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**Programme Specification**

**Title of Course: BSc (Hons) Forensic Science**

**Date Specification Produced: June 2012**

**Date Specification Last Revised:**  **July 2022**

This Programme Specification is designed for prospective students, current students, academic staff and potential 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 he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in Student Handbooks and Module Descriptors.

**SECTION 1: GENERAL INFORMATION**

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| **Title:**  | BSc Hons Forensic Science |
| **Awarding Institution:** | Kingston University |
| **Teaching Institution:** | Kingston University |
| **Location:** | Penrhyn Road |
| **Programme Accredited by:** | N/A |

**SECTION2: THE PROGRAMME**

1. **Programme Introduction**

The programme is offered as a full-time three-year degree course as either a Full or Half Field.  Alternatively, students can choose to follow the Field part-time, and switch between full-time and part-time attendance with the permission of the Course Leader.  The Full Field in Forensic Science is designed to offer students the opportunity to study a broadly based degree in Forensic Science. A range of modules are provided by the School of Life Sciences and the School of Pharmacy and Chemistry with additional option modules from the Criminology Field. Graduates of the Field are also equipped with practical and generic key skills relevant to employment in public service, industry and research.

Level four shares a number of modules with several other degree courses within the School of Life Sciences, providing essential theory and practical skills essential for later study.  Level five of the Full Field offers three core modules and an option module in key areas of Forensic Science as well as in skills relevant to research.  Level six builds upon earlier subject material, and examines more advanced and specialised areas of Forensic Science. In the final year, Full Field students also undertake a research project or dissertation.

The Half Field Forensic Science offers students the opportunity to study Forensic Science in conjunction with other relevant and related disciplines. In the Half Field students focus on core two Forensic Science modules at level 4, have a core and an option module at level 5, and a choice of two option modules in the final year. Half Field students are not offered a science project or dissertation but they may be able to take a Capstone or Special Topic module in their other field.

1. **Aims of the Programme**
* to provide all students who take the Forensic Science programme, both Full and Half Field, with an in-depth knowledge and understanding of the core elements of Forensic Science;
* to develop extensive and varied subject related practical skills and professional competence in the collection, analysis, interpretation and representation of scientific data and information;
* to afford students opportunities to develop their written and oral communication skills;
* to prepare students for graduate employment, research, further study and lifelong learning by developing their intellectual, problem solving, practical and key (transferable) skills;
* to provide the students with an understanding of the relationship between different areas of expertise within Forensic Science and to understand the necessity to employ different approaches in different cases and circumstances;
* to produce undergraduates with a knowledge and skills base that allow pursuit of both scientific and non-scientific careers in a variety of work environments such as general analytical or forensic laboratories, the police or public services;
* to give students the experience of interacting with forensic scientists, police officers, lawyers and others during site visits to laboratories, courts of law etc. and the involvement of specialist guest speakers.

**In addition students on the full-field programme will be able to select option modules:**

* to extend the students’ knowledge into additional subjects closely related to Forensic Science.
* to enable students to identify, locate and critically appraise primary and secondary sources as a basis for independent study and to conduct a major science research project in the final year;
1. **Intended Learning Outcomes**

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced to the QAA subject benchmark for Forensic Science (QAA benchmark document in draft form for consultation in 2012) and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008), and relate to the typical student.

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| **Programme Learning Outcomes** |
|  | **Knowledge and Understanding****On completion of the course students will have knowledge and understanding of:** |  | **Intellectual skills – able to:****On completion of the course students will be able to:** |  | **Subject Practical skills** **On completion of the course students will be able to:** |
| A1 | the role of forensic scientists, scene of crime officers, lawyers and others in the investigation of a crime; | B1 | critically analyse and interpret information from both primary and secondary sources, including experimental data; | C1 | carry out subject-related practical work safely and understand ethical and safety issues, including implications of copyright and data protection, preparing completed CoSHH forms and conducting risk assessments and the correct handling of a range of materials and samples; |
| A2 | the comparison and assessment of a variety of analytical methodologies and instrumentation with regard to performance and applicability; | B2 | plan, conduct and report on an individual research project (Full Field only); | C2 | select and use in an efficient manner the techniques used widely in the forensic field; |
| A3 | the principles underpinning scientific research methodology; | B3 | assemble and critically evaluate data from a variety of sources (including academic literature) and discern and establish connections; | C3 | use a range of complex instruments and understand their technological basis; |
| A4 | the procedures of evidence collection and preservation with respect to various crime scene scenarios; | B4 | demonstrate the ability to be independent, autonomous learners; | C4 | be conversant with the detailed and strict requirements of facilities and procedures used in forensic science including health and safety and quality assurance; |
| A5 | the use of analytical chemistry principles and techniques utilised in forensic investigations; |  |  | C5 | demonstrate skills in the evaluation and interpretation of laboratory, field and crime scene data; |
| A6 | the use of biological principles and current techniques in the analysis of a broad range of biological evidence; |  |  | C6 | develop an understanding of the analytical challenges particular to a crime scene and exhibit;  |
| A7 | how legal practice and policy impact on evidence collection and presentation; |  |  |  |  |
| A8 | a broad range of career paths open to science graduates and an awareness of the professional and employability skills relevant to pursuing these careers |  |  |  |  |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow

