriate section folder. In addition, I will also offer random BOP opportunities throughout the semester, so stay tuned! Keep track of the BOPS that you earn. These points will be used in the event that, at semester's end, you are 1% away from a higher grade. If this happens, the accumulated BOPs will be added to your point total, and if it boosts you into the next higher grade level, then you will be awarded that grade. A safe bet is about 10 BOP points. You can only move up to the grade, which is within 1% of the grade cut off, no higher. Also, I do NOT use the BOPs if you are within 1% of a C (from a D) or 1% from a D (from an F).

Challenging Weather.

Check MATC's webpage (matcmadison.edu) to determine if Truax campus is closed. If I can't make it in, I'll send out a group email from Blackboard to indicate this. Please use common sense about whether or not to drive to school if the weather is BAD!

ASSESSMENT and EVALUATION:

Assessment is a process of measuring and analyzing a performance or product to provide feedback to improve future performance or products. I will ask you several times during the semester to involve yourself with assessment (feedback) activities.

Evaluation is a process of measuring the quality of a performance, work product or use of a process against a set of standards to make a judgment or determination if, or to what level, the standards have been met. I will evaluate you this semester on tests, quizzes, homework, lab reports, and a project. From *The Pacific Crest Teaching Institute Handbook*, Daniel K. Apple and Karl Krumseig, Pacific Crest, 2002.

Course Evaluation Scale:

Grading Scale	
%	Letter Grade
93 - 100	A
88 - 92	AB
83 - 87	B
78 - 82	BC
70 - 77	C
60 - 69	D
Less than 60	F

Course Assignments (Tentative):

Evaluations	#	Points each	Drop	Total Points	%
Lecture Qz/Activity	10	20	1	180	12
Lab Quizzes	10	20	1	180	12
Exams	4	100		400	27
Final Exam	1	150		150	10
Lab Reports	11	20	1	200	13
Reading Guides	4	50		200	13
Project	1	100		100	7
Assessments	5	3@ 10 2@ 25		80	5
Total				1490	

Quizzes and Activity Reports:

You will be given lecture & lab quizzes throughout the semester. Some may be take home. Some of the in-class activity group report will be graded, as well, and will count as quiz scores.

Exams:

Four major lecture exams will be given. The final exam is a comprehensive.

Lab Reports:

There will be weekly lab reports & activities to turn in. Some of these are individual effort & some are group reports.

Reading Guide Homework:

To encourage the use of your textbook as a reference, you will be given questions sets as homework. Many styles of questions will be included in these exercises; these model what will be on your quizzes and exams. These are due as a set at each exam day. No late sets will be accepted: neither with a late % penalty nor with an NQA.

Project:

You will choose a pharmaceutical drug to research this semester. The purpose of this "drug project" is to give you an opportunity to explore drug handbooks and other resources pertinent to chemistry & veterinary medicine & to MAKE CONNECTIONS between the two.

Assessments:

I will ask you to reflect on your performance in this course several times during the semester. Points will be awarded for completeness, quality, & organization contained within these writings.

In-Class Activities:

At least once a week, you will be asked to work in small groups in order to complete an activity that is relevant to your learning of chemistry. These will serve as material for lecture quizzes and exams.

Hints from your peers from other years:

Don't be afraid to ask questions during the class. Karen will give you many opportunities to do so.

Take advantage of the handouts that Karen gives you.

Always review the handouts even though she may not refer to them directly in class!

Use color pencils/pens during lecture/lab to highlight your notes or to make "particle" drawings.

Readings in the text supports both the lecture and lab materials!

Use Blackboard as a communication tool for this course!

Take responsibility for your own learning.

If you are absent, it's your responsibility to find out what went on in class.

Do you know someone in class that you can study with?

Find a study buddy. Swap phone numbers or email addresses. Go to SI!

Keep a BIG three-ring binder for class notes and handouts.

Put dates on handouts to help keep them organized.

Reading guides can be a pain, but if you keep up you'll have a better idea of what is going on
AND will pass the class!

Karen doesn't bite...she's available during office hours or by email to answer my "dumb" questions.

You only get 2 NQA coupons. If you use both for procrastinating, then when a real emergency comes up, you won't have them to use!

"Know Karen's definitions WELL!! The definitions that Karen gives are crucial to be able to identify and apply important knowledge. It's one thing to kind of know the definition, but you need to know how to apply it!"

Comments from Karen:

Both lectures and labs are connected. See if you can MAKE THE CONNECTIONS!

Dawn Perry had LSC last year and has agreed to lead SI (supplemental instruction) for us this semester! She will be scheduling SI study sessions. Stay tuned for details!

I have office hours available for individual or small group help. My class/lab teaching schedule is attached in this syllabus. If these office hours don't work, ask for another possible time.

Email me with any questions that you might have about the class. This is the best way to reach me.

