Organic Chemistry Laboratory II (Spring 2013)

Class code  CHEM-UA 9246

Instructor Details  Dr. Seema Sandhu
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0434430808

Class Details  Spring 2013

Wednesday  1.00 pm -4.30 pm

Lab 3.10 Level 3 UTS Science (Building 4) Harris Street Ultimo

Prerequisites  none

Class Description  Weekly 4.5 hr. laboratory session. A pre-lab session of 20 minutes will take place at the beginning of each practical class.

Desired Outcomes  To acquire the practical skills of Organic Chemistry and to become familiar with organic laboratory procedures and techniques.

Assessment Components  Weekly laboratory reports 75% + final examination 25 % (Report for each experiment should have to be submitted a week after the experiment is performed)

Failure to submit any required course component will result in failure of the candidate.

Assessment Expectations  

Grade A: Careful accurate laboratory work and diligent laboratory reports showing a thorough knowledge and understanding of the topics, with excellent use of scientific language, detailed analysis and clear logical explanations.

Grade B: Reasonably skilful laboratory work and competent reports demonstrating good general knowledge and understanding of the topics, accurate use of scientific language, good general analysis and coherent explanations.

Grade C: Satisfactory work, broadly correct both factually and analytically, with some explanation and
reasoning: the work and reports will typically demonstrate a basic understanding of the topic.

**Grade D:** Passable work, showing a general, superficial knowledge and understanding of the topic, lacking satisfactory use of scientific language or adequate analysis

**Grade F:** Unsatisfactory work in all criteria, missing or incomplete reports.

NYU Sydney uses the following scale of numerical equivalents to letter grades:

- A=94-100
- A-=90-93
- B+=87-89
- B=84-86
- B-=80-83
- C+=77-79
- C=74-76
- C-=70-73
- D+=67-69
- D=65-66
- F=below 65

Where no specific numerical equivalent is assigned to a letter grade by the class teacher, the mid point of the range will be used in calculating the final class grade (except in the A range, where 95.5 will be used).

NYU Sydney aims to have grading standards and results similar to those that prevail at Washington Square. At the College of Arts and Sciences, roughly 39% of all final grades are in the B+ to B- range, and 50% in the A/A- range.

We have therefore adopted the following grading guideline: in any non-Stern course, class teachers should try to insure that no more than 50% of the class receives an A or A-. (Stern has a different grading policy that we follow in all Stern courses).

A guideline is not a curve. A guideline is just that: it gives an ideal benchmark for the distribution of grades towards which we work.
Attendance Policy

NYU Sydney has a strict policy about course attendance for students. Faculty will not give students permission to be absent for any reason. Students should contact their instructors to catch up on missed work but should not approach them for excused absences.

All absence requests must be presented by the student to the Assistant Director, Academic Programs. Wherever possible, requests should be made in advance of an intended absence. In the case of illness, the student should contact the Assistant Director, Academic Programs within three days of the absence or as soon as practicable and provide medical documentation. Faculty will be informed of excused absences by the Assistant Director, Academic Programs.

The faculty will report all unexcused absences to the Assistant Director, Academic Programs, and students’ final grades will be negatively impacted by each such absence. Each unexcused absence will result in the deduction of 3 percentage points from the final grade.

Be aware that absences from class may also impact on the participation grade awarded by your instructor.

Students are expected to arrive to class promptly both at the start of class and after breaks. This attendance policy also applies for classes involving a field trip or other off-campus visit. It is the student’s responsibility to arrive at the agreed meeting point on time.

Late Submission of Work

Written work due in class must be submitted to your instructor during classtime.

Late work should be submitted in person to the Assistant Director, Academic Programs during regular office hours (9:00am-5:00pm, Monday-Friday). In the absence of the Assistant Director, Academic Programs, another member of the administrative staff can accept the work in person. Students must also submit an electronic copy of late written work to Turn-It-In within 24 hours.

Work submitted after the submission time without an agreed extension receives a penalty of 2 points on the 100-point scale (for the assignment) for each day the work is late.

Written work submitted beyond five (5) weekdays after the submission date without an agreed extension fails and is given a zero.

