Template C4

Kingston University London

Programme Specification

Title of Course: *BEng (Hons) Aviation Engineering top-up*

Date first produced	24/07/2023
Date last revised	26/09/2024
Date of implementation of current version	01/09/2025
Version number	2
Faculty	Faculty of Engineering, Computing and the Environment
Cross-disciplinary	
School	School of Engineering
Department	Department of Aerospace and Aircraft Engineering
Delivery Institution	Cardiff and Vale 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):	BEng (Hons) Aviation Engineering top-up
Exit Award(s) and Title(s):	
Course Code *For each pathway and mode of delivery*	
UCAS code *For each pathway*	

Awarding Institution:	Kingston University
Teaching Institution:	Cardiff and Vale College
Location:	International Centre for Aerospace Training, Cardiff and Vale College
Language of Delivery:	English
Delivery mode:	
Learning mode(s):	Full-time
Minimum period of registration:	Full-time - 1 year
Maximum period of registration:	Full-time - 2 years
Entry requirements	The entry requirements for the programme will be satisfied by successful completion of the following KU validated programmes: This programme is only available for direct entry from the HND Aerospace Engineering at CAVC or an equivalent programme.
Regulated by	The University and its courses are regulated by the Office for Students.
Programme Accredited by:	Accreditation will be sought from the Royal Aeronautical Society which already accredits the BEng(Hons) Aviation Engineering delivered at Kingston
Approved Variants:	There are no variants to the Undergraduate Modular Scheme (UMS)
Is this Higher or Degree Apprenticeship course?	No

SECTION 2: THE COURSE

A. Aims of the Course

This programme is only available for direct entry from the HND Aerospace Engineering at CAVC or an equivalent programme.

Aims of the Course
The general aims of the course are:

- To equip graduates with the engineering, design, management, business and general skills required to become aviation professionals, as well as enabling them to follow careers in related professional disciplines.

- To aligns with the current edition of the UK Standard for Professional Engineering Competence (UK-SPEC) and to meet the academic requirements for Incorporated Engineering (IEng) Membership of the Royal Aeronautical Society (RAes) by ensuring that the course is accredited by that body.

More specific aims of the course are:

- Produce aviation graduates who are equipped with the technical knowledge, understanding and skills; and behaviours required to be competent in the job roles within the aviation 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 equip students with a broader set of professional skills and attitudes that will enable them to manage their own continuous professional development when they leave the university; and to encourage them to be life-long learners.

- Provide students with the requisite skills and knowledge to progress to higher level study and work towards becoming aviation managers of the future.
- To furnish graduates with a firm grasp of sustainability, ethics, risks, legal obligations and economics.

B. Programme Learning Outcomes

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 aviation engineering and the underpinning mathematics and science.	B1	Recognise, evaluate and analyse problems; identify and investigate possible solutions and make sound decisions regarding the solution to adopt and/or the course of action to be taken.	C1	Apply aircraft engineering principles to design and implement operational procedures and solve logistical problems through the use of engineering analysis
A2	Demonstrate a knowledge and understanding of aircraft maintenance operations and project planning.	B2	Locate, collect, collate, interpret and critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), and use it to make judgements, and to frame appropriate questions to help achieve a solution.	C2	Use workshop and laboratory equipment safely for manufacture and experimental investigation
A3	Demonstrate a clear understanding of the legal obligations pertaining to aircraft engineers, the rules and regulations under which they must work and the need to always consider aviation safety.	B3	Communicate clearly and succinctly orally, graphically and in writing having due regard for the receiving audience and intellectual property rights.	C3	Apply numerical and statistical methods to operational and commercial data to improve safety, procedures and gain a commercial advantage in the aviation industry and the wider transport sector.
A4	Demonstrate understanding of the economical, ethical and sustainability challenges facing aviation and recognise the wider	B4	Manage their own personal and professional development by identifying gaps and/or shortfalls in their knowledge,	C4	Use a range of office, engineering and aircraft industry related IT equipment and

	benefit of aviation to developing economies.		understanding and skills and taking the necessary action to rectify it.		software confidently and effectively.
A5	Apply business methods to assess the economic and financial aspects of air transport and/or engineering projects.			C5	Work independently or as part of a team to initiate, investigate, plan, manage and drive projects to a successful conclusion and produce the associated documentation (proposals, plans, reports, presentations).

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

The course structure diagram is shown in figure 1. 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 BEng (Hons) Aviation Engineering degree, students must pass all 360 credits. A student is eligible for the award of an unclassified bachelor degree if they successfully complete 300 credits of the programme.

BEng (Hons) Aviation Engineering top-up

Level 6							
BEng (Hons) Aviation Engineering top-up							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Air Transport Economics	AE6601	30	6	Year Long	None	3	
Aircraft Maintenance Operations (Group Design Solution)	AE6025	15	6	TB2	None	3	

Aircraft Performance, Materials Failure and Structural Analysis	AE6027	30	6	Year Long	None	3	
Apply with Aircraft Maintenance	AE6005	15	6	TB1	None	3	
Individual Project	EG6016	30	6	Year Long	None	3	

Exit Awards at Level 6

120 credits worth of modules at Level 5.

