

**Chem A130****Preparation for General Chemistry (4 credits)****Spring 2020**

Lecture	214	(35916)	MW 9:35–11:00					
Labs	126	(30461)	Frechen	M 11:10–2:20	Skills	126	(37551)	M 2:30–3:30
	129	(37579)	Geragotelis	M 5:10–8:20		129	(37580)	M 4:00–5:00
	126	(30606)	Piotrowski	T 11:10–2:20		227	(37553)	T 2:30–3:30
	129	(30462)	Frechen	W 12:30–3:40		124	(37552)	W 3:50–4:50
	126	(30463)	Frechen	R 11:10–2:20		227	(37554)	R 2:30–3:30

**Instructor** Mr. Richard Frechen Office: Chemistry Room 232 Email: [rfrechen@occ.cccd.edu](mailto:rfrechen@occ.cccd.edu) (Subject = Chem 130 S20)  
Phone: 714-432-5072 ext 22844 Class files are posted at [www.yrtsimehc.com](http://www.yrtsimehc.com)  
Office Hours: T 1:15-2:15 & 4:00-5:00, W 11:15-12:15, R 4:00-5:00

**Description** Introduction to the principles, calculations, and laboratory techniques of chemistry for students planning to take Chemistry A180. May be taken for grades or on a pass-no pass basis. ('C' is required to pass.)

**Prerequisites** Mathematics A030 or higher (or appropriate placement).

**Advisory** Eligibility for ESL A060 or English A099.

**Required Materials** "Foundations of College Chemistry", 15<sup>th</sup> edition, by Morris Hein et al., Wiley, ©2016; access to WileyPLUS online homework; nonprogrammable scientific calculator; safety goggles; web browser; and a PDF reader.

<b>Grading</b>	<b>Points earned as follows:</b>	<b>Grades as % of total points:</b>	<b>Lab attendance &amp; best possible grade:</b>
Exams (3 at 15%)	45 %	90% to 100% A <i>Excellent or P</i>	Miss 1 lab, best grade = A
Laboratory	20 %	80% to 89% B <i>Good or P</i>	Miss 2-3 labs, best grade = B
Homework	10 %	65% to 79% C <i>Satisfactory or P</i>	Miss 4-5 labs, best grade = C
Lect. Attendance	5 %	50% to 65% D <i>Unsatisfactory or NP</i>	Miss 6 labs, best grade = D
Skills class	5 %	0% to 49% F <i>Fail or NP</i>	Miss 7+ labs, best grade = F
Final Exam	15 %		

**Attendance** Attendance is required through the Add deadline to remain enrolled, or be eligible to Add. After the Add deadline, it is your responsibility to withdraw from the course if you do not plan to complete it. Starting the second week, you will lose one point for each absence.

**Exams** There will be no make-up exams. There will be three exams and a comprehensive Final; see the schedule below for dates and chapters covered. Taking the comprehensive Final exam is mandatory, else you will fail the course.

**Online HW** Online homework and due dates will be found on WileyPLUS. Go to <http://www.wileyplus.com/class/743430> to subscribe: "Create Account" => "Agree to Terms" => "WileyPlus Instant Access only" => Add billing info and Promo Code OCC19

**Lecture Notes** An outline of each lecture will be posted online so that you may bring a copy to class for taking notes.

**Laboratory** Laboratory work will account for 20% of your course grade. Pre-lab assignments will be posted online, and they must be printed out and completed prior to the start of the lab shown in the schedule below. Hand-written pre-labs will not be accepted. You may not start lab until your pre-lab has been finished and turned in. Lab instructions and data sheets will be provided in lab; these must remain in the lab, and points will be deducted if they are removed from lab. Labs must be completed in your enrolled section on the dates shown. Attending another lab section is not allowed. Make-up labs are not allowed. Non-experiment days such as Check In, Worksheets, and Check Out count as labs for the purposes of lab grading and attendance. (For example, if you miss one experiment and do not check out, your highest possible grade is a B.)

**Skills Class** These study sessions are designed to help you focus on learning. A schedule and set of worksheets will be provided.

**Student Learning Outcomes** The student will be able to:

1. Use unit equations and simple algebraic methods to solve computational problems in the areas of unit conversion, specific heat, stoichiometry, gas laws, and solution concentrations.
2. Write and balance total ionic and net ionic equations for chemical reactions, including predicting the products of ionic reactions and writing the correct ionic formulas.
3. Apply the principles of electron configurations, Lewis structural theory, and VSEPR theory to predict the structure and three-dimensional shape of simple inorganic and organic species from the chemical formula.
4. Use inorganic nomenclature rules to provide a systematic name for a chemical formula or a chemical formula from a systematic name.
5. Apply safe and proper laboratory techniques to make accurate, reproducible measurements of masses and volumes, and accurate, reproducible experimental observations.

**Grading Disputes** If you believe I made a grading error, bring it to my attention as soon as possible.

Extenuating Circumstances must be supported by documentation (such as a doctor's note) indicating the day(s) you could not attend. Let me know now if you have any conflicts. If you make plans later that conflict, like a trip home, I will not be sympathetic.

Stay Current You should check the class website and your OCC student email (link!) every day for updates, assignments, and messages.

