

## Programme Specification: Undergraduate

### For students starting in Academic Year 2019/2020

#### 1. Course Summary

<b>Names of programme(s) and award title(s)</b>	BSc (Hons) Forensic Science and Criminology BSc (Hons) Forensic Science and Criminology with International Year (see Annex A for details)
<b>Award type</b>	Single Honours
<b>Mode of study</b>	Full time
<b>Framework of Higher Education Qualification (FHEQ) level of final award</b>	Level 6
<b>Duration</b>	3 years 4 years with the International Year between years 2 and 3
<b>Location of study</b>	Keele University – main campus
<b>Accreditation (if applicable)</b>	Accreditation will be sought from the Chartered Society of Forensic Sciences upon completion of a full degree cycle. See also the section on accreditation.
<b>Regulator</b>	Office for Students (OfS)
<b>Tuition Fees</b>	<b>UK/EU students:</b> Fee for 2018/19 is £9,250*  <b>International students:</b> Fee for 2018/19 is £15,835**  The fee for the international year abroad is calculated at 15% of the standard year fee
<b>Additional Costs</b>	Please refer to the Additional costs section

*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.

#### 2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on Forensic Science and Criminology. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules outside Forensic Science and Criminology, in

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\* 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/>

\*\* 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/>

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**

Studying Forensic Science and Criminology allows you to explore how criminal investigations are conducted, and to understand how those investigations (and the victims and offenders associated with them) fit into the wider criminal justice system. This degree programme will equip you with an in depth understanding of why crimes are committed and how we use science to solve these, as well as what happens to the people who commit them, investigate them, and are victims of them. You will be taught by a range of individuals who carry out research in these areas as well as individuals who have significant experience of working in this area.

### **4. Aims of the Programme**

The broad educational aims of the programme are informed by the QAA Benchmark Statements for Forensic Science and Criminology and are given here according to three generic categories. All the aims and the learning outcomes are applicable to the single honours route in Forensic Science and Criminology.

#### **Knowledge**

- engender and develop an enthusiasm in students 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 students to develop their knowledge and experience of techniques relevant to forensic analysis and their practical application across a range of relevant materials and samples;
- engender an understanding in the students 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;
- enable students to, think, talk, and write about crime, crime control and representations of offending, victimisation and responses to them in a systematic way drawing on the intellectual traditions and scholarly methods of the social sciences;
- enable students to understand, evaluate and apply a range of theories about the nature, measurement and causes of crime;
- engender a critical understanding of the nature and development of different social (official and unofficial) responses to crime, including policing and the operation of the criminal justice and penal systems;
- allow students to appreciate the theory and empirical reality of crime and crime control in their historical, social, political, and economic contexts;
- encourage students to become familiar with the main quantitative and qualitative methods of social scientific research used in the collection and analysis of criminological data;
- enable students to develop the ability to conduct and report on their own research using relevant criminological concepts, suitable methods of investigation and appropriate techniques of scholarship in the social sciences;
- encourage students to obtain the knowledge, skills, capabilities and personal qualities necessary for them to find a fulfilling and rewarding career and become informed and active citizens with a lifelong interest in studying crime and ways of controlling it.

#### **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;
- describe and evaluate the application of key concepts and theoretical approaches within criminology and criminal justice to a range of contemporary problems;
- explain and analyse the impact of social inequality and diversity and the significance of historical, social, political and economic context on crime, victimisation and responses to them;
- formulate research questions and identify the most appropriate research strategies for answering them taking into account relevant ethical considerations;
- comment on and present the conclusions of theoretical and empirical research on crime and ways of responding to it to a range of audiences and in a variety of appropriate formats;
- use the knowledge and skills they have acquired in a socially responsible way, in complex and unpredictable contexts and as the basis for more advanced learning or professional training.

## **Employment**

Successful engagement with 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 a range of professions including the ability to engage in independent learning;
- become independent critical thinkers, able to analyse complex arguments, concepts and data and contribute to producing real world solutions to real world problems;
- develop a range of skills and abilities that are in demand by employers, within and beyond criminal justice roles.

## **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;
- Identify a range of instrumental and other techniques, use them to analyse materials relevant to forensic science, and appreciate their limitations;
- Solve problems within forensic science by drawing on their scientific understanding and knowledge, and experience of experimental techniques;
- Maintain an awareness of and engagement with methods and techniques within forensic science, some of which are informed by current research;
- Execute practical work and critically analyse the results from experiments or investigations and draw

valid conclusions;

- Describe and explain the principles and procedures for crime scene investigation;
- 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;
- Describe the place of forensic science within the legal framework and the role of the expert witness in court;
- 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;
- Describe the legal and ethical issues which constrain the practice of the professional forensic scientist;

### **Subject specific skills**

Combining Forensic Science with Criminology also allows you to develop the following subject specific skills in Criminology:

- Explain the distinctive characteristics of criminology as a discipline
- Recognise the relationship between crime and other social problems
- Distinguish between and evaluate the principal ways of measuring crime and victimisation
- Recognise the main theoretical traditions in criminology and illustrate their application in understanding different forms of crime and criminal justice processes, policies and practices
- Recognise and describe the relationships between crime, responses to it and social divisions and diversity
- Recognise and illustrate the impact of social change on crime and ways of responding to it
- Recognise different approaches to social scientific research and their use in investigating crime and responses to it
- Identify some of the main ways in which crime and ways of responding to it are represented in the media and by agents of crime control
- Use appropriate bibliographic search tools to find relevant criminological materials in hard copy and electronic formats
- Identify the main points of key texts and use them in developing arguments and making judgements about criminological issues
- Present written work in criminology in an appropriate scholarly style using the Harvard system of citation and referencing
- Explain the impact of globalisation and other processes of social change on crime and criminal justice
- Evaluate the capacity of criminological theory and research, including comparative analysis, to explain contemporary developments in crime and social control
- Recognise the relevance and limits of criminological knowledge in explaining the consequences of rapid social change
- Explain the relationship between theory, methodology and methods in criminological research

