**Revised Schedule**

**Chem 125 Fall 2014**

Monday, Nov 10th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO15
* **Videos:**
  + [Video: Conjugated Alkene Orbital Systems](https://www.youtube.com/watch?v=r1LFkcKM6nA)
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/structure.htm)*:* MO14.1-14.5, IM6.1-6.6

In class:

* **SNOW Day**



Tuesday, Nov 11th 6:30-8:00 pm Faculty Tutorial Session, O’Connell’s Coffee Shop



Wednesday, Nov 12th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO16-17
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO15.1-15.3
* **Homework due:**
  + **Group Assignment: Resonance, *Wkbk,* 398-400**
  + **Passport: MO of conjugated systems, Wkbk, 402-403**

In class: Structure of Conjugated Systems

* **Socrative Quiz (5 pts): Conjugation and Resonance**
* MO of conjugation, *Workbook:* 403-404
* Properties of Conjugated Compounds, *Workbook:* 406-408

Friday, Nov 14th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO16-17
* **Videos:**
  + [Video:  Huckel molecular orbital diagrams (click for link)](http://www.youtube.com/watch?v=CKxxmHOPaLw)

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* + [Video:  Aromatic and antiaromatic compounds](http://www.youtube.com/watch?v=U6FX5RfLjd0&list=PLAhRiX8pHhMLIpkZ76jtchkkvVpQP1g9W)
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO14.6, MO15.4
  + Conjugation Summary, *Workbook,* 409
  + Application Problems, *Workbook:* 410-411
* **Homework due:**
  + **Sapling: Hybridization, Resonance & Conjugation**
  + **Group Assignment: Conjugation Applications, 410-411**

In class: Structure and Properties of Aromatic Systems

* **Short Problem Solving Assessment #13: Conjugation and Resonance**
* Aromaticity, *Workbook:* 416-422

Monday, Nov 17th

Preparation:

* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO16.2, MO16.5, MO17.1-17.2
  + Aromaticity Summary, *Workbook,* 419
* **Homework due:**
  + **Passport: Determining Aromaticity,** Workbook, 423
  + **Group Assignment: Band Theory*,*** *Workbook*, 441-451
    - **OR UV*,*** *Workbook*, 452-455

In class: Structure and Properties of Aromatic Systems

* **Socrative Quiz (5 pts): Aromaticity**
* Aromaticity Applications, *Workbook:* 423-431
* Orbital Patterns, *Workbook:* 436-440



Tuesday, Nov 18th 6:30-8:00 pm Faculty Tutorial Session, O’Connell’s Coffee Shop



# Acids and Bases

Wednesday, Nov 19th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB1-6
* **Videos:**
  + [Video:  Bronsted and Lewis Acid/Base Theory (click for link)](https://www.youtube.com/watch?v=J4UU140AGZg)
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/mo/moindex.htm): MO16.2, MO16.5, MO17.1-17.2
* **Homework due:**
  + **Moodle:** *Chem Tutor:* 10.1, 10.2
  + **Passport: MO Patterns,** Workbook, 436-440
  + **Sapling: Aromaticity**

In class: Introduction to Lewis Acids and Bases

* **Short Problem Solving Assessment #14: Aromaticity**
* **Socrative Quiz (5 pts): Lewis Acid-Base**
* Lewis Acids & Bases and Arrows, *Workbook*, 456-459

Friday, Nov 21st

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB6-9
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB2.1, 3.1, 4.2-4.5, 6.1, 6.2, 6.3
* **Homework due:**
  + **Moodle:** *Chem Tutor:* 10.3

In class: Introduction to Bronsted Acids and Bases

* **Socrative Quiz (5 pts): Bronsted Acid-Base**
* Bronsted Acid/Base and Arrows, *Workbook,* 460-465

Monday, Nov 24th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB10-13
* **Videos:**
  + [Video:  Inductive effect (click for link)](http://www.youtube.com/watch?v=zpNTQO19KvU)



