Template C4

Programme Specification

Title of Course: *BSc (Hons) Environmental Science Integrated Degree Apprenticeship*

Date first produced	30/04/2017
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Version number	7
Faculty	Faculty of Engineering, Computing and the Environment
School	School of Built Environment and Geography
Department	Department of Geography, Geology & the Environment
Delivery Institution	Kingston University

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): ***Up to 10 pathways***	BSc (Hons) Environmental Science Integrated Degree Apprenticeship
Intermediate Awards(s) and Title(s): ***There are 4 Intermediate awards for each pathway***	Certificate of Higher Diploma of Higher Education
Course Code ***For each pathway and mode of delivery***	
UCAS code ***For each pathway***	NA

RQF Level for the Final Award:	Level 6
Awarding Institution:	Kingston University
Teaching Institution:	Kingston University
Location:	Penrhyn Road Campus, Kingston
Language of Delivery:	English
Modes of Delivery:	Part-time
Available as:	Full field
Minimum period of registration:	Part-time - 6
Maximum period of registration:	Part-time - 72 months
Entry Requirements:	The minimum entry qualifications for the programme are: From A levels: 112 UCAS Tariff points to include A2 mathematics at Grade C BTEC: Distinction, Merit, Merit (DMM) from an engineering-related BTEC Extended Diploma including Merit for Mathematics and Further Mathematics Plus: GCSE (A*-C) minimum of 5 subjects including English Language and Mathematics Technician Apprenticeship: Level 3 Apprenticeship as a Civil Engineering Technician

	Students who have alternative or non-standard qualifications or have experience that needs to be credited on an 'RPCL' and 'RPEL' basis are considered on an individual basis.
Programme Accredited by:	Institute of Environmental Management and Assessment (IEMA)
QAA Subject Benchmark Statements:	QAA Subject Benchmark Statement for Environmental Science (2022)
Approved Variants:	n/a
Is this Higher or Degree Apprenticeship course?	

For Higher or Degree Apprenticeship proposals only	
Higher or Degree Apprenticeship standard:	L6 Environmental Practitioner Integrated Degree Apprenticeship – ST0778
Recruitment, Selection and Admission process:	Information regarding available apprenticeships with a number of Employers can be found on the Institute for Technical Apprenticeships and Education website. Apprentices apply for positions with Employers, and then, following application, interview and selection process, successful apprentices apply for the degree apprenticeship through our application process led by the Central Apprenticeships Team and Programme Course Leader. Assuming qualification stipulations are met by the apprentice, they will be invited to complete the onboarding process through our end-to-end software Aptem. This includes completion of an Initial Needs Assessment - with the apprentice declaring Recognised Prior Learning (RPL) – both academic and experiential – against the learning outcomes for each degree module. RPL will be conducted in accordance with the university Academic Quality and Standards Handbook (AQSH). More information regarding the L6 Environmental Practitioner Degree Apprenticeship at Kingston University can be found on the University's website, along with "Next Steps".
End Point Assessment Organisation(s):	Kingston University, London

SECTION 2: THE COURSE

A. Aims of the Course

The educational aims of this BSc. (Honours) Environmental Science Integrated Degree Apprenticeship course are to:

- provide apprentices with an understanding of the key concepts of environmental systems and phenomena, and their relevance to modern society.
- enable apprentices to develop a critical reflective, integrated and science-based approach to the study of environmental phenomena, and develop the ability to confidently apply their knowledge in diverse geographical and scientific contexts.
- develop the ability to identify, analyse and critically evaluate relevant primary and secondary information sources and to communicate and debate cogent and informed arguments.
- develop intellectual, practical and fieldwork skills in environmental research including the acquisition, analysis, interpretation and representation of data and information, including its critical appraisal, as a basis for independent study (e.g., in preparation for and execution of the final year research project).
- develop an enquiring, analytical and creative approach to study, encouraging independent judgement and critical self-awareness.
- develop the KU Graduate Attributes, set and reflect on personal development ambitions to support career development aspirations.
- promote an understanding of professional environmental practices and consultancy skills by active engagement with the wider practitioner community, including fieldwork and other forms of experiential learning.
- facilitate understanding of the relationship between environmental science and the values and concepts of sustainability in general and in business and governance within a sustainable development context, – including global social justice/injustice, notions of development, and the need to consider ethics and politics in sustainability discourses.
- prepare apprentices for further study, research, career development and community engagement in a wide range of context where sustainability skills, knowledge and understanding can be applied.
- demonstrate an understanding of the key concepts which underpin the study of land-water-air interactions and their management.
- demonstrate an understanding of the key ecological concepts and their application.
- apply a range of technical skills (e.g., GIS) to monitor and evaluate natural landscapes and their management.
- demonstrate the required level of competency in all the Knowledge, Skills and Behaviours identified in the L6 Environmental Practitioner Degree Apprenticeship Standard ST0778 set by the Institute for Apprenticeships and Technical Education (IfATE).

