Programme Specification: Undergraduate

For students starting in Academic Year 2024/25

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Forensic Science BSc (Hons) Forensic Science with Work Placement or International Year (see Annex for details)
Award type	Combined Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Normal length of the programme	3 years; 4 years with either the International Year or Placement Year between years 2 and 3
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	BSc combined honours routes in Forensic Science have a recognised status by the Chartered Society of Forensic Sciences. For further details see the section on Accreditation below.
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Fee for 2024/25 is £9,250* **International students:** Fee for 2024/25 is £20,700** The fee for the international year abroad is calculated at 15% of the standard year fee The fee for the work placement year is calculated at 20% of the standard year fee

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

** These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

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2. What is a Combined Honours programme?

NB: all students who study a science Principal subject are candidates for the degree of Bachelor of Science (with Honours) (BSc Hons) irrespective of their second Principal subject.

Combined Honours degrees are degrees that are taken in two different subjects, resulting in an X and Y degree title. If you are taking a Combined Honours programme, these will be the two subjects you applied for. These are referred to as your Principal Subjects.

In a Combined Honours degree you must take at least 135 credits in each Principal Subject (270 credits in total), accrued over all three levels of study, with at least 45 credits at each level of study (Levels 4, 5 and 6) in each of two Principal Subjects (90 credits per year). The remaining available credits can be filled with modules from these subjects or other subjects entirely.

As a Combined Honours student you can choose to study just one subject in your final year of study, taking a minimum of 90 credits in this subject. This will result in an X with Y degree title.

3. Overview of the Programme

This undergraduate honours degree programme aims to provide an education in the core areas of forensic science together with a theoretical and practical understanding of those analytical techniques that are of particular importance to the analysis of forensic evidence. The core curriculum encompasses key topics in forensic chemistry, forensic biology and criminalistic science. If you choose to specialise in year 3 the focus moves towards professional forensic practice with some emphasis on crime scene investigation and expert witness skills.

The broad educational aims of the programme are informed by the QAA Benchmark Statement for Forensic Science and are given here according to three generic categories. All the aims and the learning outcomes are applicable to all combined honours routes in Forensic Science.

4. Aims of the programme

The broad aims of the programme are to enable you to:

Knowledge

- engender and develop an enthusiasm for forensic science and provide an intellectually stimulating and beneficial learning experience
- provide an education to honours degree level in key areas of analytical science, forensic chemistry, forensic biology and criminalistics, underpinned by appropriate aspects of the core physical, biological and mathematical sciences
- enable the development of knowledge and experience of techniques relevant to forensic analysis and their practical application across a range of relevant materials and samples
- engender an understanding of continuity of evidence and how the crime scene, the laboratory and the court contribute to the forensic and legal process
- foster an awareness of and engagement with methods and techniques within forensic science, some of which are informed by current research

Skills

The programme will provide all students with opportunities to:

- develop practical, analytical, problem-solving and quantitative skills within forensic science, including those related to experimental data analysis and the evaluation of evidence
- develop written and oral reporting skills and the ability to convey scientific outcomes to both scientists and non-scientists
- research, devise, plan, execute and report on an original investigation or research project within the discipline

Employment

The programme will enable all students to:

- acquire a clear understanding of the context within which the professional forensic scientist operates and recognition of the constraints and opportunities which that implies, including legal and ethical issues
- develop subject-specific knowledge and a range of technical and transferrable skills to enable entry to employment across a range of science-based and other graduate occupations
- develop a range of generic skills appropriate to the scientific professions including the ability to engage in independent learning

5. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to:

- describe and explain the principles of forensic chemistry, criminalistic science, analytical science and selected topics in forensic biology and statistics, and possess competence in applying these principles to appropriate areas of the discipline
- maintain an awareness of and engagement with methods and techniques within forensic science, some of which are informed by current research
- describe and explain the principles and procedures for crime scene investigation
- describe the place of forensic science within the legal framework and the role of the expert witness in court
- describe the legal and ethical issues which constrain the practice of the professional forensic scientist

Subject specific skills

Successful students will be able to:

- identify a range of instrumental and other techniques, use them to analyse materials relevant to forensic science, and appreciate their limitations
- execute practical work and critically analyse the results from experiments or investigations and draw valid conclusions
- solve problems within forensic science by drawing on their scientific understanding and knowledge, and experience of experimental techniques
- interpret and evaluate the significance of the results of a forensic investigation in the context of the circumstances of the crime, using appropriate statistical tools where necessary
- prepare a written statement of expert testimony and defend it under cross-examination in a court setting
- research, devise, plan, execute and report on an original investigation or research project within the discipline
- work safely in the laboratory and manage risk assessments and other practices in a competent fashion
- select and utilise appropriate software, databases and other digital resources for the analysis and interpretation of instrumental and other laboratory data.

Key or transferable skills (including employability skills)

Successful students will be able to:

- solve familiar and unfamiliar problems by clearly formulating the problem, identifying the issues and generating different approaches to its solution
- analyse, synthesise and summarise data and information critically and appreciate its limitations
- assess the merits of contrasting theories, explanations and strategies
- make critical judgements by acquiring a range of evidence and information then formulating and testing hypotheses
- present concepts and information in a clear and concise manner, both orally, in writing and by other means and to interact and communicate effectively with scientific and non-scientific audiences
- work both independently and as part of a team, to plan,organise and perform work efficiently and conscientiously in a timely way, and meet appropriate deadlines
- take responsibility for their own learning and be able to reflect upon that learning
- utilise a range of ICT skills, including the use of databases, software packages and modern methods of communication
- work within an ethical framework and according to ethical, honest and acceptable practices

The Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-curricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and

societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social and ethical awareness.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