students to develop a range of Key Skills as follows:

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| **Key Skills** |
| **Self Awareness Skills** | **Communication Skills** | **Interpersonal Skills** | **Research and information Literacy Skills** | **Numeracy Skills** | **Management & Leadership Skills** | **Creativity and Problem Solving Skills** |
| Take responsibility for own learning and plan for and record own personal development | Express ideas clearly and unambiguously in writing and the spoken work | Work well with others in a group or team | Search for and select relevant sources of information | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | Determine the scope of a task (or project) | Apply scientific and other knowledge to analyse and evaluate information and data and to find solutions to problems |
| Recognise own academic strengths and weaknesses, reflect on performance and progress and respond to feedback | Present, challenge and defend ideas and results effectively orally and in writing | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Present and record data in appropriate formats | Identify resources needed to undertake the task (or project) and to schedule and manage the resources | Work with complex ideas and justify judgements made through effective use of evidence |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen and respond appropriately to ideas of others | Discuss and debate with others and make concession to reach agreement | Apply the ethical and legal requirements in both the access and use of information | Interpret and evaluate data to inform and justify arguments | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |  |
| Work effectively with limited supervision in unfamiliar contexts |  | Give, accept and respond to constructive feedback | Accurately cite and reference information sources | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | Motivate and direct others to enable an effective contribution from all participants |  |
|  |  | Show sensitivity and respect for diverse values and beliefs | Use software and IT technology as appropriate |  |  |  |

1. **Entry Requirements**

The minimum entry qualifications for the programme are:

From A levels: 104-112 points. 104 from at least TWO a-levels. These should include two Science A2s, to include Biology and/or Chemistry, with minimum of grade C or above. Other Science subjects considered as second science include Physics, Geography, Psychology and Mathematics.

BTEC: 112 for BTEC Extended Diploma

Access Diploma: completion of diploma with 60 credits of which 45 must be at level 3

Plus: Five GCSEs at grade A to C including English, Maths, and two Sciences

A minimum IELTS score of 6.0, or equivalent is required for those for whom English is not their first language, with no element below 5.5.

1. **Programme Structure**

This programme is offered in full-time or part-time learning mode, and leads to the award of BSc Hons Forensic Science in Full or Half Field. Entry is normally at level 4 with A-level or equivalent qualifications (See section D). Transfer from a similar programme is possible at level 5 with passes in comparable level 4 modules – but is at the discretion of the course team. Intake is normally in September.

**E1. Professional and Statutory Regulatory Bodies**

**E2. Work-Based Learning, Sandwich Programmes and Study Abroad**

Work placements are actively encouraged – although it is the responsibility of individual students to source and secure such placements. This allows students to reflect upon their own personal experience of working in an applied setting, to focus on aspects of this experience that they can clearly relate to theoretical concepts and to evaluate the relationship between theory and practice.

It should be noted that due to security restrictions, extended placements in frontline forensic work may be difficult to obtain but work within related fields is encouraged.

A number of Study Abroad opportunities at international institutions are available to Full Field Forensic Science students at level 5 and students are actively encouraged to pursue these.

**E3. 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. Full details of each module will be provided in module descriptors and student module guides.