B. Intended Learning Outcomes

The course outcomes are referenced to the relevant QAA subject benchmarks indicated, Degree Apprenticeships Standards, and the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2022) And relate to the typical apprentices. The programme aims to enable students to progress from the category of threshold/typical to the category of excellent as they move through the programme (categories as per Benchmark Statement). The course is also designed to enable students to become more confident and capable as independent learners as they move from level to level. As such, learning at Level 4 is more

teacher directed, Level 5 facilitates more student selected topics and direction, and Level 6 encourages and rewards independent learning and student initiative. The course provides opportunities for apprentices to develop and demonstrate knowledge and understanding specific to the subject, key skills and graduate attributes in the following areas:

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They must align to the levels set out in the '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	Define and evaluate the nature of environmental systems and phenomena, scientific principles that underpin them, their changing nature over a range of interacting scales and the contemporary and historical interactions between people and their environment.	B1	Critically evaluate and synthesise qualitative and quantitative information from a diverse range of primary and secondary sources.	C1	Undertake subject related practical work such as primary information acquisition and analysis (e.g., laboratory investigation) with due regard to safety.
A2	Be proficient in a range of techniques for the collection, analysis, interpretation and communication of environmental information.	B2	Demonstrate the ability for independent and reflective learning. Appraise the arguments of others, rationalise complex contested environmental themes and evaluate sustainable/non-sustainable solutions to environmental challenges.	C2	Solve complex problems by use of appropriate learning technologies (e.g., GIS) and design and execute environmental science project-based investigations with due regard to logistical and ethical issues.
A3	Develop and practice a range of project management skills through practical experience of guided and independent field-based learning and investigations in a range of contrasting settings.	B3	Construct reasoned arguments using appropriate supporting academic and practical evidence and develop confidence in the ability to communicate reasoned arguments through verbal, written and digital media.	C3	Develop experience in the use of support tools for effective communication.
A4	Demonstrate an understanding of the key concepts which underpin the study of land, water and ecology and how these interact with changing environmental systems.	B4	Evaluate the challenges posed by environmental change in land-water-ecological systems and the application of environmental science to further understanding of these changes and their management.	C4	Take informed decisions and solve complex problems by use of appropriate learning technologies in the classroom and the field, understanding the perspectives of a variety of different stakeholders.

In addition to the programme learning outcomes, the programme of study defined in this programme specification will allow students to develop the following range of Graduate Attributes:

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

C. Outline Programme Structure

BSc. (Honours) Environmental Science Integrated Degree Apprenticeship is aimed at apprentices who wish to study Environmental Science to Honours Degree level through the six-year Degree Apprenticeship Scheme. The programme embraces recent developments in higher education and industry and the curriculum and teaching benefits from the research interests of the academic staff. The programme is accredited by the Institute of Environmental Management and Assessment (IEMA) and has been designed in accordance with both the IfATE Standard ST0778 and associated KSBs, and IEMA professional standards.

The course is offered as a six-year Degree Apprenticeship programme (60 months plus 7 months for completion of the final 30 credit bearing, Integrated End Point Assessment module) for those in environmental-related employment, sponsored by the employers. The programme comprises a mixture of both 30 credit and 15 credit modules at each level of study, comprising a minimum of 20% of the apprenticeship time over the main 5-year period of study (60 months) followed by final 30-credit bearing module, which is also the Integrated End Point Assessment (EPA) (an additional 7 months). The taught commitment is typically one-day per week educational programme at Kingston University for each of the five years of the programme, and block release for fieldtrips and project work. Hours associated with module assessments are also included within the minimum 20% off-the-job training, and these can be spread out throughout the main academic calendar (i.e., late September to end May) around workplace commitments. There is an opportunity for direct entry to Level 5 and Level 6 with appropriate academic qualifications and professional experience.

The BSc. Environmental Science programme draws on staff expertise in the Department of Geography, Geology and the Environment, from staff in the Faculty of Engineering, Computing and the Environment, university support services (e.g., the Guild of Students), and working closely with Kingston University Sustainability Hub (KUSH) to ensure the course is compliant to the principles and values of sustainable development.

