

Programme Specification: Undergraduate

For Academic Year 2025/26

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Forensic Science BSc (Hons) Forensic Science with International Year (see Annex for details) BSc (Hons) Forensic Science with Work Placement Year (see Annex for details)	
Award type	Single 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)	This programme is accredited by the Chartered Society of Forensic Sciences. For further details see the section on Accreditation.	
Regulator	Office of Students (OfS)	
Tuition Fees	UK students: Fee for 2025/26 is £9,535* International students: Fee for 2025/26 is £17,700** 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.

at http://www.keele.ac.uk/studentfunding/tuitionfees/

^{*} 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

^{**} These fees are for new students. We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on this subject. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

3. Overview of the Programme

The BSc Forensic Science programme is accredited by the Chartered Society of Forensic Sciences. It has been designed to provide you with a complete understanding of the subject from the crime scene to the court so you are fully prepared for your future career. During your studies on this programme, you will cover areas such as forensic chemistry, anthropology, digital forensics and crime scene investigation to name a few. There is also the option to personalise your degree to your own particular interests or career aspirations by following one of our specialised pathways. These include, forensic chemistry, forensic biology, crime scene investigation and digital forensics. Employability is at the heart of this programme. In addition to tailoring your studies, you will gain a significant amount of hands on experience both in the crime scene and the laboratory. In addition to this, we offer addition certification in digital forensics and presenting evidence as an expert witness. These are offered by external specialist trainers and will provide you with something extra that you can add to your CV to impress potential employers.

You will gain hands-on practical experience with a <u>wide range of equipment and techniques</u> working with professional and research grade instrumentation. The teaching laboratories for forensic science are well equipped with high quality standard laboratory facilities and modern forensic science and analytical instrumentation. There are also dedicated crime scene simulation facilities which include both <u>domestic</u> and <u>non-domestic</u> indoor scenarios, and outdoor crime scenes, vehicle and <u>fire</u> examination and a dedicated <u>outdoor taphonomy facility</u> used for teaching and research projects. You will also gain experience by use of outdoor <u>Faculty equipment</u> which includes metal detectors, surveying, UAV drones and near-surface geophysical equipment, soil augers and sample preparation and analysis.

You will be taught by <u>academic staff</u> who are research active in the differing forensic science specialties and in developing forensic science education, as well as by specialist forensic science practitioners who have previously worked as crime scene investigators, forensic search specialists, digital forensics officers and in forensic science laboratories. This will prove particularly beneficial in your final year independent research project which is a highlight of your course. You will also have external guest lecturers providing you current knowledge and understanding in specialist areas throughout your studies. You will also be supported by an Academic Mentor throughout your course.

Forensic Science skills development and graduate attributes are embedded throughout the course, which include a wide range of transferrable skills, through extensive use of problem-based and team-based learning, ability to progress through forensic science investigations to produce professional reports and defend them in court, to research skills via the independent research project that you will undertake in the final year of the programme, as well as the opportunity to go on work or education placements.

4. Aims of the programme

The broad aims of the programme are informed by the QAA Benchmark Statement for Forensic Science, to satisfy the <u>Chartered Society of Forensic Science</u> Accreditation and to embed Keele <u>curriculum expectations and graduate attributes</u>, which are under the following generic categories:

Academic Knowledge and expertise

- engender and develop an enthusiasm for forensic science and provide an intellectually stimulating and beneficial learning experience
- enable development of a deep academic **subject knowledge** and experience of **interdisciplinary experience** and techniques relevant to forensic science to master's level
- foster **critical thinking**, awareness of and engagement with current forensic science methods and techniques within forensic science, some of which are at, or informed by, the forefront of the discipline