* + [Video:  Effect of size (click for link)](http://www.youtube.com/watch?v=wDrFirhlg6Y)



* + [Video:  Effect of resonance (click for link)](http://www.youtube.com/watch?v=XJkvtuIHLhI)
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB7.1, 8.1-8.4, 9.2
* **Homework due:**
  + **Passport: Acid Base,** *Workbook*, 450-451
  + **Sapling: Acid-Base Intro**

In class: Proton Transfers

* **Short Problem Solving Assessment #15: Lewis A/B**
* Which Proton? How Easily?, 466-467
* Structural Features of Acidity, *Workbook,* 468



Tuesday, Nov 25th No Faculty Tutorial Session

Wednesday, Nov 26th –Nov 30th

**Thanksgiving Weekend**



Monday, Dec 1st

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB14-17
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB11.1-11.3, 12.1-12.4, MO16.4
* Applications, *Workbook* 456-461, 470-475
* Basicity, *Workbook,* 476
* **Homework due:**
  + **Group Assignment:  *“What’s the Most Acidic Proton?”***

In class: Proton Transfers

* **Socrative Quiz (5 pts): Most Acidic Proton**
* **Socrative Quiz (5 pts): Strength of Bases**
* Applications
  + *Workbook* 456-461, 470-475
* Basicity
  + *Workbook,* 476
* **Problem Solving Assessment #16: Proton Transfers**



Tuesday, Dec 2nd 6:30-8:00 pm LAST Faculty Tutorial Session, O’Connell’s Coffee Shop



Wednesday, Dec 3rd

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB9, 14
* **Videos:**
  + [Video: Predicting Products](https://www.youtube.com/watch?v=hASvaerUO-E)



* + [Video: Using pKa to Predict Direction](https://www.youtube.com/watch?v=cygdt3EXZQA)
* **Suggested Practice Problems**:
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB9.2, 14.1
* **Homework due**:
  + **Sapling: Structural Basis for Acid Base Chemistry**

In class: Equilibria

* **Socrative Quiz (5 pts): Equilibria**
* Introduction to Equilibria and Predicting Direction of Reaction
  + *Workbook* 478-480
* Leveling Effect
  + *Workbook* 481-483

Friday, Dec 5th

Preparation:

* **Read:** [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB15-18
* **Videos:**



* + [Video: Acid-Base Extractions (click to link)](https://www.youtube.com/watch?v=dQsvOm38GG4)
* **Suggested Practice Problems:**
  + [*Structure & Reactivity*](http://employees.csbsju.edu/cschaller/Principles%20Chem/acidity/acid%20index.htm)*:* AB15.1-15.7, 17.1-17.6
* **Homework due:**
  + **Sapling:Acid-Base Equilibrium**

In class: Equilibria

* **Socrative Quiz (5 pts): Extractions**
* Applications of Acid-Base
  + *Workbook* 485, 490
* Acid-Base Extraction
  + *Workbook* 486-489
* Cumulative problems
  + Methane Monooxygenase, *Workbook*, 499-505
  + Amide Cumulative Problem *Workbook* 510-517
  + Nanoparticles for Drug Delivery, *Workbook,* 506-509

Monday, Dec 8th

Preparation:

* **Homework due:**
  + **Group Homework:** Electrophoresis, *Workbook*, 491-494
  + **Sapling: Acid Base of Biomolecules**

In class: Equilibria

* **Problem Solving Assessment #17: Application Problem**

Wednesday, Dec 10th

**Study Day**

* SALG
* Student Evaluations
* Practice for Final!
  + Multiple Choice Practice can be downloaded from Sapling
  + Extra Sapling Practice
  + Lookover PSAs, Homeworks
  + Do suggested problems from texts (answers are available)

**Final Exam**

**8:15-10:15 Thursday, December 11th (Graham)**

55 Multiple Choice Questions

CSB/SJU Final Exam Schedule:

<http://www.csbsju.edu/Documents/Registrar/terms/144/144_FinalsSchedule.pdf>