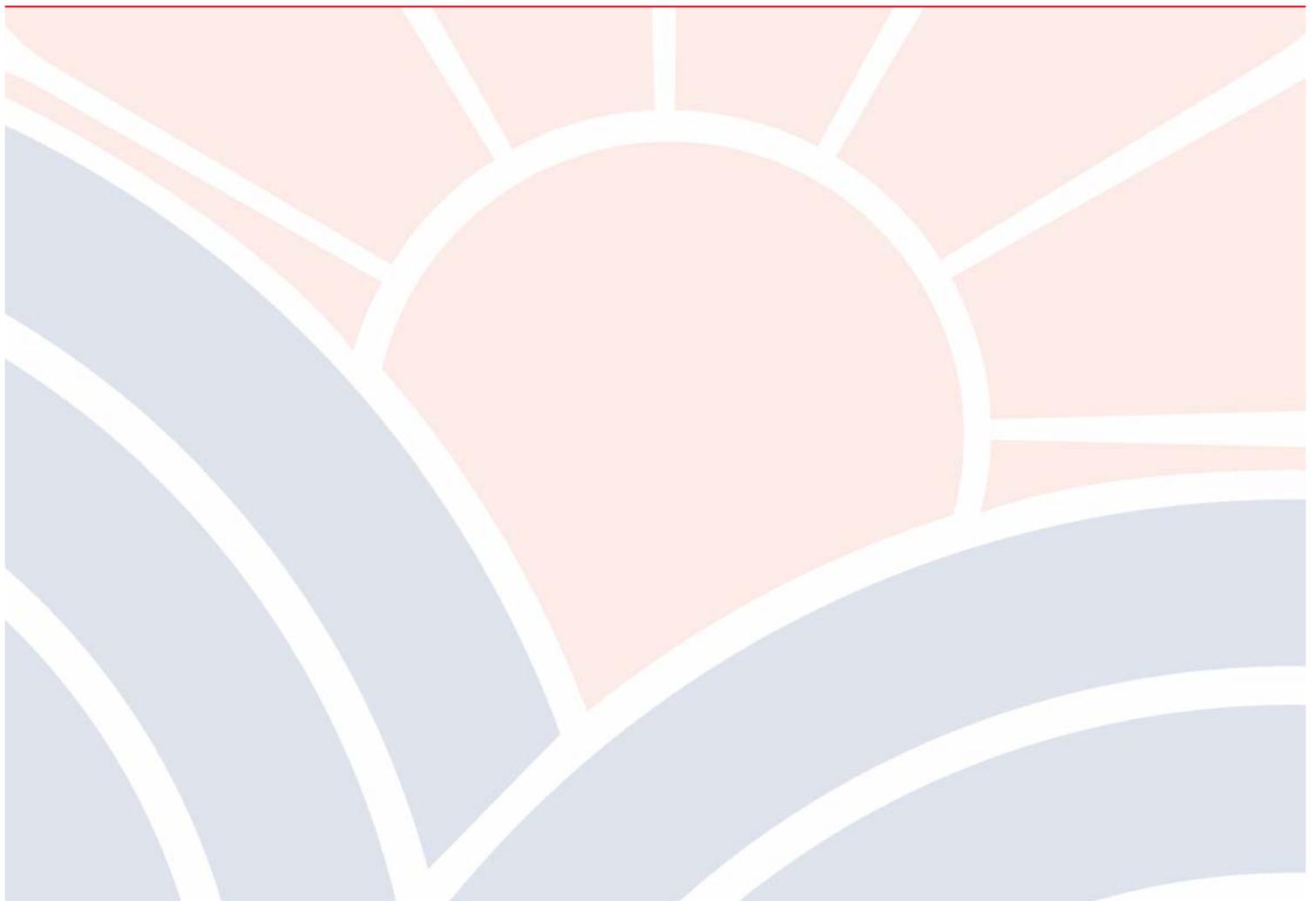


# Programme Specification

BSc (Hons) Aircraft Maintenance Engineering

HND Aircraft Maintenance Engineering

HNC Aircraft Maintenance Engineering



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**Introduction**

This programme specification is for the HNC, HND and BSc programmes designed to enable students with a relevant Level 3 qualification in an Aeronautical Engineering subject, or equivalent, to obtain a Higher Education Qualification in Aircraft Maintenance Engineering.

In order to qualify as a licensed aircraft maintenance engineer, a series of licensing exams must be passed in addition to gaining adequate industrial experience. These programmes have been designed to align to the content of the exams for a B1 license which is required for working with aeroplanes in a maintenance role.

Graduates from the programme will have a wider and deeper range of skills and knowledge than their contemporaries on more traditional courses gaining an understanding of the aircraft maintenance industry and ethical working practices that will help them progress in the workplace or to continue their studies to a higher-level degree course.

Flexible modes of study enable learners to either complete the course through full-time study or as a part-time student if they are working in a relevant industrial role.

The College is committed to meeting the needs of our local engineering companies and the Local Enterprise Partnership has supported the College's plan. As a result, significant investment has been made into the practical facilities available at the Woodlands Campus to include an aircraft hangar housing a Jetstream, a 737 simulator and an aerothermal laboratory with wind tunnels.

**Key Features:**

- Designed to prepare students for EASA exams for the B1 license (Aircraft Maintenance)
- Flexible learning pathways to fit around relevant aircraft maintenance roles
- Full-time pathways to support learners seeking a role in the aircraft maintenance industry
- Excellent practical aerospace facilities
- A West Midlands based course which hasn't previously been available locally

## Part 1: Programme Specification for

**BSc (Hons) Aircraft Maintenance Engineering****HND Aircraft Maintenance Engineering****HNC Aircraft Maintenance Engineering**

<b>1 Available Award(s) and Modes of Study</b>			
Title of Award	Mode of attendance	UCAS Code	FHEQ Level
BSc (Hons) Aircraft Maintenance Engineering	FT 3 years PT 5 years PT 6 Years		6
HND Aircraft Maintenance Engineering	FT 2 years PT 3 years PT 4 years		5
HNC Aircraft Maintenance Engineering	FT 1 year PT 1.5 years PT 2 years		4
<b>2 Awarding Institution/Body</b>	Coventry University.		
<b>3 Collaboration</b>	Solihull College and University Centre Validated award under license with Pearson		
<b>4 Teaching Institution and Location of delivery</b>	Solihull College and University College Woodlands Campus		
<b>5 Internal Approval/Review Dates</b>	18/07/2016 – Date of Approval 2021/2022 – Date of review		
<b>6 Programme Accredited by</b>			
<b>7 Accreditation Date and Duration</b>	N/A		
<b>8 QAA Subject Benchmark Statement(s) and/or other external factors</b>	<p>The QAA Engineering Subject Benchmark statement is relevant to this programme:</p> <p><a href="http://www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=2910#.V1A0EuRWp_k">http://www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=2910#.V1A0EuRWp_k</a></p> <p>and professional body guidance from Engineering Council in the form of UK-SPEC third edition:</p> <p><a href="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</a></p>		
<b>9 Date of Programme Specification</b>	June 2016		
<b>10 Programme Manager/Course Tutor</b>	Rosa Wells Programme Manager Engineering Solihull College and University Centre		

## 11 Educational Aims of the Programme

The aim of the HNC, HND and BSc 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 is situated. The programme is relevant to the needs of employers, facilitates CPD of the student and benefits the regional economy.

The HNC programme intends to:

- Provide students, from a wide range of educational backgrounds, with an opportunity for further study in the field of Aircraft Maintenance Engineering;
- 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 an understanding of the aircraft maintenance industry and ethical working practices
- Provide a general education consistent with the appropriate level in the QAA framework for Higher Education Qualifications and the learning outcome statements of the Engineering Council's UK-SPEC

In addition, for those students studying at HND level, the programme will

- 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;
- Develop the learners' skills, personal qualities and attitudes essential for successful performance in working life through the integrated, but explicit, curriculum and assessment.

