



The
University
Of
Sheffield.

**MSc & MSc (Res)
Student Handbook
2022 Entry**

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Key Events

Intro Week	19 th September 2022 – 23 rd September 2022
Autumn Semester	26 th September 2022 – 17 th December 2022 <i>4 Weeks Christmas Vacation</i> 16 th January 2023 – 4 th February 2023
Spring Semester	6 th February 2023 – 1 st April 2023 <i>3 Weeks Easter Vacation</i> 24 th April 2023 – 10 th June 2023

	Date	Time	Venue/Info
Mechanical Engineering Induction Day	Thursday 22 nd September 2022	09:30-15:00 (Lunch included)	38 Mappin Street, Workroom 2
Selection and approval of Modules	Online Module Selection System opens 2 nd September 2022	All Day	Online via pre-registration tasks
University Student Registration	Once module selection is complete and approved and all other pre-registration tasks are completed	All Day	Online via pre-registration tasks
Online Add/Drop requests (for changing module choices)	19 th September 2022 – 7 th October 2022 (Semester 1) 6 th February 2023 – 17 th February 2023 (Semester 2)	Deadline is the last day at 5pm	Accessed via MUSE
Individual Project information session	Monday 3 rd October 2022	12:00 – 13:00	Richard Roberts Building Auditorium (B74)
Autumn Exams	16 th January 2023 – 4 th Feb 2023	Please check Exams Timetable	Please check Exams Timetable
Spring Exams	22 nd May 2023 – 10 th June 2023	Please check Exams Timetable	Please check Exams Timetable
Summer Period	Work on Individual Projects. Resit Exams will be held 7 th August 2023 – 25 th August 2023	N/A	N/A
Individual Research Report	Interim Report submitted via Blackboard in Spring Semester. Thesis to be submitted via Blackboard in August. End of project presentations to take place in September	N/A	Please check your emails/Blackboard for information.

Contact Information



Jemma Gladding
MSc Student Support Officer
j.gladding@Sheffield.ac.uk



Dr Julia Carrell
MSc Year Tutor
j.carrell@sheffield.ac.uk



Dr Candice Majewski
MSc Projects Coordinator
c.majewski@sheffield.ac.uk



Dr Jennifer Rowson
MSc Programme Director
j.rowson@sheffield.ac.uk



Dr Art Gower
MSc Transitions Tutor
a.l.gower@sheffield.ac.uk

Welcome

Welcome to the Department of Mechanical Engineering at the University of Sheffield! Our objective is to provide you with an informative and challenging, but ultimately enjoyable, year.

Your MSc will be testing as you will be studying Mechanical Engineering at the highest level, but our team is here to support you.

Aims of your course

The MSc and MSc (Res) courses aim to provide:

- Experience of a substantial research investigation
- Advanced scientific and technical knowledge
- Analytical, experimental, computational, and business management skills
- General transferable life skills
- A broad understanding of the social and commercial context within which research and engineering is taken

Attendance

Your attendance at lectures, laboratories, examinations, and meetings is monitored and recorded in the formal University Student Attendance Monitoring System. Anyone who is going to be away from the University should have told their Personal Tutor in writing and explain their reasons for non-attendance.

University Regulations require students to attend throughout each semester, including the full examination period and summer period for carrying out the research project work. This means turning up on time to all teaching sessions, tutorials, laboratory sessions, all assessments and project supervision meetings.

Blackboard

Blackboard is The University of Sheffield's online resource for teaching material. There is a Blackboard site for all taught modules, which typically contains lecture notes, tutorial questions, past exam papers and additional material. There is also a generic Mechanical Engineering site. You are automatically added onto Blackboard when you register for a module, but it may take up to 1 week for your Blackboard courses to appear. If you need help, contact the Module Leader in the first instance.

Course Structure & Module Selection

Each MSc programme is organised through modules. The full list of modules for each course can be found at the back of the handbook.

Module Selection

You have the opportunity to change the optional modules you originally chose during the Add/Drop period. This is an administrative procedure, and you can access the online system via MUSE. Log in as normal, go to the 'My Services' tab, then 'View All Services'. Scroll to 'M - Module Add/Drop'. Follow the simple instructions on screen. Once it is authorised it is sent to central Registry Services, who will update your record accordingly.

