



# Course Outline

MATS4001

Secondary Processing of Metals

Materials Science and Engineering

Science

T2, 2022

## 1. Staff

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Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Dr. Caitlin Healy	<a href="mailto:caitlin.healy@unsw.edu.au">caitlin.healy@unsw.edu.au</a>	Room 401, School of Materials Science and Engineering (Building E10), by appointment	Phone: 9385 4509
Lecturer	Prof. Jianqiang Zhang	<a href="mailto:j.q.zhang@unsw.edu.au">j.q.zhang@unsw.edu.au</a>	Room 348, School of Materials Science and Engineering (Building E10), by appointment	Phone: 9385 5025

## 2. Course information

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Units of credit: 6

Pre-requisite(s): None

Timetabling website: TBA

Teaching times and locations:

	Lecture	Lecture	Lecture
Day	Monday	Wednesday	Friday
Location	Online	Online	Online



## **3.2 Expectations of students**

- Students must attend at least 80% of all classes with the expectation that students only miss classes due to illness or unforeseen circumstances
- Students must read through lecture notes and lab sheets prior to class
- During class, students are expected to engage actively in class discussions
- Students should work through lecture, tutorial and textbook questions
- Students should read through the relevant chapters of the prescribed textbook.
- Students should complete all assessment tasks and submit them on time.
- Students are expected to participate in online discussions through the Moodle page

## 4. Course schedule and structure

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This course consists of 60 hours of class contact hours. You are expected to take an additional 90 hours of non-class contact hours to complete assessments, readings and exam preparation.

<b>Week</b>	<b>Topics</b>	<b>Activity</b>
<b>1-2</b>	Recrystallization phenomena	
<b>3-4</b>	Fundamentals of metal working (including hot working, Zener-Hollomon parameter, dynamic recovery and recrystallization and cold working including slip line field theory, slab and upper bound analyses,	

## 5. Assessment

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### 5.1 Assessment tasks

Assessment task	Description	Weight	Due date
<b>Assignment 1:</b>	The assignment covers the topics taught in Weeks 1-4, namely recrystallisation and fundamental metal working theories, such as Zener-Hollamon parameter, dynamic restoration processes, slip line field theory etc)	10%	Week 4
<b>Mid-session quiz:</b>	The mid-term exam includes questions pertaining to the material learnt in Weeks 1-4	40%	Week 5 (3-

- 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.
- Rules governing conduct during exams are given at: <https://student.unsw.edu.au/exam-rules>

## 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.

Midsession exams: 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

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**Referencing** is a way of acknowledging the sources of information that you use to research your assignments or projects.

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