CHEMISTRY 30A
Lecture
Fall 2014

N. Melody Esfandiari, PhD
Lecture: TuTh 4:30-5:20 pm, WSQ 109
Office: Duncan Hall 01
Email: please send me email via canvas
Office Hours: M 2:30 – 4:00 pm
Tu 5:30 – 6:30 pm
W 2:30 – 4:00 pm

COURSE WEBPAGE
Course materials such as syllabus, handouts, notes, assignment instructions, etc. may be found by logging on to Canvas at https://sjsu.instructure.com/courses. You are responsible for regularly checking with the messaging system through MySJSU to learn any updates.

COURSE DESCRIPTION:
This course meets the SJSU’s Core General Education requirements for Physical Sciences for Non-science majors as well as prepares science or undeclared majors for Chemistry 1A (recommended Chem 30A final course grade of “B” or better for success in Chem 1A).

COURSE GOALS AND LEARNING OBJECTIVES
By completing this course, students should be able to:
1. Use the methods of science and knowledge derived from current scientific inquiry in physical science to question existing explanations.
   Course activities that will meet this requirement are all of the laboratory experiments that begin with a question or statement relating to the purpose/objective of the lab and questions at the end of the lab to probe your understanding of your data and the relationship to the concepts studied. In addition, there will be class discussions of how scientific discoveries such as the atom and renewable energy resources were derived from scientific inquiry.
2. Demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues.
   The influence of science will be addressed in lectures where these relationships can be made, such as in medicine and healthcare, environmental issues or the technological advances used to discover the structure of the atom. You will also have the opportunity to write one essay on a topic to be determined later in the course.
3. Use the methods of science, in which quantitative, analytical reasoning techniques are used.
   Many of the labs and concepts require the use of quantitative and analytical reasoning techniques. For example, most of the labs require students to make observations, take measurements and use equations involving measured variables. In terms of reactions you will discover how balanced equations symbolically represent atoms and particles and a connection will be made to what you observe macroscopically.
COURSE CONTENTS
Physical Science (B1) Courses focus on: systems of classification, structure of matter, laws of thermodynamics, interaction of matter and energy, behavior of physical systems through time, physical processes of the natural environment.

All general education courses are required to address issues of diversity and assess student’s written work.
Diversity: Issues of diversity shall be incorporated when addressing historical issues of physics and chemistry.
Writing: The minimum writing requirement is 1500 words for this course. Your writing will be assessed for grammar, clarity, conciseness, and coherence. Writing assignments will include an essay about a topic related to current events in chemistry, written lab reports, homework assignments and short answer questions on exams.

REQUIRED MATERIALS AND WORKS:

1. Textbook: The text is used as a resource for further explanations and problems outside of class. There are practice problems in your textbook, work out as many problems as possible. To do well in a chemistry class you need to do problems!
- If you are planning to take Chem 30A only and will not continue onto Chem 30B, you may buy the customized textbook we have put together, which has only chapters related to Chem 30A, to reduce the cost of the textbook. Customized textbook ISBN: 1269768700
- However, if you are planning to take Chem 30B, it’s recommended to buy the full version, which has all the chapters. ISBN for the non-customized text book: 9780321750891


3. Class Notes: “Chem 30A Lecture booklet” by Dr. Esfandiari. You may purchase it from Chem. Club in DH 20 (located in the basement of Duncan Hall). Be prepared to pay CASH ONLY.

4. Course webpage: Check your canvas periodically!!! Handouts, quizzes, and assignment instructions will be posted there.

