HECoS code(s)	100190
UCAS Course Code	N/A

Course Aims	The MSc Mechanical Engineering is about educating and training senior mechanical system developers and offering them advanced technical training for R&D of low carbon or non-carbon energy, transport and other mechanical systems. The course focuses on conventional and emerging sustainable mechanical technologies. Throughout the course, students will have the opportunity to use state-of-the-art design and advanced development and simulation tools, to mechanical system development, design, calibration and optimisation. By closely collaborating with local industry, students will produce, or contribute to providing real world solutions to mechanical system R&D. The educational aims of the course are as follows: 1. Development of advanced analytical and technical skills in core areas of mechanical engineering, which include advanced modelling and simulation, data analysis and processing, design methodology and design optimisation, calibration. 2. Development of professional skills in management of projects related to mechanical engineering. 3. Achievement of critical understanding of advanced automotive engineering technologies, development platforms and related open source frameworks. 4skill299.0agementd auering99 Tfo mechaF6 10.999 Tresearal Tj T* ET BT /Tj icT / 0 rlegl ensp BT /that sysneering.

Course Learning Outcomes	Upon successful completion of your course you should meet the appropriate learning outcomes for your award shown in the table below		
		Outcome	**Award**
	1	Demonstrate deep and systematic understanding of key principles, methodologies and tools used for Mechanical Engineering.	MSc Mechanical Engineering
	2	Undertake substantial investigations to address significant areas of theory and/or practice in the area of Mechanical Engineering, selecting appropriate methodological processes and critically evaluating their effectiveness.	MSc Mechanical Engineering
	3	Propose and justify applications of appropriate forms of advanced problem solving along with creativity and innovation and apply advanced methodologies and tools in the Mechanical Engineering.	MSc Mechanical Engineering
	4	Incorporate an ethical dimension to students practice, systematically understand employability, legal frameworks, economics and risks, and apply standards and practices of professional bodies.	MSc Mechanical Engineering
	5	Consistently apply, develop and evaluate tools, techniques and methods with current research and/or professional practice at the forefront of specialist areas of Mechanical Engineering.	MSc Mechanical Engineering
	6	Demonstrate comprehensive understanding and critical awareness of current and emerging methodologies, tools, standards, and research in the subject area.	MSc Mechanical Engineering
	7	Identify, evaluate and maintain capabilities to support effective communication of complex ideas and developments in a comprehensive, effective, systematic and professional way by using a variety of communication media (e.g. formal written reports, essays and presentations with supporting oral communication).	MSc Mechanical Engineering

Teaching, learning and assessment strategies	A wide variety of teaching styles will be used throughout this course. The most important aspect will be that of a student-centred approach, and the University will encourage students through relevant guidance to become an independent thinker who can take responsibility for their own learning, and who can adapt to a wide variety of different situations within the context of Mechanical Engineering. The course will make use of traditional lectures and practical sessions as well as encouraging students to engage in various scenarios such as managing students own projects and achieving professional output through teamwork. Unit content such as lecture slides or practical sheets are made available electronically through the University s virtual learning environment. To aid curriculum and assessment design, the University uses the FHEQ credit level descriptors as points of reference for determining progression in terms of level of demand and complexity and the degree of learner autonomy involved in specific learning opportunities. Assessment The assessment strategy used is a balance of coursework, group and individual reports, portfolios, presentations and exams. Presentations are usually given and assessed in the context of some coursework. The method used for the assessments will depend on the nature of the subject being taught in the unit, and the most appropriate method has been chosen. Feedback and advice will be provided at key points throughout students course, so that students can gain an insight into whether students work is meeting the necessary targets.
Learning support	The University s comprehensive student support service includes: Student Information Desk, a one-stop shop for any initial enquiries; Student Support team advising and supporting those with physical or learning needs or more general student well being; Study Hub team providing academic skills guidance; Personal Academic Tutoring system; a student managed Peer-Assisted Learning scheme; support from your lecturers. https://www.beds.ac.uk/entryrequirements

Assessment Regulations	**Note: Be aware that our regulations change every year** **Approved Variations and Additions to Standard Assessment Regulations** N/A

