1. **Course:** CHEMISTRY 531, Advanced Inorganic Chemistry: Organometallic Chemistry

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<tr>
<th>LEC</th>
<th>DAYS</th>
<th>TIME</th>
<th>ROOM</th>
<th>INSTRUCTOR</th>
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<tr>
<td>L01</td>
<td>MWF</td>
<td>10:00-10:50</td>
<td>SS113</td>
<td>Gregory Welch</td>
<td>EEEL546</td>
<td><a href="mailto:Gregory.welch@ucalgary.ca">Gregory.welch@ucalgary.ca</a></td>
<td>W 15:00-16:00</td>
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<td>T01</td>
<td>M</td>
<td>14:00-14:50</td>
<td>SS113</td>
<td>Gregory Welch</td>
<td>EEEL546</td>
<td><a href="mailto:Gregory.welch@ucalgary.ca">Gregory.welch@ucalgary.ca</a></td>
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To avoid IT problems, it is recommended that the students use their U of C account for all course correspondence. Please use “CHEM 531 inquiry” as the Subject of your e-mail.

Desire 2 Learn (D2L) course name: CHEM 531 L01 - (Fall 2019) - Advanced Inorganic Chemistry

Departmental Office: Room SA 229, Tel: 403-220-5341, e-mail: chem.undergrad@ucalgary.ca

2. **Course Description: Lectures:** Coordination and organometallic chemistry of the transition elements. Fundamental and applied aspects, including characterization techniques, reaction mechanisms, catalysis, bioinorganic chemistry, and polymerization.

3. **Recommended Textbook(s):**


4. **Topics Covered and Suggested Readings:**

   **Course Content**
   - **Introduction to Organometallic Transition Metal Chemistry**
     Fundamental aspects of structure and bonding
     Coordination chemistry
   - **Organometallic Reactions**
     Basic reactions and mechanisms
   - **Applications of Organometallic Reactions**
     Metathesis, Oligomerization, Polymerization, Small Molecule Activation, Organic Couplings, Synthesis of Conjugated Polymers, Direct Arylation

   **Chapter in Textbook**
   - (not all sections will be covered)
   - Tarr – Chapters 9 -12
   - Crabtree – Chapters 1 - 5
   - Tarr – Chapters 13-14
   - Crabtree – Chapters 6-8
   - Tarr – Chapters 13-14
   - Crabtree – Chapters 9,12-14

Department Approval: Electronically Approved Date: August 30, 2019