## **Chem 31A Fall 2015 Course Calendar**

	September/October 2015							
Sunday	Mondav	Tuesdav	Wednesdav	Thursday	Fridav			
Sept 20	21 [CYCLE 1 STARTS] Lecture 1: Problem Solving in Chemistry  OH: 12:30-1:30pm (OC106/108) Section 1: Synthesis of ZI <sub>2</sub> Outreach: 6-7pm (Braun Aud) OH: 7-8:30pm (Braun Aud) Reading Due: Chapter 1	• Section 1 (cont.) • Waymouth OH: 11:30am-1pm (Stauffer I-205) • OH: 7-10pm (TBA) • Problem Set 1 Assigned	23 Lecture 2: Number in chemistry: stoichiometry, Conservation of Mass  • Section 1 (cont.)  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7pm (BraunAud)  • OH: 7-8:30pm (Braun Aud)  • Reading Due: Chapter 2	• Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	25 Lecture 3: the Language of Chemistry: Chemical Formulas and Reactions  OH: 12:30-1:30pm (OC106/108)  Reading Due: Chap 3.1-10			
27 • OH: 7-10pm (TBA)	28 Lecture 4: Limiting Reagent • Problem Set 1 Due [2:30 pm] • OH: 12:30-1:30pm (OC106/108) • Section 2: Behavior of Gases • Outreach: 6-7pm (Braun Aud) • OH: 7-8:30pm (Braun Aud) • Reading Due: Chap. 4.1-4.4	• Section 2(cont) • Waymouth OH: 11:30am-1pm Stauffer I-205 • OH: 7-10pm (TBA) • Problem Set 2 Assigned	30 • Section 2 (cont) • Lecture 5: The Ideal Gas Law • OH: 12:30-1:30pm (OC106/108) • Outreach: 6-7pm (Braun Aud) • OH: 7-8:30pm (Braun Aud) • Reading Due: Chap. 5.1-5.5	Oct. 1  Schwartz OH: 1-3pm (Chem Gazebo) OH: 7-10pm (TBA)	2 Lecture 6: Partial Pressures and Stoichiometry of Gases  • OH: 12:30-1:30pm (OC106/108)  • Lab Write-up Due [2:30 pm]  • Reading Due: Chap 5.6-7			
• OH: 7-10pm (TBA)	5 Lecture 7: Kinetic Molecular Theory(KMT) and Temperature • Problem Set 2 Due [2:30 pm] • Section 3: KMT • OH: 12:30-1:30pm (OC106/108) • Outreach: 6-7pm (Braun Aud) • OH: 7-8:30pm (Braun Aud) • Reading Due: Chap. 5.8-10	• Section 3 (cont.) • Waymouth OH: 11:30am-1pm Stauffer I-205 • OH: 7-10pm (TBA)	7 Lecture 8: Problem Solving Review • Section 3 (cont.) • OH: 12:30-1:30pm (OC106/108)  EXAM 1: 6 - 7:15pm	8 [CYCLE 2 STARTS] • Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	9 Lecture 9: First Law of Thermodynamics LECTURE LOCATION MOVED (TBA)  • OH: 12:30-1:30pm (OC106/108)  • Reading Due: Chap 6.1-4  • Study list (add/drop) deadline			

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
11 • OH: 7-10pm (TBA)	12 Lecture 10:Energy and Enthalpies of Reactions  • Section 4: Calorimetry  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7pm (Braun Aud)  • OH: 7-8:30pm (Braun Aud)  • Reading Due: Ch.6.5-6	<ul> <li>Section 4 (cont.)</li> <li>Waymouth OH: <ul> <li>11:30am-1pm Stauffer I-</li> <li>205</li> <li>OH: 7-10pm</li> <li>(TBA)</li> <li>Problem Set 3 Assigned</li> </ul> </li> </ul>	14 Lecture 11: Calorimetry  Section 4 (cont.)  OH: 12:30-1:30pm (OC106/108)  Reading Due: Ch. 6.7  Outreach: 6-7p Braun Aud  OH: 7-8:30p (Braun Aud)	• Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	16 Lecture 12: Hess's Law, Heats of Rxn  OH: 12:30-1:30pm (OC106/108)  Reading Due: Ch.6.8-9
18 Reminder: QUEST 1 is due the day before your section [submit online by 2:30pm in CourseWork dropbox] • Pre-QUEST due for Monday sections • OH: 7-10pm (TBA)	19 Lecture 13: Light and Spectroscopy  OH: 12:30-1:30pm (OC106/108)  Problem Set 3 Due [2:30 pm]  QUEST due for Tuesday sections  Section 5: Spectroscopy  Outreach: 6-7p (Braun Aud)  OH: 7-8:30p (Braun Aud)  Reading Due: Ch. 7.1-4	20 • Section 5 (cont.) • Waymouth OH: 11:30am-1pm Stauffer I- 205 • Pre-QUEST due for Wednesday sections • OH: 7-10pm (TBA) • Problem Set 4 Assigned	21 Lecture 14: The Oddity of Electrons  Section 5 (cont.)  OH: 12:30-1:30pm (OC106/108)  Reading Due: 7.5-6  Outreach: 6-7p Braun Aud  OH: 7-8:30p (Braun Aud)	• Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	23 Lecture 15: Electronic Configurations  OH: 12:30-1:30pm (OC106/108)  Lab write-up Due [2:30 pm]  Reading Due: Ch.8.1-8.5
<b>25</b> • OH: 7-10pm (TBA)	26 Lecture 16: Trends in atomic and ionic properties  • Problem Set 4 Due [2:30 pm]  • Section 6: Periodicity of Metals  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7pm (Braun Aud)  • OH: 7-8:30pm (Braun Aud)  • Reading Due: Ch. 8.6-8	Section 6 (cont.)  Waymouth OH: 11:30 am -1 pm Stauffer I-205  OH: 7-10pm (TBA)	28 Lecture 17: Problem Solving  • Section 6 (cont.)  • OH: 12:30-1:30pm (OC106/108)  EXAM 2: 6 - 7:15pm	29 [CYCLE 3 STARTS] • Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	30 Lecture 18: Types of Chemical Bonds  OH: 12:30-1:30pm (OC106/108)  Reading Due: 9.1-4

