San José State University  
Department of Chemistry  
Chem 285, Seminar, Fall 2013

**Instructor:**  Annalise Van Wyngarden, Ph.D., Assistant Professor of Chemistry

**Office Location:**  Duncan Hall 2

**Telephone:**  (408) -924-5282

**Email:**  Annalise.VanWyngarden@sjsu.edu

**Office Hours:**  Mon. 11:30am-12:20pm, Wed. 4-5pm or by appointment

**Class Days/Time:**  Tuesdays 4:30 – 5:45pm

**Classroom:**  Duncan Hall 250

**Prerequisites:**  Enrolled graduate student or instructor consent.

**Credit:**  0.5 units

**Course Web Page**
Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on Canvas at [http://www.sjsu.edu/at/ec/canvas/](http://www.sjsu.edu/at/ec/canvas/). You are responsible for regularly checking this site.

**Course Description**
Presentation of chemical topics by graduate students, faculty and guests. A maximum of 2 units may be repeated.

**Speakers:**  The presenters for this course will be a mixture of SJSU faculty and outside speakers from industry and academia, as well as M.S. and M.A. students who are giving their final seminars. I will update Canvas and/or send email notification of any changes from the announced schedule.

**Student Learning Objective**
Increased familiarity with modern research topics in chemistry.
Graduate Program Learning Objectives

1) To demonstrate an advanced understanding of selected topics in chemistry.
2) To demonstrate information literacy skills for acquiring knowledge of chemistry, both as a student and as a life-long learner.
3) To communicate effectively, verbally and written, for the purposes of conveying chemical information to both professional scientists and to the public.

Recommended Texts/Readings

Papers in the scientific literature from the seminar speakers. Most of the recent papers are accessible online through the SJSU library.

Library Liaison

Emily Chan, Emily.Chan@sjsu.edu

Classroom Protocol

Course Schedule: The Chemistry 285 seminars will be scheduled every Tuesday during the semester. The seminar schedule will be posted to the Chemistry Department Website at http://www.sjsu.edu/chemistry/.

Attendance: A sign-up sheet will be available at the beginning and end of each class period, in the front of the lecture room. You must print and sign your name on this sheet. It is your responsibility to insure that you have signed this. You are required to attend all lectures unless you have an excused absence that must be agreed to in advance by the instructor. In the case of unforeseen sickness or other circumstances, a doctor’s note or dean’s note is required. As a courtesy to the speaker, please plan to arrive on time for the start of the seminar. This semester, I am requiring all enrolled students to sign the sheet both before and after the seminar. If you are late for the seminar, please enter from the back of the room, and try to be as unobtrusive as possible upon entering. Once the seminar has begun, you will not be able to sign the sheet until after the seminar has ended. Please note that the course runs until 5:45pm, which means that even with an hour seminar, this leaves 15 minutes for questions - which is an important part of the seminar. You are required to attend the entire seminar, including questions, and you will have an opportunity to sign in again after the seminar is completed. Please note also that it is inconsiderate to the seminar speaker to leave before the seminar is completed, i.e. during the question and answer period.

Computers and Cell Phones: Laptop computers, cell phones, or similar devices may NOT be used during seminars without a letter from the Accessible Education Center (AEC). While I recognize that some are using these for note taking, use of computers in the audience can be distracting to seminar speakers.
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 calendar web page located at http://www.sjsu.edu/provost/services/academic_calendars/index.html. 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/.

Assignments and Grading Policy

Grading:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance of seminars (10 pts. each)</td>
<td>140pts.</td>
<td>70%</td>
</tr>
<tr>
<td>Question/Answer Report</td>
<td>10pts.</td>
<td>5%</td>
</tr>
<tr>
<td>Final (oral presentation)</td>
<td>50pts.</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>200pts.</td>
<td>100%</td>
</tr>
</tbody>
</table>

Assuming you earn full points on the Final and Question/Answer Report, the following shows how missing seminar(s) would affect your grade:

Miss no seminars – Grade of A+
Miss one seminar – no loss of grade (e.g. grade of “A”).
Miss two seminars – loss of 10 points toward final grade (e.g. lower grade from A to A-)
Miss three seminars – loss of 20 points toward final grade (e.g. lower grade from A- to B).

Note that attendance at each seminar is taken before and after the class, so arriving late or leaving early will each result in missing “one half” of seminar (5 points). There may be some opportunities to attend Departmental seminars on Thursdays at 4:30pm (or possibly at other times), which can be counted towards your attendance in Chem 285 (e.g. if you miss a seminar on Tuesday, attendance at a Thursday seminar could make that up).