6. How is the programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module and generally involve a blend of in-situ and digital approaches . They include the following:

- Lectures, including those from guest speakers from the profession
- Tutorials
- Practical laboratory classes
- Practical simulated crime scene examination (indoor and outdoor) Problems classes
- Oral presentations Poster presentations
- Presentation and cross-examination in a mock court setting or online
- Mini-projects
- Group/ team work Independent project work
- Literature research tasks
- Expert witness statement preparation
- Case studies
- Workshops
- Problem-based learning
- Directed reading Independent study
- Use of e-learning/the Keele Learning Environment (KLE) (Blackboard) and MS Teams

The lectures describe, explain and map out the academic content of modules as well as engendering and developing an enthusiasm for forensic and analytical science. Through examples and case studies discussed in the lectures, students develop critical skills in reviewing ideas, principles and applications. Informal tutorials provide occasional small group support to material discussed in lectures and problem classes have a dual role, firstly in enabling students to apply theoretical ideas to new problems and secondly, to allow the tutor to provide formative feedback on the students' learning during these activities.

Forensic science is a laboratory-based discipline and practical work is closely tied to the lectures thus enabling students to gain competence and confidence in the investigation and analysis of forensic evidence, using laboratory instrumentation as well as developing a critical awareness of the range of techniques available, their capabilities and limitations. Students working in the laboratory quickly gain an understanding of health and safety issues, manage risk assessments, maintaining accurate and informative laboratory notes and working with others in a safe and productive fashion. In a similar way, through small-group, tutor-guided exercises and team-led investigations in indoor and outdoor simulated crime scenes, students apply the principles and procedures of crime scene investigation to novel incidents, develop practical skills and learn how to implement a forensic strategy and ensure a rigorous chain of custody.

In working with laboratory data, students develop skills and confidence in data analysis, the use of software tools and databases and in communicating the outcomes of such work in the form of reports, oral presentations and as conference posters. They will also develop skills in working within small groups of various sizes in laboratory mini- projects, CSI teams, a fieldwork exercise and a large scale team project.

In preparing expert witness statements and through the presentation and cross-examination within the mock court, students develop understanding of the place of the forensic and investigative sciences within the legal framework, the role of the expert witness in court and some of the legal and ethical issues which constrain the practice of the professional forensic scientist.

By engaging in literature research tasks and through directed reading, students will advance their own understanding of the discipline, develop critical abilities, appreciate the limitations of information and assess the merits of contrasting theories, explanations and strategies. Through working on all assignments, students will develop organisational skills, efficient working practices and the ability to meet appropriate deadlines.

Through project work, students will research, devise, plan, execute and report on an original investigation within the discipline either as an individual or as part of a team. They will work safely in the laboratory and engage in ethical, honest and acceptable practices throughout.

Throughout the programme students will undertake independent study that will require them to develop an adaptable and flexible approach to study, work and work-life balance. They will need to work towards identified targets for their own academic development, take responsibility for their own learning and thereby develop confidence in their own understanding and acquire a self-critical attitude to their own work and achievements. Consequently each student will develop practices which will enable them to engage with ongoing professional development throughout their careers.

All staff use the Keele Learning Environment and/or MS Teams to post learning resources for the modules on which they teach; these include lecture notes, recorded lectures and screencasts, module and laboratory handbooks, problem sheets, past exam papers, web- links to external resources, assignment briefs, assignment feedback and in some cases quizzes. Staff also use the KLE for electronic submission of work, marking and feedback and MS Teams to hold online tutorials, lectures and problem classes.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Academic Mentors or module lecturers on a one-to-one basis.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways.

7. Teaching Staff

There are a number of additional guest lecturers from the profession who contribute either a single or a short series of lectures, workshops or practical classes across the programme in topics such as crime scene examination, fire scene investigation and forensic toxicology. The Forensic Science academic staff have expertise and interests across the forensic sciences as well in chemistry and earth sciences. Most academic staff are active researchers in the forensic, analytical and chemical sciences and many have a distinguished track record in publication, the generation of grant income, industrial collaboration and as research journal reviewers. Several staff have particular interests in the development of teaching and learning methods within forensic and chemical sciences education and some are members of and active in the professional bodies for the forensic and chemical sciences. A number of staff are Fellows of the Higher Education Academy, have held Keele Teaching and Learning Awards and, within the School, several have been awarded the University Teaching Excellence Award. Additionally, the majority of staff contribute to widening participation and science outreach activities, and have demonstrated innovation and good practice in teaching and learning to take into account the diverse needs of all students.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April. Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules - a module that you are required to study on this course;
- Optional modules - these allow you some limited choice of what to study from a list of modules.

Language modules: You are able to take up to 60 credits across your degree programme as Faculty Funded additional Modern Language modules in order to graduate with the Enhanced Degree Title. [Please see link for more information on Enhanced degree titles.]

For further information on the content of modules currently offered please visit:
https://www.keele.ac.uk/recordsandexams/modulecatalogue/

A summary of the total credit requirements per year is as follows, with a minimum of 90 subject credits (compulsory plus optional) required for each year across both of your Principal Subjects. This document has information about *Forensic Science* modules only; please also see the document for your other subject.

Year	Compulsory	Optional	
		Min	Max
Level 4	60	0	0
Level 5	60	0	0
Level 6	30	30	30

In year 3 there is the option to choose to specialise in one of your subjects, taking a minimum of 90 credits in this subject rather than taking modules from both subjects.