Professional skills

- develop practical, analytical, **problem-solving** and **numeracy and data literacy** skills, exploring new approaches to solving problems, within forensic science, to Degree level
- develop **digital readiness**, literate, written and oral reporting skills to a level appropriate to the professional forensic scientist and the ability to convey scientific outcomes to non-scientists
- engender a sound understanding of continuity of evidence and how the forensic crime scene, the laboratory and the court contribute to the forensic and legal process
- research skills of devising, planning, executing and reporting on an original investigation or research

project within the discipline, both as an individual and as part of a team

• reflective practice and career management

Personal effectiveness

- develop leadership, communication and time management skills, collaborate as part of a team,
- become adaptable, resilient, self-aware and empathetic of others
- Social and ethical responsibility
- recognise and respect equality, diversity and inclusion, acting ethically with integrity and respect
- developing sustainability knowledge and skills and aware of global issues and challenges.

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 demonstrate knowledge and understanding of:

- the principles of forensic chemistry, analytical science, forensic biology, anthropology and taphonomy, crime scene investigation, explosives and arson
- selected topics in forensic anthropology and digital forensics and possess competence in applying these principles to appropriate areas of the discipline.
- a wide range of instrumental and other techniques relevant to forensic science and use them competently to analyse a range of relevant materials and with regard to quality assurance issues
- problem-solving within forensic science by drawing on their scientific understanding and knowledge, and experience of experimental techniques
- an awareness of and engagement with current methods and techniques within forensic science, some of which are at, or informed by, the forefront of the discipline
- the place of forensic science within the legal framework and the role of the expert witness in court
- the research literature across forensic science, use it to advance their understanding and apply it in practice
- the legal and ethical issues which constrain the practice of the professional forensic scientist

Subject specific skills

Successful students will be able to:

- execute practical work and critically analyse the results from experiments or investigations and draw valid conclusions.
- 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
- 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, both as an individual and as part of a team
- 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, unfamiliar and complex problems with self-direction and originality, by clearly formulating the problem, identifying the key 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 complex concepts and information in a clear and concise manner, both orally, in writing and by other means and to interact and communicate effectively within a wide range of professional environments, including to 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 develop a habit of critical reflection upon that learning

- utilise a wide 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
- develop confidence in their own understanding and skills as well as a self-critical attitude to their own work and achievements
- develop an adaptable and flexible approach to study, work and work-life balance
- identify and work towards targets for ongoing professional development

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 extracurricular 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 responsibility**. 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?

Our programme is delivered with an emphasis on live, in-person, interactive sessions, supported by online materials on the KLE allowing flexible engagement. The Keele University extensive campus provides an unrivalled grounds to offer an abundance of opportunities for specialist indoor and outdoor simulation, research projects and specialist equipment for students to utilise (see later). 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. You will also have some course optionality through module options throughout your studies allowing you to choose in areas such as forensic chemistry, forensic biology, crime scene investigation and digital forensics.

1st Year:

Academic content is predominantly taught through interactively through a mixture of interactive lectures and laboratory 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 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.

2nd Year:

Teaching styles continue from first year with interactive lectures supported by problem classes, laboratory practicals, crime scene investigation sessions and tutorials. Practical classes include scripted laboratory sessions developing more advanced techniques and hands-on experience of a range of analytical instruments. Investigative group work is developed through an analytical project. Professional skills are developed with a focus on forensic science practical and theoretical knowledge to give you knowledge and understanding of these career-relevant skills. Choice is also available of different option modules, depending on your area(s) of interest.

3rd Year:

A highlight of our 3rd year is the independent research project. Rather than scripted labs, you will collaborate with an academic member of staff to develop and complete your project spread over both semesters. Laboratory work, if appropriate, takes place in both teaching labs or outdoors, depending on the chosen project, with expert supervision. Further practical work is taught through laboratory sessions and PC labs involving hands-on experience of a wide range of research grade analytical instruments. Fewer contact hours provide more time for independent work, and the ability to specialise in your preferred areas of forensic science and criminology through a series of assessment items allowing a bespoke choice of subject. Choice is also available of different option modules, depending on your area(s) of interest.

