

**for the award of**

**Foundation Degree (FdEng) in Manufacturing Engineering**

**Managed by the Faculty of Faculty of Technology, Design and Environment**

**Delivered by Solihull College & University Centre in collaboration with the  
School of Engineering, Computing and Mathematics**

<b>Date approved:</b>	Validation: 23 <sup>rd</sup> June 2020
<b>Applies to students commencing study in:</b>	September 2020

RECORD OF UPDATES

<b>Date amended</b>	<b>Nature of amendment</b>	<b>Reason for amendment</b>
<b>05/06/2020</b>	<b>First Version</b>	

## SECTION 1: GENERAL INFORMATION

<b>Awarding body:</b>	Oxford Brookes University
<b>Teaching institution and location:</b>	Solihull College & University Centre
<b>Language of study:</b>	English
<b>Final award/s:</b>	FdEng in Manufacturing Engineering
<b>Programme title:</b>	FdEng in Manufacturing Engineering
<b>Interim exit awards and award titles available:</b>	Certificate of HE
<b>Brookes course code:</b>	<b>FDENG-MA</b>
<b>UCAS code:</b>	<b>TBC</b>
<b>JACS code:</b>	H700
<b>HECoS code:</b>	100209 Production and Manufacturing Engineering
<b>Mode of delivery:</b> (Mode of Study given in brackets)	Face to face/on-campus (full-time/part-time)
<b>Duration of study:</b>	Normal duration of study is 2 years for a full-time course and 3 years for part-time. The maximum duration of study for any mode is 6 years.
<b>Subject benchmark statement/s which apply to the programme:</b>	Foundation degree Characteristics Statement (2015): <a href="https://www.qaa.ac.uk/docs/qaa/quality-code/foundation-degree-characteristics-15.pdf">https://www.qaa.ac.uk/docs/qaa/quality-code/foundation-degree-characteristics-15.pdf</a>  QAA Engineering benchmark (revised edition, 2019): <a href="https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-engineering.pdf">https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-engineering.pdf</a>  Engineering Council UK-SPEC (third edition, 2014): <a href="http://www.engc.org.uk/ukspec.aspx">http://www.engc.org.uk/ukspec.aspx</a>
<b>Professional accreditation attached to the programme:</b>	Will be sought from Institution of Mechanical Engineers (IMechE) and The Institution of Engineering and Technology (IET)
<b>Apprenticeship Standard:</b>	<b>Together with associated top-up degree: Apprentice Standard – Level 6 Manufacturing Engineer (Degree)</b>
<b>University Regulations:</b>	The programme conforms to the University Regulations for the year of entry as published/archived at: <a href="http://www.brookes.ac.uk/regulations/">http://www.brookes.ac.uk/regulations/</a>

## SECTION 2: WHY STUDY THIS PROGRAMME?

The Foundation Degree in Manufacturing Engineering is designed to offer flexible learning patterns and enable apprentices or students with a relevant Level 3 qualification in a Mechanical Engineering subject, or equivalent, to obtain a FdEng in Manufacturing Engineering. If desired, or as required for the Level 6 Apprentice Standard, they can then progress to a BEng (Hons) top-up programme in Manufacturing Engineering and practice in a career as an Incorporated Engineer (IEng). The programme has been developed by Oxford Brookes University to answer the needs of industry which has experienced an increasing demand for employees with the right vocational knowledge and skills and with the independence to add value to organisations. Graduates from the programme will have a wider and deeper range of skills and knowledge than their contemporaries on more traditional courses that will help them progress and add value in the workplace or help them to continue their studies to a higher-level degree course.

This proposed programme is distinctive as it:

- is designed to meet the needs of a range of local employers, particularly those allied to the manufacturing and automotive industries in the West Midlands region, for HE progression for their Technician employees on a day release basis.
- programme provides students with the underpinning knowledge of mechanical principles, design and manufacturing. The course is intended to attract employed level 6 apprentices and progressors from Level 3 FE and schools who wish to extend their knowledge and employability potential to Level 5 and beyond and at their local college.
- programme allows students from local industries to engage in HE and develop into informed and competent practitioners within a team setting. Through a learner-centred approach that increases ability to learn independently and problem solve, it allows learners to make a valued contribution to their organisation in Manufacturing Engineering and provides opportunities for these students to become skilled in the use and application of information and computer-based technology.

