Template C4

Kingston University London

Programme Specification

Title of Course: *FdEng Aircraft Engineering*

Date first produced	01/12/2013
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Faculty	Faculty of Engineering, Computing and the Environment
Cross-disciplinary	
School	School of Engineering
Department	Department of Aerospace and Aircraft Engineering
Delivery Institution	Exeter College

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each modules can be found in the course VLE site and in individual Module Descriptors.

SECTION 1: GENERAL INFORMATION

Award(s) and Title(s):	FdEng Aircraft Engineering
Exit Award(s) and Title(s):	CertHE Aircraft Engineering (120 credits at level 4)
Course Code *For each pathway and mode of delivery*	UPAAE1AAE01 UOAAE1AAE70
UCAS code *For each pathway*	H410

Awarding Institution:	Kingston University
Teaching Institution:	Exeter College
Location:	Exeter College
Language of Delivery:	English (at all delivery sites)
Delivery mode:	Primarily campus based (up to 20% of scheduled L&T hours delivered online)
Learning mode(s):	Part-time Full-time
Minimum period of registration:	Part-time - 4 Full-time - 2
Maximum period of registration:	Part-time - 8 Full-time - 4
Entry requirements	Kingston University typically uses a range of entry requirements to assess an applicant's suitability for our courses. Most course requirements are based on UCAS Tariff points, usually stipulated as a range, and are sometimes coupled with minimum grades in specific relevant subjects. We may also use interview, portfolio and performance pieces to assess an applicant's suitability for the course. We recognise that every person's journey to Higher Education is different and unique and in some cases we may take into account work experience and other non-standard pathways onto University level study. Additionally, all non-UK applicants must meet our English language requirements.

	Please see our course pages on the Kingston University website for the most up to date entry requirements The minimum standard entry qualifications for the programme are: • 96 UCAS tariff points from three A-levels to include Mathematics and Science (General Studies and native language A-levels are not accepted) • 96 UCAS tariff points from a BTEC Extended Diploma (180-credit award) in an engineering subject to include Further Mathematics for Engineering Technicians. (BTECs in computing or technology subjects are not accepted). • HE access course with 60 credits at level 3 in an engineering subject. Plus: • Five GCSEs grade A*to C which must include English Language, Mathematics and a science or technology subject. Native language GCSEs, Key Skills Level 2 Communication and Application of Numbers, and IGCSE English as a Second Language are not accepted. Applicants with military and/or civil aircraft maintenance engineering experience or who have completed vocational aircraft engineering courses will be considered on an individual basis. A minimum International English Language Testing System (IELTS) score of 6.0 (min 5.5 in Speaking, Writing, Listening and Reading) or equivalent is required for those for whom English is not their first language.
Regulated by	The University and its courses are regulated by the Office for Students.
Programme Accredited by:	Partially by Royal Aero. Full IEng upon completion of BEng Aircraft Top up.
Approved Variants:	None.
Is this Higher or Degree Apprenticeship course?	No

SECTION 2: THE COURSE

A. Aims of the Course

The aims of the programme are to:

- Produce aircraft maintenance engineers who are equipped with the technical knowledge, understanding and skills to succeed in the industry and who also have the underpinning academic knowledge, understanding and skills needed for progression to the BSc(Hons) Aircraft Engineering Top-Up programme.
- Provide students with the professional knowledge and skills that will enable them to manage their own personal and professional development, and encourage them to be proactive in their professional and personal development.

More specific aims of the course are:

- Produce aircraft engineering graduates who are equipped with the technical knowledge, understanding skills; and behaviours required to be competent in the job roles within the maintenance sector.

- To prepare graduates with an ability to solve design problems and the technical skills needed to realise these solutions in the fields of aircraft operation and maintenance.

- To furnish graduates with a firm grasp of sustainability, ethics, risks, legal obligations and economics.

B. Programme Learning Outcomes

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They have been aligned to the levels set out in ‘Sector Recognised Standards in England’ (OFS 2022).