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. You are also invited to attend our Forensic Sciences Careers Series in which you will experience speakers from academia and industry presenting material at the forefront of current scientific knowledge and potentially where you can go with your Degree.

7. Teaching Staff

The Forensic Science academic staff have expertise and interests across forensic sciences as well as outwith the programme. 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. 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. A strength of the programme lies in our specialist forensic science practitioners who bring their wealth of real-world experience and case work to the teaching of Forensic Science. We have experts who previously worked as crime scene investigators, digital forensics officers, or in accredited forensic science laboratories whose expertise informs current best practice in forensic science, and whose extensive contacts bring in outside experts to enhance the student experience and understanding of contemporary Forensic topics. Several staff have particular interests in the development of teaching and learning methods within forensic science education and some are members of and active in the professional bodies for the forensic science. 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.

Global Challenge Pathways

This programme includes the option for you to take a Global Challenge Pathway. These modules offer you an exciting opportunity to work with students and staff from different disciplines to explore topical global issues such as power and conflict, health inequalities, climate change, generative AI, social justice, global citizenship, and enterprise from different perspectives.

Global Challenge Pathways can either be taken as one 15-credit module at Levels 4, 5 and 6, or one 15-credit module at Levels 5 and 6. For more information about our Global Challenge Pathways please visit: https://www.keele.ac.uk/study/undergraduate/globalchallengepathways/

Modern Languages or Certificate in TESOL

Alternatively, you could choose to study modules with the University Language Centre. The Language Centre offers three pathways; The Language Specialist, The Language Taster, and The Trinity Certificate in Teaching English to Speakers of Other Language (TESOL). Language Centre modules are available separately for students at Level 4. At Levels 5 and 6 they are included within the Global Challenge Pathways.

If you choose the Language Specialist pathway, you will automatically be enrolled on a Semester 2 Modern Language module as a continuation of your language of choice as a faculty funded 'additional' module. Undertaking a Modern Languages module in Semester 2 is compulsory if you wish to continue to the Language Specialist Global Challenge Pathway the following academic year.

For more information about Language Centre option modules available to you please visit the following webpages.

For new (Level 4) students please visit: https://www.keele.ac.uk/study/languagecentre/

For current (Level 5 and Level 6) students please visit: https://www.keele.ac.uk/students/academiclife/global-challenge-pathways/

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

A summary of the credit requirements per year is as follows.

Year	Compulsory	Option	al
i eai	Compuisory	Min	Max
Level 4	105	15	15
Level 5	90	30	30
Level 6	90	30	30

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
CSI: Crime Scene Investigation	FSC-10025	15	Semester 1
Forensic Chemistry: Molecules under Investigation	FSC-10013	30	Semester 1-2
Forensic Investigation: From Documents to DNA	FSC-10019	30	Semester 1-2
The Forensic Science Professional Toolkit	FSC-10017	30	Semester 2

Optional modules	Module Code	Credits	Period
Programming for Forensic Scientists	FSC-10023	15	Semester 1-2
Science & Society	NAT-10001	15	Semester 1-2

Level 5

Compulsory modules	Module Code	Credits	Period
Chemical Analysis and Detection	FSC-20027	15	Semester 1
Forensic Genetics: DNA and Crime	FSC-20035	15	Semester 1
Forensic Anthropology: Decomposition and Skeletal Analysis	FSC-20033	30	Semester 1-2
Drugs of Abuse	FSC-20009	15	Semester 2
Crime Scenes: Blood, Marks and Prints	FSC-20031	15	Semester 2

Optional modules	Module Code	Credits	Period
Counterfeits, Fakes and Forgeries	FSC-20011	15	Semester 1
Flexible Work Placement (Level 5)	NAT-20011	15	Semester 1-2
Digital Forensics: Crime and Technology	FSC-20029	15	Semester 2

Level 5 Module Rules

You must select at least one of FSC-20011 or FSC-20029.

Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6)

Level 6

Compulsory modules	Module Code	Credits	Period
Explosives, Arson and Evidence	FSC-30043	15	Semester 1
Forensic Science Research Project (30 credit)	FSC-30021	30	Semester 1-2
Crime Scene to Court	FSC-30049	30	Semester 1-2
Forensic Toxicology: Ingestion to Detection	FSC-30039	15	Semester 2

Optional modules	Module Code	Credits	Period
Digital Forensics: Applications and Examinations	FSC-30035	15	Semester 1
Marks and Traces Examination	FSC-30053	15	Semester 1
Topics in Forensic Biology	FSC-30061	15	Semester 1
Flexible Work Placement (Level 6)	NAT-30008	15	Semester 1-2
Professional Experience in Education	NAT-30012	15	Semester 1-2
Environmental and Wildlife Forensics	FSC-30029	15	Semester 2
Forensic Chemical Analysis: Instrumentation and Evaluation	FSC-30055	15	Semester 2

Level 6 Module Rules

You must select 30 credits of optional modules. This may include two Forensic Science option modules, or alternatively students can select one Forensic Science option and one of Flexible Work Placement, Professional Experience in Education, or a Global Challenges Pathway.

Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6). You also cannot take both Flexible Work Placement (Level 6) and Professional Experience in Education.

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

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	
Forensic Knowledge: Recall basic knowledge and theories based on taught contents and use these to explain familiar concepts using appropriate terminology.	FSC-10017: The Forensic Science Professional Toolkit FSC-10025: CSI: Crime Scene Investigation	
Problem Solving: Apply knowledge and understanding of fundamental forensic science and concepts to solve qualitative and quantitative problems.	FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10023: Programming for Forensic Scientists	
Sustainability and Global Awareness: Identify and describe the application of forensic science in solving current and future challenges in the world.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10025: CSI: Crime Scene Investigation NAT-10001: Science and Society All GCP modules	
Interdisciplinarity: Identify and describe the contribution of Forensic Science to multidisciplinary issues.	FSC-10019: Forensic Investigation: From Documents to DNA	

Subject Specific Skills		
Learning Outcome	Module in which this is delivered	
Safety and Ethics: Demonstrate skills in the safe handling of substances and appropriate behaviour in laboratory environments, and show awareness of risk assessment, COSHH documentation and safe laboratory practices.	FSC-10017: The Forensic Science Professional Toolkit	
Practical Competence: Safely and competently operate standard laboratory forensic instrumentation and equipment	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation	
Scientific Investigation: Observe, monitor, record and document forensic techniques, properties, events or changes with systematic record keeping, and demonstrate a practical and reflective understanding of the principles of scientific experimentation and inquiry.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation NAT-10001: Science and Society	
Data Literacy: Locate or synthesise, evaluate and interpret qualitative and quantitative forensic data with an awareness of uncertainty and significance.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation	

Key or Transferable Skills (graduate attributes)		
Learning Outcome	Module in which this is delivered	
Research Skills: Engage with the forensic literature, including the use of online scientific databases, identifying appropriate sources and correctly citing information.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation	
Numeracy and Digital Skills: Select and use computational methods and mathematical concepts for data analysis, reporting and problem solving, including use of equations, systematic use of units and the interpretation of graphical and tabulated data.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation FSC-10023: Programming for Forensic Scientists	
Scientific Communication: Communicate information and ideas verbally and in writing, selecting appropriate content for a lay audience.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation NAT-10001: Science and Society	
Reflective Practice and Professionalism: Demonstrate the ability to engage with learning opportunities individually and collaboratively, reflecting and acting on feedback to enhance your quality of work and working successfully in a group environment, contributing to team outputs and understand the accreditation requirements for crime scene investigation.	FSC-10017: The Forensic Science Professional Toolkit FSC-10013: Forensic Chemistry: Molecules under Investigation FSC-10019: Forensic Investigation: From Documents to DNA FSC-10025: CSI: Crime Scene Investigation	

