



UNSW

Course Outline

Semester 1 2015

**MANF9543**

**COMPUTER AIDED DESIGN &  
MANUFACTURE**

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## **COURSE OUTLINE**

### **MANF9543 COMPUTER AIDED DESIGN & MANUFACTURE**

#### **1. STAFF CONTACT DETAILS**

Dr Suphunnika Ibbotson  
Room 107, level G,  
the basement of the Library Building (F21),  
access from Commerce courtyard  
Tel (02)

**Week 2-5 CAD tutorial:** Wednesday 18:00-20:00pm (*No tutorial in week 6*).

**Week 7-13 Lecture:** Wednesday 12:30-14:00pm.

**CAM tutorial and group discussion:** 14:00-16:00pm (*No tutorial in week 13*)

Note: Room G16 is also booked during 18:00-20:00pm for additional lecture, tutorial or self-study if required.

**Credit Points:**

This is a 6 unit-of-credit (UoC) course, and involves 2 hours per week (h/w) of lecture and 2 h/w of tutorial.

## Aims of the Course

1. This course will enable students to explore and gain further understanding of how the computers can be used in Manufacturing Industry.
2. ***This course will also provide students with opportunity to explore the innovation in design the product using*** both SolidWorks and SolidCAM software.

## Student learning outcomes

At the conclusion of this course the student will be able to:

1. Apply the design concepts for any design task in CAD/CAM environment.
2. Apply the best use of Computer Aided Manufacture techniques in a modern factory.
3. Create a concept of CAD/CAM application for the Rapid Prototyping Technology
4. By the conclusion of this course the student will be able to develop knowledge and skills in designing using both SolidWorks and SolidCAM software.

## Graduate Attributes

<https://my.unsw.edu.au/student/atoz/GraduateAttributes.html>

UNSW aspires to develop graduates who are rigorous scholars, capable of leadership and professional practice in a global community. The university has, thus, articulated the following Graduate Attributes as desired learning outcomes for ALL UNSW students.

UNSW graduates will be

1. Scholars who are:
  - (a) understanding of their discipline in its interdisciplinary context
  - (b) capable of independent and collaborative enquiry
  - (c) rigorous in their analysis, critique, and reflection

(c) collaborative team workers

Dialogue is encouraged between you, others in the class and the lecturer. Diversity of experiences is acknowledged, as some students in each class have prior marine experience. Your experiences are drawn on to illustrate various aspects, and this helps to increase motivation and engagement.

It is expected that assignments will be marked and handed back in the week following submission. You will have feedback and discussion while fresh in your mind to improve the learning experience.

#### **4. TEACHING STRATEGIES**

| <b>Assessment task</b> | <b>Weight</b> | <b>Due date and submission</b>   |
|------------------------|---------------|--|
| Assignment 1           | 25%           | <p>Wednesday week 5 (1 April 2015):</p> <p>By 1pm submit THREE files:</p> <p>1) one 3D model;</p> <p>2) one drawing file using SolidWorks and</p> <p>3) a PDF file of the technical drawing file into Moodle submission</p> <p>At 2pm submit an A4 paper of the PDF technical drawing to the lecturer in the lecture room.</p> |
| Test 1                 | 25%           | <p>Wednesday week 6 (15 April 2015):</p> <p>A 1.5-2 hour test during 2-4pm</p>   |
| Assignment 2           | 35%           | <p>Wednesday week 12 (27 May 2015):</p> <p>By 12pm (noon) on files for a report, CAD and CAM files are required to be submitted via Moodle.</p> <p>At 12:30pm submit a printed report to the lecturer in the lecture room.</p> <p>During 1:30-4:00pm a group</p>   |



approval for an extension from the course convenor **before the due date**. Special consideration for assessment tasks of 20% or greater must be processed through <https://student.unsw.edu.au/special-consideration>.

It is always worth submitting late assessment tasks when possible. Completion of the work, even late, may be taken into account in cases of special consideration.

### Assessment Criteria

In the hand-out of the assignment, the assessment criteria and marks assigned to each task, will be clearly specified.

### **Examinations**

No final examination.

### **Special Consideration and Supplementary Assessment**

For details of applying for special consideration and conditions for the award of supplementary assessment, see [Administrative Matters](#), available on the School website [Special Consideration page](#).

## **6. ACADEMIC HONESTY AND PLAGIARISM**

Plagiarism is using the words or ideas of others and presenting them as your own. Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a booklet which provides essential information for avoiding plagiarism: <https://my.unsw.edu.au/student/academiclife/Plagiarism.pdf>

There is a range of resources to support students to avoid plagiarism. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one. Information is available on the dedicated website Plagiarism and Academic Integrity website: <http://www.lc.unsw.edu.au/plagiarism/index.html>

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.



15/4

6

2:00-2:00 pm: **Self study**

**2:00-4:00pm: Lecture: Design for Manufacturing and manufacturing processes**

**6:00-8:00pm:**

## **9. COURSE EVALUATION AND DEVELOPMENT**

Feedback on the course is gathered periodically using various means, including the