You can **ONLY** drop and add credits that are of the same value, i.e. drop 15 credits and add 15 credits. Your record **MUST** add up to 180 credits - therefore if you try to drop 15 and add 30 for example, this will not be accepted.

The deadline for changing modules for Semester 1 (Autumn) is 5pm, Friday 7th October 2022

The deadline for changing modules for Semester 2 (Spring) is 5pm, Friday 17th February 2023

It is your responsibility to make sure your record is correct and up to date. This is especially important for things like modules and home addresses. Please remember to check your record regularly, particularly after the Add/Drop session.

Contact Jemma (j.gladding@sheffield.ac.uk) in the first instance if you need an amendment to your record.

Coursework Expectations

All assignment work submitted for assessment must be entirely your work (with the exception of group projects if a group report is specifically requested). It is not permissible under any circumstances to copy the work of another student, or any other author, either in whole or part. This is known as Plagiarism. The Department will refer any case of suspected plagiarism under the University Disciplinary Procedures.

English Language Teaching Centre (ELTC)

MEC465 Technical communication for Mechanical Engineers

This module teaches professional technical writing and speaking skills to enable students to communicate Engineering concepts accurately and appropriately. The module aims to raise awareness of the variety of writing genres in Mechanical Engineering and as a result, increase the academic literacy of the students. Sessions are delivered using a blended delivery model, with materials and tasks given in workbook format for students to prepare in advance for seminar and problem-solving classes style with a focus on pair/ work and group work activities. Written assessment is based on assignments submitted within relevant MEC modules and are synoptically marked for this module

ELTC Department Language Programme (DLP) - Bespoke Academic Assignment Support for PGT students

The ELTC provides weekly sessions that are included on your timetable to improve your academic skills and language. DLP sessions are bespoke to your department and some of your modules, so continued learning for both language and skills improves academic success. If English is not your first language, these sessions are compulsory; however, they are open to all students. The content of teaching varies from year to year, based on the needs of the students, so you can influence the course. Please refer to the DLP self-study resources and other available ELTC support services which can be found on the ELTC website.

Medical and Personal Problems

If you experience any personal problems, you should speak to your Personal Tutor in the first instance ideally, but if you feel unable to do so the Department has a Wellbeing Officer, Mick Berry. Appointments with Mick can be made by visiting the Student Services Information Desk (SSiD) webpage via our website. You can then follow the links for 'Student Wellbeing' and then 'Book an Appointment with a Wellbeing Advisor'. If you do have any medical problems, you can also make use of the University Health Service. To take account of medical and personal circumstances, the Department needs evidence of their occurrence. In the case of medical conditions, a note from the student's Doctor is required as soon as possible.

Help is also available for students struggling to settle into their new student life. The

Department appreciates the difficulties students may experience with the new culture and learning structure to which they are adapting. Student Services Information Desk (SSiD) have a Health and Wellbeing page designed to support students with any problems they may face during their time at the University.

Methods of Teaching

For information regarding methods of teaching, you should keep up to date with any advice and guidance sent from the University and from the Department.

Types of teaching will differ between modules and can range from lectures, to group work, to lab work. Teaching will be timetabled and it is your responsibility to understand where and when you need to be, and to arrive in good time. Your timetable can be viewed by clicking on My Timetable from the All Services menu in MUSE.

If you cannot attend your teaching session, for whatever reason, it is important that you report your absence as instructed.

Project Selection

As part of your MSc programme you will choose an individual research project, supervised by a member of academic staff. This is your chance to demonstrate your Engineering knowledge in an area you are particularly interested in, and forms a large part of your overall MSc programme. You will hear more about this in the information session (Week 2) when our MSc Projects Co-ordinator, Dr Majewski, will explain the project process, what you can expect from us during your project, and what we expect from you. During this session you will also find out the specific details of the process by which you will select your project.

As soon as you have been allocated a specific project, you should contact your supervisor to arrange your first meeting and get your project underway! It is your responsibility to organise these supervisory meetings.

Safety Guidance

We all have a role to play in keeping our community safe. With this in mind please familiarise yourselves with the safety guidance on the UK Government website and our own University of Sheffield webpages. These sites will continue to be updated in accordance with the latest government guidelines.

