

**CHEM 116: HOMEWORK SHEET**  
**HOURLY EXAM III (Fall 2009-Dr. Babb)**

**Chapter 14:**  
(5<sup>th</sup> McMurry/Fay Text)

- A. Acid/Base Theories and Strengths (pg. 543-549; 576-583)

**Graded Online Homework:** 116-acid

*Other Homework:* 14.1-14.5, 14.26-14.28, 14.32, 14.34, 14.38, 14.40, 14.44-14.50 (even), 14.102, 14.106, 14.108

- B. Dissociation of H<sub>2</sub>O, pH, pOH, K<sub>w</sub> (pH=-log[H<sup>+</sup>], pOH=-log[OH<sup>-</sup>]) (pg. 549-554)  
C. pH of Solutions of Strong Acids and Bases (pg. 555-557)

**Graded Online Homework:** 116-pH

*Other Homework:* 14.6-14.11, 14.52-14.64 (even), 14.114  
Chapter 18 (Problem Book) 11, 14, 15

- D. pH of Solutions of Weak Acids and Bases (pg. 557-570)

**Graded Online Homework:** 116-pHweak

*Other Homework:* 14.12-14.20, 14.66-14.76 (even), 14.80-14.86 (even), 14.120  
Chapter 18 (Problem Book) 1-10, 12, 13, 16-20

- E. Relationship between K<sub>B</sub> and K<sub>A</sub> (K<sub>w</sub>=K<sub>A</sub>xK<sub>B</sub>) (pg. 570-571)  
F. Hydrolysis of Salts (pg. 572-576)

**Graded Online Homework:** 116-pHsalts

*Other Homework:* 14.21-14.25, 14.36, 14.88, 14.90, 14.92, 14.94, 14.116  
Chapter 18 (Problem Book) 31-43

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**Chapter 15:**  
(5<sup>th</sup> McMurry/Fay Text)

- A. Neutralization, Common Ion Effect, and Buffer Solutions (pg. 593-607)

**Graded Online Homework:** 116-buffers

*Other Homework:* 15.3-15.12, 15.34, 15.52-15.76 (even), 15.122, 15.126  
Chapter 18 (Problem Book) 22-25, 26-30

- B. Titrations and Titration Curves (pg. 607-618)  
C. Indicators (pg. 553-554)

**Graded Online Homework:** 116-titration

*Other Homework:* 15.13-15.17, 15.42, 15.78-15.84 (even), 15.85, 15.124  
Chapter 22 (Problem Book) 13-15, 1-11

**NOTE: Exam III is Wednesday, Oct. 28 (in lab)** and will cover most of the topics listed on this sheet. You are responsible for material covered in lecture, reading material in text and material covered in homework problems. **Please bring the following items to the exam: #2 pencil, non-programmable calculator (cover removed), and photo ID.** Sample back tests can be found on the Chem 116 website at <http://www.as.wvu.edu/~mbabb>.