



Course Outline

MATS2008

Thermodynamics and Phase Equilibria

Materials Science and Engineering

Science

T2, 2022

1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Dr Rakesh Joshi	r.joshi@unsw.edu.au	Room 448 School of Materials Science and Engineering (Building E10) by appointment	Phone: 9385 6726
Lecturer	Dr Ron S Haines	r.haines@unsw.edu.au	Room 128, School of Chemistry (Dalton Building F12) by appointment	Phone: 9385 4718
Lab Coordinator	Dr Ron S Haines			

CLO 3

Understand...

1.1

1, 3 & 4

- Students are expected to think critically in decision making and problem-solving
- Students must communicate with correct terminology in writing
- Students should conduct library and online research
- Students should work effectively to solve problems

4. Course schedule and structure

This course consists of 57 hours of class contact hours. You are expected to take an additional 93 hours of non-class contact hours to complete assessments, readings and exam preparation spread over the term.

Week	Topic	Activity
1	Language of thermodynamics Entropy changes and irreversible processes	
2	Entropy changes and irreversible processes Redox processes	
3	Equilibrium between two phases of a pure substance Chemical equilibrium	Quiz

5. Assessment

5.1 Assessment tasks

Assessment task	Details	Weight	Due date
-----------------	---------	--------	----------

Laboratories:

UNSW operates under a Fit to Sit/ Submit rule for all assessments. If a student wishes to submit an application for special consideration for an exam or assessment, the application must be submitted prior to the start of the exam or before an assessment is submitted. If a student sits the exam/ submits an assignment, they are declaring themselves well enough to do so. Information on this process can be found here: <https://student.unsw.edu.au/special-consideration>. Medical certificates or other appropriate documents must be included. Students should also advise the lecturer of the situation.

Unless otherwise specified in the task criteria, all assignments must be uploaded via Moodle prior to the due date for submission.

Students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course coordinator prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit: <https://student.unsw.edu.au/disability>. Early notification is essential to enable any necessary adjustments to be made.

5.4. Feedback on assessment

Assignments: Feedback will be given two weeks after submission of the assignment and take the form of the mark for the assignment, overall comments on how the class performed, any common areas that were not answered correctly. Additionally, personal feedback and how each student performed may be given.

Lab reports: Students will receive their mark and individualised feedback on the areas they excelled at and which areas of the reports that were not answered correctly. Feedback will be provided through Moodle, two weeks after submission.

Quizzes: Students will receive their marked exams indicating what questions were answered correctly and incorrectly. Overall comments and worked solutions may be provided to the class.

Final exam: Students will receive their final mark.

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at <https://student.unsw.edu.au/referencing>

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.¹ At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

The *Current Students* site <https://student.unsw.edu.au/plagiarism>, and

The *ELISE* training site <https://subjectguides.library.unsw.edu.au/elise>

¹ International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

The