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| **Level 4** (all core) |
| **Compulsory modules** | **Module code** | **Credit** **Value** | **Level**  | **Teaching Block** |
| Genes, Cells and Tissues | LS4001 | 30 | 4 | 1&2 |
| The Biochemical Foundations of Life \* | LS4002 | 30 | 4 | 1&2 |
| Scientific and Laboratory Skills  | LS4003 | 30 | 4 | 1&2 |
| Introduction to Forensic Science \* | LS4005 | 30 | 4 | 1&2 |
| \* Core for Half Field studentsProgression to level 5 requires successful completion of level 4. Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education. |

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| **Level 5** (at least 60 credits = core) |
| **Compulsory modules** | **Module code** | **Credit** **Value** | **Level**  | **Teaching Block** | **Pre-requisites** |
| Research Methods and Topics in Forensic Biology \*\* | LS5006 | 30 | 5 | 1&2 | Successful completion of level 4  |
| Crime Scene, Evidence and Law \* | CH5008 | 30 | 5 | 1&2 | Successful completion of level 4  |
| Analytical Science \*\* | CH5006 | 30 | 5 | 1&2 | Successful completion of level 4  |
| **Option modules** |  |  |  |  | **Pre-requisites** |
| Counterfeits, Fakes and Forgeries | LS5011 | 30 | 5 | 1&2 | Successful completion of level 4  |
| Policing and Punishment | CM5006 | 30 | 5 | 1&2 | Successful completion of level 4  |
| \* Core for Half Field students\*\* Half Field students must select one of these two modulesProgression to level 6 requires successful completion of level 5Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education. |

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| **Level 6** (at least 60 credits = core) |
| **Compulsory modules** | **Module code** | **Credit** **Value** | **Level**  |  |
| Biological Evidence – Advanced Techniques\*  | LS6013 | 30 | 6 | Completion of level 5 |
| Forensic Chemistry and Trace Analysis\* | CH6010 | 30 | 6 | CH5006 or equivalent |
| Project \*\*  | LS6014 | 30 | 6 | Completion of level 5 |
| Project \*\*  | CH6004 | 30 | 6 | Completion of level 5 |
| **Option modules** |  |  |  |  | **Pre-requisites** |
| Forensic Archaeology # | LS6012 | 30 | 6 | 1&2 | Completion of level 5 |
| Advanced Analytical Science # | CH6007 | 30 | 6 | 1&2 | CH5006 or equivalent  |
| Transnational Crime | CM6027 | 30 | 6 | 1&2 | CM5006 or equivalent |
| \* Half Field students must select one of these two modules # Half Field students must select one of these two modules\*\* Full Field students must select one of the two project modulesLevel 6 requires the completion of the compulsory modules and 1 option module. |
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1. **Principles of Teaching Learning and Assessment**

This field has been designed to take account of the KU Curriculum Design Principles. The course utilises a wide range of teaching and learning methods that will enable all students be actively engaged throughout the course. Teaching and learning methods are designed to suit the content and learning outcomes of the module – typically using lectures to ensure that students have the key knowledge relating to the module. Through a variety of group work, tutorials and workshops, practical and laboratory sessions students are then given the opportunity to take a proactive role in learning and develop personal and key skills.

A range of assessment methods will be used that enable students to demonstrate the acquisition of knowledge and skills. Methods include coursework, oral presentations, in-class tests, MCQs, examinations, laboratory reports and group activities. The assessment regime for each module has been designed to provide formative opportunities that allow students to practice and to receive feed forward on their performance in preparation for the summative assessment. Care has been taken to avoid assessment bunching. There are opportunities for synoptic assessment at levels five and six which allows students to demonstrate achievement of a range of learning outcomes from across a number of modules, particularly in core level five and six modules and the independent research project for Full Field students. Students are supported in this by their allocated personal tutor who also advises on their academic progress, decision-making and module choices. All Full Field level six students are required to complete an independent project which allows them to demonstrate and apply the knowledge and skills that they have acquired throughout the course. The project also allows students to further develop their research skills and provide them with the foundations for postgraduate study if they wish to pursue it.

The development of academic skills is embedded throughout the course and assessed both formatively and summatively. Diagnostic testing in the early weeks of the course and at intervals throughout the course will be utilised to test progress in the development of these skills but also to identify where students may need additional support which may come via the Academic Skills Centre or other tailored support.