### 2.2 Aim/s of the programme

The aim of the Foundation Degree is to provide a rational, structured and coherent programme of study that offers an alternative pathway to well-motivated individuals within the region in which Solihull College & University Centre is situated. The programme is relevant to the needs of employers, facilitates CPD of the student and benefits the regional economy as well as potentially offering an opportunity for growth in Higher Education. This programme intends to:

- Provide students, from a wide range of educational backgrounds, with an opportunity for further study. Learners who have completed a Level 3 course and wish to gain work experience and study part-time are able to do this in parallel with those students on an Apprentice Standard.
- Equip learners with the broad knowledge and ability to apply current technology to existing products and designs as well as developing new ones;
- Enable learners to have a sound understanding of engineering principles and the skills necessary to communicate them to others and develop them into finished products that meet customer expectations and agreed specifications;
- Develop the learner's ability to reflect on their own work evaluating what worked, what can be improved and how the overall process can be changed for the better;
- Enable learners that are employed to make an immediate professional contribution in their work environment through skills learnt and in particular via a work related project.
- Develop the learners' skills, personal qualities and attitudes essential for reflective learning and practice leading to successful performance in working life through the integrated, but explicit, curriculum and assessment.

Students graduating with this FdEng award will be confident practitioners in Engineering with the knowledge and ability to apply current technology to existing products & designs as well as developing new ones. They will have a sound understanding of engineering principles and the skills necessary to communicate them to others and develop them into finished products that meet customer expectations and agreed specifications. Within this skill set will be the ability to reflect on their own work to evaluate what worked, what can be improved and how the overall process can be changed for the better.

## SECTION 3: PROGRAMME LEARNING OUTCOMES

**On successful completion of the programme, graduates will demonstrate the following Brookes Attributes informed by the subject benchmark statements for Engineering in the form of UKSPEC 3rd Edition 2014:**

[http://www.engc.org.uk/engcdocuments/internet/Website/UK-SPEC%20third%20edition%20\(1\).pdf](http://www.engc.org.uk/engcdocuments/internet/Website/UK-SPEC%20third%20edition%20(1).pdf)

Please note reference is made against Incorporated Engineer in UK-SPEC and 'Part 2' (Accreditation of Higher Education Programmes (2004)) which has been adopted as the QAA Benchmark Statement. FD's, by definition, are work-based and so involve BOTH academic underpinning (related to the benchmark statement) and professional development & experience (related to UK-SPEC). That is, attempts have also been made to identify which elements of UK-SPEC can be mapped to the defined programme learning outcomes as well as the academic educational outcomes listed in the benchmark statement / 'Part 2'.

The definition of UK-Spec Outputs can be found, for example, in the IET handbook of Learning outcomes [http://www.theiet.org/academics/accreditation/policy-guidance/handbook\\_lo.cfm](http://www.theiet.org/academics/accreditation/policy-guidance/handbook_lo.cfm)

The Institution of Mechanical Engineers and the Institution of Engineering Technology (IET) are recognised world-wide as providing a high quality, regulated frameworks that ensures new graduates are well rounded and conversant with the influences shaping the current climate for practice

### 3.1 ACADEMIC LITERACY

Learners are expected to have academic literacy of:

- AL1: Manufacturing Engineering, so that they are able to demonstrate the knowledge and understanding to deal with well-established, and with some depth, facts, concepts, principles & theories relevant to Mechanical engineering, within a broad engineering subject base
- AL2: Complexity within Mechanical Engineering systems, informed by literature & resources which are largely prescribed.
- AL3: The inter-relationships of health & safety, design, engineering science & applications, analytical & mathematical techniques, environmental considerations & sustainability, systems, management and economic factors in relation to Mechanical Engineering

### 3.2 RESEARCH LITERACY

Learners are expected to have research literacy so that they can:

- RL1: Apply aspects of relevant facts, concepts, principles & theories relevant to Mechanical Engineering issues to their subject and / or professional work area.
- RL2: Make and justify decisions relevant to design, manufacture, use and decommissioning of mechanical equipment and / or plant including preventative measures which are specified and predictable; and produce an action plan, where appropriate, supported by pertinent evidence.
- RL3: With guidance, in relation to the field of Mechanical Engineering and within specified parameters, explain key engineering principles and identify their relevance and significance to Mechanical Engineering and justify their application to specific problems which are specified and produce a coherent line of argument supported by relevant evidence.
- RL4: Identify, explain and use appropriate practical and laboratory skills with the appropriate selection of experimental and investigative techniques.
- RL5: Identify, access, use, explain and evaluate information / data which is relevant from a range of sources.
- RL6: Set milestones within a given plan and implement plan to achieve several objectives.