The majority of modules will be co-taught with students on the 3-year full-time and 6-year part-time BSc. Environmental Science programme with dedicated support from Personal Tutors, the Academic Lead, and the Degree Apprenticeship Skills Coach. Additionally, a unique series of skills modules are provided for apprentices only to support development of knowledges, skills and behaviours specific to the L6 Environmental Practitioner Degree Apprenticeship Standard ST0778. Support is tailored to the needs of the Degree Apprentices, including: employer liaison prior to the commencement of training, (e.g., onboarding and induction); bespoken tutorials and Tripartite Review Meetings during the 60 months of core-training; and guidance and support in the completion of the Gateway

Process and final End Point Assessment module, as a registered End Point Assessment Organisation. Additionally, the apprentices are supported by an Employer Mentor at the workplace who will monitor apprentices' progress. As a minimum the apprentices will meet with the Degree Apprenticeship Skills Coach/Academic Lead (i.e., training provider representative) and the Workplace Mentor/Line Manager (i.e., employer representative) at least four times per year at strategically defined points in the curriculum – these being the Tripartite Meetings, to ensure that the apprentices are progressing as planned in both their studies and learning experience at the university and in the workplace, and to discuss academic and practitioner-based development in relation to the Apprenticeship Standard Knowledge, Skills and Behaviours (KSBs), learning gains and future learning needs. Progress will be monitored through the completion of Learning Logs, the monitoring of module assessment results and feedback, discussion and review during Tripartite meetings, and – following the main training period – the Gateway meeting. All forms of monitoring will be uploaded to and reviewed using the University's end-to-end software package, Aptem.

Environmental Science is a highly practical subject, informed by rapidly developing local, national and international environmental concerns and challenges. The Environmental Practitioner Degree Apprenticeship encourages active learning and apprentices will engage with a range of scientific and geographical disciplines to understand and critically evaluate the operation and performance of environmental processes and systems and their relationship to society. Apprentices will learn how to recognise, acquire and make sense of environmental information, synthesise data to gain insight into complex challenges, formulate scientifically rigorous solutions and integrate theoretical and academic practical elements with their work-based learning experiences.

Kingston University Environmental Practitioner apprentices are ideally placed to develop their career aspirations with their employment environment and apply their knowledge and skills training in a range of learning environments. Environmental Science learning and teaching is informed directly by staff who are actively engaged in research and consultancy-based activities to embed environmentally and pedagogically informed best practices into our teaching. We will foster a developmental partnership between the employer, Kingston University and the apprentices to develop professional competence. We place emphasis on practical skills development and the integration of theory and practices. Academic practice is an important component of the Environmental Practitioner Degree Apprenticeship, and we place particular emphasis on experiential learning such as practical exercises, digital literacy skills (e.g., GIS) and fieldwork. For example, our fieldwork programme develops field-based research skills incrementally from Level 4 to 6, including residential fieldwork courses in the UK (e.g., Southwest England), and abroad (e.g., Tenerife).

Onboarding Process

The minimum entry qualifications for the programme are:

- From A levels: 96 UCAS points (CCC at A-level), with A-level or equivalent from subject areas including but not limited to Geography, Environmental Science, Chemistry and Biology or other relevant disciplines,
- Minimum five GCSEs grades A to C. These must include GCSE Math and English.
- BTEC National: BTEC/advanced Diploma/Access/Foundation qualifications considered where relevant.
- Access Diploma: Science Foundation year.

Apprentices with equivalent international qualifications are welcomed.

All apprentices are subject to an Initial Needs Assessment (INA) against the KSBs as defined by IfATE and the L6 Environmental Practitioner Standard ST0778 in consultation between the employer, university and apprentice. The INA addresses Recognised Prior

Learning (RPL) and identifies the apprentice's starting level of competency against the learning outcomes for each core module, in-so-doing allowing the Academic Lead to determine the correct Entry Level and module diet. The INA is completed as part of Kingston Universities Onboarding Process for apprentices, all documentation being completed, reviewed, and stored using the end-to-end software Aptem. Following completion and review of the INA, a Learner Journey is created to fit the needs of the apprentice. This is agreed by all parties and signed as part of the contract process. Note, RPL will be conducted in accordance with Section H of the AQSH.

Entry into this programme is normally at Level 4 with A-Level or equivalent qualifications as stated above. Advanced entry to Level 5 requires academic qualifications deemed equivalent to BSc. at Level 4 (normally HNC) or experiential experience in relevant fields. Advanced entry to Level 6 requires academic qualification deemed equivalent to BSc. Level 5 (normally HND).

Outline Programme Structure

This programme is offered in part-time learning mode and leads to the award of BSc. (Hons.) Environmental Science Integrated Degree Apprenticeship. The course is available as a full field. Entry is normally at Level 4 with A-level or equivalent qualifications. Transfer from a similar course is possible at Level 5 (typically a September start date) and Level 6 (typically a June start date). On completion of the first 330 credits of the academic programme at Kingston University the apprentice will start the Gateway activity in preparation for the final, integrated, 30-credit End Point Assessment (EPA) module. Both the degree and the apprenticeship are completed upon successful completion of the EPA module. In accordance with the Environmental Practitioner (Degree) apprenticeship standard the EPA should only start and, and the EPA be arranged once the employer is satisfied the apprentice is working at or above the level of competence set out in the occupational standard and the pre-requisite gateway requirements for EPA have been met and they can be evidenced. This programme is not fully integrated, but includes the End Point Assessment, as per the amendment to the Standard ST0778 in December 2022.