The BSc (Hons) programme intends to develop the aims above and also

- The ability to critically appraise an engineering scenario with a view to apply new technologies to improve efficiency or effectiveness.
- How to use an enquiring, critical and reflective approach to engineering studies.
- Develop practical skills to solve complex workshop and industrially relevant problems.
- Key practical and transferable skills to enhance their long term employability or to progress to specialist, post graduate study
- Criteria to achieve professional membership of the Royal Aeronautical Society at an appropriate status.

## 12 Intended Learning Outcomes

This programme satisfies the Engineering Benchmark statements, the Engineering Council learning outcomes on UK-SPEC and Coventry University's Code of Practice for Academic and Professional Skills Development.

Section 21 maps the intended learning outcomes as described in the next section to the programmes mandatory and option modules (as listed in section 20)

Section 22 shows the capabilities that students will be taught, given the opportunity to practise and will be assessed in.

### 12.1 Knowledge and Understanding

On successful completion of the programme a student should be able to demonstrate knowledge and understanding of

At HNC level:

KU1 The essential facts, concepts, theories and principles that underpin Aircraft Maintenance Engineering inclusive of electrical and mechanical principles

KU2 Aircraft Manuals and documentation, how they are used and demonstrate that they be used correctly

In addition, at HND level:

KU3 Health and safety requirements when working within an aircraft hangar and the importance of taking a responsible attitude when working within an aircraft maintenance role

KU4 The Aircraft Maintenance Industry, relevant legislation and its professional licensing requirements

KU5 The function and theoretical concepts underpinning electronic aircraft instrumentation and propulsion systems.

In addition, at BSc (hons) level:

KU6 Students will critically examine current trends in engineering design, production and management, and apply the principles in a project environment.

KU7 The use of computers for quantitative analysis, simulation and problem solving including the use of aircraft simulation for fault diagnostics

The principal teaching, learning and assessment methods normally used to enable outcomes to be achieved and demonstrated are identified below.

	Teaching and Learning	Assessment
KU1	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
KU2	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
KU3	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
KU4	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
KU5	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
KU6	Tutorials and Seminars	Project report and presentation
KU7	Workshops and Seminars	Examination, Coursework, Work-based assignments/projects

### 12.2 Cognitive (thinking) Skills

On successful completion of the programme a student should be able to

At HNC level:

CS1 demonstrate a competent operation of aircraft equipment and components, in order to understand fault diagnosis and conduct repairs

CS2 select appropriate tools for the analysis of aircraft engineering components and systems

In addition, at HND level:

CS3 demonstrate their analytical and evaluative capabilities

CS4 search for and evaluate information to aid the development of solutions

CS5 adopt a reflective outlook to all activity in order to develop self-knowledge and plan self-development

In addition at BSc (Hons) level:

CS6 Understand and critically evaluate a range of research methodologies from Engineering Science and other subjects that are relevant to this discipline.

The principal teaching, learning and assessment methods normally used to enable outcomes to be achieved and demonstrated are identified below.

	Teaching and Learning	Assessment
CS1	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
CS2	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
CS3	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
CS4	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
CS5	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
CS6	Tutorials and Seminars	Project report and presentation

### 12.3 Practical Skills

On successful completion of the HNC and HND programmes a student should be able to:

PS1 Work effectively and safely in an aircraft hangar

PS2 Create maintenance schedules and respond to unscheduled maintenance requirements such as fault diagnosis and repair

PS3 Use aircraft tools professionally and appropriately

PS4 Conduct practical engineering activities which develop underpinning knowledge

PS5 Select, extract and collate information from a variety of resources and present their work appropriately

PS6 Use relevant software to solve engineering problems

In addition, at BSc (Hons) level:

PS7 Select and apply appropriate methodologies for the evaluation of engineering solutions.

The principal teaching, learning and assessment methods normally used to enable outcomes to be achieved and demonstrated are identified below.

	Teaching and Learning	Assessment
PS1	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
PS2	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
PS3	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
PS4	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
PS5	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects
PS6	Lectures, guided workshops, laboratory exercises	Examination, Coursework, Work-based assignments/projects

PS7	Tutorials and Seminars	Project report and presentation
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#### **12.4 Transferable Skills**

On successful completion of each programme a student should be able to

TS1 communicate effectively in various modes and apply ethical working practices

TS2 work as an effective member of a team with the necessary empathy with others, adaptability, drive and, where required, leadership

TS3 Use information and communication technology to manipulate information and to prepare written or digital outputs (e.g. documents, presentations)

TS4 Manage self, resources and time

TS5 Learn independently and develop themselves in a way which supports proactive continued professional development.

TS6 Research, reference and justify information to support their arguments

Transferable/key skills are generally incorporated within modules (see annex 3) and related to relevant assessments as appropriate. Self-directed learning forms an element of all modules and the necessity to work within tight deadlines is an essential requirement across the curriculum. The ability to communicate orally and in writing will be developed across the range of modules.

The wide range of assessment techniques will ensure that students are given every opportunity to demonstrate their skills in these areas.

### 13 Programme Structure and Requirements, Levels, Modules, Credits and Awards

All modules in this programme are mandatory.

In full time study mode, the BSc programme will be delivered in 3 stages, where each stage takes 1 academic year:

**Stage one** (120 credits) Students will need to complete 6 mandatory modules (including two 30 credit modules and four 15 credit modules). Students completing stage 1 (120 credits) but not continuing to stage 2 will be eligible for a HNC.

**Stage two** (120 credits) will be comprised of two 30 credit modules and four 15 credit modules. Students completing stage 2 (240 credits) but not continuing to stage 2 will be eligible for a HNC.

**Stage three** (120 credits) will be comprised of two 30 credit modules and four 15 credit modules. Completion of these modules will lead to the award of a BSc.

All modules are mandatory and detailed below

Stage	Module Code	Title of Unit	Credits
1	SC401	Engineering Mathematics	15
	SC402	Engineering Science	30
	SC403	Electrical Fundamentals	30
	SC404	Aircraft Materials and Hardware	15
	SC405	Aerodynamics	15
	SC406	Employability Skills and Human Factors*	15
2	SC501	Electronic Fundamentals	15
	SC502	Aircraft Maintenance and Professional Practices*	30
	SC503	Aviation Legislation & Management*	15
	SC504	Gas Turbine Engine Science	30
	SC505	Piston Engine Science	15
	SC506	Physics of Propellers	15
3	SC601	Digital Techniques	15
	SC602	Electronic Instrument Systems	15
	SC603	Aircraft Structures	30
	SC604	Aircraft Systems	15
	SC605	Advanced Aerodynamics	15
	SC606	Individual Project	30

\* The professional skills and aircraft maintenance modules include work ethic practices and skills required in the workplace.

#### Progression and Awards

For an HNC award in Aircraft Maintenance Engineering, the student must have passed or been credited with all the mandatory modules at level 1 (120 credits). A fall back award after completion of 60 credits is a college certificate of module achievement.

For an HND in Aircraft Maintenance Engineering award a student must have passed or been credited with all the mandatory modules at level 1 and 2 (240 credits). The fall back award is the HNC in aircraft maintenance Engineering if a student has passed or been credited with 120 credits at level 1.

To progress between stages, students must have passed all modules (120 credits) from the previous stage.

For the BSc (Hons) award, students must have passed or been credited with all modules at stages 1, 2 and 3. (360 credits)

The fall back award is the HND in aircraft maintenance engineering if a student has passed or been credited with 240 credits at level 1 and 2

An unclassified BSc award can be awarded if the student has been credited with all modules at stages 1, 2 and 3 excluding SC606 Individual Project. This would enable the student the opportunity to complete the requisite examinations for the B1 license and, therefore, support progression into relevant employment.

