San José State University
Chemistry Department
Chem 030A, Intro Chem., Section 01, Fall 2015

Course and Contact Information

Instructor: Melody Esfandiari, Ph.D.
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Office Hours: MW 2:30 – 4:00 pm, F 3 – 4 pm
Class Days/Time: MW 4:30 – 5:20 pm
Classroom: Morris Dailey Auditorium
GE/SJSU Studies Category: B1-B3

Please check your canvas periodically as handouts/online quizzes will be uploaded or emailed via Canvas.

Faculty Web Page and MYSJSU Messaging

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, and also prepares science or undeclared majors for Chemistry 1A (recommended Chem 30A final course grade of “B” or better for success in Chem 1A).

Learning Outcomes

Student Learning Outcomes (SLO)

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.

Upon successful completion of this course, students will be able to:

1. SLO 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. SLO 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. SLO 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.

GE Learning Outcomes (GELO)

All general education courses are required to address issues of diversity and assess student’s written work.

1. Diversity: Issues of diversity shall be incorporated when addressing historical issues of physics and chemistry.

2. 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 Texts/Readings

Textbook

  - If you plan to take Chem 30A only and will not continue onto Chem 30B, you may purchase the customized textbook, which has only chapters related to Chem 30A, to reduce the cost of textbook. Customized textbook ISBN: 1269768700
  - However, if you plan to take Chem 30B, it is recommended that you purchase the full version, which has all the chapters. ISBN for the non-customized text book: 9780321750891

Other Materials

- Lecture booklet: “Chem 30A Lecture booklet” by Dr. Esfandiari. Lecture booklet can be purchased during the first 2 weeks of school from Chem. Club in DH 20 (located in the basement of Duncan Hall). Be prepared to pay CASH ONLY.

Every student must have a lab manual and a lecture booklet! You will be turning in pages from your manual for credit, so you cannot share one with other students.

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf.
**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 concepts, (2) lecture notes, (3) homework assignments, and (4) additional recommended text problems. A simple scientific calculator may be used for all exams (programmable calculators are 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 illnesses or VERIFIED legitimate emergencies.

**Exam Dates**

- **Exam 1:** Monday, Oct. 5th  
- **Exam 2:** Monday, Nov. 2nd  
- **Final Exam:** Thursday, Dec. 10th from 2:45 pm to 5:00 pm (100 points each)

**Notes on Final Exam:** You will need to bring your photo 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 be posted on your Chem 30A Lab Canvas account, and you will need to finish them online before the due dates. Once you submit your quiz on canvas, you cannot access it again so make sure you print a hard copy of the quiz for your reference. They help you prepare for the exams. 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 7th 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 can be found on the class/lab schedule. You will submit your paper to turnitin.com via your Chem 30A Lab Canvas. Papers not submitted to turnitin.com via Canvas will have a 5-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):** In addition to the Lecture section, you must also attend and complete the work in your lab section. 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 in Chem 30A Lecture Booklet. 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 your 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 in the case you have a compelling excuse (a medical emergency with appropriate documentation).  

**ALSO, ALL STUDENTS MUST RECEIVE SAFETY INSTRUCTIONS AND PASS A SAFETY QUIZ.**

The lab 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. You must attend every lab and workday and turn in all the reports.

**Please note that you need to be on-time to lab. If you are late, the lab instructor has the right to deduct 5 points from your lab report. Be on time!**

**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 May 4th – 8th.

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

**NOTE** that University policy F69-24 at http://www.sjsu.edu/senate/docs/F69-24.pdf states that “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

**Grading Policy**

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 work</td>
<td>200</td>
</tr>
<tr>
<td>Term paper</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>630 points</strong></td>
</tr>
</tbody>
</table>

Your grades for all the assignments will be posted on canvas. You have only 9 days from the day a grade is posted to ask for a regrade. We will not do regrades after nine days have passed.

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.

Note that “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See University Policy F13-1 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.

Classroom Protocol

Regular attendance to lecture is essential for your success in this course. Please remember that skipping lecture of one class to study for another class is not an acceptable excuse. As you sign up for your course load, you are responsible for fulfilling the obligations that come with that course load. You are expected to read each chapter in the textbook and/or preview the lecture PowerPoint files posted in Canvas BEFORE the instructor begins to lecture on that material. Also you should read and plan for each lab experiment BEFORE coming to lab.

Please visit the instructor during office hours if you are having trouble with any of the concepts covered in lecture. It is recommended and encouraged that the office hours of any instructor involved in Chem 30A (Dr. Tran, Dr. Esfandiari, or any lab instructors) be used for individual help. Make sure that you know your lab instructor’s office hours. They will be announced in the lab meetings. Write this information into your lab manual or somewhere easily accessible to you.

