

# CHEMISTRY 101B CALENDAR—FALL 2009

How to use this calendar:

The second and fourth shaded columns list the sections from the textbook (6<sup>th</sup> edition of **Chemical Principles**) to be covered in lecture, and show the quiz and exam dates.

The first and third columns give the schedule of laboratory experiments. Numbered experiments are found in the "Chemistry 101B Laboratory Manual." On some days, lecture topics will be covered in the lab, as noted.

<b>Monday Lab</b>	<b>Tuesday Lecture</b>	<b>Wednesday Lab</b>	<b>Thursday Lecture</b>
<b>Aug 17</b> Review Acids and Bases, Text sections 7.1-7.6	<b>Aug 18</b> Acids, Bases Sections 7.6-7.7	<b>Aug 19</b> Expt 1: pK <sub>a</sub> Determination	<b>Aug 20</b> Acids, Bases Sections 7.8-7.9
<b>Aug 24</b> Expt 2 (parts 1,2): Intro to Buffers	<b>Aug 25</b> Acids, Bases Sections 7.10-8.2	<b>Aug 26</b> Expt 2 (parts 3,4): Intro to Buffers	<b>Aug 27</b> Acids, Bases Sections 8.3-8.5
<b>Aug 31</b> Expt 3: Titration Curve <i>Last day to drop with full refund</i>	<b>Sep 1</b> Acids, Bases Sections 8.5-8.6	<b>Sep 2</b> Expt 4: Carbonic Acid	<b>Sep 3</b> Acids, Bases, Section 8.7 <b>QUIZ 1 on 7.1-8.5</b> <i>Sept 4: last day to add</i>
<b>Sep 7</b> <i>HOLIDAY Labor Day</i>	<b>Sep 8</b> Solubility Equilibria Section 8.8	<b>Sep 9</b> Expt 5 (part 1): K <sub>sp</sub> of AgNO <sub>3</sub>	<b>Sep 10</b> Solubility Equilibria Sections 8.8-8.9 <i>Sept 11: last day to drop w/o W</i>
<b>Sep 14</b> Expt 5 (part 2): K <sub>sp</sub> of AgNO <sub>3</sub>	<b>Sep 15</b> <b>EXAM 1 on Sections 7.1-8.7</b>	<b>Sep 16</b> Intro Thermodynamics Sections 10.0-10.2	<b>Sep 17</b> Thermodynamics Section 10.2
<b>Sep 21</b> Expt 6 (part 1): Pb(NO <sub>3</sub> ) <sub>2</sub> Dissolution	<b>Sep 22</b> Thermodynamics Sections 10.3-10.5	<b>Sep 23</b> Expt 6 (part 2): Pb(NO <sub>3</sub> ) <sub>2</sub> Dissolution	<b>Sep 24</b> Thermodynamics Sections 10.6-10.7
<b>Sep 28</b> Expt 7: PbSO <sub>4</sub> Dissolution	<b>Sep 29</b> Thermo, Sec's 10.7-10.9 <b>QUIZ 2 on 8.8-10.5</b>	<b>Sept 30</b> Expt 8: Borax Solubility Thermo	<b>Oct 1</b> Thermodynamics Sections 10.10-10.11
<b>Oct 5</b> Expt 9 (parts 1A-1B): Electrochemical Cells	<b>Oct 6</b> Thermodynamics Sections 10.12-10.14	<b>Oct 7</b> Review of Thermodynamics	<b>Oct 8</b> Electrochemistry Sections 11.0-11.2, 8.10
<b>Oct 12</b> <i>HOLIDAY Faculty Day</i>	<b>Oct 13</b> <b>EXAM 2 on Sections 8.8-8.9, 10.0-10.14</b>	<b>Oct 14</b> Expt 9 (parts 1C, 2): Electrochemical Cells	<b>Oct 15</b> Electrochemistry Sections 11.3-11.5
<b>Oct 19</b> Expt 10: Electrolysis: Det'n of N <sub>A</sub>	<b>Oct 20</b> Electrochemistry Sections 11.6-11.8	<b>Oct 21</b> Expt 11: O <sub>3</sub> Decomp, Intro to Kinetics	<b>Oct 22</b> Kinetics Sections 15.0-15.3 <i>Oct 23: midterm grades on web</i>

<b>Monday Lab</b>	<b>Tuesday Lecture</b>	<b>Wednesday Lab</b>	<b>Thursday Lecture</b>
<b>Oct 26</b> Expt 12: I <sub>2</sub> Clock Kinetics	<b>Oct 27</b> Kinetics Sections 15.4-15.6	<b>Oct 28</b> Expt 13: Kinetics of Hydrolysis	<b>Oct 29</b> Kinetics Sections 15.6-15.7
<b>Nov 2</b> Expt 13: Kinetics of Hydrolysis	<b>Nov 3</b> Kinetics Sections 15.8-15.9	<b>Nov 4</b> Intro to Nuclear Chem Sections 20.0-20.2 (5 <sup>th</sup> ed 21.0-21.2)	<b>Nov 5</b> Nucl Chem: 20.3-20.4 (5 <sup>th</sup> ed 21.3-21.4) <b>QUIZ 3 on 11.0-11.8, 15.0-15.7</b>
<b>Nov 9</b> Expt 14 (parts 1-4): GC/MS of M(CO) <sub>x</sub> Mixt	<b>Nov 10</b> Nuclear Chem Sections 20.4-20.7 (5 <sup>th</sup> ed 21.4-21.7)	<b>Nov 11</b> Expt 14 (part 5): GC/MS of M(CO) <sub>x</sub> Mixt	<b>Nov 12</b> <b>EXAM 3 on Chapters 11, 15</b>
<b>Nov 16</b> Intro to Trans Metals Sections 19.0-19.2 (5 <sup>th</sup> ed 20.0-20.2)	<b>Nov 17</b> Transition Metals Sections 19.3-19.4 (5 <sup>th</sup> ed 20.3-20.4)	<b>Nov 18</b> Expt 15 (parts 1,2): Vanadium Chemistry	<b>Nov 19</b> Transition Metals Sections 19.5-19.6 (5 <sup>th</sup> ed 20.5-20.6) <i>Nov 20: Deadline for "W"</i>
<b>Nov 23</b> Expt 15 (parts 3-5): Vanadium Chemistry	<b>Nov 24</b> Transition Metals Sections 19.6-19.7 (5 <sup>th</sup> ed 20.6-20.7)	<b>Nov 25</b> Expt 15 (part 5): Vanadium Chemistry, Balancing Redox Eqns	<b>Nov 26</b> <i>HOLIDAY Thanksgiving</i>
<b>Nov 30</b> Expt 16 (part 1): Synth of Co Complexes	<b>Dec 1</b> Solid State Structure Sections 16.3-16.5 Review Ch 7, 8	<b>Dec 2</b> Expt 17 (part 1): H Insertion into WO <sub>3</sub>	<b>Dec 3</b> <b>EXAM 4 on Trans Metals and Nuclear Chem</b>
<b>Dec 7</b> Expt 18 (part 1): Crystal Structure, Expt 17 (part 2)	<b>Dec 8</b> Solid State Structure Sections 16.7-16.9 Review Ch 10, 11	<b>Dec 9</b> Expt 18 (part 2): Crystal Structure, Locker Check-out	<b>Dec 10</b> Review Chapters 15, 21

**FINAL EXAMINATION:** Friday, December 11, 1:30-4:30 pm  
Room to be announced