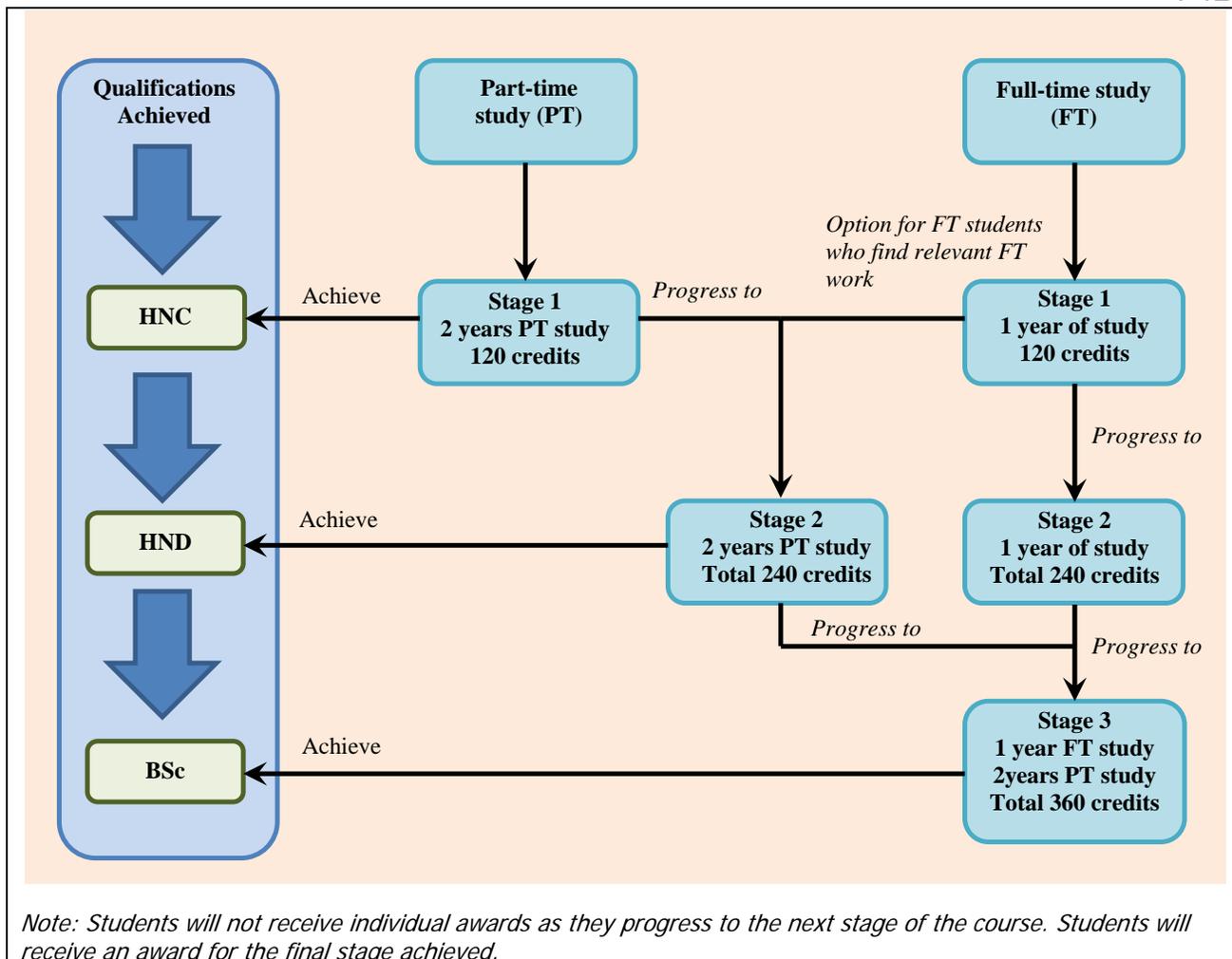
### List of modules

Module Code	EASA Module	Title of Unit	Stage	Pre-req	Credits	Semester
SC401	1	Engineering Mathematics	1	N/A	15	1
SC402	2	Engineering Science	1	N/A	30	1&2
SC403	3	Electrical Fundamentals	1	N/A	30	1&2
SC404	6	Aircraft Materials and Hardware	1	N/A	15	2
SC405	8	Aerodynamics	1	N/A	15	1
SC406	9A	Employability Skills and Human Factors	1	N/A	15	2
SC501	4	Electronic Fundamentals	2	SC401 SC403	15	1
SC502	7A	Aircraft Maintenance and Professional Practices	2	SC404	30	1&2
SC503	10	Aviation Legislation & Management	2	N/A	15	2
SC504	15	Gas Turbine Engine Science	2	SC401 SC402	30	1&2
SC505	16	Piston Engine Science	2	SC401 SC402	15	1
SC506	17A	Physics of Propellers	2	SC401 SC402	15	2
SC601	5	Digital Techniques	3	SC501	15	1&2
SC602	11A, 11B, 13	Electronic Instrument Systems	3	SC501	15	2
SC603		Aircraft Structures	3	SC404	15	1
SC604		Aircraft Systems	3	SC404	30	1&2
SC605		Advanced Aerodynamics	3	SC402	15	2
SC606	N/A	Individual Project	3	N/A	30	1&2

This programme can be followed in both part-time and full-time mode.

Two modes of part time attendance are possible: In the 5 year part-time mode, level 1 and 2 modules should be completed in 3 academic years and level 3 modules should be completed in 2 additional academic years. In the 6 year part-time mode, each level of study will be completed in 2 years.

Attendance and study modes are available as indicated below:



## 14 Support for Students and their Learning

Student progression on course is supported both by subject tutors and central College services and includes:

- An induction programme introducing new students to the subject of study, higher level skills that need to be developed, and the college facilities (including the library, IT facilities, staff and other students).
- College and course/ module handbooks available in print and electronic format on Moodle.
- Personal and academic support is integrated in teaching provided by supportive and accessible tutors and identified 1:1 support sessions are also available.
- Modern well-equipped libraries and Up-to-date ICT equipment.
- Study skills sessions integrated in programme.
- Personal development planning sessions integrated into programme
- Up-to-date Computer laboratories with specialist facilities for computer networking and multimedia computing.
- Various workshops including wind tunnel and flight simulator
- Study skills sessions integrated in programme and organised on a regular basis;
- High specification computers with latest educational software.
- Planned visits and speakers
- Access to counsellors and support for students with special needs.
- Written assignment / assessment feedback (normally provided with 2 weeks of assessment submission).
- Regular 1:1 and group tutorial support
- Access to regularly updated course section and college wide sections on the college's intranet Moodle

The Coventry University Information Technology and library facilities are available to support the BSc programme in aircraft maintenance engineering. The IT Support Desk in the library to help students make the most of these facilities. Students can visit them in person, call them on 024 7765 7777 or email [advice.its@coventry.ac.uk](mailto:advice.its@coventry.ac.uk). Alternatively, they may visit their portal where they will find a wealth of information about open access rooms etc. <https://share.coventry.ac.uk/students/IT>

Students will adhere to the University Code of Conduct for Use of IT Facilities, appendix 4 of the Academic and General Regulations. (Including the Defamation Act, Data Protection Act, Computer Misuse Act, Copyright, Designs and Patents Act and so on).

<http://www.coventry.ac.uk/life-on-campus/the-university/key-information/registry/general-regulations/>

The Faculty of Engineering, Environment and Computing at Coventry University also offers a range of facilities which may be available to learners on these programmes if they are pre-booked by the course leader at Solihull College and University Centre facilities at Coventry University.

