

UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF CHEMISTRY
COURSE OUTLINE
WINTER 2019**1. Course: CHEMISTRY 621, Organometallic Chemistry**

LEC	DAYS	TIME	ROOM	INSTRUCTOR	OFFICE	PHONE	EMAIL	OFFICE HOURS
L01	T Th	11:00-12:15	SA 243	Dr. Piers	EEEL 548	220-5746	wpiers@ucalgary.ca	n/a

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

2. Course Description: A detailed discussion of structure, bonding and preparative methods in organometallic chemistry including the industrial and synthetic applications of organometallic compounds.

3. Recommended/ Required Textbook(s): None. In class notes and assignments. See "Note on Supplemental Reading".

4. Topics Covered and Suggested Readings:

Ligands, Electron Counting, other basics
Oxidative Addition, Reductive Elimination, C-H Act
C-X RE, sigma bond metathesis
CO insertion
Olefin insertion into M-H, M-C
Olefin Insertion into M-C
Olefin Metathesis
Homogeneous Catalysis
Asymmetric Catalysis
Olefin Polymerization

Readings will be assigned from the primary literature

5. Laboratory Experiments: Not applicable

Department Approval _____ Approved by Department Head _____ Date _____ January 7, 219 _____