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Forensic Chemistry and Analysis	FSC-10003	30	Semester 1-2
Forensic Identification and Investigation	FSC-10005	30	Semester 1-2

Level 5

Compulsory modules	Module Code	Credits	Period
Forensic Genetics	FSC-20003	15	Semester 1
Spectroscopy and Advanced Analysis	FSC-20005	15	Semester 1
Criminalistic Methods	FSC-20001	15	Semester 2
Drugs of Abuse	FSC-20009	15	Semester 2

Level 6

For students specialising in this subject at Level 6, a minimum of 90 credits must be taken in this subject (see the lower tables of compulsory and optional modules below). For students specialising in another subject, the first list should be used.

Compulsory modules	Module Code	Credits	Period
Evaluation of evidence, explosives and arson	FSC-30007	15	Semester 1
Forensic Science Research Project (15 credit)	FSC-30025	15	Semester 1-2

Optional modules	Module Code	Credits	Period
Advanced Forensic Evidence Examination	FSC-30033	15	Semester 1
Forensic Toxicology	FSC-30017	15	Semester 2
Environmental and Wildlife Forensics	FSC-30029	15	Semester 2
Advanced Forensic Chemistry	FSC-30037	15	Semester 2

If you choose to specialise in this subject in your final year you will study the following modules:

Compulsory modules	Module Code	Credits	Period
Evaluation of evidence, explosives and arson	FSC-30007	15	Semester 1
Interpretation, Evaluation and Presentation of Evidence	FSC-30005	30	Semester 1-2
Forensic Science Research Project (30 credit)	FSC-30021	30	Semester 1-2

Optional modules	Module Code	Credits	Period
Advanced Forensic Evidence Examination	FSC-30033	15	Semester 1
Forensic Toxicology	FSC-30017	15	Semester 2
Environmental and Wildlife Forensics	FSC-30029	15	Semester 2
Advanced Forensic Chemistry	FSC-30037	15	Semester 2

Level 6 Module Rules

Students can take EITHER FSC-30029 OR FSC-30037 in SEM2 not both.

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Level 4

In Year 1 (Level 4) and Year 2 (Level 5) these learning outcomes are achieved in the compulsory modules which all students are required to take. Some of these outcomes may also be achieved or reinforced in elective modules together with other outcomes not stated here. In Year 3 (Level 6) the stated outcomes are achieved by taking any of the modules offered in each semester.

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
know the underlying concepts in and principles of forensic and analytical science and an ability to evaluate and interpret these	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
use basic theories and concepts within forensic and analytical science to develop arguments, make judgements, and evaluate different approaches to solving problems	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
demonstrate an appreciation of the historical development and context of forensic science	Forensic Identification and Investigation - FSC-10005
demonstrate an understanding how forensic and crime scene science operate within the UK legal system	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
demonstrate an understanding of basic forensic scientific principles and practices	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
demonstrate appropriate research, citation, reporting and presentation skills within the forensic context	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
describe the main biological molecules that can be used for forensic purposes (Proteins, Lipids, RNA, DNA) and explain why DNA has the greatest discriminatory power	Forensic Identification and Investigation - FSC-10005
discuss patterns of inheritance of commonly used genetic markers (autosomal, X and Y linked and mitochondrial markers) and explain these patterns at the cellular level (mitosis, meiosis)	Forensic Identification and Investigation - FSC-10005
explain the organisation of the human genome and discuss which types of sequence make the best genetic markers	Forensic Identification and Investigation - FSC-10005
explain the structure and replication of DNA	Forensic Identification and Investigation - FSC-10005
explain the theory behind techniques used to analyse biological molecules	Forensic Identification and Investigation - FSC-10005
summarise the background principles of spectroscopic methods and separation techniques and their applications in forensic context	Forensic Chemistry and Analysis - FSC-10003
describe the principal features of the structures of polymers, inorganic solids and biomolecules	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
explain the basic principles of chemical kinetics and thermodynamics and apply these principles to perform fundamental thermochemical calculations, particularly relevant to forensic applications.	Forensic Chemistry and Analysis - FSC-10003
demonstrate an appreciation of the basic principles of qualitative analysis and data processing	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
show an appreciation of the importance of sample preparation and separation techniques in the context of forensic applications	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
show an understanding of the principles underlying the statistical interpretation of forensic data	Forensic Chemistry and Analysis - FSC-10003
demonstrate an understanding of uncertainty, chance, probability, odds, population distributions and sampling, likelihood ratio and the concept of the weight of evidence	Forensic Chemistry and Analysis - FSC-10003

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
to present, evaluate and interpret qualitative and quantitative data	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003 All outcomes delivered across all modules: Chemical Science Principles Forensic Science Principles Forensic Analysis Forensic Identification
operate a range of analytical equipment required for the analysis of forensic samples	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003 All outcomes delivered across all modules: Chemical Science Principles Forensic Science Principles Forensic Analysis Forensic Identification
analyse and develop solutions to straightforward scientific problems	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
effectively carry out basic forensic practical techniques such as microscopy, fingerprinting and spectroscopic documents analysis	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
carry out forensic science lab work including blood typing, DNA handling chromatography and electrophoresis	Forensic Identification and Investigation - FSC-10005
demonstrate the ability to record, report and present the results of investigation and analysis, and to understand the implication of statistical findings	Forensic Chemistry and Analysis - FSC-10003
show the ability to analyse samples of trace evidence using compound and polarising microscopes	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
demonstrate the ability to analyse organic and inorganic samples using IR and UV spectroscopy and chromatography	Forensic Chemistry and Analysis - FSC-10003

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
communicate the results of work accurately and reliably, with structured and coherent arguments	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003
operate a range of analytical equipment	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
write scientific reports that describe the operation and outcome of a particular experiment	Forensic Chemistry and Analysis - FSC-10003 Forensic Identification and Investigation - FSC-10005
orally present scientific concepts/data to a range of different audiences	Forensic Identification and Investigation - FSC-10005
solve a range of problems	Forensic Identification and Investigation - FSC-10005 Forensic Chemistry and Analysis - FSC-10003