The role of the personal tutor is to complement the teaching and learning strategies used by the teaching team, from levels 4-6, by fostering an academic relationship with their students that involves advising students on how best to approach their studies. This begins at level 4 by helping students to develop good academic habits - for example how best to take notes during lectures and using appropriate teaching resources to supplement lecture material.  At level 5 the personal tutor works with students to help them to understand the importance of planning and managing their studies so that they are able to cope with the academic demands at this level – for example encouraging students to read up on a topic (on their own and/or as part of a study group) prior to the lecture or tutorial. In addition to facilitating the planning and management of their studies, this approach will help students develop subject specific and generic communication skills, interpersonal skills (as it encourages discussion between student and academic) and research and information literacy skills as students will begin to access peer reviewed articles. By level 6 the relationship between students and their personal tutor will have developed enough for the tutor to be able to advise students on how to plan their studies so as to best maximise success by helping the student to identify and address their strengths and weakness when it comes to studying.

1. **Support for Students and their Learning**

Students are supported by:

* A Module Leader for each module
* A Course Leader to help students understand the programme structure
* Personal Tutors to provide academic and personal support
* A placement tutor to give general advice on placements
* Technical support to advise students on IT and the use of software
* A designated programme administrator
* An induction week at the beginning of each new intake
* Student Voice Committee
* Canvas – a versatile on-line interactive intranet and learning environment
* A substantial Study Skills Centre that provides academic skills support
* Student support facilities that provide advice on issues such as finance, regulations, legal matters, accommodation, international student support, etc. and designated HSSCE student support staff to assist with mitigation and pastoral care
* Disabled student support
* Union of Kingston Students
* Careers and Employability Service
* Students are encouraged to reflect on their personal development and academic progress
1. **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 review and development
* Periodic review undertaken at the subject level
* Student evaluation
* Moderation policies
1. **Employability Statement**

Students’ generic employability skills are developed throughout their course, both through activities that are embedded within the syllabus and from services offered by the University’s Careers and Employability Service. From the first year, students are encouraged to reflect on and identify what they have learned, whether academically or in terms of transferable skills, and how these may be relevant to employment. They are also encouraged to explore the job market and possible career paths, and to consider attributes that employers look for in graduates above and beyond essential academic skills, such as initiative, the ability to work in teams, manage time and to prioritise, the desire to learn and the motivation to improve performance, and appropriate communication and presentation skills in all their forms. In this context, students are also encouraged to take advantage of opportunities within and outside of the university to develop such skills through volunteering, work placements and study abroad. These skills are developed and enhanced during levels 5 and 6; in particular, the importance of creative thinking and problem-solving, networking, negotiating, inquisitiveness and giving and receiving feedback. Students are also encouraged to develop clearer ideas about career options, and are offered assistance and guidance in the preparation of CVs and for job applications and interviews. The final year also develops an understanding of leadership skills as well as an appreciation of commercial and business awareness, among other essential employment skills.

Graduates of both the Full and Half Field are equipped with the knowledge and skills to prepare them for further training as forensic scientists or research and laboratory scientists. In addition, the Full Field provides a curriculum that is relevant to employment in industries such as the pharmaceutical and molecular biology sectors that seek graduates with a sound knowledge of biology and chemistry together with practical and analytical skills. The practical, research and key skills content of the Field also prepares graduates for postgraduate training leading to research careers in a variety of scientific disciplines. Some graduates may seek to continue their interest in biology and chemistry generally through careers in science teaching.

It is also recognised that a number of graduates choose careers and postgraduate study in areas other than science but relating to the understanding they have gained of crime and criminal investigations, such as policing, probation, community and social work, security, insurance investigation, psychology and law. The Field equips graduates with transferable intellectual and key skills that are recognised as important for employment in a range of industries, such as finance, management, publishing and scientific sales.

1. **Approved Variants from the UR**

None

1. **Other sources of information that you may wish to consult**

A draft QAA Benchmark for Forensic Science was developed for consultation in 2012 and can be found here:

<http://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-forensic-science.pdf?sfvrsn=659ef781_10>

