George Mason University Department of Chemistry and Biochemistry Synthetic and Mechanistic Organic Chemistry, (Chemistry 413-001) Spring 2013 Instructor: Dr. Ramesh R. Pant Email: <u>rpant2@gmu.edu</u>

Office: S & T I Room-329

Meeting Time: Meeting Place: Office Hrs:

By appointment

Required Text: Organic Chemistry: An Intermediate Text, 2nd Edition by Robert V. Hoffman (ISBN: 978-0-471-45024-5)

| Date Chapt | er in text | Subjects |
|------------|-------------------------|--|
| Week 1 | 1 | Introduction, Functional groups and chemical bonding. |
| Week 2 | 2, 3 | Oxidation States of Organic Compounds Acidity and Basicity |
| Week 3 | 4, Handout | Curved arrow notation and reaction mechanism |
| Week 4 | 7 | Functional group synthesis |
| Week 5 | Handout | Aromatic compounds and their reactivity |
| Week 6 | 1 st Midterm | |
| Week 7 | 6 | Stereochemistry of organic compounds |
| Week 8 | No classes (S | pring Break) |
| Week 9 | 8, Handout | Synthetic strategy involving carbon nucleophile and carbon electrophiles |
| Week 10 | 9 | Free radical reactions |
| Week 11 | 2 nd Midterm | |
| Week 12 | 10 | Planning Organic synthesis |