### 3.3 CRITICAL SELF-AWARENESS AND PERSONAL LITERACY

Learners are expected to have critical self-awareness and personal literacy so that they can:

- PL1: Undertake prescribed independent study techniques and their application to work-based learning including the setting of goals, managing time appropriately and prioritising tasks, and review personal performance to ensure that work is completed in a timely manner.
- PL2: In relation to the professional work area, operate effectively in situations that are largely straightforward and predictable within practical / employment / work contexts requiring the exercise of personal responsibility and/or decision-making as evidenced by work-based learning in the application of underlying concepts and principles of Mechanical Engineering in routine and novel situations.
- PL3: In relation to the learner's professional area and with clear guidance / support, participate effectively in appropriate collaboration with people from other disciplines / professions.
- PL4: For a given situation and audience, communicate knowledge and understanding appropriate to the level in an appropriate written, verbal or visual format in a way that is appropriate for the purpose, topic and situation and in such a way as to demonstrate understanding to academic, specialist and non-specialist audiences.

### 3.4 DIGITAL AND INFORMATION LITERACY

Learners are expected to have digital and information literacy so that they can:

- DL1: With guidance, in relation to academic and practical work, convey information which has some complexity in written/spoken English which is accurate and clear in terms of grammar / syntax / vocabulary-choice / style and use academic conventions appropriately for the purpose, topic, situation and audience and also reference a range of different types of sources accurately in line with guidance provided.
- DL2: Select and use specified IT applications and strategies as appropriate for guided purposes and tasks and the retrieval of information.
- DL3: Solve straightforward contextual, qualitative and numerical problems by identifying, explaining and selecting appropriate approaches to use and also evaluate both the approaches and solutions to the problem.
- DL4: Critically evaluate the validity and implications of information relevant to mechanical engineering and their work practice.

### 3.5 ACTIVE CITIZENSHIP

Learners are expected to have active citizenship so that they can:

- AC1: With guidance, in relation to the field of Mechanical Engineering and within specified parameters, identify and explain issues related to health and safety, design, engineering science & applications, analytical & mathematical techniques, environmental considerations & sustainability, systems, management and economic factors
- AC2: With guidance, in relation to the field of Mechanical Engineering and within specified parameters, evaluate and critically analyse mechanical equipment and systems and make suggestions to improve the design life, performance and efficiency and justify decisions about the management of mechanical equipment and systems and also related technologies
- AC3: Demonstrate respect for the perspective of other disciplines / professions and be able to identify the potential contribution of own and other professions / disciplines to the area of practice and describe the purpose of these disciplines / professions and their role within a multidisciplinary team
- AC4: In relation to Engineering, with clear guidance & support, appropriately work effectively within the boundaries imposed by ethical and legal issues (including standards & codes) and demonstrate respect for the ethical and legal boundaries of other disciplines

- AC5: Demonstrate the learning ability needed to undertake further training, develop existing skills, and acquire new competences that will enable them to assume significant responsibility within organisations.
- AC6: Reflect, selecting from a range of suggested approaches and techniques, and seek and use feedback to inform reflection on and analysis of own strengths, limitations & performance and identify their implications.