Work-based learning

This course is aimed at apprentices in environment-related employment who wish to compliment and develop their employability knowledge and skills portfolio. The Environmental Science Integrated Degree Apprenticeship programme is a bridge between the academic and the practitioner environment. Apprentices can expect to spend a minimum of 20% of their employment time related to the academic component of their apprenticeship, net one-day per week over five years but with a negotiated level of flexibility to allow for specific learning tasks, including assessment preparation, examination revision, residential fieldwork. The remaining maximum 80% involves on-the-job training and experiential learning.

Course Structure

The programme comprises four key structural elements: (1) initial assessment and extended induction; (2) the taught academic programme involving the completion of the 330 credits of modules (120 at Level 4, 120 at Level 5 and 90 at Level 6); (3) the Gateway process, in which apprentices must provide evidence and demonstrate that they have met a number of key achievements; and (4) completion of the final 30-credit, integrated End Point Assessment (EPA) module. The programme comprises three Levels (4, 5 and 6) to be delivered over five years (60 months) followed by the Gateway and EPA, in line with the Environmental Science Degree Apprenticeship professional standards. The EPA must be completed within a period of seven months, beginning when the apprentice has passed the EPA Gateway.

The initial assessment and extended induction activities are coordinated between the Course Leader (or designated Degree Apprentice lead), the Employer Mentor and the apprentice. This process will typically commence in the spring/early summer prior to KU Induction Week in September. The initial assessment and extended induction activities will define specific terms of reference, including an opportunity to discuss the detailed programme of learning activities and assessment points over the five years of study (e.g., the anticipated balance of the 20% minimum study period). A review of each year's progress and preview of the forthcoming year's activity and anticipated schedule of activities will occur every summer between the Course Leader/Degree Apprenticeship Skills Coach, employer and apprentice.

Each level of study comprises six core modules: two worth 30 credit points, and 4 worth 15 credits. Typically, an apprentice must complete 120 credits at each level. Apprentices will be provided with the relevant University regulations, and these will be discussed in the initial assessment and extended induction period. Full details of each module are provided in the eighteen module descriptors, articulated in Canvas and discussed with apprentices at the commencement of each module.

The academic component of the Environmental Science Integrated Degree Apprenticeship comprises a minimum 20% of the time allocated to the apprenticeship. The balance of delivery will vary from module to module and the breakdown of teaching and Guided Learning Study allocations are represented in the Module Descriptions. Accordingly, the 20% time allocated to the academic component of the Degree Apprenticeship will likely be unevenly distributed over the year (e.g., in line with assessment preparation and delivery, fieldwork, examination preparation and examinations) and will likely vary between years with a greater anticipated study commitment in Year 5 to accommodate the study of five Level 6 modules (one 30 credit and four 15 credit) in a 12-month period. This minimum time allocation will be discussed in detail with the employer in the induction period and reviewed and allocated at the start of each of the five years.

BSc (Hons) Environmental Science Integrated Degree Apprenticeship

Level 4							
BSc (Hons) Environmental Science Integrated Degree Apprenticeship							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Digital Mapping	GG4003	15	4	TB1	None		2
Introduction to Environmental Science	GG4002	30	4	TY13	None		2
Navigating your Apprenticeship Journey	EG4031	15	4	tb1			1
Our Dynamic Earth	GG4001	30	4	TY13	None		1
Research and Fieldwork Methods	GG4004	15	4	TB2	None		1
Sustainability for professional practice	EG4022	15	4	TB2	None		2

Optional Modules							

Level 5							
BSc (Hons) Environmental Science Integrated Degree Apprenticeship							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Advanced Research Methods and Statistics	GG5026	30	5	TY13	None		3
Contaminated Land, Assessment and Remediation	GG5024	15	5	TB2	None		3
Exploring Professional Skills in Project Management	EG5017	15	5	TB2			2
Principles and Ecology and Conservation	GG5023	15	5	TB1	None		4
Rivers, Oceans and the Atmosphere	GG5021	30	5	TY13	None		4
Understanding our World with GIS	GG5022	15	5	TB1	None		3
Optional Modules							