Ask if things don't make sense! Don't feel embarrassed. ASK ☺

Karen L. Anderson
 Spring 2009
 klanderson@matcmadison.edu, 608-246-6496

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00			Life Science Chemistry Lecture Room 377		Life Science Chemistry Lecture Room 377
08:30	Life Science Chemistry Lecture Room 377		X Until 9:15		X Until 9:15
09:30					
10:30					
11:30	OFFICE HOUR				
12:30			OFFICE HOUR		
1:30	Life Science Chem Lab Room 332 51638	Life Science Chem Lab Room 334 51640	Life Science Chem Lab Room 331 51642	Life Science Chem Lab Room 334 52054	
2:30	X X	X X	X X	X X	
3:30	Room 347	Room 347	Room 347	Room 347	Program Chair Meeting

Life Science Chemistry Spring 2009, Tentative Schedule

Lectures: Mon: 8:30-9:20 am AND Wed & Fri: 8:00-9:15 am

Labs: Mon, Tues, Wed, Thurs: 1:30-4:20 pm

Week	Mon Lecture	Wed Lecture	Fri Lecture	LAB
One Ch 1 Ch 3	Jan 12 Lecture. Welcome. Blackboard (Bb) Syllabus Quiz, Due: 1/16, 8 am	Jan 14 Lecture ACTIVITY	Jan 16 Lecture.	BRING SAFETY GOGGLES to keep in Lab. Lab Safety! Equipment Check-In. Chemistry Lab Orientation. Observation Lab.
Two Ch 3	Jan 19 NO LECTURE HOLIDAY.	Jan 21 Lecture. ACTIVITY	Jan 23 Lecture. THQuiz due (W)	NO LABS Bb Lab Safety Quiz, Due: 1/26, 12:30 pm
Three Ch 4-5 Ch 9 (in part to support lab)	Jan 26 Lecture.	Jan 28 Lecture. Drug choices.	Jan 30 Lecture. In Class Quiz	Chemical Change & Chemical Reactions (Ref: Ch. 9)
Four Ch 5	Feb 2 Lecture.	Feb 4 Lecture.	Feb 6 Lecture Exam Chapters 1-4,9, part of 5 Reading Guides due, too.	Lab Quiz. Molecule Shape: VSEPR
Five Ch 12	Feb 9 Lecture.	Feb 11 Lecture.	Feb 13 Lecture.	Organic Compounds--MODELS
Six Ch 13 Ch 7	Feb 16 Lecture.	Feb 18 Lecture. Ex Corrections Due	Feb 20 Lecture. Drug #1 Due	Like Dissolves Like
Seven Ch 7 (5)	Feb 23 Lecture. Drug Assign #2	Feb 25 Lecture.	Feb 27	Pre-Lab Due Physical Properties of Organic Compounds
Eight Ch 7	Mar 2 Lecture Exam 2 Chs 12, 13, 7 Reading Guides due, too.	Mar 4 Lecture.	Mar 6 Lecture.	Making Solns/Calcs; Spectrophotometers/ Standard Curve

Week	Mon Lecture	Wed Lecture	Fri Lecture	LAB
Nine Ch 7	Mar 9 Lecture. Drug Assign #2 Due	Mar 11 Lecture.	Mar 13 NO CLASS-- convocation.	Intro Math Activity
Spring Break	Mar 16 NO CLASS	Mar 18 NO CLASS	Mar 20 NO CLASS	NO LABS
Ten Ch 8	Mar 23 Solns Activity Sub with Amy Tatarsky.	Mar 25 Lecture.	Mar 27 Lecture.	NO LABS Project time for Drug Portfolio.
Eleven Ch 9	Mar 30 Lecture.	Apr 1 Lecture.	Apr 3 Lecture. Drug Project #3 Due.	Presentations on Drug Portfolio.
Twelve Ch 10	Apr 6 Lecture. Take-home Ex 3 handed out	Apr 8 Lecture.	Apr 10 HOLIDAY NO LECTURE.	Lab Quiz. pH and Buffers
Thirteen Ch 13-17	Apr 13 In-Class Lecture Exam 3 Chapters 7-10 Reading Guides Due.	Apr 15 Lecture.	Apr 17 Lecture.	Lab Quiz. Vitamin C Lab
Fourteen Ch 18-20	Apr 20 Lecture	Apr 22 Lecture.	Apr 24 Lecture.	Lab Quiz. ALPase Enzyme Lab.
Fifteen	Apr 27 Lecture	Apr 29 Lecture.	May 1 Lecture. Lecture Exam 4 Chapters 13-20. Reading Guides Due.	Presentations on Drug Portfolio.
Sixteen	May 4 Lecture. Take-home Lecture Exam Handed Out	May 6 Lecture.	May 8 In-Class Portion of Final Exam.	Vitamin C
Final Exam week	May 11 TH final exam due. by 9:30 am, Lab Room 334.	May 13 NO LECTURE.	May 15 NO LECTURE.	NO LABS HELD.

"NO QUESTIONS ASKED" coupons (NQA)

Be it known, if you need to turn in a completed, non-BOP assignment late, that you can attach one of the NQA coupons, below, to that assignment and it will still be accepted for credit. Simply fill in your name and section number on the coupon, and staple it to the front of your assignment. Two coupons per student per course :)

A few restrictions apply. In other words, Karen **will not** accept a late assignment with an NQA attached if

1. that particular assignment has been graded and returned to the class.
2. you do not follow the directions, listed above.
3. the assignment is restricted from NQA coupon use. Karen will let you know this ahead of time.

If you do not use one or both of the coupons, turn in this entire sheet to the appropriate folder at the semester's end. Make sure that both your name and section information are filled in on any unused coupons. You will receive 3 BOPs per unused coupon.

Do NOT lose these, as there will be no replacements given out.

Use these coupons wisely



<p>NQA, #1 PRINT your name:</p> <p>-----</p> <p>Your lab section is: _____</p> <p>Life Science Chemistry, Spr '09</p>	<p>NQA, #2 PRINT your name:</p> <p>-----</p> <p>Your lab section is: _____</p> <p>Life Science Chemistry, Spr '09</p>
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