

# CHEM-202 LABORATORY SYLLABUS (072)

TEXT: WILLIAMSON, **ORGANIC EXPERIMENTS**, 9th edition

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WK	BEGIN	READING ASSIGNMENT	Analysis	PROBLEMS
<u>1</u>	19 Feb.	<i>NO LABORATORY</i>		
<u>2</u>	26 Feb.	<b>Electrophilic Aromatic Substitution: Nitration of Methyl Benzoate</b> CHAPTER #28, PAGE 309- 313 (310-312).	<b>m.p.</b> same day	#1,2,4
<u>3</u>	4 March	<b>The Sandmeyer Reaction: 2-Iodobenzoic Acid,</b> CHAPTER #45, Expt. 4, Page 444-450 (449-450)	<b>m.p.</b> same day	#1
<u>4</u>	11 March	<b>IR and NMR Spectroscopy,</b> CHAPTER #12, p. (155-176), and CHAPTER #13, p. (177-195).	-----	#1,2,3,4
<u>5</u>	18 March	<b>Reactions of Carbonyl Compounds, Classification Tests.</b> CHAPTER #36, EXPT. 2, 4, 5 & 6, Page 364-382 (371-375)	<b>m.p.</b> same day	#1,2,3,4,5,6,7, 8,9,10
<u>6</u>	25 March	<b>Grignard Reactions: Triphenylmethanol,</b> CHAPTER #38, EXPT. 1, 2 & 4, PAGE 338-400 (392-397)	-----	#1,2,3,4
<u>7</u>	1 April	<b>Grignard Reaction: Triphenylmethanol continued,</b> CHAPTER # 38, EXPT. 4, PAGE 388-400 (396-397)	<b>m.p.</b> same day	
<u>8</u>	8 April	<b>The Benzoin Condensation,</b> CHAPTER #54, EXPT. 1, PAGE 521-525 (523)	<b>m.p.</b> next week	#1,2,3,4
<b>Midterm Vacation (from 12 to 16 April)</b>				
<u>10</u>	22 April	<b>Part #A: Benzil from Benzoin,</b> CHAPTER #55, EXPT. 1, PAGE 526-531 (528).  <b>Part #B: Borohydride Reduction of Benzil,</b> CHAPTER #56, PAGE 532-534 (532-533).	<b>I.R.</b>	#1,2
			<b>I.R.</b>	#1
<u>11</u>	29 April	<b>Diels-Alder Reaction: cis-Norbornene-5,6-endo-dicarboxylic acid,</b> CHAPTER #49, EXPT. 2 & 3, PAGE 489-501 (493-495).	<sup>1</sup> H NMR next day	#1,2
<u>12</u>	6 May	<b>Dibenzalacetone by the Aldol Condensation,</b> CHAPTER #37, EXPT. 1, PAGE 383- 387 (384).	<b>m.p.</b> same day	#1,2,3,4,5,6
<u>13</u>	13 May	<b>Acetanilide from Nitrobenzene,</b> CHAPTER #46, EXPT. 1 & 2, PAGE 451-463 (456-457)	<b>m.p.</b> next week	
<u>14</u>	20 May	<b>Sulfanilamide from Acetanilide,</b> CHAPTER #46, EXPT. 3, PAGE 451-463 (458-460)	<b>m.p.</b> next week	#1,2,3,4
<u>15</u>	27 May	FINISH ALL EXPERIMENTS AND SUBMIT COMPLETED LAB BOOK.		