Programme Learning Outcomes					
	Knowledge and Understanding On completion of the course students will be able to:		**Intellectual Skills** On completion of the course students will be able to		**Subject Practical Skills** On completion of the course students will be able to
A1	Apply their knowledge and understanding of essential facts, concepts, theories and principles associated with aircraft engineering and the underpinning mathematics and science.	B1	Analyse the operation of aircraft systems and equipment to support defect diagnosis and identification, and provide evidence of their analytical and evaluative capabilities.	C1	Work effectively and safely in an aircraft maintenance environment and demonstrate due regard for good working practices, the regulations under which they must work and fight safety.
A2	Demonstrate a knowledge and understanding of the subject matter of the European Aviation Safety Agency (EASA)/Civil Aviation Authority(CAA) Part-66 module syllabuses for the Category B1.1 aircraft maintenance engineering licence.	B2	Locate, select, interpret and evaluate data and use it effectively in communication having due regard for intellectual property rights.	C2	Perform scheduled and unscheduled maintenance, fault diagnosis and rectification and serviceability testing on aircraft systems using the documentation, tools and equipment necessary to complete the task.
A3	Demonstrate a knowledge and understanding of the responsibilities and legal obligations of licensed aircraft maintenance engineers and the effects of them exercising their engineering judgement.	B3	Communicate clearly and succinctly orally, graphically and in writing having due regard for the receiving audience.	C3	Use a range of IT resources for research and communication, to retrieve and store information and data, apply numerical ans statistical methods to analyse data for decision making and to produce documents incorporating different types of information.

A4	Discuss the responsibilities of engineers in a broader context and explain the roles of the Engineering Council and Professional Engineering Institutes, and the process and purpose of registration.	B4	Reflect on their learning, identify strengths and weaknesses, determine priorities, set targets and develop action plans to meet them.	C4	Work independently or as a member of a team to achieve set goals.

C. Future Skills Graduate Attributes

In addition to the programme learning outcomes, the programme of study defined in this programme specification will engage students in developing their Future Skills Graduate Attributes:

1. Creative Problem Solving
2. Digital Competency Enterprise
3. Questioning Mindset
4. Adaptability
5. Empathy
6. Collaboration
7. Resilience
8. Self-Awareness

D. Outline Programme Structure

Each level is made up of four modules each worth 30 credit points. Typically, a student must complete 120 credits at each level. All students will be provided with the University regulations and specific additions that are sometimes required for accreditation by outside bodies (e.g., professional or statutory bodies that confer professional accreditation). Full details of each module will be provided in module descriptors and student module guides.

The programme is operated in accordance with the KU Undergraduate Regulations and modules are compulsory; there are no optional modules available. All students must complete 120 credits worth of modules at each level to progress to the next level. To be awarded a FD in Aircraft Engineering, students must pass all 240 credits.

Full details of each module will be provided in module descriptors and in the module canvas pages.

Note: As per GR5 within the general regulations, the University aims to ensure that all option modules listed below are delivered. However, for various reasons, such as demand, the availability of option modules may vary from year to year or between teaching blocks. Students will be informed of the availability of option modules through the Online Module Selection process.

FdEng Aircraft Engineering

Level 4
FdEng Aircraft Engineering

Core modules	Module code	Credit Value	Level	Teaching Block	Pre-requisites	Full Time	Part Time
Aerodynamics and Aircraft Electronic and Digital Systems	AE4003	30	4	YEAR LONG	NONE	1	2
Electrical Engineering Fundamentals	AE4002	30	4	Year Long		1	1
Mathematics and Physics for Practitioner Engineers	AE4001	30	4	YEAR LONG	None	1	1
Navigate with Aircraft Practical Skills	AE4017	30	4	YEAR LONG	NONE	1	2

Exit Awards at Level 4

Progression to Level 5 requires passes in all modules.
This course permits progression from level 4 to level 5 with 90 credits at level 4 or above. The outstanding 30 credits from level 4 can be trailed into level 5 and must be passed before completion of the FD.
Students exiting the course at this point who have successfully completed 120 credits at level 4 or above are eligible for the award of Certificate of Higher Education in Aircraft Engineering.

