

DEFINITIVE COURSE RECORD

Course Title	BEng (Hons) Mechanical Engineering [progression route]
Awarding Bodies	University of Suffolk
Level of Award ¹	FHEQ Level 6
Professional, Statutory and Regulatory Bodies Recognition	None
Credit Structure ²	360 Credits Level 6: 120 Credits Advanced standing of 240 credits at level 4 and 5
Mode of Attendance	Full-time and part-time
Standard Length of Course ³	1 year full-time
Intended Award	BEng (Hons) Mechanical Engineering
Named Exit Awards	None
Entry Requirements ⁴	Typical Offer: FdEng Mechanical Engineering HND Mechanical Engineering (240 CAT credits, with 120 credits at Level 5)
Delivering Institution	University of Suffolk at West Suffolk College
UCAS Code	H300

This definitive record sets out the essential features and characteristics of the BEng (Hons) Mechanical Engineering [progression route] course. The information provided is accurate for students entering level 6 in the 2019-20 academic year.⁵

Course Summary

The overall aim of the BEng Mechanical Engineering [progression route] programme is to equip students with the fundamental knowledge commensurate for a technician engineer role within industry. The curriculum provides broad coverage of the key engineering mathematical, instrumentation, electrical and scientific concepts relevant to engineering, as well as core employability skills and knowledge pertaining to electrical machinery, plant protection, the application of electrical and digital electronic principles, electrical and electronic systems design, electrical power systems and microprocessor based systems. The course also provides fundamental professional development and research skills, whilst providing an opportunity for students to explore and develop project design and implementation. The programme encompasses a range of workshop experience for full-time students including wiring and testing electrical equipment and electronic circuits, producing computer aided design models, wiring and testing programmable controllers, proving programs for computer numerical controlled machinery and forming electrical cable enclosures to augment theoretical

¹ For an explanation of the levels of higher education study, see the [QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies \(2014\)](#)

² All academic credit awarded as a result of study at the University adheres to the [Higher education credit framework for England](#).

³ Where the course is delivered both full-time and part-time, the standard length of course is provided for the full-time mode of attendance only. The length of the part-time course is variable and dependent upon the intensity of study. Further information about mode of study and maximum registration periods can be found in the [Framework and Regulations for Undergraduate Awards](#).

⁴ Details of standard entry requirements can be found in the [Admissions Policy](#)

⁵ The University reserves the right to make changes to course content, structure, teaching and assessment as outlined in the [Admissions Policy](#).

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knowledge and assist in industry-linked project realisation. The focus is to produce work-ready technicians as well as prepare students for further study. This will be achieved through successful workplace/workshop application and a portfolio of evidence to support the ability to apply underlying technical principles within a practical environment.

Course Aims

The BEng (Hons) programme covers key advanced topics within the contemporary manufacturing or energy sectors, providing an element of management skills in preparation for graduate level careers. The course includes a dissertation/project module that provides an opportunity to specialise in an aspect of engineering that is of particular interest to the student. This BEng (Hons) route is designed to offer a progression opportunity to successful graduates of FdEng or HND Mechanical Engineering.

Course Learning Outcomes

The following statements define what students graduating from the BEng (Hons) Mechanical Engineering [progression route] course will have been judged to have demonstrated in order to achieve the award. These statements, known as learning outcomes, have been formally approved as aligned with the generic qualification descriptor for level 6 awards as set out by the UK Quality Assurance Agency (QAA).⁶

1. a systematic understanding of key aspects of mechanical engineering; specifically within the contexts of electro-mechanics, power transmission and the materials deployed within electrical system design
2. this will include the acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of current mechanical engineering and engineering management practice
3. an ability to deploy accurately established techniques of analysis and enquiry within mechanical engineering conceptual understanding that enables the student
4. to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of electrical engineering and engineering management
5. to describe and comment upon particular aspects of current research within the field of electro-mechanics and power transmission, or equivalent advanced scholarship in the broader contexts of electrical design engineering, electrical maintenance engineering and engineering management
6. an appreciation of the uncertainty, ambiguity and limits of knowledge
7. the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to electrical engineering and engineering management)

⁶ As set out in the [QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies \(2014\)](#)

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Course Design

The design of this course has been guided by the following UK Engineering Council Competency Frameworks:

- UK STANDARD FOR PROFESSIONAL ENGINEERING COMPETENCE, UK Engineering Council, Third Edition (2013).

Course Structure

The BEng (Hons) Mechanical Engineering [progression route] comprises modules at levels 6.

Module Specifications for each of these modules are included within the course handbook, available to students on-line at the beginning of each academic year.

	Module	Credits	Module Type ⁷
Level 6			
	Engineering Materials	20	R
	Lean Transition in Engineering Organisations	20	R
	Change Management and Cultural Analysis	20	R
	Final Dissertation	40	M
	Applied Engineering Thermodynamics	20	R
	Manufacturing Science *	20	O
	Advanced Heat and Mass Transfer *	20	O

* These optional modules are available for students to complete during an additional year of study in lieu of failure to successfully complete a requisite module.

Awards

On successful completion of the course, students will be awarded a BEng (Hons) Mechanical Engineering.

Course Delivery

The course is delivered at West Suffolk College. Students studying full-time on the BEng Mechanical Engineering are likely to have approximately 270 contact hours. The contact hours will be a mix of lectures, seminars and tutorials. Workshop experience within the campus facilities to generate practical skills that augment academic development and employability is optional. Students will normally be expected to undertake 24 hours of independent study in an average week (including contact and non-contact weeks), but should be prepared for this to vary based on assignment deadlines and class exercises.

Course Assessment

A variety of assessments will be used on the course to enable students to experience and adapt to different assessment styles. The assessment methods used will be appropriate to assess each module's intended learning outcomes. Assessment on the course overall will be through a blend of coursework (including reports, research diary, presentation and written dissertation) and up to 4 examinations.

Course Team

⁷ Modules are designated as either mandatory (M), requisite (R) or optional (O). For definitions, see the [Framework and Regulations for Undergraduate Awards](#)

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The academic staff delivering this course are drawn from a team that includes teaching specialists and current practitioners. All staff are qualified in their subjects with their own specialist knowledge to contribute.

Course Costs

Students undertaking BEng (Hons) Mechanical Engineering [progression route] will be charged tuition fees as detailed below:

Student Group	Tuition Fees
Full-time UK/EU	£9,250 per year
Part-time UK/EU	£1,454 per 20 credit module
Full-time International	£11,790 per year
Part-time International	£1,965 per 20 credit module

Payment of tuition fees is due at the time of enrolment and is managed in accordance with the Tuition Fee Policy.

Students are likely to incur other costs for safety shoes and coveralls amounting to approximately £50, which should last for the duration of the course depending on the student's maintenance of such and fitness for purpose in view of size. In the case of optional field trips for enrichment (not-essential), the costs will be disseminated per trip and may vary from trip-to-trip / year-to-year and depend on the availability of staff.

Academic Framework and Regulations

This course is delivered according to the Framework and Regulations for Undergraduate Awards and other academic policies and procedures of the University and published on the [website](#).