## 15 Criteria for Admission

**For full-time study, the minimum entry requirements for the BSc (Hons) degree programme is that candidates should normally possess one of the following:**

- A minimum of 240 UCAS tariff points, including two full A levels or equivalent

OR

- BTEC Extended Diploma with 240 UCAS tariff point (MMM) in a relevant subject, including Mathematics and English performance equivalent to grade C GCSE

OR

- Appropriate Foundation/Access qualification where the standard achieved is deemed equivalent to the above.

Non-native English speakers will normally require an IELTS score of 5.5 or TOEFL score of 550/213

**The HNC programme is only available for students completing their studies through the part-time route. The minimum entry requirements for the HNC programme is that candidates should normally possess one of the following:**

- A minimum of 80 UCAS tariff points, including two full A levels or equivalent for part-time entry onto HNC in conjunction with an industry relevant job role

OR

- BTEC Diploma with 80 UCAS tariff points (PP) for entry onto part-time HNC including Mathematics and English performance equivalent to grade C GCSE and an industry relevant job role

OR

- Appropriate Foundation/Access qualification where the standard achieved is deemed equivalent to the above and an industry relevant job role.

Non-native English speakers will normally require an IELTS score of 5.5 or TOEFL score of 550/213

**The HND programme is only available for students completing their studies through the part-time route. The minimum entry requirements for the HND programme is that candidates should normally possess one of the following:**

- Successful completion of HNC Aircraft Maintenance Engineering

**For students completing their studies in the part-time mode alongside a relevant job role, the minimum entry requirements for the BSc (Hons) degree is that candidates should normally possess one of the following:**

- Successful completion of the HND Aircraft Maintenance Engineering

### For all programmes,

Candidates will normally be expected to have passed Mathematics and English language GCSE with minimum grade C, or possess an equivalent qualification.

Solihull College and University Centre will also review applicants with non-standard entry requirements including those with professional work experience and direct entry applicants.

Accreditation for prior learning is in accordance with Solihull College and University Centre's Academic Regulations.

## 16 Method for Evaluating and Enhancing the Quality and Standards of Teaching and Learning

The Programme is managed by the Mechanical, Aerospace and Automotive Board of Study of the Faculty of Engineering, Environment and Computing

The Programme Assessment Board (PAB) for the Faculty of Engineering, Environment and Computing is responsible for considering the progress of all students and making awards in accordance with both the University and course-specific regulations.

The assurance of the quality of modules is the responsibility of the Boards of Study which contribute modules to the programme.

External Examiners report annually on the programme and their views are considered as part of the annual quality monitoring process (AQM). Details of the AQM process can be found on the Registry's web site.

Students are represented on the Student Forum, Board of Study and Faculty/School Board, all of which normally meet two or three times per year.

Student views are also sought through module and course evaluation questionnaires.

## 17 Regulation of Assessment

University policy requires the internal moderation of all assessments.

External Examiners are appointed for all named University awards. The role of the External Examiner at module level is to ensure that academic standards are in line with national norms for the subject. External Examiners undertake the moderation of examination papers and assessment tasks, and view representative samples of work for the modules for which they have responsibility. At programme level, External Examiners help to ensure fairness in the consideration of student progression and awards. They have the right to comment on all aspects of the assessment system and participate as full members of the assessment boards.

The Pass mark for all modules is 40%. This overall module mark may comprise more than one component (e.g. coursework and exam). The individual module descriptors give the precise pass criteria and the weighting of the component marks that contribute to the overall module mark.

On Undergraduate programmes, the Honours classification boundaries for First Class, Upper Second Class, Lower Second Class and Third Class are 70%, 60%, 50% and 40% respectively.

### Progression

Where students are progressing to the next stage of the programme and are required to resit a module(s), he/she may be able to continue at the discretion of the exam board with a revised programme of studies which can include stage 2 or stage 3 modules for which the pre-requisites have been passed.

### Condonement

A Programme Assessment Board may, at its discretion, condone performances below a pass to enable a student to receive full credit for a module:

- a) The student shall have attained a minimum overall module mark of 30%.
- b) For this programme, no more than 15 credits may be condoned at each of level, with a maximum of 30 credits overall in any programme of study;

More detailed regulations on the condonement procedures are available from the following link:

<http://www.coventry.ac.uk/Global/Forms/PAB%20ToR%20and%20Guidance.docx>

### 18 Indicators of Quality and Standards

The QAA's Higher Education Review undertaken in February 2016 confirmed that Solihull College and University Centre meets the

UK expectations regarding the:

- setting and maintenance of the academic standards of awards;
- quality of student learning opportunities;
- quality of the information about learning opportunities;
- enhancement of student learning opportunities

Engineering Courses have been designed in accordance with the:

- QAA Engineering Subject Benchmark statement [February 2015].
- UK Standards for Professional Engineering Competence [Third Edition]
- Royal Aeronautical Society Academic Accreditation Guidelines.

### 19 Additional Information

Key sources of information about the course and student support can be found in

- Student Handbook
- Course Handbook
- Module Guides
- Moodle Course

**Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.**

**More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in the Module Information Directory (MID), student module guide(s) and the course handbook.**

**The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.**

20 Mandatory Modules (No option modules)						
Module code	Module title	Credit value	Pre/Co requisite	HNC	HND	BSc (Hons)
Level 1						
SC401	Engineering Mathematics	15	N/A	M	M	M
SC402	Engineering Science	30	N/A	M	M	M
SC403	Electrical Fundamentals	30	N/A	M	M	M
SC404	Aircraft Materials and Hardware	15	N/A	M	M	M
SC405	Aerodynamics	15	N/A	M	M	M
SC406	Employability Skills and Human Factors	15	N/A	M	M	M
Level 2						
SC501	Electronic Fundamentals	15	SC401 SC403		M	M
SC502	Aircraft Maintenance and Professional Practices	30	SC404		M	M
SC503	Aviation Legislation & Management	15	N/A		M	M
SC504	Gas Turbine Engine Science	30	SC401 SC402		M	M
SC505	Piston Engine Science	15	SC401 SC402		M	M
SC506	Physics of Propellers	15	SC401 SC402		M	M
Level 3						
SC601	Digital Techniques	15	SC501			M
SC602	Electronic Instrument Systems	15	SC501			M
SC603	Aircraft Structures	15	SC404			M
SC604	Aircraft Systems	30	SC404			M
SC605	Advanced Aerodynamics	15	SC402			M
SC606	Individual Project	30	N/A			M

**Key**

M = Mandatory (i.e. must be studied and passed for the named award)

O = Option

21 Curriculum Map

Module codes	Intended Learning Outcomes																									
	Knowledge and Understanding							Cognitive (Thinking) Skills						Practical Skills							Transferable Skills					
	KU1	KU2	KU3	KU4	KU5	KU6	KU7	CS1	CS2	CS3	CS4	CS5	CS6	PS1	PS2	PS3	PS4	PS5	PS6	PS7	TS1	TS2	TS3	TS4	TS5	TS6
SC401	X								X									X								
SC402	X								X	X						X	X	X				X	X	X		
SC403	X								X	X						X	X	X				X	X	X		
SC404		X	X					X	X					X		X	X				X	X		X		
SC405	X										X					X	X	X			X		X	X	X	
SC406	X	X	X	X							X		X				X				X		X	X	X	
SC501	X				X					X	X					X	X				X		X	X		
SC502	X	X	X	X				X	X			X		X	X	X					X	X		X	X	
SC503		X	X	X		X					X			X	X			X		X	X	X	X	X	X	X
SC504	X				X					X	X						X	X	X		X		X	X	X	X
SC505	X	X	X		X			X	X					X		X	X				X			X	X	
SC506	X	X	X					X	X					X		X	X				X			X	X	
SC601	X	X			X		X			X	X		X				X	X	X	X	X		X	X	X	X
SC602	X	X			X	X	X			X	X		X					X	X	X	X	X	X	X	X	X
SC603		X				X				X	X		X					X	X	X	X		X	X	X	X
SC604		X				X	X			X	X		X					X	X	X	X		X	X	X	X
SC605	X					X				X	X		X			X	X	X	X	X	X		X	X	X	X
SC606						X				X	X	X	X					X		X	X		X	X	X	X