**Development of Programme Learning Outcomes in Modules**

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

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|  |  |  | **Level 4** | **Level 5** |  | **Level 6** |
|  | **Module Code** |  | LS4001 | LS4002 | LS4003 | LS4005 | LS5006 | LS5011 | CH5008 | CH5006 | CM5006 | LS6012 | LS6013 | LS6014 | CH6004 | CH6007 | CH6010 | CM6027 |
| **Programme Learning Outcomes** | **Knowledge & Understanding** | A1 |  |  |  | √ | √ | √ |  | √ | √ | √ | √ |  |  | √ | √ | √ |
| A2 | √ | √ | √ |  | √ |  |  | √ | √ | √ | √ | √ | √ | √ | √ |  |
| A3 | √ | √ | √ |  | √ |  |  |  |  |  |  | √ | √ |  |  |  |
| A4 |  |  |  | √ | √ | √ | √ |  |  | √ | √ |  |  |  | √ |  |
| A5 |  | √ |  |  |  |  | √ | √ |  |  |  |  | √ | √ | √ |  |
| A6 | √ |  | √ |  | √ |  |  |  |  |  | √ | √ |  |  |  |  |
| A7 |  |  |  | √ | √ | √ |  |  | √ | √ | √ |  |  |  | √ | √ |
| A8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Intellectual Skills** | B1 | √ |  |  |  | √ | √ |  | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| B2 |  |  |  |  |  |  |  |  |  |  |  | √ | √ |  |  |  |
| B3 | √ | √ |  |  | √ | √ |  |  | √ | √ | √ | √ | √ |  |  | √ |
| B4 |  |  |  | √ | √ | √ |  | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| **Practical Skills** | C1 | √ | √ |  |  | √ |  |  | √ |  |  | √ | √ | √ | √ | √ |  |
| C2 |  |  |  |  | √ |  |  | √ |  |  | √ | √ | √ | √ | √ |  |
| C3 | √ | √ |  |  |  |  |  | √ |  | √ | √ | √ | √ | √ | √ |  |
| C4 | √ | √ |  |  |  |  |  |  |  |  | √ |  |  | √ | √ |  |
| C5 |  |  |  | √ | √ |  |  | √ |  | √ | √ | √ | √ | √ | √ |  |
| C6 |  |  |  | √ | √ | √ |  | √ |  | √ | √ |  |  | √ | √ |  |

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

**BSc (HONOURS) Forensic Science**

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| **LEVEL 4** | **LEVEL 5**  | **LEVEL 6**  |
| **LS4001****Genes, Cells and Tissues** | **LS5006****Research Methods & Topics in Forensic Biology** | **LS6013 - Biological Evidence – Advanced Techniques** |
| **LS4002****The Biochemical Foundations of Life** | **CH5008****Crime Scene, Evidence and Law** | **CH6010****Forensic Chemistry and Trace Analysis** |
| **LS4003****Scientific and Laboratory Skills** | **CH5006****Analytical Science** | **Option Module see Note Two**  |
| **LS4005****Introduction to Forensic Science** | **Option Module see Note One** | **LS6014 OR CH6004****Project** |

**Note One:**

**LS5011 - Counterfeits, Fakes and Forgeries**

**CM5006 Policing and Punishment**

**Note Two:**

**LS6012 - Forensic Archaeology**

**CH6007 - Advanced Analytical Science**

**CM6027 Transnational crime**

**BSc (HONOURS) Forensic Science Half Field**

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| **LEVEL 4** | **LEVEL 5**  | **LEVEL 6**  |
| **LS4005****Introduction to Forensic Science** | **LS5006****Research Methods & Topics in Forensic Biology****OR****CH5006****Analytical Science**  | One module from Note One \*\* |
| **LS4002****The Biochemical Foundations of Life** | **CH5008****Crime Scene, Evidence and Law** | One module from Note One \*\* |
| Second Field Module | Second Field Module | Second Field Module |
| Second Field Module | Second Field Module | Second Field Module |

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**Note One:**

**LS6012 - Forensic Archaeology**

**LS6013 - Biological Evidence – Advanced Techniques**

**CH6007 - Advanced Analytical Science\*\***

**CH6010 Forensic Chemistry and Trace Analysis\*\***

\*\* Module choices at level 6 will be dependent on students having the appropriate prerequisites.

**Technical Annex**

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| **Final Award(s):** | BSc (Hons) Forensic Science  |
| **Intermediate Award(s):** | Cert HE, Ordinary degree |
| **Minimum period of registration:** | 3 years |
| **Maximum period of registration:** | 9 years |
| **FHEQ Level for the Final Award:** | Honours  |
| **QAA Subject Benchmark:** | Draft subject benchmark Forensic Science 2012 |
| **Modes of Delivery:** | Full-time; Part-time  |
| **Language of Delivery:** | English  |
| **Faculty:** | Health, Science, Social Care and Education  |
| **School:** | Life Sciences, Pharmacy and Chemistry |
| **JACS code:** | F410 |
| **UCAS Code:** | F410 (F411 extended degree) LF34 Forensic Science and Criminology |
| **Course Code:** |  |
| **Route Code:** | UFFSC |
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