Course Title | FdEng Electronic Engineering
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Awarding Bodies | University of Suffolk
Level of Award¹ | FHEQ Level 5
Professional, Statutory and Regulatory Bodies Recognition | None
Credit Structure² | 240 Credits
| Level 4: 120 Credits
| Level 5: 120 Credits
Mode of Attendance | Full-time and Part-time
Standard Length of Course³ | 2 years full-time
Intended Award | FdEng Electronic Engineering
Named Exit Awards | None
Entry Requirements⁴ | Typical Offer:
| 80 UCAS tariff points (or equivalent)
| GCSE grade C in Maths (or equivalent)
Delivering Institution | University of Suffolk at West Suffolk College
UCAS Code | H610

This definitive record sets out the essential features and characteristics of the FdEng Electronic Engineering course. The information provided is accurate for students entering level 4 in the 2017-18 academic year⁵.

Course Summary
The overall aim of the FdEng Electronic Engineering programme is to equip students with the fundamental knowledge required for a technician engineer role within industry and/or to enable them to progress their studies within the BEng (Hons) in Electronic Engineering. 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 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 programme has been designed to cover the UK Engineering Council Specification for Higher Education programmes up to Bachelors level. The Foundation Degree is designed to reflect the nature and breadth of contemporary practice and will provide a foundation for those wishing to develop professional level skills in mechanical, electrical or electronic engineering.

Course Learning Outcomes
The following statements define what students graduating from the FdEng Electronic Engineering 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 5 awards as set out by the UK Quality Assurance Agency (QAA)\(^6\).

1. knowledge and critical understanding of the well-established principles of electronic engineering, and of the way in which those principles have developed within the contexts of engineering software development and electronic systems design

2. ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment and/or practical context to develop employability skills; specifically considerate of the applications of microprocessor-based electronic systems

3. knowledge of the main methods of enquiry in the fields of electronic systems design, instrumentation, control systems and other such subject(s) relevant to electronic engineering, and the ability to evaluate critically the appropriateness of different approaches to solving problems in the field of electronic and electrical systems design, programming and applications

4. an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge

Course Design
The design of this course has been guided by the following QAA Benchmarks / Professional Standards / UK Engineering Council Competency Frameworks:


Course Structure
The FdEng Electronic Engineering comprises modules at levels 4 and 5.

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.

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\(^6\) As set out in the QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)
**DEFINITIVE COURSE RECORD**

<table>
<thead>
<tr>
<th>Module</th>
<th>Credits</th>
<th>Module Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamental Mathematics &amp; Methods</td>
<td>20</td>
<td>M</td>
</tr>
<tr>
<td>Analogue Electronics Instrumentation &amp; Control</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Personal Development</td>
<td>20</td>
<td>M</td>
</tr>
<tr>
<td>Applied Engineering Software</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Electrical &amp; Digital Electronic Principles</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Design of Electrical &amp; Electronic Systems</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td><strong>Level 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Engineering Mathematics and Modelling</td>
<td>20</td>
<td>M</td>
</tr>
<tr>
<td>Quality Systems, Management and Analysis</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Skills for Research and Problem Solving</td>
<td>20</td>
<td>M</td>
</tr>
<tr>
<td>Introduction to Thermodynamics &amp; Heat Transfer</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Level 5 Project *</td>
<td>20</td>
<td>O</td>
</tr>
<tr>
<td>Applications of Electronics</td>
<td>20</td>
<td>R</td>
</tr>
<tr>
<td>Microprocessor Based Systems</td>
<td>20</td>
<td>R</td>
</tr>
</tbody>
</table>

* The optional module is 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 FdEng Electronic Engineering.

**Course Delivery**

The course is delivered at West Suffolk College. Students studying full-time on the FdEng Electronic Engineering are likely to have approximately 270 contact hours for levels 4 and 5. The contact hours will be a mix of lectures, seminars and tutorials and full-time students will also be required to participate in 144 hours of workshop experience within the campus facilities to generate practical skills that augment academic development and employability. 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 approximately 60% coursework (including essays, reports, presentations, group work, reflective learning journals and research projects) and 40% examinations.

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

FdEng Electronic Engineering (BFDELG/BELGFDEN16)  
Information for 2017-18  
Version 1.0 (9 December 2016)
University of Suffolk

DEFINITIVE COURSE RECORD

Course Team
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 the FdEng Electronic Engineering will be charged tuition fees as detailed below.

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Tuition Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time UK/EU</td>
<td>£8,220 per year</td>
</tr>
<tr>
<td>Part-time UK/EU</td>
<td>£1,370 per 20 credit module</td>
</tr>
<tr>
<td>Full-time International</td>
<td>£10,080 per year</td>
</tr>
<tr>
<td>Part-time International</td>
<td>£1,680 per 20 credit module</td>
</tr>
</tbody>
</table>

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.