

CHEM 4292 Senior Chemistry Seminar
Fall 2009

Th 9-10:40 am, CS 226

Instructor:	Dr. Patrick Larkin
Office:	Center for Science 203
Office Hours:	TR 1-3 pm or by appointment
Phone:	825-3258
E-mail:	patrick.larkin@tamucc.edu
Web:	www.tamucc.edu/~plarkin

Course Description

Senior seminar is a capstone course for chemistry majors. Students are asked to apply the information, theory and skills acquired in the classroom and laboratory to the examination of significant, chemistry-related societal issues. Coursework involves the analysis of research reports, review articles and other professional papers, preparation of essays and participation in case-based study exercises. Senior seminar also emphasizes professional development activities to help students prepare for life after graduation.

Course Objectives

- Review important societal issues related to chemistry
- Enhance skills in critical analysis, discussion and technical writing
- Develop research skills in the acquisition, organization and presentation of chemical information
- Develop professional development skills in identifying personal skill sets, researching organizations, developing contacts, preparing resumes, interviewing and negotiating salary and benefits

Coursework

Case-based Studies

A number of societal issues have significant, chemistry-related components. A rational solution to problems associated with these issues requires the participation of scientifically literate citizens. This class will review a number of such issues. Students will analyze reference material and prepare short essays on a number of topics. Classroom exercises will involve case-based scenarios that will require analysis, discussion, review and group-based decision making.

Essays. Each topic will require the preparation of a short (300-350 word) essay, guided by a set of questions provided with the reference material. Essays will be judged according to the following criteria, though these are not necessarily exhaustive:

Excellent (3 pt): Essay addresses the topic thoroughly yet succinctly. Essay length is appropriate. Guiding questions have been addressed and answered. No factual errors are present. Few, if any, errors in spelling or grammar are present. Narrative is easy to read: sentences relate to each other and combine to tell a story vs. a collection of declarative statements.

Good (2 pt): Essay addresses the topic reasonably well but some guiding questions may not have been fully addressed. Essay length may be too long (>300 words) or short (<200). Most guiding questions have been addressed and answered. Some factual,

spelling or grammatical errors are present. Reasonable narrative but could still use some “polishing”.

Fair to poor (1pt): Essay weakly addresses topic. Length does not meet specified standards. Few guiding questions are being appropriately addressed. Contains significant factual, spelling or grammatical errors. Essay composed primarily of a collection of declarative statements.

Professional Development

A number of exercises related to the elements of a successful job search will be covered, including: the identification of personal skill sets, organizational research, interviewing skills, preparation of a resume, salary requirements and personal budgets.

Presentation

A 10 minute PowerPoint presentation will be required of all students, on a chemistry-related topic of their choice. The range of topics is intended to be broad to allow for individual interests, but it must relate to chemistry. If in doubt, consult with your instructor. A one paragraph abstract (title and short description) will be due midway through the semester.

Grading

There are no exams for this course. Grades will be determined on the basis of the total number of points earned on essays, professional development items, attendance, class participation, and the final presentation.

Assignment	Number	pts/assignment	total possible points
Attendance/participation	14	2	28
essays/special items	5	3	15
Prof. Dev. Items	5	2	10
Present. abstract	1	2	2
Presentation	1	10	10
Total			65

The grading scale will be: A \geq 90% of possible points, B \geq 80 %, C \geq 70 %, D \geq 60 %, F < 60 %. There will be a 10% reduction, per day, in credit for overdue assignments.

Attendance & Participation. Attendance and participation in class discussions is required and will count for a significant portion of your grade.

Required Text: What Color is Your Parachute? A Practical Manual for Job-Hunters & Career-Changers. Any recent edition. Richard Nelson Bolles. Ten Speed Press.

Supplementary Materials. All materials related to each topic will be provided, either in class or on the instructor’s website (www.tamucc.edu/~plarkin).

Note for students with disabilities The Chemistry Program complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students. If you need disability accommodations, or if you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office (Driftwood 101, ph. 825-5816).

It is important that you contact them in a timely fashion as it may take from several days to weeks to review requests and prepare accommodations.

Academic Advising. The College of Science and Technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center is located in Faculty center room 178. Please choose the advisor who corresponds to your major (or potential major). Contact your advisor directly, or call Tracey Ramirez at (361) 825-6094, to schedule an appointment. Walk-in times may be available at especially busy times of the year (such as the start of a semester). Please call the Advising Center to check availability and ensure a minimal wait.

Grade Appeals. As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

Schedule

Date	Topic	Assignment	What's Due ?	Points*
Aug 27	Introduction/Library Skills	climate essay		2
Sept 3	Skills Analysis	skill list		2
Sept 10	Climate Change	antibiotics essay	climate essay	5
Sept 17	Resumes & interviewing	resume (draft)	skill list	4
Sept 24	Antibiotic resistance	Drugs essay	antibiotics essay	5
Oct 1	Career Center	Organization list/abstract	resume (draft)	4
Oct 8	Meth & Other drugs	WMD essay	Drugs essay	5
Oct 15	Salary & Budget	budget	Org list/abstract	6
Oct 22	Weapons of Mass Destruction	resume (final)	WMD essay	5
Oct 29	Graduate/Professional School		budget	4
Nov 5	Class Presentations		resume (final)	4
Nov 12	Class Presentations		Presentations	2
Nov 19	Class Presentations		Presentations	12
Nov 26	No Class	Thanksgiving break		
Dec 3	Nobel Prize Winners	special item (in class)		5

Total 65

*point totals for each date includes 2 pts for attendance and participation