5. Laboratory: Lab sections meet once a week for 2 hours and 50 minutes in DH 601. The Chemistry 30A Laboratory Greensheet will be on Canvas and/or your lecture manual. To pass this course, all lab works must be completed and all lab reports must be submitted to your laboratory instructor. Please do not schedule appointments during your laboratory period. Missed laboratory periods may only be made up with permission of the laboratory instructor, and only during the week for that particular experiment. To make-up a lab, you must obtain a signed pink make-up slip. This slip must be signed by your lab instructor or by Dr. Esfandiari (lab coordinator). Since there are many lab sections and students, it would be difficult to keep track of your records if you do not attend your scheduled lab. So, lab switching is greatly discouraged and may be done only if you have a compelling excuse (a medical emergency with
appropriate documentation). ALSO, ALL STUDENTS MUST RECEIVE SAFETY INSTRUCTIONS AND PASS A SAFETY QUIZ.

6. Office Hours: It is recommended and encouraged that the office hours of any instructor involved in Chem 30A (Dr. Esfandiari, Dr. Tran, or any lab instructors) be used for individual help. Make sure that you know your lab instructor’s office hours. They will announce it in the first two weeks of class meetings. Write this information into your lab manual or somewhere easily accessible to you.

POINTS TO BE EARNED:

In-Class Lecture Exams (Closed book, closed notes)
There will be two in-class lecture exams and one in-class comprehensive final exam. The exams will focus on the (1) key course concepts, (2) lecture notes, (3) homework assignments, and (4) additional recommended text problems. A simple scientific calculator may be used for all examinations, when necessary (programmable calculators not allowed).

All exams are required and will count towards your grade. The final exam is mandatory and cannot be missed. Failure to take the final exam will result in a failing grade. Make-up exams will NOT be generally given. Accommodations will be made ONLY for VERIFIED illness or VERIFIED legitimate emergencies.

Exam Dates
Exam 1: Th, Sep 25th Exam 2: Th, Nov. 6th (100 points each)

Final Exam (150 points) Thursday, Dec 18th from 2:45 pm to 5:00 pm

Final Exam: There are two different lecture sections of Chem 30A for the Fall 2014 semester. You must attend the Final Exam that is scheduled for your specific lecture time. You will need to bring a student ID card, Scantron Form 882-E or 882-ES as well as a #2 pencil and a non-programmable calculator. Handouts and scratch paper will be distributed. DO NOT WRITE DIRECTLY ON THE FINAL EXAM. You must strictly follow the instructions given in the exam in order for your final exam to be graded properly. PLAN AHEAD FOR YOUR FINAL EXAM. CHECK YOUR SCHEDULE AND MAKE SURE THAT OTHER EXAMS, WORK SCHEDULE, ETC., DO NOT OVERLAP.

Take-Home Quizzes (50 points)
Several take-home quizzes will be given. No make-ups for missed quizzes. Take-home quizzes must be submitted on assigned due dates, or they will not be accepted. The quizzes will most likely be on your Canvas account, and you will need to finish them online before the due dates. More information will be given in lecture or lab meetings before the due dates.

Term paper (30 points)
Instructions on the term paper will be posted in Canvas. Please read and research on a topic of your choice. Your lab instructor will let you sign up for a chosen topic by the third week of the
semester. The essay must be typed in double-spaced lines, 4 to 6 pages in length. Further details will be provided in lecture and/or lab. The due date of your essay is your lab day during the week of Nov. 17th. You will submit your paper to turnitin.com via canvas. Papers not submitted to turnitin.com via canvas will have 10-point deduction. You may submit your essay any time before the due date, but the latest would be the night before the due date. Turnitin.com via Canvas will reject the papers submitted by the morning of the due date. Please plan ahead, as late papers will not be accepted!

Laboratory work (200 points): The point break-down is as follows:
A) Safety quiz (10 points): this will be given during the first or second lab period and you must pass it to remain in Chem 30A course.

B) Lab reports/worksheets (160 points): You will have about 8 lab reports (20 points per lab report). To be prepared for the laboratory, read the experiment before coming to your laboratory session. In most experiments, you will have the option to work individually or in small groups. All lab works and reports must be completed and submitted to your lab instructor at the end of the lab session. Generally, no late lab reports will be accepted.