Level 5

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
know and critically understand the well-established principles of forensic and analytical science, their development, the limits of that knowledge and how that influences analyses and interpretations based on that knowledge	Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
know the main methods of enquiry in forensic and analytical science and be able to critically evaluate different approaches to solving problems	Spectroscopy and Advanced Analysis - FSC-20005 Forensic Genetics - FSC-20003 Drugs of Abuse - FSC-20009 Criminalistic Methods - FSC-20001 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
exercise personal responsibility and decision-making	Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
know and critically understand the well-established principles of forensic and analytical science, their development, the limits of that knowledge and how that influences analyses and interpretations based on that knowledge	Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
apply underlying concepts in and principles of forensic and analytical science outside the context in which they were first studied	Drugs of Abuse - FSC-20009 Criminalistic Methods - FSC-20001 Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
use a range of forensic and analytical techniques to undertake a critical analysis and to propose solutions based on the outcome of that analysis	Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
apply underlying concepts in and principles of forensic and analytical science outside the context in which they were first studied	Spectroscopy and Advanced Analysis - FSC-20005 Forensic Genetics - FSC-20003 Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences in an effective manner	Forensic Genetics - FSC-20003 Drugs of Abuse - FSC-20009 Criminalistic Methods - FSC-20001 Spectroscopy and Advanced Analysis - FSC-20005 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
work as part of a team	Criminalistic Methods - FSC-20001 Drugs of Abuse - FSC-20009 Forensic Genetics - FSC-20003 Spectroscopy and Advanced Analysis - FSC-20005 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics
write scientific reports that describe and evaluate the operation and outcome of a particular experiment	Spectroscopy and Advanced Analysis - FSC-20005 Forensic Genetics - FSC-20003 Drugs of Abuse - FSC-20009 Criminalistic Methods - FSC-20001 All outcomes delivered across all modules: Criminalistic Methods Spectroscopy and Advanced Analysis Drugs of Abuse Forensic Genetics

Level 6

Modules marked with an '*' are only taken by students who are specialising in Forensic Science

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
systematically understand key aspects of forensic and analytical sciences, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline	Evaluation of evidence, explosives and arson - FSC-30007 Forensic Toxicology - FSC-30017 Forensic Science Research Project (15 credit) - FSC-30025 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Forensic Geoscience Forensic Evidence Examination
devise and sustain arguments, and/or to solve problems in the forensic science, using ideas and techniques, some of which are at the forefront of a discipline	Evaluation of evidence, explosives and arson - FSC-30007 Forensic Science Research Project (15 credit) - FSC-30025 Environmental and Wildlife Forensics - FSC-30029 Forensic Toxicology - FSC-30017 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Environmental & Wildlife Crime Forensic Evidence Examination
appreciate the uncertainty, ambiguity and limits of knowledge	Advanced Forensic Evidence Examination - FSC-30033 Evaluation of evidence, explosives and arson - FSC-30007 Forensic Toxicology - FSC-30017 Forensic Science Research Project (15 credit) - FSC-30025 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Environmental & Wildlife Crime Forensic Evidence Examination
describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline	Advanced Forensic Evidence Examination - FSC-30033 Evaluation of evidence, explosives and arson - FSC-30007 Forensic Science Research Project (15 credit) - FSC-30025 Environmental and Wildlife Forensics - FSC-30029 Forensic Toxicology - FSC-30017 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Environmental & Wildlife Crime Forensic Evidence Examination

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
can apply the methods and techniques that they have learned, to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects	Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence*

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
can manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to forensic science).	Advanced Forensic Evidence Examination - FSC-30033 Evaluation of evidence, explosives and arson - FSC-30007 Forensic Science Research Project (15 credit) - FSC-30025 Environmental and Wildlife Forensics - FSC-30029 Forensic Toxicology - FSC-30017 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Environmental & Wildlife Forensics Forensic Evidence Examination
evaluate arguments, assumptions, abstract concepts and data (that may be incomplete) in a critical fashion , to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem	Advanced Forensic Evidence Examination - FSC-30033 Evaluation of evidence, explosives and arson - FSC-30007 Forensic Science Research Project (15 credit) - FSC-30025 Environmental and Wildlife Forensics - FSC-30029 Forensic Toxicology - FSC-30017 Forensic Toxicology Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Evaluation of Evidence: Explosives and Arson Environmental & Wildlife Forensics Forensic Evidence Examination
exercise initiative and personal responsibility, exercise decision-making in complex and unpredictable contexts and appreciate need to undertake professional development	Evaluation of evidence, explosives and arson - FSC-30007 Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence*
communicate information, ideas, problems and solutions to both scientific and non-scientific audiences	Advanced Forensic Evidence Examination - FSC-30033 Evaluation of evidence, explosives and arson - FSC-30007 Environmental and Wildlife Forensics - FSC-30029 Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project Interpretation, Evaluation and Presentation of Evidence* Environmental & Wildlife Forensics Forensic Evidence Examination