November 2015						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
1 • OH: 7-10pm (TBA)	2 Lecture 19: Covalent Bonds and Lewis Structures • Section 7 : Chemical Bonds • OH: 12:30-1:30pm (OC106/108) • Outreach: 6-7pm (Braun Aud) • OH: 7-8:30pm (Braun Aud) • Reading Due: 9.5-8 & 4.5	<ul> <li>Section 7 (cont.)</li> <li>Waymouth OH: 11:30am-1pm Stauffer I-205</li> <li>OH: 7-10pm (TBA)</li> <li>Problem Set 5 Assigned</li> </ul>	4 Lecture 20: Correlating data with structures  • Section 7 (cont.)  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7p Braun Aud  • OH: 7-8:30p (Braun Aud)  • Reading Due: 9.9-11	• Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	6 Lecture 21: Predicting Molecular Shapes  OH: 12:30-1:30pm (OC106/108) Reading Due: 10.1-4	
8 • OH: 7-10pm (TBA)	9 Lecture 22: Molecular Shape, polarity, & hybridization  OH: 12:30-1:30pm (OC106/108)  Section 8: Shapes of Molecules  Outreach: 6-7pm (Braun Aud)  OH: 7-8:30p (Braun Aud)  Problem Set 5 Due [2:30 pm]  Reading Due: 10.5-7	<ul> <li>Section 8 (cont.)</li> <li>Waymouth OH: 11:30am-1pm Stauffer I-205</li> <li>OH: 7-10pm (TBA)</li> <li>Problem Set 6 Assigned</li> </ul>	11 Lecture 23: MO Theory  • Section 8 (cont.)  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7p Braun Aud  • OH: 7-8:30p (Braun Aud)  • Reading Due: 10.8	12 • Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	13 Lecture 24: Intermolecular Forces 11-11:50a BraunAud 1:15-2:05p BraunAud  OH: 12:30-1:30pm (OC106/108) Reading Due :11.1-11.4 Lab write-up Due [2:30 pm] Change of grading basis deadline Course Withdrawal Deadline	
15 • OH: 7-10pm (TBA)	16 Lecture 25: Vapor Pressure  OH: 12:30-1:30pm (OC106/108)  Problem Set 6 Due [2:30 pm]  Section 9: Intermolecular Forces  Outreach: 6-7pm (Braun Aud) OH: 7-8:30p (Braun Aud) Reading Due: 11.5	<ul> <li>Section 9 (cont.)</li> <li>Waymouth OH: 11:30am-1pm Stauffer I-205</li> <li>OH: 7-10pm (TBA)</li> </ul>	18 Lecture 26: Problem Solving  • Section 9 (cont.)  • OH: 12:30-1:30pm (OC106/108)  EXAM 3: 6 - 7:15pm	19 [CYCLE 4 STARTS] • Schwartz OH: 1-3pm (Chem Gazebo) • OH: 7-10 pm (TBA)	20 Lecture 27: Phase Diagrams  OH: 12:30-1:30pm (OC106/108)  Problem Set 7 Assigned Reading Due: 11.6-11.9	

November/December 2015						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
22 • OH: 7-10pm (TBA)	23 Thanksgiving Break No class	24 Thanksgiving Break No class	25 Thanksgiving Break No class	26 Thanksgiving Break No class	27 Thanksgiving Break No class	
29 Reminder: QUEST 2 is due the day before your section [submit online by 2:30pm in CourseWork dropbox]  • QUEST due for Monday sections  • OH: 7-10pm (TBA)	30 Lecture 28: Crystalline Solids  OH: 12:30-1:30pm (OC106/108)  Section 10: Heats of Crystallization  QUEST due for Tuesday sections  Outreach: 6-7p Braun Aud  OH: 7-8:30p (Braun Aud)  Reading Due: 11.10-11.12	Dec 1  Section 10 (cont.)  Waymouth OH: 11:30am-1pm Stauffer I-205  QUEST due for Wed sections  OH: 7-10pm (TBA)	2 Lecture 29: Review of Reactions – Putting it all together  • Section 10 (cont.)  • OH: 12:30-1:30pm (OC106/108)  • Outreach: 6-7p Braun Aud  • OH: 7-8:30p (Braun Aud)  • Reading: review 4.4	Schwartz OH: 1-3pm (Chem Gazebo) OH: 7-10 pm (TBA)	4 Lecture 30: Course Challenge Problem  OH: 12:30-1:30pm (OC106/108)  Problem Set 7 Due [2:30 pm]	
6	7	8	9 FINAL EXAM 7:00 — 10:00pm	10	11	