

<b>Advanced Synthesis and Catalysis</b>		
<b>Course Director: Joe Ready</b>		
Mon/Wed	Lecturer	Topic
01/11	Ready	Intro to Catalysis
01/13	Ready	Organometallics: Intro
01/18	<b>No Class</b>	<b>MLK Jr. Holiday</b>
01/20	Ready	Organometallics: Intro - II
01/25	Ready	Kinetics and Mech - I
01/27	Ready	Kinetics and Mech - II
02/01	Ready	Kinetic Resolutions
02/03	Ready	Nonlinear Effects
02/08	Ready	Additions to pi bonds-I
02/10	Ready	Additions to pi bonds-II
02/15	Ready	Additions to pi bonds-III
02/17	Ready	Conjugate Addition - I
02/22	Ready	Conjugate Addition - II
02/24	Ready	Carbenes - I
03/01	Ready	Carbenes - II
03/03	<b>Midterm</b>	<b>9am-12pm</b>
03/08	<b>No Class</b>	<b>Spring Break</b>
03/10	<b>No Class</b>	<b>Spring Break</b>
03/15	De Brabander	Metathesis - I
03/17	De Brabander	Metathesis - II
03/22	De Brabander	C-H functionalization - I
03/24	De Brabander	C-H functionalization - II
03/29	De Brabander	Addition to olefins - I
03/31	De Brabander	Addition to olefins - II
04/05	De Brabander	Cross-Coupling - I
04/07	De Brabander	Cross-Coupling - II
04/12	De Brabander	Heteroatom Arylation
04/14	De Brabander	Allylic Alkylations - I
04/19	De Brabander	Allylic Alkylations - II
04/21	De Brabander	Reactions of alkynes - I
04/26	De Brabander	Reactions of alkynes - II
04/28	De Brabander	Organocatalysis - I
05/03	<b>Paper Due - Ready</b>	<b>L4.247 @ 5pm</b>
05/05	<b>Final Exam</b>	<b>9am-12pm</b>

**Required Text:**

Hegedus 'Transition Metals in the Synthesis of Complex Organic Molecules' 2<sup>nd</sup> Ed. University Science Books, 1999.