### Tentative Reading Assignments and Lab Schedule

Wk	Day	Book Sections to Read <i>Before Class</i>	M 11:10 am (RF) M 5:10 pm (AG)	T 11:10 am (CP)	W 12:30 pm (RF)	R 11:10 am (RF)
1	M 1/27	Introduction; 1.1 to 1.4 intro	Jan 27	Jan 28	Jan 29	Jan 30
	W 1/29	2.1 to 2.5 measurements	Safety & Intro	Safety & Intro	Safety & Intro	Safety & Intro
2	M 2/3	2.6 to 2.9 density	Feb 3	Feb 4	Feb 5	Feb 6
	W 2/5	3.1 to 3.2 elements/compounds	Safety Quiz & WS	Safety Quiz & WS	Safety Quiz & WS	Safety Quiz & WS
3	M 2/10	3.3, 11.1, 11.6 periodic trends	Feb 10	Feb 11	Feb 12	Feb 13
	W 2/12	4.1 to 4.3 properties	Measurements	Measurements	Measurements	Measurements
4	M 2/17	<b>Presidents Holidays</b>	Feb 17	Feb 18	Feb 19	Feb 20
	W 2/19	<b>Exam 1</b>	<b>Holiday</b>	Worksheets	Worksheets	<b>FLEX (Holi)Day</b>
5	M 2/24	5.1 to 5.6 atomic theory	Feb 24	Feb 25	Feb 26	Sep 27
	W 2/26	6.1 to 6.5 nomenclature	Density	Density	Density	Density
6	M 3/2	6.6, 15.3 electrolytes	Mar 2	Mar 3	Mar 4	Mar 5
	W 3/4	8.1 to 8.4 chemical equations	Periodic Trends	Periodic Trends	Periodic Trends	Periodic Trends
7	M 3/9	8.5 to 8.6, 15.5, 15.6 NIEs	Mar 9	Mar 10	Mar 11	Mar 12
	W 3/11	13.1 to 13.4 liquids	Conductivity	Conductivity	Conductivity	Conductivity
8	M 3/16	13.5 to 13.7, 15.1 to 15.4 acid/bases	Mar 16	Mar 17	Mar 18	Mar 19
	W 3/18	<b>Exam 2</b>	Chem Reactions	Chem Reactions	Chem Reactions	Chem Reactions
<b>Spring Break!</b>						
9	M 3/30	14.1 to 14.4 solutions	Mar 30	Mar 31	Apr 7	Apr 2
	W 4/1	7.1 to 7.2 composition	<b>Lab Test I</b>	<b>Lab Test I</b>	<b>Lab Test I</b>	<b>Lab Test I</b>
10	M 4/6	7.3 to 7.5 empirical formula	Apr 6	Apr 7	Apr 8	Apr 9
	W 4/8	9.1 to 9.3 stoichiometry	NaCl Pt I/Models	NaCl Pt I/Models	NaCl Pt I/Models	NaCl Pt I/Models
11	M 4/13	9.4 to 9.5 limiting reactant	Apr 13	Apr 14	Apr 15	Apr 16
	W 4/15	12.1 to 12.4 gas properties	NaCl Pt II/Models	NaCl Pt II/Models	NaCl Pt II/Models	NaCl Pt II/Models
12	M 4/20	12.5 to 12.6 ideal gas law	Apr 20	Apr 21	Apr 22	Apr 23
	W 4/22	12.7 to 12.9 gas stoichiometry	Titration	Titration	Titration	Titration
13	M 4/27	10.1 to 10.5 modern atomic theory	Apr 27	Apr 28	Apr 29	Apr 30
	W 4/29	<b>Exam 3</b>	Gas Laws	Gas Laws	Gas Laws	Gas Laws
14	M 5/4	11.1 to 11.3 chemical bonds	May 4	May 5	May 6	May 7
	W 5/6	11.4 to 11.6 molecular shape	Models & WS	Models & WS	Models & WS	Models & WS
15	M 5/11	4.4 to 4.6 energy	May 11	May 12	May 13	May 14
	W 5/13	ch 17 topics oxidation/reduction	<b>Lab Test II</b>	<b>Lab Test II</b>	<b>Lab Test II</b>	<b>Lab Test II</b>
16	M 5/18	Review	May 18	May 19	May 20	May 21
	W 5/20	<b>Final Exam (comprehensive)</b>	Cleanup, checkout	Cleanup, checkout	Cleanup, checkout	Cleanup, Checkout

**Verify these dates!! Drop w/ref Feb 8 Add Deadline Feb 9 Drop w/o W Feb 9 Census Date Feb 10 Drop w/W Apr 25**

Cheating: In a word, don't! Any dishonesty harms the individual, other students, and the college. Policies on academic integrity will be strictly enforced. Students who violate college standards of academic integrity are subject to disciplinary sanctions, including failure in the course. A letter describing the incident may be placed in the student's permanent academic record file. Please review Orange Coast College's policy on Academic Honesty in the college catalog. Academic dishonesty includes, but is not limited to:

- Using another person's work on exams, quizzes, lab data sheets, or assignments.
- Giving/receiving assistance or information to/from another student during an exam or quiz.
- Use of notes, books, or other aids during an exam or quiz.
- Stealing exams, quizzes, lab data sheets, notes, or assignments from another student or the instructor.
- Falsifying or plagiarizing laboratory data or results.
- Disrupting or sabotaging the work of another student.

Finally, modern electronic devices (laptops, tablets, cell phones, smart phones, etc.) have made cheating easier to accomplish, and harder to detect. Therefore, you should not have any such device out during a quiz or test or lab. If you have one of these devices out during a test or lab, I will simply assume you are using it to cheat and will give you a zero on that test or lab. Also, no one will be excused during a quiz or test, until they are done, without a documented medical excuse.