

# Chemistry 1A Summer 2015

**Mondays, Wednesdays, and Fridays  
1:00 - 3:30 pm  
Physical Sciences Building 110**

**Professor Ilan Benjamin**

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## **Final review sessions:**

**Wednesday, July 22, 1:00-3:30 pm, PSB 110**

**Thursday, July 23, 12:00-3:00 pm, PSB 140**

**[Final Practice problems: Chapters 6, 7, 8](#)**

[Solutions](#)

## **Class Contact Information**

### **Professor:**

[Ilan Benjamin](#)

Phone: 459-3152

Office: 338 Physical Sciences Building (PSB)

Office Hours: Tuesdays 2-3 , Wednesday 11:30-12:30

**Email: [ilan@ucsc.edu](mailto:ilan@ucsc.edu)**

**Teaching Assistant:** Bruce Phebus, [bphebus@ucsc.edu](mailto:bphebus@ucsc.edu)

Office Hours: Monday 11-12, Wednesday 10:00-11:00, room PSB 145

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## Overview

Chemistry 1A is the first part of a three quarter general chemistry series for students who have had high school chemistry. The topics covered in this class include a quick review of stoichiometry, reaction types and the gas laws (Chapters 2-5) followed by chemical equilibrium with applications to gas phase, aqueous solution, and acid-base equilibria (Chapters 6-8). See below for a detailed syllabus.

### Prerequisite:

High school algebra (must be proficient with the material in appendix 1 and 2 of the book).

### Required text/Materials:

*Chemical Principles*, 7th edition, by Zumdahl and Decoste

### Scientific calculator

**Access to the online homework site (WebAssign) must be purchased.** (Prices below may not be up to date!)

-Webassign for one quarter is \$69.00 with e-book.

Note that this times out after one quarter.

-Webassign for multiple quarters is \$105.00.

This includes an e-book, but not hard copy text.

-Special bundle package that includes a loose leaf copy of Zumdahl 7th edition, and webassign for multiple quarters is \$159.35.

*This is an outstanding deal and highly recommended. Everything you need for all three quarters of the Chem 1 series.*

-Hard bound copies of the Zumdahl text are also available, but these cost roughly \$200 and do not include webassign.

\*Please note that the 7th edition is highly preferred, but the 5th and 6th along with WebAssign should be okay.

### Missing an exam:

If you miss an exam because of illness or other extenuating circumstance (travel for family matters is not considered to be an emergency circumstance), you must contact the instructor to discuss your situation prior to the absence. Make-up exams will be offered in rare cases for a properly justified absence.

### Disability accommodations:

If you have a disability that requires an accommodation, please consult with the Disability Resource Center, 459-2089. If you qualify for classroom accommodations because of a disability, please submit

your Accommodation Authorization from the DRC to me during my office hours or after Lecture during the first week of the session.

### Internet access:

You may use the instructor's and the TA's email addresses to ask questions about the material. Information about the course, announcements, homework sets, etc, will be available here on the web.

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## Grading

Course Credit will be assigned as follows:

*Homework:* 10% (All 5 sets are required, each problem set = 10/5 = 2.0% )

*Exam 1:* 40% (Covers chapters 2-5)

*Final:* 50% (Covers chapters 6,7,8)

To pass the course you must score at least 50% of the total possible points.

Key: A+: 97-100; A: 89-96; A-: 85-88; B+: 80-84; B: 70-79; B-: 65-69; C+: 60-64; C: 50-59.

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## Course Syllabus

Month				Comments
	<i>Mon.</i>	<i>Wed.</i>	<i>Fri.</i>	
<i>June</i>	22 <b>Ch. 2</b>	24 <b>Ch. 3</b>	26 <b>Ch. 3-4</b>	Course begins June 22
<i>June/July</i>	29 <b>Ch. 4</b>	1 <b>Ch.4-5</b>	3 <b>Holiday</b>	July 3rd: Independence day holiday

<i>July</i>	6 <b>Ch. 5-6</b>	8 <b>Ch. 6</b>	10 <b>Exam 1, Ch.2-5</b>	
<i>July</i>	13 <b>Ch. 7</b>	15 <b>Ch. 7</b>	17 <b>Ch. 8</b>	
<i>July</i>	20 <b>Ch. 8</b>	22 <b>Review</b>	24 <b>Exam 2, Ch. 6-8</b>	

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## Problem Sets

These problems are assigned from the book, but must be taken **online** by the deadline specified in the homework website.