E. Teaching, Learning and Assessment

The BEng course in Aviation has been designed, taking into account the Kingston University Curriculum Design Principles, to help develop students into graduates that are professional, thoughtful, creative, resilient, proactive and globally aware independent, equipping them to be lifelong learners. The programme as delivered at CAVC only includes the final year because the skills developed in Levels 4 and 5 are delivered through the CAVC HND in Aerospace Engineering which enables them to enter the final year of the programme.
Each level is made up of four modules each worth 30 credit points. 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 course structure diagram is shown in Figure 1.
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. To be awarded a BEng (Hons) Aircraft Engineering Top-Up degree, students must pass all 120 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.

Employability/Placement

As noted above the delivery at CAVC in only one year of full time study but students are able to take a year in industry after completing their HND before starting their final year.

F. Support for Students and their Learning

Student support recognises that the student experience is unique to each student. A key part of our approach to an inclusive curriculum is that we acknowledge and where possible accommodate their individual circumstances. The personal tutor scheme is central to the efforts to provide a personalised learning experience. (See PT section of programme specification). These cover the whole curriculum for a particular level. Students are required to work through these formative assessment problems as they cover the relevant curriculum. This allows students to test their learning and measure their progress. Discussion of progress on these problem sets will be a key part of the personal tutor scheme. Students are required to upload their progress on these activities onto the **Learning Log** created on the University VLE system. The Learning Log will be available to the relevant personal tutors for further discussion during one-to-one meetings. There will be milestones for students to meet at every level, and it will be one of the personal tutor's roles to monitor the students' progress and give appropriate advice. Where difficulties are encountered PTs will be able to help or direct students to available support including peer mentoring schemes, PAL, Maths aid and on-line resources etc.

Students are supported by:

- **A Module Leader** for each module
- **A Course Leader** to help students understand their programme structure and provide academic support
- **A Personal Tutor** (PT) to provide academic and personal support
- There is a **Student Support and Engagement Team** to help students with any problem that is affecting their studies.
- A dedicated Undergraduate Course Administrator
- **An induction programme** and study skills sessions at the start of each academic year
- **Academic Success Centre** is a one-to-one drop-in Study Skills session for students every weekday. Help is available on a range of academic skills from writing reports, note-taking, to exam revision, referencing, programming and mathematical skills.
- **VLE** – a versatile on-line interactive intranet and learning environment accessible both on-site and remotely
- **Course Representative scheme**
- **University Careers** and Employability Service
- Comprehensive University support systems including the provision of advice on finance, regulations, legal matters, accommodation, international student support, disability and equality support.
- The Students' Union
- An Academic Team that seeks to maintain an open door policy in the spirit of supporting students.

Personal Tutor Scheme (PTS) in the School of Engineering
The following provides the aims and structure of the Personal Tutor Scheme (PTS) for the School of Engineering. It is intended that the PTS be embedded within the provision of the BEng programme.

Overall Aims

- To build a rapport between staff and students and contribute to personalising students' experience within the School of Engineering
- To support students in the development of their academic skills providing appropriate advice and guidance to students throughout their time at Kingston, while monitoring their progress, helping to identify individual needs and referring students to other University services as appropriate
- To help students to develop the ability to be self-reliant and confident self-reflective learners who use feedback to their best advantage
- To encourage students to reflect on how their learning relates to a wider context and their personal career progression

Allocation of Personal Tutors

- Personal tutors will be allocated during induction week
- Tutors will be allocated on a course basis where appropriate with student numbers being equally divided amongst the staff within the school
- Students will keep the same tutor throughout their course of study
- If they change discipline at the end of TB1 a change of PT is likely to occur to allow comprehensive support through the programme.

There are specific aims and outcomes for each level, as the PTS is progressive and cumulative students will find that they are building on the skills developed in previous levels. Formative assessment will be provided in the form of regular feedback during meetings.

Level 6: Maximising success and moving on
Aims and Learning Outcomes

- To support students with the planning necessary to maximise success in their final undergraduate year
- To encourage students to reflect on the employability skills they have developed and be proactive in moving towards a professional life and/or further study
- To help students to make best use of the feedback they have received so that they can build on their strengths and take steps to address any weaknesses

Contact:

- One-to-one meeting in week 1
- Email contact at the end of teaching block 1
- Individual 'wrap up' email at end of academic year

Personal Tutors would have access to all the formative and summative assessment results of their tutees and would be responsible to discuss them with their tutees and assist them to prepare plans for further improvements and advise on any academic issues they may have. The personal tutors are also responsible for giving a bigger

and more complete picture of learning, teaching, learning outcome and assessment and their linkage to the tutees.

G. Ensuring and Enhancing the Quality of the Course

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

- External examiners
- Boards of study with student representation
- Annual Monitoring and Enhancement
- Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP+)
- Student evaluation including Module Evaluation Questionnaires (MEQs), level surveys and the National Student Survey (NSS)
- Moderation policies
- Feedback from employers

H. External Reference Points

External reference points which have informed the design of the course. These could include:

- PSRB standards
- QAA Subject benchmarks
- Apprenticeship standards
- Other subject or industry standards

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 6**				
		AE6027	**AE6005**	**AE6601**	**AE6025**	**EG6016**
Knowledge & Understanding	A1	S	S		S	
	A2		S	S	S	S

	A3		S		S	
	A4			S		
	A5			S		S
Intellectual Skills	B1	S	S		S	
	B2					S
	B3		S	S		
	B4			S		S
Practical Skills	C1	S	S		S	S
	C2	S				S
	C3			S		
	C4	S				S
	C5	S	S	S	S	S

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