Level 6							
BSc (Hons) Environmental Science Integrated Degree Apprenticeship							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Application of your Professional Skills for End Point Assessment	EG6025	15	6	Spanning			5
Climate Change Hazards, Resilience and Solutions	GG6024	15	6	TB2	None		5
Conservation Theory and Practice	GG6023	15	6	TB2	None		5
End Point Assessment	GG6026	30	6	Spanning blocks 5 and 6	None		5
Land and Water Resources Management (Environmental Science only)	GG6080	30	6	TY13	None		5
The Science of Climate Change	GG6022	15	6	Tb1	None		5
Optional Modules							

D. Principles of Teaching, Learning and Assessment

This course has been designed in accordance with Kingston University Curriculum Design Principles defined in the KU Academic Framework. These include a conscious commitment to equality, diversity and inclusion, constructive alignment of activities and their assessment and associated feedback and personalised learning. The course is highly sensitive to the diversity of learning needs of apprentices to ensure our continued commitment to inclusivity, on and off-campus engagement (leveraging digital learning expertise, e.g., Canvas VLE) and supported group-based learning activities. Examples include the conscious choice of globally diverse case studies to illustrate environmental phenomenon and the selection of fieldwork destinations. Many of the learning activities will be co-taught with students on the full-time (3-year) and part-time (6-year) BSc. (Hons) Environmental Science programme, including those on the Hazards and Disasters pathway, as well as students on the BSc. (Hons) Geography programme, and we will continue to build upon peer-to-peer relationships between learners on environmental courses irrespective (including our MSc Environmental Management students) through well-established co-curricular activities. The course endeavours to promote engagement by making all environmental apprentices/students feel active participants in community of learners and increasing their sense of belonging.

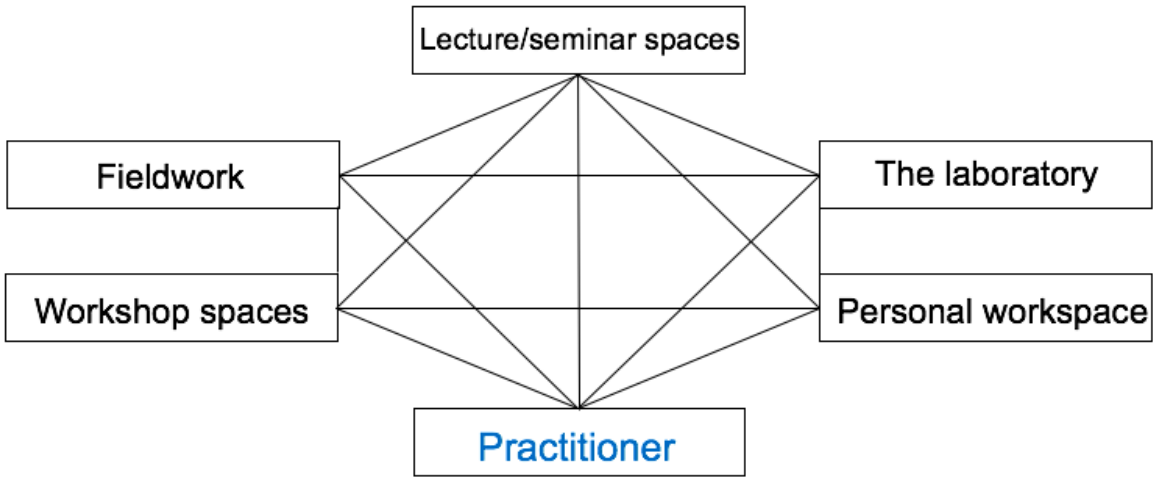
In line with the University's Inclusive Curriculum Framework, the programme is delivered in a diversity of formats which includes face-to-face teaching, recorded materials with transcriptions, online quizzes, small group discussions either in person or online via CANVAS, and opportunities for one-to-one consultation sessions. We enable students to see themselves in the curriculum by inviting students to work on self-selected case studies and to suggest discussion topics that are of interest to them. The course also places emphasis on the ethical importance of and value of diverse perspectives on issues, and in addressing real world problems. In doing so, the course aims to offer a programme that caters for diverse students and produce graduates that value diversity.

The course adopts a range of learning and teaching methods that enable apprentices to learn actively in all elements of the course and develop environmental skills and knowledge in a dynamic and evolving global context. Learning and Teaching practices are designed to meet the learning outcomes of each module within the context of the course learning objectives (defined in this document) and the identification of learning pathways with carefully identified assessment-feedback points at all Levels.