Short-term Absence, Self-Certification and Extenuating Circumstances

Where you are absent from the University for a relatively short period of time or if you believe that your circumstances have affected your examinations or assessment, you should complete the Extenuating Circumstances Form. Please ask either Jemma or your Personal Tutor to provide you with this form. It can also be found on our website.

If a student wishes to request an extension to any continually assessed work then they must firstly request this to the Department's Learning & Teaching (L&T) Manager, Mr Jason Hawley (jason.hawley@sheffield.ac.uk). The L&T Manager holds all Extenuating Circumstances and Self –Certified Absence Records for the Mechanical Engineering Department. The student MUST supply the L&T Manager with an Extenuating Circumstances form with evidence upon request.

If the form and evidence are both satisfactory then it is usual practice to award an extension approximately the same length of time as the illness or absence. However, the length can be discussed between the student and the L&T Manager. Once a decision has been agreed then the L&T Manager will inform the appropriate Module Leader and the Student Support Officer, so no penalty is imposed for handing in late.

Student Support

Jemma is your MSc Student Support Officer. Any problems or issues should be raised with Jemma in the first instance, if it is a **non-academic matter** (i.e. not advice about module content etc.) This could cover things such as changing modules (see 'Course Structure & Module Selection')

Where possible, you should use email to contact Jemma on j.gladding@sheffield.ac.uk

Tutoring

You will have a number of Personal Tutorials throughout each semester where you are given pastoral support and the chance to discuss your progress. Personal Tutorials will happen over both Semesters. These tutorials will be in your timetable and so please look out for these as they are subject to change. The usual weeks these take place are;
Autumn Semester – Weeks 2, 5, 8 and 11.
Spring Semester - Weeks 3, 6 and 10.

Attendance at tutorials is compulsory and will be monitored.

Year Support Tutoring

Your Year Tutor is Dr Julia Carrell, she is here to support your learning experience. You can contact her if you have any questions (j.carrell@sheffield.ac.uk), if you don't feel you can ask your personal tutor or if your personal tutor is not able to help you. Julia will also be running Year Tutor drop in sessions and information lectures that will be scheduled in your timetable.

Other Useful Resources

University Jargon

As there may be lots of words and terms you aren't familiar with, we have created a webpage to give definitions to common terms used at this University. The site can be found here: <https://sites.google.com/sheffield.ac.uk/jargon-dictionary/>

Academic Skills Support

Academic Skills Workshops cover many topics, including Critical Thinking, Academic Writing and Reading for Memory. The Workshops can be accessed via the SSiD website, and then '301', 'Services' and then 'Workshops'. You can also email the team on: 301@sheffield.ac.uk

Careers Service

The Careers Service provides information, guidance and support service for all our students, researchers and those who graduated within the last three years from the University of Sheffield. Whether you know what you want to do next, or are still unsure, the various sections of the careers website will help you decide, apply and succeed.

The Library

The University Library provides access to study spaces, a huge range of books and online information (including online journals and eBooks) as well as advice to help you find and use information effectively.

Student Voice

The University places great value on the opinions of its students and there are various opportunities for you to get involved, both to have your say and also to represent the views of other students. Being a Student ('Academic') Representative is rewarding work and can help you develop useful skills, like communication skills. It can also give you a greater understanding of how the University works as well as enabling you to play a role in decision making in your Department and Faculty.

Staff/Student Committee (SSC)

SSC is a bridge of communication between students and staff, in matters such as teaching, examinations, departmental policies and student issues. All students can register to be Student ('Academic') Representatives, and receive training from the Student's Union. To find out more, please visit: <https://www.sheffield.ac.uk/staff/elevate/guidance/student-journey/engagement-3>

MECT40 MSc Mechanical Engineering and Industrial Management

Compulsory Modules

		Credits
MEC442	Managing Innovation and Change in Engineering Contexts	15
MEC461	Engineering Commercial Success: And making the world a better place!	15
MEC465*	Technical Communication for Mechanical Engineers	5
MEC602	Strategic Engineering Management and Business Practices	15
MEC604	Experiments and valid computer Models	15
MEC606	MSc Individual Research Project	60
MEC6400	Professional Development Portfolio	15
MEC6401*	Masters Research Mini Project	10

*A student who has met all the learning outcomes for MEC6401 and MEC465 in previous study may, with the permission of the Head of Department, replace them with 15 credits of approved modules in the Autumn semester.