C) Independent lab report (20 points): You will design and write up a protocol to prepare the solution at a specific concentration. The concentrations will be assigned by your lab instructor, prior to the due date. More information will be provided in lab and lecture meetings. This report must be turned in to your lab instructor at the beginning of your lab during the week of Dec. 1st.

D) Subjective laboratory evaluation (10 points). See lab syllabus for more details.

GRADE COMPUTATION:
Your course grade will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two in-class lecture exams (100 points each)</td>
<td>200</td>
</tr>
<tr>
<td>Comprehensive in-class final exam</td>
<td>150</td>
</tr>
<tr>
<td>Take-home quizzes</td>
<td>50</td>
</tr>
<tr>
<td>Lab*</td>
<td>200</td>
</tr>
<tr>
<td>Term paper</td>
<td>30</td>
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</tbody>
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A letter grade will be assigned according to the following percentage scale:

- above 97.0 % A+
- 96.9 - 92.0 % A
- 91.9 - 89.0 % A-
- 88.9 - 85.0 % B+
- 84.9 - 80.0 % B
- 79.9 - 77.0 % B-
- 76.9 - 72.0 % C+
- 71.9 - 65.0 % C
- 64.9 - 61.0 % C-
- 60.9 - 57.0 % D+
- 56.9 - 54.0 % D
- 52.9 - 50.0 % D-
- Below 50.0% F

Incompletes: An incomplete will only be given under the following circumstances: (1) you have completed at least two-thirds of the course work with a grade of C or better, and/or (2) the reason that you cannot complete the course is due to an extreme emergency with appropriate documentation.

Students who wish to receive an incomplete and have not fulfilled the above requirements will receive a grade appropriate to their totals. If you decide to quit the class...
without taking the final exam, you will receive a WU grade, equivalent to an F with the option to repeat the class. Consult with your advisor and/or refer to SJSU Course Catalog for specific details.

**ACADEMIC DISHONESTY:**
You should be familiar with the section of the SJSU Catalog entitled "Policy on Academic Dishonesty" in the current Catalog. Cheating and plagiarism are not tolerated on any class assignment or exam. Plagiarism, word-for-word copying of another person's works without proper attribution (quotation marks and a clear literature reference), is a particularly serious form of academic dishonesty. Cheating is the act of obtaining or attempting to obtain credit for academic work through the use of dishonest, deceptive or fraudulent means. Examples of cheating include copying from someone else's exam or quiz, consulting with others or using materials such as cell phones or notes during exams or quizzes. Any form of cheating is a serious violation of SJSU’s Academic Integrity Policy (Refer to the University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf). A student caught cheating on an exam will receive a zero score and may be subject to further administrative sanctions, including probation, suspension, or expulsion. Cell phones and other electronic devices are not allowed during an exam (except for unforeseen emergency). If you suspect that someone is copying off of you during an exam, please ask the instructor to be moved to a different seat immediately. If two students are involved, both will be penalized since it is impossible to prove who copied from whom.

**DROPPING AND ADDING**
Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

**ACCOMODATION FOR DISABILITIES**
If you need adaptations or accommodations because of a disability, or if you have emergency medical information to share with me, or if you need to make special arrangements in the case that the building must be evacuated, please make an appointment with me as soon as possible, or see me during my office hours.

Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at http://www.sjsu.edu/aec to establish a record of their disability.

**EMERGENCIES AND EVACUATIONS:** If you hear a continuously sounding alarm, or are told to evacuate by Emergency Coordinators (colored badge identities), please walk quickly to the nearest stairway (end of each hall). If an alarm should occur during an exam or quiz, please attempt to give your instructor the paper. Be sure to take all your personal belongings with you as you may not be immediately allowed to return. Follow instructions of Coordinators. Be quiet
so you can hear. Once outside, move away from the building. Do not return to the building unless the Police or Coordinators announce that it is permissible.