PROGRAMME LEARNING OUTCOMES MAPPING – LEVEL 4

Programme Learning Outcome	ENGR4018: CAD CAM	ENGR4023: Electrical and Electronic Science	ENGR4025: Engineering Management	ENGR4026: Mathematics I	ENGR4028: Mechanical Principles and Engineering Science	ENGR4029: Work Based Module
<b>Academic literacy</b>						
AL1		✓		✓	✓	
AL2	✓			✓	✓	
AL3		✓	✓	✓	✓	✓
<b>Research literacy</b>						
RL1		✓			✓	
RL2	✓					✓
RL3		✓			✓	✓
RL4		✓			✓	
RL5		✓			✓	✓
RL6			✓			✓
<b>Critical self-awareness and personal literacy</b>						
PL1						✓
PL2			✓			✓
PL3			✓			✓
PL4		✓	✓		✓	✓
<b>Digital and information literacy</b>						
DL1		✓			✓	✓
DL2	✓					
DL3		✓			✓	
DL4		✓			✓	✓
<b>Active citizenship</b>						
AC1	✓		✓	✓		✓
AC2						✓
AC3			✓			✓
AC4			✓			✓
AC5		✓	✓		✓	✓
AC6		✓			✓	✓

PROGRAMME LEARNING OUTCOMES MAPPING – LEVEL 5

Programme Learning Outcome	ENGR5016: Computer Aided Engineering	ENGR5027: Stress Analysis and Materials	ENGR5030: Manufacturing I	ENGR5031: Manufacturing II	ENGR5034: Programmable Logic Controllers	ENGR5038: Work Based Project
<b>Academic literacy</b>						
AL1		✓				
AL2	✓		✓	✓	✓	
AL3	✓	✓	✓	✓	✓	✓
<b>Research literacy</b>						
RL1			✓	✓	✓	
RL2	✓		✓	✓	✓	✓
RL3						✓
RL4					✓	
RL5	✓		✓	✓		✓
RL6			✓	✓		✓
<b>Critical self-awareness and personal literacy</b>						
PL1			✓	✓		✓
PL2	✓					✓
PL3	✓		✓	✓		✓
PL4	✓	✓	✓	✓		✓
<b>Digital and information literacy</b>						
DL1	✓	✓	✓	✓		✓
DL2	✓	✓	✓	✓	✓	
DL3			✓	✓	✓	
DL4		✓		✓	✓	✓
<b>Active citizenship</b>						
AC1				✓		✓
AC2	✓			✓		✓
AC3				✓		✓
AC4		✓		✓		✓
AC5						✓
AC6						✓



## SECTION 4: CURRICULUM CONTENT & STRUCTURE

### 4.1 PROGRAMME STRUCTURE AND REQUIREMENTS:

Level	Code	Module Title	Credits	Status	Coursework: Exam ratio
4	ENGR4018	CAD CAM	15	Compulsory	100% CW
4	ENGR4023	Electrical and Electronic Science	15	Compulsory	100% CW
4	ENGR4025	Engineering Management	15	Compulsory	100% CW
4	ENGR4026	Mathematics I	15	Compulsory	CW: 40% Exam: 60%
4	ENGR4028	Mechanical Principles and Engineering Science	30	Compulsory	CW: 50% Exam: 50%
4	ENGR4029	Work Based Module	30	Compulsory	100% CW
5	ENGR5016	Computer Aided Engineering	15	Compulsory	100% CW
5	ENGR5027	Stress Analysis and Materials	30	Compulsory	CW: 50% Exam: 50%
5	ENGR5030	Manufacturing I	15	Compulsory	100% CW
5	ENGR5031	Manufacturing II	15	Compulsory	CW: 50% Exam: 50%
5	ENGR5034	Programmable Logic Controllers	15	Compulsory	100% CW
5	ENGR5038	Work Based Project	30	Compulsory	100% CW

### FULL TIME PROGRAMME

<b>FdEng Manufacturing Engineering Year One</b>				
<b>Semester 1</b>	<b>ENGR4028</b> Mechanical Principles and Engineering Science 30	<b>ENGR4029</b> Work Based Module 30	<b>ENGR4023</b> Electrical and Electronic Science 15	<b>ENGR4026</b> Mathematics I 15
<b>Semester 2</b>			<b>ENGR4018</b> CAD CAM 15	<b>ENGR4025</b> Engineering Management 15
<b>FdEng Manufacturing Engineering Year Two</b>				
<b>Semester 1</b>	<b>ENGR5027</b> Stress Analysis and Materials 30	<b>ENGR5038</b> Work Based Project 30	<b>ENGR5030</b> Manufacturing I 15	<b>ENGR5034</b> Programmable Logic Controllers 15
<b>Semester 2</b>			<b>ENGR5031</b> Manufacturing II 15	<b>ENGR5016</b> Computer Aided Engineering 15

## 4.2 PROGRESSION AND AWARD REQUIREMENTS

To progress from Level 4 to Level 5 a student must pass all Level 4 modules.