Level 5

Subject Knowledge and Understanding		
Learning Outcome	Module in which this is delivered	
Forensic Knowledge: Recall knowledge and theories in forensic science on course content and use them to predict and explain familiar concepts using appropriate terminology.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries	
Problem Solving: Apply knowledge and understanding of forensic science theories, principles and concepts to solve in-depth qualitative and quantitative problems which may intersect multiple branches of Forensic Science.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries	
Sustainability and Global Awareness: Identify and discuss aspects of forensic science involved in innovations that shape the modern world to current and future global challenges.	All GCP modules	
Interdisciplinarity: Identify and explain the contribution of Forensic Science to multidisciplinary issues including forensic biology, forensic chemistry and digital forensics.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries	

Subject Specific Skills		
Learning Outcome	Module in which this is delivered	
Safety and Ethics: Demonstrate skills in the specific handling techniques for hazardous substances and safe working practices in specialised laboratory and forensic environments, and understanding and implementation of risk assessments and COSHH documentation.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries FSC-20029: Digital Forensics: Crime and Technology	
Practical Competence: Gain individual familiarity with specialist laboratory instrumentation, equipment and techniques, and judge their appropriate use cases.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries FSC-20029: Digital Forensics: Crime and Technology	
Scientific Investigation: Construct and maintain systematic, reliable and detailed records of experimental observations informed by theoretical underpinnings and best professional practice, and recognise, evaluate and critique the methods and findings of scientific experimentation and inquiry.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries FSC-20029: Digital Forensics: Crime and Technology	
Data Literacy: Demonstrate judgement in locating or producing, professionally processing and interpreting qualitative and quantitative forensic science data.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries FSC-20029: Digital Forensics: Crime and Technology	

Key or Transferable Skills (graduate attributes)		
Learning Outcome	Module in which this is delivered	
Research Skills: Engage with the forensic literature including the use of online scientific databases, making appropriate use of primary and secondary peer reviewed sources in constructing scientific reports and correctly citing information.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse	
Numeracy and Digital Skills: Deploy mathematical concepts and computational techniques, including the use of specialist scientific software, to manipulate and present forensic science information and data including statistical and error analysis of data.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20011: Counterfeits, Fakes and Forgeries FSC-20029: Digital Forensics: Crime and Technology	
Scientific Communication: Communicate information and ideas verbally and in writing, selecting appropriate content for a scientific or business audience and producing presentation materials of a professional quality.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse	
Reflective Practice and Professionalism: Demonstrate the ability to engage with learning opportunities individually and collaboratively, reflecting on the development of employability skills and working successfully in group environments, contributing to team outputs.	FSC-20031: Crime Scenes: Blood, Marks and Prints FSC-20035: Forensic Genetics: DNA and Crime FSC-20027: Chemical Analysis and Detection FSC-20033: Forensic Anthropology: Decomposition and Skeletal Analysis FSC-20009: Drugs of Abuse FSC-20029: Digital Forensics: Crime and Technology NAT-20011: Flexible Work Placement	

Level 6

Subject Knowledge and Understanding		
Learning Outcome	Module in which this is delivered	
Forensic Science Knowledge: Describe and discuss the full breadth of key forensic science concepts confidently, accurately and in detail, using appropriate terminology, including selected aspects at the forefront of forensic science.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	
Problem Solving: Apply knowledge, understanding and critical judgement of modern forensic science theories and practices to solve new, qualitative and quantitative problems that may be multi-layered and/or cross disciplinary in nature.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	
Sustainability and Global Awareness: Appreciate the contribution of forensic science to the innovations that characterise the modern world, and the potential of forensic scientists to develop solutions to current and future challenges.	All GCP modules	
Interdisciplinarity: Recognise the relationships and interfaces between forensic science and other subjects, applying forensic science concepts effectively in a multidisciplinary environment.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	