<b>22 Capabilities (Skills) Map</b>									
<b>Module codes</b>	<b>Learning to Learn</b>	<b>Working with others</b>	<b>Problem Solving and Innovation</b>	<b>Numeracy</b>	<b>IT and Online Learning</b>	<b>Communication</b>	<b>Career Management</b>	<b>Information Management</b>	<b>Personal Development Planning</b>
SC401			TPA	TPA					
SC402	P	P	TPA	TPA	P	TPA			
SC403	P	P	TPA	TPA	P	TPA			
SC404	P	P				PA			P
SC405	P	P	TPA		PA	PA		TPA	
SC406	TPA				TPA	TPA	TPA	TPA	TPA
SC501	P	P	TPA	TPA	TPA	TPA			
SC502	P	TPA				TPA	TPA		TPA
SC503	P	TPA				TPA	TPA	TPA	TPA
SC504	P		TPA	TPA	PA	A		A	
SC505	P		TPA						
SC506	P		TPA						
SC601	P		TPA	TPA	TPA	A		A	
SC602	P	A	A		A	A		A	
SC603	P		A		A	A		A	
SC604	P		A		A	A		A	
SC605	P		TA	TA	A	A		A	
SC606	A		A	A	A	TA		A	TA

Key: T=Taught, P=Practiced, A=Assessed

The Code of Practice for Academic and Professional Skills Development requires that each of the capabilities be demonstrated at least once during the programme.

### **Capability Outlines (from the Code of Practice for Academic and Skills Development)**

**Learning to Learn** – Students should be ready to accept responsibility for their own independent learning. They should also be able to reflect on their learning and appraise their capabilities and achievements. Students should also be able to identify their individual needs for effective learning.

**Working with Others** – Students should be able to work effectively as part of a group, and respect the dignity, rights and needs of others.

**Problem Solving and Innovation** – Students should be able to use problem-solving skills in a variety of practical situations. They should be able to demonstrate creativity, flexibility, perception, decisiveness, confidence and an awareness of values.

**Numeracy** – Students should be able to interpret, analyse and present numerical data.

**IT and Online Learning** – Students should be able to use computer-based systems for learning, communicating, collaborating with peers and tutors, and working with data.

**Communication** – Students should be able to communicate effectively in appropriate forms in a wide variety of situations.

**Career Management** – Students should appreciate the values, culture, structure and process of work organisations relevant to their area of study. Students should also appropriately match their experience and academic achievements to employer expectations.

**Information Management** – Students should be able to carry out research relevant to their field of study by retrieving and using information drawn from a variety of resources.

**Personal Development Planning** – Students should be able to demonstrate self-awareness, set personal goals and record achievement.

### **Capabilities developed through the modules designed for this programme also include**

- Problem Solving Skills
- Action Planning and Organising
- Written and Oral Communication
- Questioning and Listening

### **Employability competencies and career management skills will be introduced in these programmes to include:**

- Achievement orientation
- Initiative (Creativity)
- Self Confidence
- Decisiveness
- Reflectiveness
- Adaptability/Flexibility
- Influencing
- Career Management Skills

**Part 2: Supporting Information for  
HNC Aircraft Maintenance Engineering  
HND Aircraft Maintenance Engineering  
BSc (Hons) top-up Aircraft Maintenance Engineering**

**1 Relationship to the National Qualifications Framework, Subject Benchmarks and Professional/Statutory Body requirements**

This course has been developed in line with The Framework for Higher Education Qualifications  
<http://www.qaa.ac.uk/en/Publications/Documents/Framework-Higher-Education-Qualifications-08.pdf>

and according to the Subject Benchmark for Engineering  
<http://www.qaa.ac.uk/en/Publications/Documents/SBS-engineering-15.pdf>

This programme is also designed to meet the requirements of Incorporated Engineer for Royal Aeronautical Society so must map to the UK-Spec Learning Outcomes

The UK-Spec Learning Outcomes are covered in the programme as follows (definition of UK-Spec Learning Outcomes can be found, for example, in the IET handbook of Learning outcomes <http://www.engc.org.uk/engcdocuments/internet/Website/UK-SPEC%20third%20edition%20%281%29.pdf> ).

Modules	US1i	US2i	E1i	E2i	E3i	E4i	D1i	D2i	D4i	D5i	D6i	P1i	P2i	P3i	P4i	P6i	P7i	P8i
SC401	X	X		X	X													
SC402	X	X		X	X							X	X					
SC403	X	X		X	X							X	X					
SC404				X		X				X		X	X		X	X		
SC405	X	X		X	X	X							X		X			
SC406														X				X
SC501	X	X		X	X	X	X			X	X		X					
SC502			X			X				X		X	X	X	X	X	X	X
SC503			X				X	X		X				X	X	X	X	X
SC504	X	X		X	X	X					X		X		X			
SC505	X	X		X		X						X	X	X	X	X		
SC506	X	X		X		X						X	X	X	X	X		
SC601	X	X		X	X	X	X	X			X		X	X	X	X		
SC602	X					X	X	X		X	X			X	X			
SC603	X					X	X	X		X	X			X	X			
SC604	X					X	X	X		X	X			X	X			
SC605	X	X		X	X	X	X	X	X	X	X	X	X		X			
SC606							X	X	X	X	X						X	X

UK-Spec version 3 learning outcomes – this programme is designed to meet the Engineering Council learning outcomes for IEng only (highlighted in blue).

<b>IEng degree as an enhancement or limitation to BEng (Hons) for CEng</b>		<b>BEng (Hons) for CEng</b>		<b>Integrated MEng degree as enhancement of BEng (Hons)</b>	
<i>The weighting given to these different broad areas of learning will vary according to the nature and aims</i>					
<b>Underpinning Science and Mathematics and associated engineering disciplines (US)</b>					
<b>US1i</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of the scientific principles underpinning relevant technologies, and their evolution</li> </ul>	<b>US1</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of scientific principles and methodology necessary to underpin their education in their engineering discipline, to enable appreciation of its scientific and engineering context and to support their understanding of future developments and technologies.</li> </ul>	<b>US1m</b>	<ul style="list-style-type: none"> <li>A comprehensive understanding of the scientific principles of own specialisation and related disciplines.</li> </ul>
<b>US2i</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of mathematics necessary to support application of key engineering principles</li> </ul>	<b>US2</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of mathematical principles necessary to underpin their education in their engineering discipline and to enable them to apply mathematical methods, tools and notations proficiently in the analysis and solution of engineering problems.</li> </ul>	<b>US2m</b>	<ul style="list-style-type: none"> <li>A comprehensive knowledge and understanding of mathematical and computer models relevant to the engineering discipline, and an appreciation of their limitations.</li> </ul>
<b>US3</b>		<b>US3</b>	<ul style="list-style-type: none"> <li>Ability to apply and integrate knowledge and understanding of other engineering disciplines to support the study of their own engineering discipline</li> </ul>	<b>US3m</b>	<ul style="list-style-type: none"> <li>An understanding of concepts from a range of areas including some outside engineering, and the ability to apply them effectively in engineering projects.</li> </ul>
				<b>US4m</b>	<ul style="list-style-type: none"> <li>An awareness of developing related to own specialisation.</li> </ul>