### **Requirement for awards:**

- Requirement for final FdEng award: 240 credits including all compulsory modules.
- Requirement for CerTHE (exit award): 120 credits.

## 4.3 PROFESSIONAL REQUIREMENTS

In addition to the requirement that the learning outcomes meet the graduate attributes of the university, they must also meet the requirements of UK-SPEC, as a requirement of the accrediting bodies.

All modules are compulsory and must be passed for accreditation. In order to demonstrate that they have met the learning outcomes required by the accrediting bodies, students must earn a minimum mark of 30% in both coursework and exam components.

## SECTION 5: TEACHING AND ASSESSMENT

The programme has been designed to meet the University's aims of widening participation for recruitment. The programme is targeted at Apprentices and groups under-represented in Higher Education and aims to develop their academic achievement through practical coursework assignments, case studies, time-constrained assignments, and work-based learning. The rationale for and pattern of assessment are based on the aims, learning outcomes and rationale of the course and align with the Oxford Brookes assessment and feedback policy, and the five fundamental tenets behind it.

The key criteria governing assessment are validity, reliability, and fitness for purpose.

Each single undergraduate module constitutes 150 hours of effort. Modules typically include around 39 hours contact time (subject to variation) and are delivered using a mixture of lectures, tutorial/seminar sessions and laboratories. In addition, a student can expect to undertake approximately an additional 100 hours of independent work per single 15-credit module. The use and distribution of laboratory work varies significantly between modules and module levels on the programme and is allocated as appropriate by the subject specialist in each area.

### **Teaching and Learning Methods**

Teaching methods vary from module to module. Usually they include lectures, laboratory-based practical activities and software simulations, problem-solving classes and tutorial support, often supplemented by handouts and booklets produced by staff.

Learners will experience a range of learning environments: workplace, college and private study. During attendance at college, lectures and practical sessions (e.g. IT and CAD) are backed up with detailed notes & other resources in addition to module handbooks, *etc.* The learning materials given to learners provide for a structured approach and so allow learning away from the college. In addition, a strong emphasis is given to electronic resources which provide support both on- and off-campus at any time through, for example, the virtual learning environment with access to reading materials, websites, quizzes, assignment briefs, course notes, *etc.* to help to engage and encourage students with their learning, and to ensure that work-based learners can access materials when they are not able to attend classes. Furthermore, students have free access to relevant software such as SolidWorks. Concepts, principles and theories are generally explored in formal lectures, practised in associated tutorials and employment. For example, many modules provide tutorials to work through set problem sheets (requiring prior preparation) and thus offer the chance to further explore issues. Thus, lectures, tutorials & development sessions are used, amongst other things, to present an outline of the principal areas of learning as well as help structure the learner's development, *i.e.* promote learner-centred practice (LCP). Depending on the particular module, further opportunities are provided in smaller groups to consider the latest thinking, inter-relationships, areas of difficulty and depth of the knowledge and understanding of the relevant topics.

Teaching and learning methods used throughout the programme will acknowledge and encourage a range of learning styles, including development of academic, research, personal, digital literacy as well as active citizenship through assignment work. The programme aims to balance the provision of information with opportunities for learners to assimilate, apply and critically reflect. Teaching and learning strategies will also give learners the opportunity to acquire practical experience in activities related to their employment, through the work-based module and a work-based project and to encourage learners to reflect critically on new knowledge and understanding and on their own learning experience.

Tutorials are fundamental to ensuring that learner's progress on the course is regularly monitored and evaluated. Formative assessment will be undertaken by tutors and will provide formative feedback, which is intended to improve performance and resolve issues that may be affecting the learner's progress. All tutorials are documented within the learner's personal development plan and / or online as part of academic advising system, resulting in an action plan addressing any issues that require future action.