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
plan and initiate a programme of practical work into a clearly defined area of the proposed forensic project	Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project
critically appraise information of relevance to the project (general) and specific area (individual) obtained from a variety of sources	Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project
communicate verbally the project aims, key literature findings, and plans for practical work	Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project
identify any ethical considerations related to a planned experiment	Forensic Science Research Project (15 credit) - FSC-30025 Forensic Science Research Project
work as part of a team	Forensic Science Research Project (15 credit) - FSC-30025 Environmental and Wildlife Forensics - FSC-30029 Forensic Science Research Project, FSC-30029
explain how their perspective on forensic science has been influenced by working in a forensic science workplace	FSC-30027
explain how their perspective on forensic science has been influenced by working in a forensic science workplace	FSC-30027
critically appraise the scale and nature of national and international environmental and wildlife crime and links to other types of serious crime	Environmental and Wildlife Forensics - FSC-30029 FSC-30029
critically evaluate and apply the methods and procedures used in environmental and forensic wildlife crime scene investigation	Environmental and Wildlife Forensics - FSC-30029 FSC-30029
set up examples of standard analytical instrumentation (including calibration), prepare appropriate samples and carry out straightforward laboratory measurements	Advanced Forensic Chemistry - FSC-30037 FSC-30037

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate a minimum of 135 credits in each Principal Subject (270 credits in total), with at least 45 credits at each level of study (Levels 4, 5 and 6) in each of two Principal Subjects (90 credits per year). Your degree title will be 'subject X and subject Y'. If you choose to study one Principal subject in your final year of study a minimum of 90 credits in that subject is required. Your degree title will be 'subject X with subject Y'.
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

International Year option: in addition to the above students must pass a module covering the international year in order to graduate with a named degree including the 'international year' wording. Students who do not complete, or fail the international year, will be transferred to the three-year version of the programme.

Work Placement Year option: in addition to the above students must pass a non-credit bearing module covering the work placement year in order to graduate with a named degree including the 'with Work Placement Year' wording. Students who do not complete, or fail the work placement year, will be transferred to the three-year version of the programme.

10. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance. The following list is representative of the variety of assessment methods used on your programme:

- **Class tests** assess the understanding of concepts and the application of theories to solve familiar and unfamiliar problems. They also allow students to experience time-constrained assessment as well as acting to provide feedback on their progress.
- **End of module examinations, open book assessments and case work portfolios** test the ability of the student to describe, explain, and critically discuss the principles of forensic chemistry, criminalistic science, analytical science and selected topics in forensic biology and to demonstrate competence in applying these principles to applications and to solve problems from appropriate areas of the discipline
- **Problems sheets and data analysis exercises** assess the student's skills in solving numerical and other problems within forensic science by drawing on their scientific understanding and knowledge, and experience of experimental techniques

Throughout the extensive laboratory and other practical work in this programme, many types of assessment are utilised to achieve the learning outcomes.

- **Laboratory diaries (notebooks)** are used to communicate the results of work accurately and reliably and to encourage good working practice, including managing risk assessments and following safe working practices. Together with **laboratory proformas**, they allow students to demonstrate their skills in the critical analysis and interpretation of data, test the uncertainty in knowledge and show the ability to draw valid conclusions from their work
- **Laboratory reports** communicate the execution of practical work, the ability to describe the results of work accurately and reliably, with structured and coherent arguments and to enable students to evaluate the outcomes of data analysis in a critical fashion
- **Court expert witness statements** enable students to prepare a written statement of expert testimony and to understand the place of forensic science within the legal framework and the role of the expert witness in court. These reports test the student's ability to interpret and evaluate the significance of the results of a forensic investigation in the context of the circumstances of the crime, using appropriate statistical tools
- **Oral presentations, digital presentations and poster presentations** demonstrate the ability of the student to present complex concepts and information in a clear and concise manner, to interact and communicate effectively to a wide range of professional environments, including to both scientific and non-scientific audiences
- **Crime scene investigation reports** enable students to apply the principles and procedures for crime scene investigation to a scenario, to critically review data and outcomes in light of the chain of custody for evidence and the appropriate forensic strategy, to make critical judgments and to present these in a clear and concise manner
- **Essays** and the production of **technical leaflets** enable students to analyse, synthesise and summarise data and information critically, to appreciate its limitations, to assess the merits of contrasting theories, explanations and strategies and to present, in writing, complex concepts and information in a clear and concise manner
- **Dissertation and research paper / literature / critical reviews** enable the student to demonstrate their effective engagement with the research literature across forensic and analytical science and use it to advance their understanding. In this way, the assessment may test their awareness of, and engagement with, current methods and techniques within the forensic and analytical sciences, some of which are at, or informed by, the forefront of the discipline. These assessments enable the student to present complex concepts and information in a clear and concise manner in writing, and to communicate effectively to a wide range of scientific and professional environments
- **Project plans,** team project interviews and viva examinations test the student's skills in working both independently and as part of a team, in planning, organising and carrying out practical and other work efficiently, including making appropriate ethical assessments, and meeting appropriate deadlines
- **Project reports** demonstrate how the student has taken responsibility for their own learning, has critically assessed a wide range of techniques and methodologies relevant to the forensic and analytical sciences and used them competently to analyse relevant materials and has selected and utilised appropriate

software, databases and other digital resources for the analysis and interpretation of laboratory data. The report also tests the student's achievement in presenting complex concepts and information in a clear and concise manner in writing and communicating effectively to a scientific audience
- **Presentation and cross-examination assessments** test the student's ability to interpret and evaluate the significance of the results of a forensic investigation in the context of the circumstances of the crime, to demonstrate their understanding of the place of forensic science within the legal framework and the role of the expert witness in court and test their ability to defend a written witness statement under cross-examination in a court setting

Through working on a diverse range of assessments, linked to a curriculum that is in its latter stages closely based around the professional forensic science context, the student will demonstrate confidence in their own understanding and skills as well as a self- critical attitude to their own work and achievements, an adaptable and flexible approach to study, work and work-life balance and the ability to identify and work towards targets for ongoing professional development.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity

	Scheduled learning and teaching activities	**Guided independent Study**	**Placements**
Year 1 (Level 4)	33.8%	66.2%	0%
Year 2 (Level 5)	34.6%	65.4%	0%
Year 3 (Level 6)	29.8%	70.2%	0%

12. Accreditation

Our combined honours routes in Forensic Science are recognised by the Chartered Society of Forensic Sciences.