The development of a range of employment skills that complement the work-based component of the Degree Apprenticeship is central to our learning design. Employability skills are constructively aligned from the course level to the module level and closely managed by the Course Leader. Two discipline specific employability skills pathways are identified in our learning design in response to employer and alumni feedback: (1) an Information Technology and GIS pathway, with 15 credit modules in GIS at Levels 4 and 5, with integration of GIS in discipline modules from Level 5 upwards – L4 Digital Mapping and L5 Understanding Our World with GIS; and (2) a Research, Fieldwork and Study Skills pathway. The latter includes the embedded Personal Tutorial System – viewed as essential to the successful delivery of the Degree Apprenticeship, providing academic support and guidance and a personal bridge connecting the apprentice, Kingston University and the Employer. We have purposefully designed-in the study-skills and project management thread, from EG4031 Navigating Your Apprenticeship Journey – with an emphasis on learning-to-learn in higher education (appreciative of the differential backgrounds of the apprentices we wish to attract) and GG4004 Research and Fieldwork Methods at Level 4, linking to GG5026 Advanced Research Methods (and Statistics) and EG5017 Exploring Professional Skills in Project Management at Level 5 – including essential training in data collection and analysis, and preparation for the EPA Work-based Project, and finally to

EG6028 Application of Professional Skills for End Point Assessment at Level 6 – providing guidance and support in preparation for the EPA and final project skills development. Graduate attributes and professional development skills are learnt and advanced in the Kingston University Future Skills module strand – Navigate, Explore and Apply.

Environmental Science Degree Apprentices inhabit multiple learning environments between Kingston University and their workplace and within their academic and workplace environments. Apprentices learn how to effectively blend their knowledge, skills and behavioural experiences in these environments and to reflect and discuss these experiences with staff, employers and their peers: lectures are used to introduce key theoretical concepts and methodologies; practical sessions and field-based investigations introduce specific methods and exemplify theoretical concepts; independent learning space (e.g., guided by personal tutorials) allows in-depth insight to support key concepts; and group work is used to develop apprentices to team-working skills with a diversity of learners on the apprenticeship and non-apprenticeship pathway. Fieldwork teaching and learning is an important component of our teaching and learning strategy. Fieldwork experiences serve several functions: developing a range of specific employment-related field-based skills in a range of environmental settings; experiential exposure to a range of environmental challenges; and exposure to environmental practitioners in the workplace to gain first hand experiences of the application of environmental theory in practice.



Academic and employer learning experiences occur in multiple physical and virtual spaces.

The Canvas Virtual Learning platform provides a virtual space to connect these learning spaces and provide a flexible environment where apprentices can archive and search learning materials (e.g., Listen Again session capture is a common feature to support learners). Additionally, Canvas provides a virtual platform that allows the community of learners to interact and reflect on their learning outside of the classroom with their peers and staff (e.g., via discussion boards, chat rooms and blogs) – important for apprentices who may have extended periods away from Kingston University. Staff in the Department of Geography, Geology and the Environment have a proven track record in Technology Enhanced Learning provision to support and enrich the apprentice learning experience in Environmental Science. This includes promoting dialogic feedback, mobile-based learning, and electronic feedback on assessments in a variety of formats (e.g., video-based feedback). Computer practicals are used to introduce students to generic as well as specialised ICT skills and digital literacies. Generic packages include Microsoft Office applications while specialised packages include ArcGIS Pro and ArcGIS online for mapping

and spatial analysis, SPSS and NVivo for data analysis, and Adobe Illustrator for graphics and design.

Sustainability is a thread that runs through all modules in programme, from induction to the final project, group design and final examinations. The programme is designed so that sustainability is pervasive in the curriculum and is integral to the professional accreditation of the course with IEMA. Sustainability may be considered thoroughly embedded and there are a number of modules where sustainable development and environmental concerns are explicit within the intended Learning Outcomes (e.g., EG4022 Sustainability for Professional Practice, EG5017 Exploring Professional Skills in Project Management and EG6028 Application of Professional Skills for End Point Assessment – the latter two modules in requirements of group project work).

The course places an emphasis on practitioner-based learning to raise awareness of professional applications of Environmental Science and reinforce a sense of professionalism to compliment the apprentice work-based learning experiences. Fieldwork learning is a good example of this, where apprentices can learn from experts in a range of UK, European and/or developing world settings. For example, Kingston University is a signatory to the Civic University Commission and we have developed close links with the Royal Borough of Kingston-upon-Thames to leverage opportunities for learning opportunities in our local environment (e.g., water and air quality, waste management, sustainable transport, etc.) including insight into local environmental practices and the co-development of real-world student/apprentice projects. Co-curricular learning is an important feature of the course: there are numerous opportunities to attend subject related guest talks, seminars and conferences at Kingston University (e.g., organised with the KU Sustainability Hub) and other London-wide professional and academic institutions including the PSRBs (e.g., IEMA and the Royal Geographical Society). Personal tutors will also encourage apprentices to engage in student representation and ambassadorial roles, society membership, volunteering, academic mentoring activities and summer research internships. Activity in these areas is recognised by the University's Kingston Award Scheme.