The graduate attributes are developed through a series of theoretical and practical problems or professional briefs that need to be completed or solved; this could be through practical application of theories, the implementation of existing processes or by devising new solutions to practical problems. Lectures are particularly used to furnish the foundations and framework that will enable the students to attain the knowledge and understanding outcomes for the module, also where appropriate some of the professional and transferable skills. Workshops and problem-solving sessions reinforce student acquisition of the knowledge and learning outcomes of the module. They also prepare the students for assessed work and reinforce students' ability to solve problems. Practical assignments and workplace practice further reinforce the process of acquisition of knowledge and understanding, but are also pivotal for the development of the majority of the graduate attributes. Group design exercises prepare the students for teamwork, development of interpersonal skills, working to deadlines, independent thinking and the ability to organise themselves. Tutorials are used to give formative and summative feedback on assessed work, in alignment with Brookes Assessment Compact, to support student understanding of the learning outcomes of the module and to help students to improve their future work.

Work-Based Learning (WBL) modules also aim to promote learning at work, but more importantly learning through the medium of work and adding value to the organisation. These modules also involve elements of developing team-working, formatively, and other interpersonal skills since interaction within the workplace and the employer will be a strong element. The relevant modules aim to develop the higher level skills of analysis, evaluation and synthesis as well as develop as a "reflective practitioner". In undertaking, WBL, learners will be provided with a named contact (supervisor) for individual guidance & support.

### **Assessment**

Assessment is conducted through a balance of examination and coursework, varying from module to module as stated in the Table in section 4.1. The overall coursework/exam ratio for each year is:

	<b>Exam</b>	<b>Coursework</b>
<b>Level 4</b>	20%	80%
<b>Level 5</b>	12.5%	87.5%

The examinations assess the understanding and consolidation of the course material. Within the FD ethos, coursework is an important element of assessment as it provides an opportunity for authenticity and the development of professional practice and a strong mechanism to provide valued feedback to learners. In general most modules offer a mixture of modes of assessment. Other than modules focussing upon work-based learning, most modules are assessment by a mixture of unseen written examination and a variety of assignment modes, depending upon the topic and the indicative syllabus such as:

- Oral presentations
- Short design studies
- Problem sheets
- Short tests done in class
- Write-ups of laboratory experiments

- Technical reports
- Design tasks
- Computer based exercises

Many of the Assignments will be based on modern industry practice such as using real data from the work place or using industry-standard software or the use of Materials Properties databases. Details and arrangements of the coursework are provided in the module descriptors and also confirmed to students at the beginning of each module. A key aspect of course work is to develop and assess the 'practitioner' skills (mainly practical and transferable) in their application to the workplace.

Whilst most modules are heavily directed in terms of content, work-based modules provide a structure that emphasises independent learning by the student focussing upon the workplace. Students are provided direct support by the module team and are offered the opportunity to discuss their work on an individual level. Assessment is primarily by the creation of a 'portfolio' of evidence / work or by project report in the last module (see below). Reflective approach to learning will form part of the assessment process for portfolios, e.g. promoting formative self-assessment of coursework alongside assessment criteria. The independent WBL project is aimed at providing a solution to a problem in the workplace. Assessment includes testing the skills involved in the planning as well as the dissemination of the results by oral presentation.

Examinations are two hours in length where specified and held at the end of each module and are used mainly to assess knowledge and understanding of specific subjects. The examinations are generally orientated to testing the application of knowledge (analysis) and practical understanding (problem solving) in terms of interpretation of theoretical calculations / problems as well as empirical results.

The programme conforms to the University Regulations which can be found at:

<http://www.brookes.ac.uk/regulations/current/specific/b1/>

In addition, if a module has more than one element of assessment (exam/ coursework), to obtain a Pass, a minimum of 30% must be obtained in each element of the assessment and result in an overall module mark of no less than 40%.

## SECTION 6: ADMISSION TO THE PROGRAMME

### 6.1 ENTRY REQUIREMENTS

Prior qualifications necessary for entry to the programme, including English language requirements.

Typically entrants will possess:

- National Certificate / Diploma or other full equivalent Level 3 qualification, in a discipline related to Engineering, minimum grade MM, plus a minimum of three passes at GCSE (grades 4 or above) including Mathematics at grade 5 or equivalent and English Language. This is subject to identifying suitable work placements for those not in employment.

or

- Employment in an appropriate workplace setting as a Level 6 Manufacturing Engineer (Degree) Apprentice with their organisation's support for the programme.