If you decided to specialise in Forensic Science in your final year you will receive a degree that is accredited by the Chartered Society of Forensic Sciences.

The society web site is located at http://www.csofs.org/

13. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

A student who has completed a semester abroad will not normally be eligible to transfer onto the International Year option.

Any student wishing to transfer to a route that is accredited by the Chartered Society of Forensic Sciences, at any point other than year 1, must demonstrate that they have covered similar content in the years spent at their other institution as would be covered at Keele.

14. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 6.0 or equivalent.

English for Academic Purposes

Please note: All new international students entering the university will provide a sample of Academic English during their registration Using this sample, the Language Centre may allocate you to an English language module which will become compulsory. This will replace any GCP modules. *NB:* students can take an EAP module only with the approval of the English Language Programme Director and are not able to take any other Language modules in the same academic year.

English Language Modules at Level 4:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 5:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 6:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2); ENL-90005 Advanced Business English Communication
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

15. How are students supported on the programme?

All the academic staff in Forensic Science operate an open door policy for students; in other words, if they are available at any time in the working day then they are happy to discuss any matter a student raises with them; if they are not free then a future meeting will be arranged for a later time.

All students have many opportunities for close contact with the staff - through laboratory sessions, problems classes, tutorials, workshops and other teaching activities including online sessions. Consequently, students and staff get to know each other fairly quickly and all students should feel free to approach any lecturer, module tutor or other colleagues whom they believe may be able to provide them with help and assistance on any academic issue. Feedback on formative and summative assessment is usually best obtained from the tutor who set and marked the work but after the whole semester's assessment is complete, it may be that the student's

Academic Mentor is best placed to discuss their overall progress.

Each year of study has an associated Year Tutor who monitors the students and the modules, to ensure the course is running smoothly and that all students are making progress. The Year Tutor should be regarded as the first point of contact to discuss any topic or issue related to that year (level) of the programme and can provide advice on module content and advise on any matters relating to modules at that level. In addition, the Programme Director for Forensic Science has oversight of all aspects of delivery of the Forensic Science programme.

Help, support and advice are also available from each student's Academic Mentor who is allocated by the School. Academic Mentors will make contact with each student in their first few days at Keele to arrange an introductory meeting and will contact them at various key points throughout their degree to check on their progress and to determine whether any specific discussion is needed. From the student's perspective, the Academic Mentor should be seen as someone they can approach with confidence for advice on any matter whether academic or personal; if the mentors themselves cannot help directly then they know who within the university should be able to provide the help the student needs. As well as reviewing overall academic progress, the Academic Mentor can advise on general matters relating to the whole programme of study.

16. Learning Resources

Forensic Science at Keele is based in the Lennard-Jones and Central Science Laboratories, which houses modern, well-equipped teaching and research facilities. The teaching laboratories for forensic science and chemical analysis are all well equipped with high quality standard laboratory facilities and modern forensic science and analytical instrumentation, with many multiple sets of commonly used techniques. Our students gain hands-on experience with a wide range of equipment and techniques working with professional and research grade instruments.

These include: document examination equipment, such as VSC-4 and ESDA-2 instruments, many low power stereo microscopes, a comparison microscope and several specialist phase-contrast and polarising microscopes - these include variable temperature stages for glass analysis - and high resolution microspectrophotometer. Finger and palm print analysis may be undertaken on our dedicated AFIS system. There are three well-equipped dark-rooms for forensic imaging together with a range of high specification cameras. The analytical laboratories are fully equipped with multiple sets of FTIR spectrometers, UV-VIS spectrometers, fluorescence spectrometers, HPLC and GC-MS instrumentation, an NMR spectrometers, an Inductively-Coupled Plasma Optical Emission Spectrometer (ICP-OES), and Raman microscope. Forensic and Analytical Investigation students also have access to XRD, XRF and a scanning electron microscope (with EDX analysis). Students undertaking project work at levels 6 and 7 may have access to further analytical instrumentation within the research laboratories. Investigation scenarios are set up in the dedicated crime scene facility and a range of CSI equipment is available. Forensic biology equipment includes a thermal cycler for PCR, electrophoresis and gel visualisation equipment, autoclaves and micro-centrifuges. Specialist forensic geophysics equipment such as ground-penetrating radar and resistivity equipment is also available.

Students have access to a wide variety of on-line databases and scientific journals, both in electronic and paper form, through the university library.

17. Other Learning Opportunities

Study abroad (semester)

Students on the programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities. Please note that students cannot take both a Global Challenge Pathway (GCP) and the semester abroad option.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income

dependent bursaries at Keele. Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

Study Abroad (International Year)

A summary of the International Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the International Year.

Work Placement Year

A summary of the Work Placement Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the Placement Year.

18. Additional Costs

Activity	Estimated Cost
Equipment - All PPE equipment (laboratory coats and glasses) are provided by the School at no cost to the student. Students will be required to have two laboratory notebooks, these are provided at no cost to the student in the induction session and can be used for multiple modules/years. Replacement items are available from the School Stores, the 2020/21 price for these are listed below: Laboratory Book - £1.50 Laboratory Glasses - £2.00 Laboratory Coat - £10 Students will be required to supply appropriate writing equipment but this would be a minimal (<£10) cost. All core textbooks are available in the main University Library. To increase the availability of these resources, eBooks are also purchased alongside the printed text where available; these can be accessed through the University Library Catalogue. Additional costs may be incurred if the student wishes to purchase any book for themselves. In general we only recommend they purchase the core textbook which is available for approximately £50.	£60

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for this programme.

19. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students in all three years of the programme is considered and

acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

20. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.qaa.ac.uk/quality-code
b. QAA Subject Benchmark Statement: Forensic Science (2012) http://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-forensic-science.pdf?sfvrsn=659ef781_10
c. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations
d. Chartered Society of Forensic Science (CSFS) Accreditation Scheme; Criteria and Standards; available at: http://www.csofs.org/Accreditation

21. Annex - International Year

Forensic Science with International Year

Please note: in order to be eligible to take the International Year option your other subject must also offer this option. Please refer to the information published in the course document for your other subject.

International Year Programme
Students registered for this Combined Honours programme may either be admitted for or apply to transfer during their period of study at Level 5 to the Combined Honours programme in both their principal subjects, providing that they meet the progression criteria outlined in this document. Students accepted onto the International Year programme will have an extra year of study at an international partner institution after they have completed Year 2 (Level 5) at Keele. Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the Combined Honours programme without the International Year and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript. Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the International Year option.
International Year Programme Aims
In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with: 1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject 2. Experience of a different culture, academically, professionally and socially
Entry Requirements for the International Year

Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff.

The criteria to be applied are:

- Academic Performance (an average of 55% across all modules in Semester 1 at Level 5 is normally required. Places on the International Year are then conditional on achieving an average mark of 55% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 55% requirement may progress to the International Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2nd semester of year 2 (Level 5), and by recommendation of the student's Academic Mentor, 1st and 2nd year tutors and programme director)

Students may not register for both an International Year and a Placement Year.

Student Support

Students will be supported whilst on the International Year via the following methods:

- Phone or Skype conversations with Study Abroad tutors, in line with recommended Academic Mentoring meeting points.
- Support from the University's Global Education Team

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme with International Year will be able to:

1. Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
2. Discuss the benefits and challenges of global citizenship and internationalisation
3. Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.
4. Reflect upon the international nature of crime and describe and discuss differences between investigative approaches taken in different countries.
5. Evaluate the merits and limitations of the different approaches taken to investigating crime in different countries.
6. Apply their experiences abroad to the specific graduate attributes associated with their Forensic Science degree.

Please note that students on Combined Honours programmes with International Year must meet the subject-specific learning outcomes for BOTH their principal subjects.

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

Course Regulations

Students registered for the International Year are subject to the programme-specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise *at least 40%* in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any module with significant overlap to the Level 6 modules to be studied on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

Additional costs for the International Year

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

22. Annex - Work Placement Year

Forensic Science with Work Placement Year

Work Placement Year summary
Students registered for this programme may either be admitted for or apply to transfer during their studies to the 'with Work Placement Year' option (NB: for Combined Honours students the rules relating to the work placement year in the subject where the placement is organised are to be followed). Students accepted onto this programme will have an extra year of study (the Work Placement Year) with a relevant placement provider after they have completed Year 2 (Level 5) at Keele. Students who successfully complete both the second year (Level 5) and the Work Placement Year will be permitted to progress to Level 6. Students who fail to satisfactorily complete the Work Placement Year will normally revert to the 3-year programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript. Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the Work Placement Year option.
Work Placement Year Programme Aims
In addition to the programme aims specified in the main body of this document, the Work Placement Year aims to provide students with the opportunity to carry out a year long work placement in the broad field of forensic science between Years 2 and 3 (Levels 5 and 6) of their degree programme. The module will be underpinned by reflective assessment, employer and tutor evaluation, and support from academic tutors.
Entry Requirements for the Work Placement Year

Admission to the Work Placement Year is subject to successful application, interview and references from appropriate staff. Students have the opportunity to apply directly for the 4-year 'with work placement year' degree programme, or to transfer onto the 4-year programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking the year-long work placement. Students who fail to pass the work placement year, and those who fail to meet the minimum requirements of the work placement year module, (* or equivalent, work placement), will be automatically transferred onto the 3-year degree programme.

* We recommend where possible students undertake a placement of between 9 - 12 months on a full-time basis to maximize academic and personal growth. However, the Faculty of Natural Sciences Work / Professional Placement Year mandates a minimum of 24 weeks in duration, ideally on a full-time basis, but no less than 21 hours per week. This enables those undertaking an unpaid placement to work on a part-time basis alongside their placement.

The criteria to be applied are:

- A good University attendance record and be in 'good academic standing'.
- Academic Performance (an average of 50% across all modules in Semester 1 at Level 5 is normally required. Places on the Work Placement Year are then conditional on achieving an average mark of 50% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 50% requirement may progress to the Work Placement Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- Students undertaking work placements will be expected to complete a Health and Safety checklist prior to commencing their work experience and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.
- *(International students only)* Due to visa requirements, it is not possible for international students who require a Tier 4 Visa to apply for direct entry onto the 4-year with Work Placement Year degree programme. Students wishing to transfer onto this programme should discuss this with student support, the academic tutor for the work placement year, and the Programme Lead. Students should be aware that there are visa implications for this transfer, and it is the student's responsibility to complete any and all necessary processes to be eligible for this programme. There may be additional costs, including applying for a new Visa from outside of the UK for international students associated with a transfer to the work placement programme.

Students may not register for both an International Year and a Work Placement Year.

Student Support

Students will be supported whilst on the Work Placement Year via the following methods:

- Regular contact between the student and a named member of staff who will be assigned to the student as their University supervisor. The University supervisor will be in regular contact with the student throughout the year, and be on hand to provide advice (pastoral or academic) and liaise with the Placement supervisor on the student's behalf if required.
- Two formal contacts with the student during the placement year: the University supervisor will visit the student in their placement organization at around the 5 weeks after placement has commenced, and then visit again (or conduct a telephone/video call tutorial) at around 15 weeks into the placement.
- Weekly supervision sessions will take place with the placement supervisor (or his/her nominee) throughout the duration of the placement.