Students are to take 30 credits from the following – a Maximum of 15 credits may be taken in Autumn

Autumn Semester modules

BIE6433	Computational Biomechanics of the Musculoskeletal System	15
MEC445	Industrial Applications of Finite Element Analysis	15
MEC446	Fundamentals and Applications of Tribology	15
MEC448	Railway Engineering and Sustainable Transport (Academic Year)	15
MEC449	Advanced Engineering Fluid Dynamics	15
MEC452	Advanced Dynamics	15
MEC455	Mechanics and Applications of Advanced Manufacturing Technologies	15

Spring Semester modules

BIE6434	Cardiovascular Biomechanics	15
IPE61007	Applied Modelling Skills and Virtual Reality	15
MAT6104	Design and Manufacture of Composites	15
MAT6516	Materials for Energy Applications	15
MEC447	Automotive Powertrain	15
MEC450	Advanced Energy and Power	15
MEC456	Human Factors and User-Centred Design	15
MEC462	Aviation Safety and Aeroelasticity	15

MECT50 MSc (Res) Advanced Manufacturing Technologies

Compulsory Modules

		Credits
MEC454	Advanced Manufacturing – Principles and Applications	15
MEC455	Mechanics and Applications of Advanced Manufacturing Technologies	15
MEC465*	Technical Communication for Mechanical Engineers	5
MEC602	Strategic Engineering Management and Business Practices	15
MEC605	MSc (Res) Individual Research Project	75
MEC6400	Professional Development Portfolio	15
MEC6401*	Masters Research Mini Project	10

*A student who has met all the learning outcomes for MEC6401 and MEC465 in previous study may, with the permission of the Head of Department, replace them with 15 credits of approved modules in the Autumn semester.

Students are to take 30 credits from the following – a Maximum of 15 credits may be taken in Autumn

Autumn Semester modules

BIE6433	Computational Biomechanics of the Musculoskeletal System	15
MEC445	Industrial Applications of Finite Element Analysis	15
MEC446	Fundamentals and Applications of Tribology	15
MEC449	Advanced Engineering Fluid Dynamics	15
MEC452	Advanced Dynamics	15
MEC463	Advanced Aerospace Propulsion Technology	15

Spring Semester modules

BIE6436	Human Movement Biomechanics	15
IPE61007	Applied Modelling Skills and Virtual Reality	15
MAT6104	Design and Manufacture of Composites	15
MAT630	Engineering Alloys	15
MAT6516	Material for Energy Applications	15
MEC447	Automotive Powertrain	15
MEC450	Advanced Energy and Power	15
MEC456	Human Factors and User-Centred Design	15

MECT53 MSc Advanced Mechanical Engineering

Compulsory Modules

		Credits
MEC465*	Technical Communication for Mechanical Engineers	5
MEC602	Strategic Engineering Management and Business Practices	15
MEC604	Experiments and valid computer Models	15
MEC606	MSc Individual Research Project	60
MEC6400	Professional Development Portfolio	15
MEC6401*	Masters Research Mini Project	10

*A student who has met all the learning outcomes for MEC6401 and MEC465 in previous study may, with the permission of the Head of Department, replace them with 15 credits of approved modules in the Autumn semester.

Students are to take 60 credits from the following – a Maximum of 30 credits may be taken in Autumn

Autumn Semester modules

BIE6433	Computational Biomechanics of the Musculoskeletal System	15
MEC445	Industrial Applications of Finite Element Analysis	15
MEC446	Fundamentals and Applications of Tribology	15
MEC448	Railway Engineering and Sustainable Transport (Academic Year)	15
MEC449	Advanced Engineering Fluid Dynamics	15
MEC452	Advanced Dynamics	15
MEC454	Additive Manufacturing – Principles and Applications	15
MEC455	Mechanics and Applications of Advanced Manufacturing Technologies	15
MEC461	Engineering Commercial Success: And making the world a better place!	15

Spring Semester modules

BIE6434	Cardiovascular Biomechanics	15
IPE61007	Applied Modelling Skills and Virtual Reality	15
MAT6104	Design and Manufacture of Composites	15
MAT6516	Materials for Energy Applications	15
MEC447	Automotive Powertrain	15
MEC450	Advanced Energy and Power	15
MEC456	Human Factors and User-Centred Design	15
MEC462	Aviation Safety and Aeroelasticity	15