Entrants with equivalent qualifications and experience will be accepted on an individual basis.

Work-based learning is an integral part of the Foundation Degree programme. Thus, a key characteristic of a Foundation Degree is close co-operation with relevant employers. Entrants to the programme will be expected to have the support of their employer and will need to demonstrate the employer will provide the opportunity for work-based learning, e.g. a letter of employer support with the application form. For non-employed students, arrangements will be made to identify appropriate work placement in advance of admission. It follows that in order to undertake the assessment on the programme, a student must have access to an appropriate work environment (voluntary or paid; full-time, part-time or work placement). If during the course of the programme a student loses their work or access to the work-place then alternative arrangements, if feasible, will be made as soon as possible. Whilst the college will facilitate as far as possible, fundamentally, it remains the learner's responsibility to secure such access in order to complete the assessment on the programme.

Applicants are normally interviewed and may be required to undertake numeracy and literacy tests as part of the assessment by the College, especially where experiential learning is used to support admission, to ensure that they possess the appropriate attributes to succeed on the programme and to check on the suitability of the work environment to which applicants have access.

Full-time students apply through UCAS (FD only), while apprentices may apply direct to the College for admission to the Foundation Degree.

#### **Admission with Credit**

Applicants with prior certificated or experiential learning may be admitted with credit for up to a maximum of 120 credits at Level 4 and 30 credits at Level 5. Applications for the award of credit must be made in writing following discussion with the College programme lead and the University's Liaison Manager. Documentary evidence will be required in support of the application.

#### **English Language Requirements**

Applicants whose first language is not English must also demonstrate that their level of English is acceptable, by achieving a score in a recognised test such as British Council IELTS (normally minimum Level 6.0 overall with a minimum of 6.0 in reading and writing, 5.5 in listening and speaking).

The University's English language requirements can be found at

<http://www.brookes.ac.uk/international/how-to-apply/undergraduate/undergraduate-entry-requirements/>

## 6.2 DBS AND OTHER PRE-COURSE CHECKS REQUIRED

Not applicable

## 6.3 JOB ROLE/EMPLOYER PROFILE (DEGREE AND HIGHER APPRENTICESHIPS)

If applicable (please indicate if not applicable).

The vast majority of students will be employed at Technician/Technical level within large Engineering and related companies. Prior to commencing the FD these students will complete a one year full time 'Engineering Foundation' programme to develop a full grounding in Engineering theory and practice. The students will, in this first year, be infilling with other students who are on a level 3 apprenticeship.

## SECTION 7: PREPARATION FOR EMPLOYMENT

The college feels well placed to fully support those students who are not employed such as those progressing from Level 3 study in Engineering.

The College has established strong links with locally based international companies such as Aston Martin Lagonda, AECOM, Zytec Continental, Worcester Bosch, and undergraduates have employment opportunities with them and are supported by them in the pursuit of their higher education. The programme provides students with the chance to further develop skills, understanding and personal attributes valued by employers and enable students to identify and capitalise on opportunities. The structure within this programme will allow students to seek employment while undertaking the programme and after graduation offer the progression to a BEng(Hons) programme. There are another 50 or so other employers that the College work with frequently and may call upon to secure work placement opportunities for unemployed students. The College's links with employers ensure that teaching is relevant to contemporary engineering practice and also provides students with opportunities to get real-world experience. Many employers are frequently involved in curriculum developments and their contributions help to ensure that programmes continue to be relevant. Students will also have the opportunity to learn first-hand from guest speakers who are at the forefront of their field. These experts are invited to the College to share their experiences, including the latest developments in industry, through lectures and seminars.

### **PSRB**

Accreditation for the FdEng will be sought from both the IMechE (The Institution of Mechanical Engineers) and the IET (Institution of Engineering and Technology) on behalf of the Engineering Council for fully meeting the academic requirements for registration as an Engineering Technician, and partial academic requirement for registration as an Incorporated Engineer.

The College and University provide advice and careers guidance. For Oxford Brookes careers website follow:

<http://www.brookescareerscentre.co.uk>.

The Programme team will also be able to provide support and guidance around careers interests to learners throughout their programme.