

**CHEM 3820: Biochemistry Laboratory**  
**Instructor: Bruce E. Bowler**  
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**Text: R. K. Scopes, Protein Purification, 3rd edition.**  
**Teaching Assistant: Sean Xiong, SGM 259**

### Course Outline

Date	Experiment	Reading & Assignments
<b>Week 1</b>		
Jan. 7	<b>Expt. 1, Isolation and Purification of Yeast Iso-1-cytochrome <i>c</i>, Part A.</b>	Scopes, Chap. 2
Jan. 8	<b>Expt. 1, Part A/B.</b>	Scopes, 4.1-4.3
<b>Week 2</b>		
Jan. 14	<b>Expt. 1, Part C.</b>	Scopes, 1.3, 5.3, 6.1, 6.2
Jan. 15	<b>Expt. 1, Part C/D.</b>	Scopes, 1.4, 8.4
<b>Week 3</b>		
Jan. 21	<b>Expt. 1, Part D.</b>	Scopes, 8.1
Jan. 22	<b>Expt. 2, Lowry Analysis of the Protein Content of Purified Yeast Iso-1- Cytochrome <i>c</i>.</b>	Scopes, 3.1
<b>Week 4</b>		
Jan. 28	<b>Expt. 3, SDS-polyacrylamide Gel Electrophoresis of Yeast Iso-1- Cytochrome <i>c</i>, Part A.</b>	Scopes, 8.2 <b>Lab Report Expt. 1 due. 250 points</b>
Jan. 29	<b>Expt. 3, Part B.</b>	Scopes, 11.1
<b>Week 5</b>		
Feb. 4	<b>Expt. 4, Equilibrium Unfolding of Cytochrome <i>c</i> by Guanidine-HCl, Part A.</b>	<b>Lab Report Expt. 2 due. 100 points</b>
Feb. 5	<b>Expt. 4, Part B.</b>	

<b>Week 6</b> Feb. 11	<b>Expt. 4, Part C.</b>	<b>Lab Report Expt. 3 due. 100 points</b>
Feb. 12	<b>Expt. 5, Electrochemical Characterization of Iso-1- cytochrome <i>c</i> using the method of mixtures</b>	
<b>Week 7</b> Feb. 18	<b>Expt. 6, Enzyme Kinetics, Alkaline phosphatase, Part A.</b>	<b>Lab Report Expt. 4 due. 150 points</b>
Feb. 19	<b>Expt. 6, Part B.</b>	
<b>Week 8</b> Feb. 25	<b>Expt. 6, Part C.</b>	<b>Lab Report Expt. 5 due. 100 points</b>
Feb. 26	<b>Expt. 7, Lactate Dehydrogenase, Part A.</b>	
<b>Week 9</b> March 3	<b>Expt. 7, Part B.</b>	<b>Lab Report Expt. 6 due. 150 points</b>
March 4	<b>Expt. 7, Part C.</b>	
<b>Week 10</b> March 10/11		<b>Lab Report Expt. 7 due. 150 points</b>

**Grading:** The total number of points possible is 1000.