Subject Specific Skills			
Learning Outcome	Module in which this is delivered		
Safety and Ethics: Demonstrate skills in the design and implementation of safe forensic science procedures and processes, including production of new risk assessments, COSHH documentation and/or research ethics documentation as appropriate.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation		
Practical Competence: Use independent judgement to select and operate the appropriate advanced laboratory instrumentation, equipment, techniques and sampling tools to address recovery, extraction and analysis of commonly encountered trace forensic samples and analyse results from experiments or investigations to draw valid conclusions.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation		
Scientific Investigation: Plan, formulate and test original forensic science hypotheses by designing, observing, recording and interpreting data collections, professionally documenting methodologies and findings, and evaluate the results of open-ended and original scientific investigations.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation		
Data Literacy: Process, transform and critically evaluate original qualitative and quantitative datasets and use judgement informed by theory to build robust arguments based on data from complementary sources.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation		

Key or Transferable Skills (graduate attributes)		
Learning Outcome	Module in which this is delivered	
Research Skills: Engage with peer reviewed forensic science literature, evaluating, interpreting and synthesizing forensic science information to construct and critically evaluate scientific research.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	
Numeracy and Digital Skills: Deploy mathematical, statistical and computational methods for data analysis to solve forensic science problems and evaluate forensic data, using a broad range of general and specialist software to investigate, interpret and manipulate forensic science information.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	
Scientific Communication: Communicate effectively in both oral and written formats, selecting appropriate content, media and methods for the audience, purpose and subject, and using a broad range of general and specialist software to create forensic science materials for presentation.	FSC-30049: Crime Scene to Court FSC-30043: Explosives, Arson and Evidence FSC-30039: Forensic Toxicology: Ingestion to Detection FSC-30021: Forensic Science Research Project FSC-30029: Environmental and Wildlife Forensics FSC-30061: Topics in Forensic Biology FSC-30053: Marks and Traces Examination FSC-30035: Digital Forensics: Applications and Examinations FSC-30055: Forensic Chemical Analysis: Instrumentation and Evaluation	
Reflective Practice and Professionalism: Demonstrate the ability to plan, review and manage progress individually and collaboratively, working successfully with others, reviewing and managing progress, prioritising tasks and meeting deadlines.	NAT-30010: Work Placement Year	

9. Final and intermediate awards

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

BSc (Hons) Forensic Science	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in your main subject (out of 360 credits overall), with at least 90 credits in each of the three years of study, to graduate with a named single honours degree in this subject
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 science, 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
- **Group/Team Scenarios** students work in teams or groups to investigate forensic scenarios and case studies, simulating the role of teamwork in the real world work of Forensic analysts.

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

- Laboratory portfolios 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 nonscientific audiences
- **Crime scene investigation** and **strategic forensic 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 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. The assessment enables 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, project presentations and 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.

Although there are some explicit formal exercises providing formative assessment throughout the programme, the majority of formative assessment and feedback is generated informally through a variety of tutor-led activities. For example:

- Tutor-led comments on the work in the laboratory notebook or on calculations encountered in data analysis during laboratory classes
- Tutor feedback and advice on calculations undertaken during problems classes
- Tutor-led discussions on project plans, literature reviews and project results during viva interviews
- Written formative feedback on non-summative laboratory work
- Written formative feedback provided from the tutor reading a draft of a major piece of work such as the dissertation or a project report

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)	24.5%	75.5%	0%
Year 2 (Level 5)	31.3%	68.7%	0%
Year 3 (Level 6)	33.1%	66.9%	0%

12. Accreditation

This programme carries full accreditation status from The Chartered Society of Forensic Sciences. Further details on the accreditation requirements for these programmes can be found on the society web page below.

The Chartered Society of Forensic Sciences accreditation web page: http://www.csofs.org/Accreditation

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'.

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/ga/programmesandmodules/recognitionofpriorlearning/

15. How are students supported on the programme?

Support for student learning on the Programme is provided in the following ways:

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.