University Policies

General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU’s policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arise. See University Policy S90–5 at http://www.sjsu.edu/senate/docs/S90-5.pdf. More detailed information on a variety of related topics is available in the SJSU catalog at http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

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.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.
Consent for Recording of Class and Public Sharing of Instructor Material

University Policy S12-7, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course and the following items to be included in the syllabus:

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  o It is suggested that the greensheet include the instructor’s process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
  o In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during 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.

Accommodation to Students' Religious Holidays

San José State University shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See University Policy S14-7 at http://www.sjsu.edu/senate/docs/S14-7.pdf.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from
Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

**SJSU Peer Connections**

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics. A computer lab and study space are also available for student use in Room 600 of Student Services Center (SSC).

Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.

**SJSU Writing Center**

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the Writing Center website at http://www.sjsu.edu/writingcenter. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook. (Note: You need to have a QR Reader to scan this code.)

**SJSU Counseling Services**

The SJSU Counseling Services is located on the corner of 7th Street and San Fernando Street, in Room 201, Administration Building. Professional psychologists, social workers, and counselors are available to provide consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit Counseling Services website at http://www.sjsu.edu/counseling.
**Tentative** schedule of lecture and lab:

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Schedule</th>
<th>Lab Schedule</th>
<th>Due assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/17-8/21</td>
<td>No lecture</td>
<td>Roll call</td>
<td></td>
</tr>
<tr>
<td>8/24-8/28</td>
<td>Chapter 1</td>
<td>attendance and safety discussion</td>
<td></td>
</tr>
<tr>
<td>8/31-9/4</td>
<td>Chapter 1,2</td>
<td>check in and safety quiz (practice sig fig and conversion)</td>
<td></td>
</tr>
<tr>
<td>9/7-9/11</td>
<td>Chapter 2</td>
<td>Exp: Atoms and Elements (page 53)*</td>
<td>Quiz 1 (due on 9/13)</td>
</tr>
<tr>
<td>9/14-9/18</td>
<td>Chapter 3</td>
<td>Exp: Density and Specific Gravity (page 31)</td>
<td>Quiz 2 (due on 9/27)</td>
</tr>
<tr>
<td>9/28-10/2</td>
<td>Chapter 5</td>
<td>Work day: exam I review, term-paper discussion and sign up for topics</td>
<td></td>
</tr>
<tr>
<td>10/5-10/9</td>
<td><strong>Exam I</strong> (Chap 1-3) Chapter 5 (&amp; 8.3)</td>
<td>Exp: Compounds and their Bonds-part 1 (page 73)</td>
<td>Quiz 3 due on 10/18</td>
</tr>
<tr>
<td>10/12-10/16</td>
<td>Chapter 5,6</td>
<td>Exp: Compounds and their Bonds-part 2</td>
<td>Quiz 3 due on 10/18</td>
</tr>
<tr>
<td>10/19-10/23</td>
<td>Chapter 6</td>
<td>Exp: chemical reactions and quantities (page 87)</td>
<td>Quiz 4 due on 10/27</td>
</tr>
<tr>
<td>10/26-10/30</td>
<td>Chapter 6,8</td>
<td>Work day: exam II review, independent project discussion and assigning concentrations</td>
<td>Quiz 4 due on 10/27</td>
</tr>
<tr>
<td>11/2-11/6</td>
<td><strong>Exam II</strong> (Chap 5-6,8.3) Chapter 8</td>
<td>Exp: Moles and Chemical Formulas (page 97)</td>
<td></td>
</tr>
<tr>
<td>11/9-11/13</td>
<td>Chapter 9,10</td>
<td>Exp: Acid/Base Titration (page 129)**</td>
<td>Term-paper*** Quiz 5 due on 11/22</td>
</tr>
<tr>
<td>11/23-11/27</td>
<td>Chapter 10</td>
<td>No labs</td>
<td></td>
</tr>
<tr>
<td>11/30-12/4</td>
<td>Review</td>
<td>Lab check out</td>
<td>Quiz 6 due on 12/6</td>
</tr>
<tr>
<td>12/7-12/11</td>
<td>Last week of class</td>
<td>Final Exam</td>
<td>Final Exam: 12/10 2:45 – 5:00 pm (All chapters covered)</td>
</tr>
</tbody>
</table>

*Mon Sept. 7th. Labor Day, campus is closed. Monday labs must either attend a different lab that week to complete the report or finish the worksheet on their own. More information will be given.

**Wed Nov 10th-Veterans Day, campus is closed. Monday labs will complete the titration experiment on Wed Nov. 25th. More information will be given.

*** Term-paper must be turned in to your lab instructor at the beginning of your lab during the week of Nov. 16th.

**Note:** Lab reports and worksheets will be due at the end of your lab each week, unless otherwise announced by your lab instructor. There will also be an independent lab report due on the lab check out day. You must attend every lab and workday and turn in all the reports.