	IEng degree	BEng(Hons) for CEng	Integrated MEng degree		
<b>Engineering Analysis (E)</b>					
<b>E1i</b>	<ul style="list-style-type: none"> <li>Ability to monitor, interpret and apply the results of analyses and modelling in order to bring about continuous improvement</li> </ul>	<b>E1</b>	<ul style="list-style-type: none"> <li>Understanding of engineering principles and the ability to apply them to analyse key engineering processes.</li> </ul>	<b>E1m</b>	<ul style="list-style-type: none"> <li>Ability to use fundamental knowledge to investigate new and emerging technologies.</li> </ul>
<b>E2i</b>	<ul style="list-style-type: none"> <li>Ability to use the results of analysis to solve engineering problems, apply technology and implement engineering processes.</li> </ul>	<b>E2</b>	<ul style="list-style-type: none"> <li>Ability to identify, classify and describe the performance of systems and components through the use of analytical methods and modelling techniques</li> </ul>	<b>E2m</b>	<ul style="list-style-type: none"> <li>Ability to extract data pertinent to an unfamiliar problem, and apply its solution using computer based engineering tools when appropriate</li> </ul>
<b>E3i</b>	<ul style="list-style-type: none"> <li>Ability to apply quantitative methods and computer software relevant to their engineering technology discipline(s), frequently within a multidisciplinary context.</li> </ul>	<b>E3</b>	<ul style="list-style-type: none"> <li>Ability to apply quantitative methods and computer software relevant to their engineering discipline, to solve engineering problems</li> </ul>	<b>E3m</b>	<ul style="list-style-type: none"> <li>Ability to apply mathematical and computer based models for solving problems in engineering, and the ability to assess the limitations of particular cases.</li> </ul>
<b>E4i</b>	<ul style="list-style-type: none"> <li>Ability to apply a systems approach to engineering problems through know-how of the application of the relevant technologies</li> </ul>	<b>E4</b>	<ul style="list-style-type: none"> <li>Understanding of and ability to apply a systems approach to engineering problems</li> </ul>	<b>E4</b>	

IEng degree		BEng(Hons) for CEng		Integrated MEng degree	
<p><i>Design is the creation and development of an economically viable product, process or system to meet a defined need. It involves significant technical and intellectual challenges and can be used to integrate all engineering understanding, knowledge and skills to the solution of real problems. Graduates need the knowledge understanding and skills to:</i></p>					
<b>Design (D)</b>					
<b>D1i</b>	<ul style="list-style-type: none"> <li>Define a problem and identify constraints.</li> </ul>	<b>D1</b>	<ul style="list-style-type: none"> <li>Investigate and define a problem and identify constraints including environmental and sustainability limitations, health and safety and risk assessment issues</li> </ul>	<b>D1m</b>	<ul style="list-style-type: none"> <li>Wide knowledge and comprehensive understanding of design processes and methodologies and the ability to apply and adapt them in unfamiliar situations.</li> </ul>
<b>D2i</b>	<ul style="list-style-type: none"> <li>Design solutions according to customer and user needs</li> </ul>	<b>D2</b>	<ul style="list-style-type: none"> <li>Understand customer and user needs and the importance of considerations such as aesthetics</li> </ul>	<b>D2</b>	
<b>D3</b>		<b>D3</b>	<ul style="list-style-type: none"> <li>Identify and manage cost drivers</li> </ul>	<b>D3</b>	
<b>D4i</b>	<ul style="list-style-type: none"> <li>Use creativity and innovation in a practical context</li> </ul>	<b>D4</b>	<ul style="list-style-type: none"> <li>Use creativity to establish innovative solutions</li> </ul>	<b>D4m</b>	<ul style="list-style-type: none"> <li>Ability to generate an innovative design for products, systems, components or processes to fulfil new needs.</li> </ul>
<b>D5i</b>	<ul style="list-style-type: none"> <li>Ensure fitness for purpose (including operation, maintenance, reliability etc.)</li> </ul>	<b>D5</b>	<ul style="list-style-type: none"> <li>Ensure fitness for purpose for all aspects of the problem including production, operation, maintenance and disposal</li> </ul>	<b>D5m</b>	
<b>D6i</b>	<ul style="list-style-type: none"> <li>Adapt designs to meet their new purposes or applications</li> </ul>	<b>D6</b>	<ul style="list-style-type: none"> <li>Manage the design process and evaluate outcomes</li> </ul>	<b>D6</b>	

IEng degree		BEng(Hons) for CEng		Integrated MEng degree	
<b><i>Economic, social and environmental context (S)</i></b>					
<b>S1</b>		<b>S1</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of commercial and economic context of engineering processes</li> </ul>	<b>S1m</b>	<ul style="list-style-type: none"> <li>The ability to make general evaluations of commercial risks through some understanding of the basis of such risks</li> </ul>
<b>S2</b>		<b>S2</b>	<ul style="list-style-type: none"> <li>Knowledge of management techniques which may be used to achieve engineering objectives within that context</li> </ul>	<b>S2m</b>	<ul style="list-style-type: none"> <li>Extensive knowledge and understanding of management and business practices, and their limitations, and how these may be applied appropriately <i>to strategic and tactical issues</i>.</li> </ul>
<b>S3</b>		<b>S3</b>	<ul style="list-style-type: none"> <li>Understanding of the requirement for engineering activities to promote sustainable development</li> </ul>	<b>S3</b>	
<b>S4</b>		<b>S4</b>	<ul style="list-style-type: none"> <li>Awareness of the framework of relevant legal requirements governing engineering activities, including personnel, health, safety, and risk (including environmental risk) issues.</li> </ul>	<b>S4</b>	
<b>S5</b>		<b>S5</b>	<ul style="list-style-type: none"> <li>Understanding of the need for a high level of professional and ethical conduct in engineering</li> </ul>	<b>S5</b>	

	IEng degree	BEng(Hons) for CEng	Integrated MEng degree		
<b>Practical application of engineering skills, combining theory and experience, and use of other relevant knowledge and skills. This must include an appropriate combination of the majority of these outcomes</b>					
<b>Engineering Practice (P)</b>					
<b>P1i</b>	<ul style="list-style-type: none"> <li>Understanding of and ability to use relevant equipment, tools, processes, or products</li> </ul>	<b>P1</b>	<ul style="list-style-type: none"> <li>Knowledge of characteristics of particular equipment, processes or products</li> </ul>	<b>P1m</b>	<ul style="list-style-type: none"> <li>A thorough understanding of current practice and its limitations and some appreciation of likely new developments</li> </ul>
<b>P2i</b>	<ul style="list-style-type: none"> <li>Knowledge and understanding of workshop and laboratory practice</li> </ul>	<b>P2</b>	<ul style="list-style-type: none"> <li>Workshop and laboratory skills</li> </ul>	<b>P2m</b>	<ul style="list-style-type: none"> <li>Extensive knowledge and understanding of a wide range of engineering materials and components</li> </ul>
<b>P3i</b>	<ul style="list-style-type: none"> <li>Knowledge of contexts in which engineering knowledge can be applied (e.g. operations and management, application and development of technology, etc.)</li> </ul>	<b>P3</b>	<ul style="list-style-type: none"> <li>Understanding of contexts in which engineering knowledge can be applied (e.g. operations and management, technology, development, etc.)</li> </ul>	<b>P3</b>	
<b>P4i</b>	<ul style="list-style-type: none"> <li>Ability to use and apply information from technical literature</li> </ul>	<b>P4</b>	<ul style="list-style-type: none"> <li>Understanding use of technical literature and other information sources</li> </ul>	<b>P4</b>	
<b>P5</b>		<b>P5</b>	<ul style="list-style-type: none"> <li>Awareness of nature of intellectual property and contractual issues</li> </ul>	<b>P5</b>	
<b>P6i</b>	<ul style="list-style-type: none"> <li>Ability to use appropriate codes of practice and industry standards</li> </ul>	<b>P6</b>	<ul style="list-style-type: none"> <li>Understanding of appropriate codes of practice and industry standards</li> </ul>	<b>P6</b>	
<b>P7i</b>	<ul style="list-style-type: none"> <li>Awareness of quality issues and their application to continuous improvement</li> </ul>	<b>P7</b>	<ul style="list-style-type: none"> <li>Awareness of quality issues</li> </ul>	<b>P7</b>	
<b>P8i</b>	<ul style="list-style-type: none"> <li>Understanding of the principles of managing engineering processes</li> </ul>	<b>P8</b>	<ul style="list-style-type: none"> <li>Ability to work with technical uncertainty</li> </ul>	<b>P8m</b>	<ul style="list-style-type: none"> <li>Ability to apply engineering techniques taking account of a range of commercial and industrial constraints</li> </ul>