The Programme Director for Forensic Science has oversight of all aspects of delivery of the Forensic Science programme. There are also Deputy Programme Directors in Recruitment, Operations, Research, Careers & Employability, Student Welfare and Support, Study Abroad/ Work Placements, Marketing, Outreach as well as the School's Disability Inclusion Tutor (DIT) and Director of Education.

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.

A senior academic mentor overviews the work of academic mentors across the school of chemical and physical sciences, and monitoring student attendance and engagement. They are available to provide additional guidance or to help if any problems arise with academic mentoring.

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 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. There are also dedicate crime scene simulation facilities which include both domestic and non-domestic indoor scenarios, and outdoor crime scenes, vehicle examination and a dedicated taphonomy facility used for teaching and research projects.

You will gain hands-on practical experience with a <u>wide range of equipment and techniques</u> working with professional and research grade instrumentation. The teaching laboratories for forensic science are well equipped with high quality standard laboratory facilities and modern forensic science and analytical instrumentation. There are also dedicated crime scene simulation facilities which include both <u>domestic</u> and <u>non-domestic</u> indoor scenarios, and outdoor crime scenes, vehicle and <u>fire</u> examination and a dedicated <u>outdoor taphonomy facility</u> used for teaching and research projects. You will also gain experience by use of outdoor <u>Faculty equipment</u> which includes metal detectors, surveying, UAV drones and near-surface geophysical equipment, soil augers and sample preparation and analysis.

Indoors 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 microscopes. Forensic Science 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 such as XRF instruments. 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.

Students also 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 (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

Students have the opportunity to apply directly for the 4-year 'with Work Placement Year' degree programme or to transfer onto the 4-year degree 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 their year-long placement. Eligibility rules are included in the Annex.

International students who require a Tier 4 visa must check with the Immigration Compliance Team prior to commencing any form of placement.

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 Work 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 2024/25 price for these are listed below: Laboratory Book - £1.50 Laboratory Glasses - £3.50 Laboratory Coat - £13	
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
Total estimated additional costs	£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/ga/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:

- 1. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.gaa.ac.uk/quality-code
- 2. QAA Subject Benchmark Statement: Forensic Science (2022) https://www.qaa.ac.uk/docs/qaa/sbs/sbs-forensic-science-22.pdf
- 3. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations
- 4. Chartered Society of Forensic Science (CSFS) Accreditation Scheme; Criteria and Standards; available at: http://www.csofs.org/Accreditation

21. Annex - International Year

BSc Forensic Science with International Year

International Year Programme

Students registered for this Single Honours programme may either be admitted for or apply to transfer during their period of study at Level 5 to the International Year option. Students accepted onto this option will have an extra year of study (the International Year) 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 standard 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 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)

Student Support

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

- Phone or Skype conversations with Study Abroad tutor, 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.

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.

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 they will study 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

BSc 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:

1. 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

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 Work 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.

The criteria to be applied are:

- A good University attendance record and be in 'good academic standing'.
- To undertake the Work Placement Year, it is normally required that students must have achieved an average of 50% across all modules in Semester 1 at Level 5. 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.
- Alternatively, students may be accepted with lower grades on the discretion of the School/Faculty following and interview with the School Placements and Projects Manager, and Schools' Academic Placement Link.
- Should a placement be unpaid, as part of the formal approval process, the student will be asked to provide assurances regarding how they will support themselves financially. If this is not clear, the placement may not be approved. The student will also be signposted to appropriate funding streams they may have access to.
- Students undertaking work placements will be expected to fully engage with the placement approval process and not begin their placement until authority to start has been granted. Students should also complete any necessary risk assessments required prior to commencing their placement and will be required to complete the online Health and Safety training hosted via Keele Careers Online.