The course modules are committed to assessment for learning and employ a range of formative and summative assessment tasks to incrementally scaffold knowledge, skills, and behaviours, and learn to self-evaluate learning gain with respect to personal milestones. We have made conscious design-choices to provide considerable diversity of assessment types that emphasise authenticity, inclusivity and choice to appeal across the range of apprentice strengths. The course assessment portfolio includes oral presentations and debate, in-class testing, examinations, research reports, blogs, podcasts and poster presentations. The assessment regime for each module has been designed to provide numerous formative opportunities that allow students to practice and to receive feedback on their performance and benchmark their progress in preparation for summative assessments (e.g., peer-based discussion of drafts, initial literature reviews, laboratory and field-based findings). Summative assessments may be synoptic and reflective of broader course learning objectives and, importantly, include the opportunity for the apprentice to draw from their work-based learning experiences.

Examples of assessment types that may be used to guide apprentice learning
Practical exercises designed to assess apprentices discipline understanding and technical competence
Individual and group-based case project work: to assess ability to understand requirements, to provide solutions to realistic problems and to interact and work effectively with others as a contributing member of a team. The outcomes can be:

- Written reports, where the ability to communicate the relevant concepts, methods, results and conclusions effectively will be assessed;

- Oral presentations, where the ability to summarise accurately and communicate clearly the key points from the work in a brief presentation will be assessed; and
- Video and podcasts, which may replicate features of oral presentations but allows advanced preparation away from the audience (which may suit some apprentices better).

Multiple choice or short answer questions: to assess competence in basic techniques and understanding of concepts.

Long answer structured questions in coursework assignments: to assess ability to apply learned techniques to solve simple to medium problems and which may include a limited investigative component

Individual and group practical laboratory reports.

Posters: group projects are presented in posters to and assessed by academic staff as well as members of the industrial advisory board.

Short in-class tests and on-line assessments: throughout a number of modules.

End of year written examinations

A detailed assessment timeline will be discussed between the apprentice, Work-place Mentor and/or Line manager, the Academic Course Lead and the Degree Apprenticeship Skills Coach in the initial assessment and extended induction period and will form the basis to produce a personalised time management plan to be agreed between all parties. The discussions will include the modular Guided Learning Study recommendations and will anticipate the time allowance needed to research, prepare and present assessments, including time allocation for revision and sitting of examinations. The time management plan may vary from employer to employer and apprentice to apprentice depending on personal employment circumstances.

E. Support for Students and their Learning

Apprentices are supported by:

- A Course Leader to help apprentices understand the programme structure and progression and to ensure apprentice/student supports.
- A Degree Apprenticeship Skills Coach to support the apprentice throughout their Apprenticeship Journey and to assist in keeping the apprentice on track through quarterly Tripartite Review Meetings and monitoring of Learning Logs and KSB Trackers.
- A Module Leader for each module to provide academic support.
- A module team for each module to provide academic support.
- A Personal Tutor programme which ensures that apprentices have a designated personal tutor for the duration of their studies.
- An Apprentice Mentoring scheme.
- A Future Skills and Employability Team to provide apprentices with advice on career development and progression, future job applications, updating CVs and mock-interview opportunities.
- Technical support to advise apprentices on IT and the use of software packages.
- A designated programme administrator.
- An induction week at the beginning of each new academic session.
- Course Representatives and a Student Voice Committee.
- CANVAS– a versatile on-line interactive learning environment.
- A range of Study Skills and Academic Skills support services.
- Student support facilities that provide advice on issues such as finance, regulations, legal matters, and accommodation.

- A faculty-based Student Support Team that provides advice and guidance on mitigation and student issues.
- A Disability, Dyslexia and Wellbeing student support centre.
- A Students' Union who run a range of clubs and societies and student advice services.
- A student society who organises discipline related social events.

A Personal Tutorial Scheme (PTS) supports the apprentice's learning and teaching at all levels. The PTS will:

- act as a central pillar of the pastoral care system building rapport between GGE staff and environmental science apprentices and supporting an environmental community of learners;
- support apprentices in the development of their academic skills, providing appropriate academic advice and guidance while monitoring their academic progress and helping to identify individual needs;
- encourage apprentices to be self-reliant, independent and confident self-reflective learners who use feedback to their best advantage and reflect on how their learning relates to a wider context and their personal and career progression and management; and
- engage apprentices with core values of sustainable development and align their learning closely to the principles of sustainability with guidance and engagement with the KU Sustainability Hub.