These programmes have also been designed to prepare students to sit professional exams for the CAA Aircraft Maintenance B1 license and the mapping is shown below:

<b>HNC, HND and BSc (top-up) Modules</b>		<b>B1 Licensing Exams which are linked in terms of content</b>	
<b>Module code</b>	<b>Module title</b>	<b>EASA Module Number</b>	<b>EASA Module Title</b>
Level 1			
SC401	Engineering Mathematics	1	Mathematics
SC402	Engineering Science	2	Physics
SC403	Electrical Fundamentals	3	Electrical Fundamentals
SC404	Aircraft Materials and Hardware	6	Modules and Hardware
SC405	Aerodynamics	8	Basic Aerodynamics
SC406	Employability Skills and Human Factors	9A	Human Factors
Level 2			
SC501	Electronic Fundamentals	4	Electronic Fundamentals
SC502	Aircraft Maintenance and Professional Practices	7A	Maintenance Practices
SC503	Aviation Legislation & Management	10	Aviation Legislation
SC504	Gas Turbine Engine Science	15	Gas Turbine Engine
SC505	Piston Engine Science	16	Piston Engine
SC506	Physics of Propellers	17A	Propeller
Level 3			
SC601	Digital Techniques	5	Digital Techniques/Electronic Instrument Systems
SC602	Electronic Instrument Systems	11A,  11B  13	Turbine Aeroplane Aerodynamics, Structures and Systems.  Piston Aeroplane Aerodynamics, Structures and Systems.  Aircraft Aerodynamics, Structures and Systems.
SC603	Aircraft Structures		
SC604	Aircraft Systems		
SC605	Advanced Aerodynamics		
SC606	Individual Project	N/A	N/A

The content of each module will support students in preparing for each exam.

## 2 Teaching and Learning Strategy

This course has been designed to align to Solihull College and University Centre's strategy for teaching, learning, assessment and scholarship (2015) which states

"Excellence in teaching and learning is central to both the college's vision "... to be the organisation of choice for learning for young people, adults and employers through their recognition of our excellent and distinctive experiences in vocational education and training" and its mission statement to "...make significant contributions to the local and regional economies and beyond, by providing high quality vocational education and training for individuals, employers and the wider community." In order to ensure that all of our HE provision will adhere to these principles, the college is committed to following six strategic objectives across our HE curriculum offer.

We will:

1. Recognise, value and reward all those who teach and support learning;
2. Enhance the teaching skills of all academic staff through a carefully considered and evaluated programme of continuous professional development;
3. Promote teaching and learning through scholarship-informed, and where appropriate, research-informed activities;
4. Promote and share pedagogic innovations both within, and outside the college;
5. Engage students in the mechanisms, processes and procedures developed by the college to enhance their learning opportunities;
6. Ensure that **all** staff, not just those directly involved in teaching, learning and assessment, are trained and supported in ways which will guarantee the effective delivery of this strategy.

The relevant college wide HE-objectives for teaching and learning are:

**SO2.** Enhance the teaching skills of all academic staff through a carefully considered and evaluated programme of continuous professional development by:

• Ensuring that all staff teaching on HE, regardless of the number of hours, have a continuous Personal Development (CPD) programme aligned to the UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education 2011 which will be inclusive of, but not necessarily limited to:

Student-centred teaching and learning;

- The UK Quality Code for Higher Education and its relevance;
- The attainment of Higher Education Academy Fellowship;
- Programme review, validation, monitoring and evaluation;
- Teaching, learning and assessment strategies in the subject area and how they may differ depending on the level of study and alignment with the FHEQ;
- The college's peer observational criteria for teaching HE and how it differs from FE delivery;
- Integrating scholarly activities into teaching and learning, whether subject-based or pedagogic;
- The writing, monitoring and verification of assessments;
- Assessment and feedback to HE learners;
- Evaluating and improving the student learning experience;
- Using and integrating learning technologies into subject specialisms.

**SO4.** Promote and share pedagogic innovations both within, and outside the college by:

- Organising internal staff development events;
- Organising an annual HE conference with attendees from partner HEIs and other external presenters, to include contributions from college HE staff;
- Sharing of practice through peer observation;
- Attendance and contribution to the HE Research Group and HE Forum; promote and engage with external staff development opportunities to create, produce and adapt, engaging, interactive and pedagogically effective learning materials.

**SO5.** Engage students in the mechanisms, processes and procedures developed by the college to enhance their learning opportunities by:

- Increasing and sustaining student attendance and participation in groups, quality boards, committees and forums across the college and at all levels of management and decision making;
- Continually evaluating and assessing the effectiveness of the mechanisms used to capture the opinions of students in improving the teaching and learning processes;
- Using student feedback to inform staff development needs and appraisal systems.
- Designing assessments which identify strengths and areas for development in student practice, understanding and achievement;
- Integrating summative and formative assessments to the support of student learning and the development of academic and employability skills;
- Providing prompt, useful and targeted feedback on learners' achievements and diagnosis of strengths and areas for development.

The following opportunities are provided within the design of this course to enable learners to develop and demonstrate their achievement of learning outcomes:

- Acquisition of core knowledge is through a mixture of lecture/presentations/demonstrations, tutorials, group seminars and directed study
- Analytic thinking skills are developed through discussion and debate in-group and tutorial sessions and question sheets.
- Practical skills are an essential component of the programme and will involve group work, presentations, demonstrations, laboratory experiments and workshop activities
- Common skills such as oral and written communication are developed by means of course notes, presentations of project work, appropriate reading, and written tutor feedback.
- Design skills and the ability to create simple engineering designs using multi-disciplinary approach is developed by means of sample project work and the final year projects.

### **3 Assessment Strategy**

This course has been designed to align to Solihull College and University Centre's strategy for teaching, learning, assessment and scholarship (2015)

The relevant college wide HE-objectives for teaching and learning are:

**SO2.** Enhance the teaching skills of all academic staff through a carefully considered and evaluated programme of continuous professional development by:

• Ensuring that all staff teaching on HE, regardless of the number of hours, have a continuous Personal Development (CPD) programme aligned to the UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education 2011 which will be inclusive of, but not necessarily limited to:

Student-centred teaching and learning;

- The UK Quality Code for Higher Education and its relevance;
- The attainment of Higher Education Academy Fellowship;
- Programme review, validation, monitoring and evaluation;
- Teaching, learning and assessment strategies in the subject area and how they may differ depending on the level of study and alignment with the FHEQ;
- The college's peer observational criteria for teaching HE and how it differs from FE delivery;
- Integrating scholarly activities into teaching and learning, whether subject-based or pedagogic;
- The writing, monitoring and verification of assessments;

- Assessment and feedback to HE learners;
- Evaluating and improving the student learning experience;
- Using and integrating learning technologies into subject specialisms.