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete the 'with Work Placement Year' option will be able to:

1. apply the forensic science theories and laboratory skills learnt to real situations in the workplace to design, plan and critically evaluate workplace tasks.
2. develop key professional skills in the accurate documentation of information.
3. develop employability skills in the presentation and communication of data/information; the writing of reports; and the ability to work effectively both individually and as part of a team.
4. explain how their perspective on forensic science has been influenced by working in a forensic science workplace.

These learning outcomes will be assessed through the non-credit bearing Work Placement Year module which involves:

1. apply the forensic science theories and laboratory skills learnt to real situations in the workplace to design, plan and critically evaluate workplace tasks.
2. develop key professional skills in the accurate documentation of information.
3. develop employability skills in the presentation and communication of data/information; the writing of reports; and the ability to work effectively both individually and as part of a team.
4. explain how their perspective on forensic science has been influenced by working in a forensic science workplace.

Regulations

Students registered for the 'with Work Placement Year' option are subject to programme-specific regulations (if any) and the University regulations. In addition, during the Work Placement Year, the following regulations will apply:

- Students undertaking the Work Placement Year must successfully complete the zero-credit rated Work Placement module
- In order to ensure a high quality placement experience, each placement agency will sign up to a placement contract (analogous to a service level agreement).
- Once a student has been accepted by a placement organisation, the student will make a pre-placement visit and a member of staff identified within the placement contract will be assigned as the placement supervisor. The placement supervisor will be responsible for ensuring that the placement experience meets the agreed contract agreed with the University.
- The placement student will also sign up an agreement outlining his/her responsibilities in relation to the requirements of each organisation.

Students will be expected to behave professionally in terms of:

(i) conforming to the work practices of the organisation; and

(ii) remembering that they are representatives of the University and their actions will reflect on the School and have an impact on that organisation's willingness (or otherwise) to remain engaged with the placement.

Additional costs for the Work Placement Year

Tuition fees for students on the Work Placement Year will be charged at 20% of the annual tuition fees for that year of study, as set out in Section 1. The Work Placement Year can be included in your Student Finance allocation; to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their placement provider, accommodation, food and personal costs. Depending on the placement provider additional costs may include parking permits, travel and transport, suitable clothing, DBS checks, and compulsory health checks.

A small stipend may be available to students from the placement provider during the placement but this will need to be explored on a placement-by-placement basis as some organisations, such as charities, may not have any extra money available. Students should budget with the assumption that their placement will be unpaid.

Eligibility for student finance will depend on the type of placement and whether it is paid or not. If it is paid, this is likely to affect student finance eligibility, however if it is voluntary and therefore unpaid, should not affect student finance eligibility. Students are required to confirm eligibility with their student finance provider.

International students who require a Tier 4 visa should check with the Immigration Compliance team prior to commencing any type of paid placement to ensure that they are not contravening their visa requirements.

23. Annex - Programme-specific regulations

Programme Regulations: BSc Forensic Science (Combined Honours)

Final Award and Award Titles	BSc Honours BSc Honours with International Year BSc Honours with Work Placement Year
Intermediate Award(s)	Diploma in Higher Education Certificate in Higher Education
Last modified	November 2023
Programme Specification	https://www.keele.ac.uk/qa/programmespecifications

The University's Academic Regulations which can be found on the Keele University website (https://www.keele.ac.uk/regulations/)[1] apply to and regulate the programme, other than in instances where the specific programme regulations listed below over-ride them. These programme regulations list:

- *Exemptions* which are characterised by the omission of the relevant regulation.
- *Variations* which are characterised by the replacement of part of the regulation with alternative wording.
- *Additional Requirements* which set out what additional rules that apply to students in relation to this programme.

The following **exemptions, variations** and **additional requirements** to the University regulations have been checked by Academic Services and have been approved by the Faculty Education Committee.

A) EXEMPTIONS

The clause(s) listed below describe where an exemption from the University's Academic Regulations exists:

For the whole duration of their studies, students on this Programme are exempt from the following regulations:

- **No exemptions apply.**

B) VARIATIONS

The clause(s) listed below describe where a variation from the University's Academic Regulations exists:

Variation 1: *International Year and Work Placement Year Eligibility*

In order to be eligible to pursue an international year or work placement year between level 5 and level 6, students must have relevant academic performance (an average of 50% across all modules in Semester 1 at Level 5 is normally required. Places on the Work Placement Year are then conditional on achieving an average mark of 50% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 50% requirement may progress to the Work Placement Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account), as well as demonstrated competency in relevant practical and professional skills.

Additional Requirements

There are no additional requirements.

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[1] References to University Regulations in this document apply to the content of the University's Regulatory Framework as set out on the University website here https://www.keele.ac.uk/regulations/.

Version History

This document

Date Approved: 05 June 2024

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1	2023/24	JAMIE PRINGLE	03 April 2023	
1	2022/23	RICHARD DARTON	01 February 2022	
1	2021/22	RICHARD DARTON	23 March 2021	
2	2020/21	RICHARD DARTON	07 May 2020	Module changes at Level 4 - removal of CHE-10038, CHE-10039, CHE-10037 and CHE-10042 and replacement with two 30 credit modules (FSC-10003 and FSC-10005). These changes are made to remove repetition between modules and reduce student workload through more efficient teaching and assessment methods.
1	2020/21	RICHARD DARTON	12 December 2019	
1	2019/20	RICHARD DARTON	12 December 2019	