The PTS is embedded into the programme and constructively aligned to the Learning Aims of the course and at each level, specifically to the Learning Objectives of the following modules:

- Level 4 (Year 1) – EG4031 Navigating Your Apprenticeship Journey: settling in and building confidence; assisting apprentices in making the transition to Higher Education; encouragement of good academic habits and to gain the confidence to operate successfully in a university context; and preparing apprentices to make the most of feedback throughout their course.
- Level 5 (Year 4) – EG5017 Exploring Professional Skills in Project Management: broadening horizons; encouraging apprentices to foster increasing independence to allow apprentices to evaluate the ways in which their academic programme fits into the 'bigger' global picture whilst encouraging apprentices to draw inter-linkages and reflect on broader themes within and between their academic modules and their professional work; responding effectively to feedback; and, consideration of employability skills.
- Level 6 (summer Year 4 to Year 5) – EG6028 Application of Professional Skills for End Point Assessment module: providing apprentices with tailored support in preparing for the Gateway process and final End Point Assessment; supporting apprentices in producing a portfolio of evidence of competency in the range of KSBs attached to the L6 Environmental Practitioner Degree Apprenticeship IfATE Standard ST0778; encouraging the apprentice to reflect of their Apprenticeship and Learner Journey; and supporting the apprentice in the final EPA assessments.
- Level 6 (summer Year 5 to Year 6) – GG6026 End Point Assessment Module: providing additional support to the apprentice in their completion of their work-based project and preparation for their work-based project presentation and interview on their portfolio of competencies.

In Years 2 and 3, the PTS will be scheduled independently of a specific module.

F. 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:

- Accreditation by the Institute of Environmental Management and Assessment (IEMA)
- External examiners
- Student Voice Meetings
- Education Committee
- 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
- Quality Assurance and Enhancement Apprenticeships Forum
- Feedback from employers

Employability Statement

Environmental Science Degree Apprentices are employed by an environmentally-related employer. The course is geared towards the development of employability-related knowledge, skills and behaviour to best-support the apprentice in the workplace aligned to their developing career aspirations. The relationship with the employer is important to the successful co-development of learning gain. Systematic constructive dialogue between the Academic Course Lead, Degree Apprenticeship Skills Coach, Personal Tutor, Employer and Apprentice is critical to meet what will be a moving-target as the discipline specific knowledge and skills required of an environmental scientist evolve over the six years of the relationship with each apprentice.

Additionally, staff in the Department of Geography, Geology and the Environment are engaged in research and consultancy activities that keep them in regular professional contact with practitioners across the spectrum of practitioners.

Employability development skills are explicitly emphasised throughout the course and will be cross-referenced to the apprentice experiences in the workplace:

1. Knowledge skills – Environmental Science apprentices acquire specific environmental knowledge directly from environmental practitioners and develop the cognitive abilities to synthesise and apply this knowledge in a range of settings.
1. Practical skills – the acquisition of practical skills is essential to compliment the apprentices' experiences in the workplace. Apprentices can be confident that they are co-trained and fully prepared to undertake a range of practical tasks.
1. Workplace knowledge and skills – the academic environment provides an opportunity to reflect on the experiences gained first hand in the workplace, identify potential knowledge and skills gaps and seek opportunity through the Kingston University-employer partnership to develop specific knowledge and skills training.

Upon successful completion of the Environmental Science Degree Apprenticeship graduates have the opportunity to apply internally to study MSc. Environmental Management at Kingston University.

G. Employability and work-based learning

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Work-based learning, including sandwich courses and higher or degree apprenticeships

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H. Other sources of information that you may wish to consult

Other sources of information that you may wish to consult

Degree Apprenticeship Standards: Environmental Practitioner (Degree)

School of Engineering and the Environment, Kingston University website

Professional Accreditation: Institute of Environmental Management and Assessment

See Appendix A for the following:

Learning Outcomes for Accreditation: Institute of Environmental Management and Assessment

I. Development of Course Learning Outcomes in Modules

This table maps where course learning outcomes are **summatively** assessed across the 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						Level 6					
		GG4001	GG4002	GG4003	GG4004	EG4022	EG4031	GG5023	GG5022	EG5017	GG5021	GG5024	GG5026	GG6023	GG6024	GG6022	GG6080	EG6025	GG6026
Knowledge & Understanding	A1	S	S		S	S		S	S		S	S				S	S		
	A2					S		S	S		S	S							
	A3		S					S	S		S								
	A4		S		S	S		S	S		S								

Intellectual Skills	B1	S	S	S	S			S	S		S	S	S			S	S		
	B2	S			S	S		S			S	S	S						
	B3	S	S	S	S	S		S	S			S	S						
	B4	S			S	S		S				S							
Practical Skills	C1		S		S	S		S	S		S	S							
	C2	S			S				S		S	S	S						
	C3	S	S	S								S	S			S			
	C4	S	S		S						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.