

**Chemistry 4B  
General Chemistry  
Spring 2015**

<i>Instructors:</i>	Dr. Michelle Douskey	<a href="#">Professor Jamie Cate</a>
<i>Office Hours</i>	Wednesday 3-4PM and Thursday 2-3PM in 307 Latimer (first 6 weeks only)	<a href="#">Friday, 3:00-4:30</a> <a href="#">482 Stanley Hall</a>
<i>Email:</i>	<a href="mailto:douskey@berkeley.edu">douskey@berkeley.edu</a> lecturing the first 7 weeks on quantitative analysis, instrumental methods, and green chemistry	<a href="mailto:jcate@lbl.gov">jcate@lbl.gov</a> <a href="#">lecturing the second 7 weeks on kinetics,</a> <a href="#">introductory organic, chemical biology and</a> <a href="#">special topics</a>

**Units 3-4 Syllabus**

<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<b>Weekly Reading (R), Homework (H), and Lab (L)</b> (Ox for Oxtoby and H for Harris, Le for Lehninger)
<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	
<b>Midterm #2</b> (in class)		Chemical kinetics		Chemical kinetics	<b>R7:</b> H17; Ox18 <b>H7:</b> H17.4, Ox (18.3, 18.6, 18.12, 18.17) ( <b>due Mar. 9</b> ) <b>L7:</b> Antibacterial Properties, measuring zones <b>Projects:</b> Materials Requests
<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	
Chemical kinetics		Introduction to Chemical Biology, proteins		Proteins: primary and secondary structure	<b>R8:</b> Le1, Le2, Le3 <b>H8:</b> Ox (18.28, 18.40, 18.56), Le problems posted on bCourses ( <b>due Mar. 16</b> ) <b>L8:</b> Extraction and Quantitative Analysis of Limonene by Gas Chromatography <b>Projects:</b> a short activity on elevator pitch
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	
Enzyme kinetics		Proteins: protein folding		FF: enzyme kinetics	<b>R9:</b> Le4, Le6.1-6.4 <b>H9:</b> Ox (18.47, 18.74), Le problems posted on bCourses ( <b>due Mar. 30</b> ) <b>L9:</b> Enzyme Kinetics <b>Projects:</b> Finalized plan
<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	
<b>Spring Break</b>		<b>Spring Break</b>		<b>Spring Break</b>	<b>L10: Spring Break! No lab</b>

30 Enzymes	31	1 Enzymes	2	3 Flipped Friday	<b>R11:</b> <i>Le4, Le6.1-6.4</i> <b>H11:</b> Prior exams posted for study purposes. <b>L11:</b> Special Project <b>Projects:</b> Daily plan
6 <b>Midterm #3 (in class)</b>	7	8 Nucleic acids: Nucleosides and nucleotides	9	10 DNA properties	<b>R12:</b> <i>Le8</i> <b>H12:</b> <i>Le</i> problems posted on bCourses ( <b>due April 20</b> ) <b>L12:</b> Special Project <b>Projects:</b> Daily plan
13 RNA properties	14	15 RNA properties, continued	16	17 Polymerase chain reaction, DNA replication	<b>R13:</b> <i>Le8</i> <b>H13:</b> <i>Le</i> problems posted on bCourses ( <b>due April 27</b> ) <b>L13:</b> Special Project <b>Projects:</b> Daily plan
20 CRISPR/Cas9 and genome engineering	21	22 Flipped <i>Wednesday</i>	23	24 Climate change and carbon emissions	<b>R14:</b> <i>Le7</i> <b>H14:</b> <i>Le</i> problems posted on bCourses ( <b>due May 4</b> ) <b>L14:</b> Special Project <b>Projects:</b> Daily plan
27 Fossil fuel properties	28	29 Biofuels & chemical biology	20	1 Biofuels & chemical biology	<b>R15:</b> TBA <b>H15:</b> (none) <b>L15:</b> Special Project <b>Projects:</b> Daily plan
4 RRR, final exam review, Pimentel	5	6 RRR, final exam review, Pimentel	7	8 RRR	<b>R16:</b> (none) <b>H16:</b> (none) <b>L16:</b> Check out of locker <b>Projects:</b> Check out  <b>Saturday May 9<sup>th</sup>, poster session</b>
11	12 <b>Final Exam 3-6PM</b>	13	14	15	