(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 their Placements and Projects Manager, and 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.
- At least one formal contact with the student will be arranged during the placement year: the University supervisor will visit the student, and their placement supervisor / line manager approximately mid-way through the placement (In situ / virtually)
- 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. advance key professional skills in the accurate documentation of information.
- 3. advance 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 (NAT-30010) which involves:

- 1. submittal of a reflective diary on the student's placement experience, documenting key activities and reflecting on skills gained from those activities
- 2. report summarising the background to the work completed, the results obtained, and the methodology used
- 3. oral presentation on the forensic science work undertaken by the student on their placement year
- 4. evaluation of student's performance on placement by the work placement host

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 Year module (NAT-30010)
- In order to ensure a high quality placement experience, each placement agency/provider will sign up to a placement learning agreement.
- Once a student has been accepted by a placement organisation, the student will inform their Placements and Projects Manager who will be responsible for the placement approval process, ensuring that the placement meets the work placement year module criteria, and fulfils all health and safety criteria.
- 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. The Placements and Projects Manager will ensure students are signposted to apply for any relevant grants/scholarships/bursaries available.
- 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 salary may be unpaid.
- Eligibility for student finance will depend on the type of placement and whether it is paid or not, however students should be aware that a placement year can affect student finance eligibility. As part of the approval process the student will be signposted to Student Services to obtain financial advice and guidance.

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

Final Award and Award Titles	BSc Forensic Science BSc Forensic Science with International Year BSc Forensic Science with Work Placement Year
Intermediate Award(s)	Diploma in Higher Education Certificate in Higher Education
Last modified	October 2024
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: Coursework Assessment

Failure to engage appropriately with a module's coursework assessment items without good cause (that is, by failing to submit more than 50% of coursework items) may result in reassessment being denied.

Variation 2: Level 4 to Level 5 Progression

In order to progress from level 4 to level 5, students must pass all compulsory forensic science modules. Students with outstanding reassessment attempts in these modules may not progress before these assessments have been completed. At the discretion of the School of Chemical and Physical Sciences local board, this may be discounted.

C) ADDITIONAL REQUIREMENTS

The programme requirements listed below are in addition to the University's Academic Regulations:

Additional requirement 1:Practical Classes

- 1. Practical classes are compulsory and are an essential part in fulfilling the intended learning outcomes of modules of which they are part, and a requirement of Chartered Society of Forensic Science accreditation. Over a semester, failure to attend >70% of the laboratory/practical classes without approval, may result in failure of the relevant modules with no reassessment being offered. In addition, students must meet any ILOs related to practical sessions in each module, where appropriate. Failure to attend laboratory/practical sessions in a given module, without approval, may result in failure of the relevant modules with no reassessment being
- 2. Any student failing to follow the health and safety guidelines in the undergraduate laboratory will be asked to leave. This may include inappropriate dress, refusal to follow reasonable requests of staff, late attendance resulting in missed safety briefings, or attending under the influence of alcohol or other substances. The student will not be permitted to make up the missed session.
- 3. There is no opportunity to make up missed practical sessions due to timetable constraints and so the following concessions will be made available to the student:
- 4. the student may be given opportunity to submit assessed work based on an alternative practical session, in agreement with the module leader; with the approval of the Chemical and Physical Sciences Local Module Board, a small element of the laboratory assessment (up to 33%) may be disregarded with the final mark for the assessment being recalculated from the remaining elements.

Additional requirement 2: Transferring from another institution

Any student who is wishing to transfer to this programme from another institution, at Level 5 or above, must demonstrate that they have transferred from a programme that is accredited by The Chartered Society of Forensic Sciences. If the original programme is not accredited the student must demonstrate that they have covered the same material in their Level 4 year as would be covered at Level 4 on this programme.

[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: 13 March 2025

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1	2024/25	JAMIE PRINGLE	05 June 2024	
1	2023/24	JAMIE PRINGLE	19 January 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	Removal of Level 4 modules (CHE-10038, CHE-10039, CHE-10037 and CHE-10042) and replacement with two 30 credit modules (FSC-10003 and FSC-10005). Removal of two 15 credit optional modules (CRI-10013 and CRI-10014) and introduction of one 30 credit module (FSC-10001). 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	