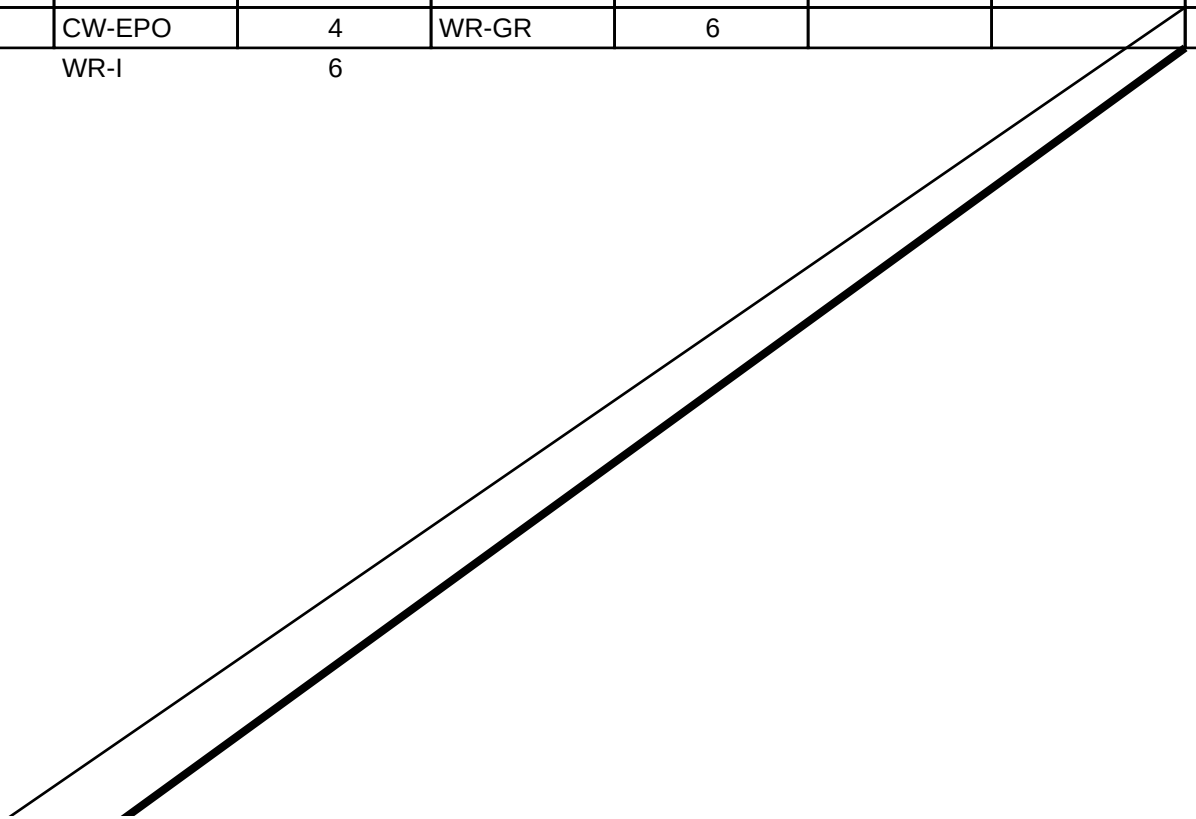
Section B: Course Structure

Section C: Assessment Plan

The course is assessed as follows :

MSMENAAF- MSc Mechanical Engineering

Unit Code	Level	Period	Core/Option	Ass 1 Type code	Ass 1 Submit wk	Ass 2 Type code	Ass 2 Submit wk	Ass 3 Type code	Ass 3 Submit wk	Ass 4 Type code	Ass 4 Submit wk
CIS133-6	7	15	Core	CW-ESS	3	PJ-PRO	14	WR-PO	15		
CIS120-6	7	6	Core	CW-PORT	6						
CIS134-6	7	6	Core	WR-LAB	5	PR-OR	6				
CIS135-6	7	6	Core	CW-EPO	4	WR-GR	6				
CIS136-6	7	6	Core	WR-I	6						



Head of School/Department	Paul Sant
Course Coordinator	Jun Peng