The homework website is: [www.webassign.net](http://www.webassign.net)

Click on the login link on the upper right to register by using the following class key:

**The Class Key for Chem 1A Summer 2015 is: ucsc 2408 5860**

Access to the online homework site must be purchased.

If you purchase the textbook independent of WebAssign, you must obtain an access code either from the Bay Tree Bookstore or from WebAssign website.

### Costs:

Webassign for one quarter is \$69.00 with e-book. (Note that this times out after one quarter)

Webassign for multiple quarters is \$105.00. (This includes an e-book, but not hard copy text)

Special bundle package that includes a loose leaf copy of Zumdahl 7th edition, and webassign for multiple quarters is \$159.35.

(This is an outstanding deal and highly recommended. Everything you need for all three quarters of the Chem 1 series.)

Hard bound copies of the Zumdahl text are also available, but these cost roughly \$200 and do not include webassign.

Please note that the 7th edition is highly preferred, but the 5th and 6th along with WebAssign should be okay.

Set number	Chapter*	Problems*	Due date and time
1	2-3	2) 19, 40, 41, 42, 46, 51, 54, 62, 64 3) 26, 36, 40, 46, 54, 56, 65, 70, 72, 78, 83, 94, 112	6/29/2015 11:59PM
2	4-5	4) 16, 23, 24, 38, 39, 45, 50, 56, 60, 61, 62, 66, 68, 71, 72, 76 5) 34, 46, 48, 54, 64, 82, 85, 86, 138	7/7/2015, 11:59PM
3	6	24, 26, 32, 42, 46, 48, 54, 60, 62, 63, 70, 74, 81	7/14/2015, 11:59PM
4	7	48, 50, 56, 62, 70, 76, 90, 101, 112, 114, 122, 128	7/20/2015, 11:59PM
5	8	21, 22, 23, 32, 34, 40, 61, 63, 69, 94, 98, 100, 102, 104, 108, 110	7/23/2015, 11:59PM

\*Zumdahl 7th edition, WebAssign

### Problem sets grading

The grading is done automatically once you submit the answer. You have got **7** tries **per question**

(If the question has multiple parts, you get 7 tries for each part.)

It is best to submit the answer to each question or part of a question once you are done with it.

Correct answer should be within 2% of the true value. **Avoid round-off errors !!**

Try to supply the correct number of significant figures (but you will not be penalized if you don't).

Keep a couple more significant figures during intermediate steps to avoid round-off errors.

The number of points you get for each question varies depending on how many parts each question has and its difficulty.

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## Discussion Sections

Sections begin on the first week of classes .

Sections are designed to help you understand and master the material and get help with the homework.

Attending section is good preparation for exams, and you should plan to attend your discussion.

Day/Time	Place
Monday/4pm-5pm	Thimann 101
Wednesday/11am-12pm	Thimann 101
Wednesday/4pm-5pm	Thimann 101

**Learning Support Services ([LSS](#)) offers free tutoring service for this class.**

Tutor: Elisa de Anda, email: [edeanda@ucsc.edu](mailto:edeanda@ucsc.edu).

*Tutoring schedule:*

Monday 11:15 am-12:15 pm in Social Sciences II Room 137

Tuesday 1:00 pm- 2:00 pm in ARC Room 221

Wednesday 10:00 am- 11:00 am in Social Sciences II Room 137

Sign ups will begin on Tuesday, June 23, 2015. Go to <https://eop.sa.ucsc.edu/OTSS/tutorsignup> to sign up.

Students are able to sign up and attend up to 2 tutoring sessions per week.

Sessions will begin on Wednesday, June 24, 2015.

Please note: This is not a replacement for attending lecture. It is a place to receive additional help if needed and is not mandatory.

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## Powerpoint Slides

The slides used in lecture will be posted here individually **before** each lecture. Please note that these are not a substitution to attending the lectures, only an aid for preparing for lecture and for creating your lecture notes!

[Overview](#)

[Chapter 2](#)

[Chapter 3](#)

[Chapter 4](#)

[Chapter 5](#)

[Chapter 6](#)

[Chapter 7](#)

[Chapter 8](#)

[Chapters 6.7 8 Review](#)

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## Other Useful Stuff!!

- [Dept. of Chemistry Undergraduate Programs](#): information about majoring in chemistry and biochemistry, research and internship opportunities for undergraduates, careers in science, etc.
- [Interactive Periodic Table of the Elements](#)
- [Units conversion calculator](#)
- [Chem Tutor--an online chemistry tutor!](#)

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