Level 5							
FdEng Aircraft Engineering							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Aircraft Materials, Hardware and Maintenance	AE5001	30	5	Year Long		2	2
Aircraft Structures and Systems	AE5007	30	5	Year Long		2	2
Explore with Aviation Legislation and Human Factors	AE5008	30	5	Year Long		2	2
Propulsion Systems	AE5043	30	5	Year Long		2	2

Exit Awards at Level 5

E. Teaching, Learning and Assessment

This course uses a range of teaching and assessment methods which have been designed to support students' learning and achievement of the learning outcomes. The course has been developed with reference to the Kingston University Academic Framework which sets out core principles relating to Course and Credit Structure (including Module delivery Structure and Pattern, and Learning Hours and Learning Formats); Curriculum Design (inclusion of Learning Design Principles and Inclusive Curriculum); and Future Skills.

Teaching and Learning on the course consist of Scheduled Learning and Teaching and Guided Independent Study (self-managed time). Scheduled Learning and Teaching includes the following, and the format for each module is set out in the module specification:

- Laboratory Sessions
- Lectures
- Seminars
- Tutorials
- Workshops

Guidance for students on the use of independent study time is communicated through the 'Succeed in your module' section on the Canvas Virtual Learning Environment and/or through other communications during the course.
The workshop and hangar practice introduces and give students an opportunity to develop the practical and maintenance skills needed to be an aircraft engineer. The learning outcomes are achieved primarily through practical exercises.

F. Support for Students and their Learning

The support provided to students is comprehensive but details vary between delivery sites. All students on all sites are supported by:

- An induction period at the beginning of the programme which includes briefings on the programme; university computer-based resources and university and local rules, regulations and procedures.
- A Course Leader and KU Liaison Officer based at Kingston and a Partner Liaison Officer employed by the partner and based at the partner site.
- A local Module Leader for each module who is responsible for managing the module and ensuring the coherence of the material and learning, and the fairness of the assessment. Local Module Leaders are supported by KU overarching Module Leaders who ensure comparability of the students learning, teaching and assessment experience at the module level across the consortium.
- A nominated personal tutor and the university Personal Tutor Scheme (PTS)
- Bi-annual Student Voice Committee(SVC) meetings held at the partner organisations.
- Canvas – the university's on-line virtual learning environment or an equivalent VLE .
- Access to e-resources from the KU Learning Resource Centres.

- A local programme administrator(Partner Liaison Officer) and a dedicated KU programme administrator.
- Student support departments that provide advice on issues such as finance, regulations, legal matters, accommodation, international student support etc.
- Access to technical support to provide students with advice on IT and the use of software.
- Disabled student support.
- Careers and Employability Service.

G. Ensuring and Enhancing the Quality of the Course

The University has policies and procedures for evaluating and improving the quality and standards of its provision.
These include:

- Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP)
- Student evaluation including Module Evaluation Questionnaires (MEQs), the National Student Survey (NSS)
- Internal and external moderation of graded assignments
- External examiners
- Boards of study with student representation
- Annual review and development
- Periodic review undertaken at the subject level
- Student evaluation

H. External Reference Points

- PSRB standards
- QAA Subject benchmarks
- RAeS accreditation

I. Development of Course Learning Outcomes in Modules

This table maps where programme learning outcomes are **summatively** assessed across the **core** modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

Module Code	**Level 4**	**Level 5**

		AE4001	AE4003	AE4017	AE4002	AE5008	AE5001	AE5007	AE5043
Knowledge & Understanding	A1	S	S	S					
	A2								
	A3								
	A4			S					
Intellectual Skills	B1								
	B2		S						
	B3			S					
	B4			S					
Practical Skills	C1								
	C2		S						
	C3	S	S						
	C4								

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.

Additional Information