Question/Answer Report: This assignment can be completed at any time during the semester, but must be turned in before the final presentation at the latest. The assignment is to ask a substantial question of a seminar speaker in response to his/her presentation. You must then turn in a “report” with your question and a summary of the speaker’s response (one paragraph). Each
student is required to ask at least one question, but multiple questions during the semester are encouraged and particularly insightful questions may even earn some extra credit.

**Oral Presentation (Final):** The final will consist of a short (5-10 minute presentation) at the regularly scheduled final examination meeting time. The final oral for each student will be based upon a journal article related to the research presentation made by one of the visiting scientists. You may reserve your article on a first-come-first serve basis at any time during the semester by e-mailing me. More details on the final will be distributed and discussed later in the semester.

**University Policies**

**Academic integrity**

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University’s Academic Integrity Policy at http://www.sjsu.edu/studentconduct/Students/Student_Academic_Integrity_Process/ 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/.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Integrity Policy S07-2 requires approval of instructors.

**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.

In 2013, the Disability Resource Center changed its name to be known as the Accessible Education Center, to incorporate a philosophy of accessible education for students with disabilities. The new name change reflects the broad scope of attention and support to SJSU students with disabilities and the University's continued advocacy and commitment to increasing accessibility and inclusivity on campus.

**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.

**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.

**Emergencies and Building Evacuations**

If you hear a continuously sounding alarm, or are told to evacuate the building by an Emergency Coordinator, walk quickly to the nearest exit. Take your personal belongings as you may not be allowed to return. Follow the instructions of the Emergency Coordinators. Be quiet so you can hear instructions. Once outside, move away from the building. Do not return to the building unless the Police or the Emergency Coordinator announces that this is permissible.

**Chemical Safety**

Chem 120S is a required course for all chemistry majors and minors and a prerequisite for all Chem 180/298 research.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug. 27</td>
<td>Introduction, syllabus, and class requirements</td>
</tr>
</tbody>
</table>
| 2    | Sep. 3   | **Prof. Joseph Pesek**  
Chemistry Graduate Student Advisor  
“Chemistry Masters Program Essential Information” |
| 3    | Sep. 10  | **Prof. Alberto Rascón**  
Department of Chemistry  
San José State University  
“Targeting Aedes aegypti Midgut Proteases as a Mosquito Control Strategy” |
| 4    | Sep. 17  | **Prof. Kristie Boering**  
Departments of Chemistry and of Earth and Planetary Science  
University of California, Berkeley  
Title – TBA |
| 5    | Sep. 24  | **Prof. Bethany Buck-Koehntop**  
Department of Chemistry  
University of Utah  
“Deciphering the Role of Methyl-CpG Binding Proteins in Cancer” |
| 6    | Oct. 1   | **Dr. Laura Iraci**  
Atmospheric Science Branch,  
NASA Ames Research Center  
“Airborne Studies of Wild Fire Plumes and Air Pollution: The Alpha Jet Atmospheric Experiment (AJAX)” |
| 7    | Oct. 8   | **Prof. Bruce Manning**  
Department of Chemistry and Biochemistry  
San Francisco State University  
“Reactions of Inorganic Anions with Iron-based Groundwater Remediation Materials” |
| 8    | Oct. 15  | SJSU Chemistry Faculty Research Overviews  
Speakers - TBA |
| 9    | Oct. 22  | **Mr. Matthew Berry**  
Chemistry and Chemical Biology  
University of California, Merced  
Title – TBA |
| 10   | Oct. 29  | **Prof. Paul Abbvad**  
Department of Chemistry and Biochemistry  
Santa Clara University  
“Sickling of Red Blood Cells in a Microdroplet Array” |
| 11   | Nov. 5   | **Dr. Elizabeth Pollom**  
IRACDA Fellow |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Assignments</th>
</tr>
</thead>
</table>
|      |          | *San José State University and Stanford University*  
|      |          | *Title – TBA* |
| 12   | Nov. 12  | **Dr. Robert Osborne**  
|      |          | *Codexis*  
|      |          | “Protein Engineering at Codexis and its Application for Developing a Cytochrome P450 BM3 Panel” |
| 13   | Nov. 19  | **Dr. Jessica Koehne**  
|      |          | *Center for Nanotechnology*  
|      |          | *NASA Ames Research Center*  
|      |          | *Title – TBA* |
| 14   | Nov. 26  | **Ms. Katrina Donovan**  
|      |          | *San José State University*  
|      |          | *Final M.S. Seminar*  
|      |          | *Advisor: Prof. Bradley Stone*  
|      |          | “Computational Fluid Dynamics Modeling of Two Dimensional and Three Dimensional Segmented Flow in Microfluidic Chips” |
| 15   | Dec. 3   | **Speaker - TBA**  
|      |          | *Title – TBA* |
| Final Exam | Dec. 13 | **Friday, Dec. 13, 2:45-5:00pm**  
|      |          | **Final Presentations** |