**SO5.** Engage students in the mechanisms, processes and procedures developed by the college to enhance their learning opportunities by:

- Increasing and sustaining student attendance and participation in groups, quality boards, committees and forums across the college and at all levels of management and decision making;
- Continually evaluating and assessing the effectiveness of the mechanisms used to capture the opinions of students in improving the teaching and learning processes;
- Using student feedback to inform staff development needs and appraisal systems.
- Designing assessments which identify strengths and areas for development in student practice, understanding and achievement;
- Integrating summative and formative assessments to the support of student learning and the development of academic and employability skills;
- Providing prompt, useful and targeted feedback on learners' achievements and diagnosis of strengths and areas for development.

**Summative assessment methods in this course include:**

- Written work required in various formats such as reports, essays, blogs, dissertation
- Oral presentations to a group audience using teaching aids such as PowerPoint, poster, Electronic Whiteboard, Practical Models.
- Assessment is enhanced by encouraging the students to use technology e.g. digital cameras, flip videos, analysis software to augment their presentational work.
- Project work.
- Small scale research studies
- Work-based learning

As far as possible all assignment work is connected to a vocational relevant scenario. Students receive individual written and oral feedback within 3 working weeks of submission date.

**Formative assessment for learning and feedback includes:**

- Interactive lectures and question & answer sessions can be used to examine student understanding and identify any additional guidance required.
- Group activities involve students actively contributing to, leading and participating in discussions and debates on a wide range of subject areas, undertaking games or group activities allowing immediate assessment and feedback.
- Subject related tutorials are led by the subject tutor and aim to address a particular module or assignment. These tutorials can be linked to workshop sessions where necessary.
- Workshops are for students to develop skills in self-directed study with the support of tutors. These sessions will be supported by staff but not staff led. There will also be self-directed time for students to further develop these skills and spend time reading around topics using a variety of recommended sources.
- Extension activities/quizzes/Discussion forums on Moodle.
- Presentations are used to support research skills, organisation, and time-management skill and are also a confidence-building tool.
- The need for IT support in general will be identified and where necessary, IT support will be organised.
- Diagnostic testing identifying Maths and English support where necessary.

## 4 Programme/Course Management

### Admissions

Solihull College and University Centre is committed to fair access and encourages applications from all who are able to demonstrate potential to meet the entry criteria for the relevant course and benefit from study at undergraduate level.

Applicants are considered on the basis of their merits, abilities and potential, regardless of race, ethnic origin, gender identity, sexual orientation, disability, age, socio-economic background, family circumstances, religion or belief. The College's admissions policies and procedures are designed to ensure that all applications are considered fairly and consistently and in accordance with professional standards.

The College operates a centralised undergraduate admissions process for applications received via UCAS (full time applications) and the College website. Applications are processed by the HE Admissions Officer who acts as the main contact for applicants throughout the admissions process. However, selection decisions are made by members of the academic team.

Applicants are expected to:

- provide complete and honest information in applications submitted to the College
- respond in a timely manner to requests for further information from the College, communicate any changes to the information supplied in their application as soon as possible
- be courteous and respectful in their communications with College staff.

**Evaluation of the Standards of Teaching and Learning** is undertaken using the results of the following documents;

- Student feedback questionnaires, both initial impressions and the spring survey
- Module review forms completed by students at the end of every module and summarised by the course leader.
- Student input to the Programme Quality Board held twice a year.
- Student representations made through the HE Student Council.
- Action areas fed by the above to the course based Annual Monitoring report.
- Findings of the peer teaching observation scheme and recommendations for improvement that are made
- Quality Audit of the programme undertaken by Director of HE and an external observer.
- External Verifiers report and audit of assessed work

Students have the opportunity to comment on the quality of the programme in the following ways

- Submitting module evaluation questionnaires which are shared in team meetings and relevant actions raised are included in the Annual Monitoring Review.
- Student Representatives volunteer from each group to bring forward the views of their colleagues informally and within bi-annual programme quality boards (PQB). The minutes of student meetings are placed on Moodle and actions are reviewed at each PQB.

The ways in which the **quality of this programme is checked**, both inside and outside the college, are:

- External Examiners, who produce an annual report which is available to view on Moodle and also results in an action plan for the following academic year.
- Annual module review in the form of student evaluations which are discussed in a team meeting
- Periodic programme review to identify best practice and invite employers to contribute to the design of the programmes

- Invitation to attend Programme Quality Boards to all students and create a transparent discussion to share ideas, best practice and areas for improvement.
- The programme is the subject of an Annual Monitoring Report (AMR) the last section of which is a Quality Improvement Plan (QIP), written by the course leader with help and input from the teaching and tutoring team this is passed to the Head of School for audit and from them to the quality unit for further audit and acceptance as part of the College plan.
- Assessment rules and regulations and quality standards are those that are laid down in the Quality standards requirements of the College Academic Board.
- Assessment and assessment vehicles are regulated by the internal verification system for each programme which is itself audited by the quality unit within the College and also by the External Examiner.
- Also the programme is the subject of periodic review by QAA, ensuring that national benchmarks are met throughout the programme.

## 5 Entry Requirements and Selection Procedures

The course complies with Solihull College and University Centre's Higher Education Admissions policy (Sept 2015)

For APL, the programme manager will complete the College's proforma for APL Higher Education Awards demonstrating mapping of learning outcomes in order to accredit modules which must then be approved by the Assistant Principal for the STEM faculty. For non-standard admissions, the University link tutor will also provide advice.

**For full-time study, the minimum entry requirements for the BSc (Hons) degree programme is that candidates should normally possess one of the following:**

- A minimum of 240 UCAS tariff points, including two full A levels or equivalent
- OR
- BTEC Extended Diploma with 240 UCAS tariff point (MMM) in a relevant subject, including Mathematics and English performance equivalent to grade C GCSE
- OR
- Appropriate Foundation/Access qualification where the standard achieved is deemed equivalent to the above.

Non-native English speakers will normally require an IELTS score of 5.5 or TOEFL score of 550/213

**The HNC programme is only available for students completing their studies through the part-time route. The minimum entry requirements for the HNC programme is that candidates should normally possess one of the following:**

- A minimum of 80 UCAS tariff points, including two full A levels or equivalent for part-time entry onto HNC in conjunction with an industry relevant job role
- OR
- BTEC Diploma with 80 UCAS tariff points (PP) for entry onto part-time HNC including Mathematics and English performance equivalent to grade C GCSE and an industry relevant job role
- OR
- Appropriate Foundation/Access qualification where the standard achieved is deemed equivalent to the above and an industry relevant job role.

Non-native English speakers will normally require an IELTS score of 5.5 or TOEFL score of 550/213

**The HND programme is only available for students completing their studies through the part-time route. The minimum entry requirements for the HND programme is that candidates should normally possess one of the following:**

- Successful completion of HNC Aircraft Maintenance Engineering

**For students completing their studies in the part-time mode alongside a relevant job role, the minimum entry requirements for the BSc (Hons) degree is that candidates should normally possess one of the following:**

- Successful completion of the HND Aircraft Maintenance Engineering

**For all programmes,**

Candidates will normally be expected to have passed Mathematics and English language GCSE with minimum grade C, or possess an equivalent qualification.

Solihull College and University Centre will also review applicants with non-standard entry requirements including those with professional work experience and direct entry applicants.

Accreditation for prior learning is in accordance with Solihull College and University Centre's Academic Regulations.

### **6 Compliance with the University's Academic Regulations and current legislation**

This proposal complies with the undergraduate Academic Regulations.

Reasonable adjustments can be made to the teaching, learning, assessment and support of the course to maximise accessibility to students with disabilities. Solihull College and University Centre has an excellent record on widening access and welcomes students from all backgrounds on its courses