Plagiarism Policy

The academic standards of New York University apply to all coursework at NYU Sydney. NYU Sydney policies are in accordance with New York University’s plagiarism policy. The presentation of another person’s words, ideas, judgment, images or data as though they were your own, whether intentionally or unintentionally, constitutes an act of plagiarism.

It is a serious academic offense to use the work of others (written, printed or in any other form) without acknowledgement. Cases of plagiarism are not dealt with by your instructor. They are referred to the Director, who will determine the appropriate penalty (up to and including failure in the course as a whole) taking into account the codes of conduct and academic standards for NYU’s various schools and colleges.

All written coursework must be submitted in hard copy AND in electronic form. All students must submit an electronic copy of each piece of written work to the plagiarism detection software Turn-it-in. Instructions will be provided to you in class.

Supplemental Texts(s) (not required to purchase)  none

Internet Research Guidelines  none

Additional Required Equipment  Laboratory coats and obligatory safety goggles.
Lab notebooks with detachable pages.

Some minor changes to this schedule may be expected from time to time. The pages mentioned in the brackets are for the 5th edition of the recommended book.

Week 1  13/02/2013
Check in and orientation-Safety in the lab

Week 2  20/02/2013
Preparation of Acetanilide ( p. 713)

Week 3  27/02/2013
Preparation of 4-bromoacetanilide ( p. 731-732)

Week 4  06/03/2013
Preparation of 4-bromo,2-chloroacetanilide ( p. 733)

Week 5  13/03/2013
Preparation of 4-bromo,2-chloroaniline ( p. 734-735)

Week 6  20/03/2013
Preparation of 4-bromo, 2-chloro, 6-Iodoaniline (p. 736)

Week 7  27/03/2013
Preparation of 4-bromo, 2-chloro, 5-Iodobenzene (p. 737-738)
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<tr>
<th>Week</th>
<th>Activity</th>
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<tr>
<td>Break</td>
<td>Spring Break</td>
<td>03/04/2013</td>
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<tr>
<td>Week 8</td>
<td>Nitration of bromobenzene (p515-516)+ NMR product analysis*</td>
<td>10/04/2013</td>
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<td>Week 9</td>
<td>Grignard reaction-preparation of triphenylmethanol(p652-653)</td>
<td>17/04/2013</td>
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<td>Week 10</td>
<td>Friedel-Crafts reaction of m-xylene with phthalic anhydride(505-507)</td>
<td>24/04/2013</td>
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<td>Week 11</td>
<td>Wittig reaction-preparation of E/Z stilbene mixture(p.606,607)+ NMR product analysis*</td>
<td>01/05/2013</td>
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<td>Week 12</td>
<td>Aldol condensation-preparation of trans p-anisalacetophenone(P.619-620)</td>
<td>08/05/2013</td>
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<td>Week 13</td>
<td>Chemical kinetics: Kinetic/thermodynamic control of a reaction(P.450-452)</td>
<td>15/05/2013</td>
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<td>Week 14</td>
<td>No lab-written assignment, NMR product analysis reports due*</td>
<td>22/05/2013</td>
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<td>Week 15</td>
<td>Final examination</td>
<td>29/05/2013</td>
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Eating or drinking is not allowed in the laboratory. Take care of your safety and safety of others working near you. Always do the risk assessment for the chemicals and the equipment to be used for the experiment before starting the experiment. Always wear the lab coat, safety goggles and closed shoes while working in the lab. Wear cotton clothes as far as possible. Mobile phones should be switched off or on silent mode during the lecture.

Required Co-curricular Activities

none

Suggested Co-curricular Activities

none

Your Instructor

Dr. Seema Sandhu received her PhD in Chemistry in 1992 on “Physico-chemical studies of 1:1 electrolytes in Dimethylformamide+Methanol mixtures at different temperatures”. She has been lecturing since 1994. She has taught at several Australian universities including University of New South Wales and University of Western Sydney. She has also worked as an environmental pollution analyst. Seema currently teaches at the University of Technology, Sydney and at NYU Sydney. She has a number of publications to her credit. Presently she is working on "Design and synthesis of light-harvesting ruthenium-based dyes" and "Synthesis and characterization of a new photo switchable anthracene compound, (5-(2-anthrylmethyl)ethanethioate)" at University of Technology, Sydney. Seema is an avid traveller and is multilingual.