- Analyse the history, logics and processes of quantitative and qualitative social science research in criminology
- Evaluate criminological theories and apply them to the analysis of contemporary social problems and institutions
- Undertake further study at the forefront of criminology
- Formulate research questions and identify appropriate research strategies to address them
- Assess the usefulness of computer software in collating, retrieving and analysing research data
- Identify and assess the ethical issues that may arise in relation to criminological research
- Recognise, interpret and evaluate theories, concepts and research in defined areas at the forefront of criminology
- Apply established criminological theories and methods of inquiry to understanding and resolving new and unfamiliar criminological problems in areas of current research activity
- Describe and make critical judgements about developments in current areas of research in criminology
- Identify possible directions in which further empirical research and theoretical development might take place in areas of criminology at the forefront of the discipline
- Communicate ideas informed by contemporary research and new developments in criminological theory both orally and in writing
- Manage their own learning making use of appropriate criminological materials in a current area of research activity

### **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 IT 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;
- Evaluate and make use of abstract theories in analysing and resolving problems working alone and as a member of a team
- Communicate complex arguments supported by appropriate evidence both orally and in writing
- Design a research project and undertake a range of basic research tasks making appropriate use of information technology
- Find and make use of information from closed and open sources using online search tools

- Reflect on and plan their own learning by acting appropriately on feedback
- Communicate ideas and arguments orally and in writing to an audience of their peers using appropriate visual presentation aids
- Work productively in a largely unstructured context exercising initiative and personal responsibility
- Make decisions and plan activity in uncertain and unpredictable contexts
- Undertake appropriate further training of an academic, professional or practical nature

### **Keele Graduate attributes**

Engagement with this programme will enable you to develop your intellectual, personal and professional capabilities. At Keele, we call these our ten Graduate Attributes and they include independent thinking, synthesizing information, creative problem solving, communicating clearly, and appreciating the social, environmental and global implications of your studies and activities. Our educational programme and learning environment is designed to help you to become a well-rounded graduate who is capable of making a positive and valued contribution in a complex and rapidly changing world, whichever spheres of life you engage in after your studies are completed.

Further information about the Keele Graduate Attributes can be found here: <http://www.keele.ac.uk/journey/>

## **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. They include the following:

- Lectures, including those from guest speakers from the professions
  - Tutorials
  - Seminars
  - Practical laboratory classes
  - Practical simulated crime scene examination (indoor and outdoor)
  - Problems classes
  - Workshops
  - Problem-based learning
  - Directed reading
  - Independent study
  - Use of e-learning/the Keele Learning Environment (KLE) (Blackboard)
- **Lectures** describe, explain and map out the academic content of modules as well as engendering and developing an enthusiasm for the subject. Through examples and case studies discussed in the lectures, students develop critical skills in reviewing ideas, principles and applications.
  - **Interactive learning** takes place in large classes where students have the opportunity to work together in smaller groups, interact with the tutor and reflect on their own learning. Interactive lectures may involve the use of voting systems or involve students in a variety of other learning activities.
  - **Tutorials** involve groups of about 15 students and seminar groups of about 30. These are the formats in which key issues can be discussed in greater depth. Students are expected to play a full part, and occasionally to lead, these discussions. Some tutorials and seminars consist largely of student presentations and (in Criminology modules) many are based on the application of criminological ideas to case studies drawn from the media and the findings of criminological research.
  - **Independent study** is based on directed reading from text books, research monographs, academic journals, official government publications and the media.

- **Web-based learning:** All staff use the Keele Learning Environment (KLE) to post learning resources for the modules on which they teach; these include lecture notes, module and laboratory handbooks, problem sheets, past exam papers, web-links to external resources, assignment briefs, assignment feedback and in some cases quizzes. Many staff also use the KLE for electronic submission of work, marking and feedback.
- **Laboratory work:** 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.
- By engaging in **literature research tasks** and through directed reading, students will advance their own understanding of the disciplines, 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.

Students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

## 7. Teaching Staff

The teaching and research profiles of the current staff that deliver and support the BSc Forensic Science and Criminology programme can be found at: <http://www.keele.ac.uk/forensic/people/>, for Forensic Science Staff and <http://www.keele.ac.uk/sspp/people/>, for Criminology Staff.

There are a number of additional guest lecturers from the professions 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 permanent teaching staff in Criminology currently consists of professors, senior lecturers, permanent and temporary lecturers and teaching fellows. All members of staff other than teaching fellows have, or are working towards, doctorates (PhDs or the equivalent) in criminology, criminal justice or a closely related subject in law or the social sciences. As members of the Research Centre for Social Policy they are all active researchers whose

work across many different aspects of criminology has been widely published in books, research monographs and leading international journals.

The staff group has extensive experience of teaching at undergraduate and postgraduate level at universities in the UK and abroad. Most members of staff hold accredited or recognised teaching qualifications and several are fellows or associates of the Higher Education Academy. Several staff have received University Teaching Excellence Awards in previous years.

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 three 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;
- Elective modules – a free choice of modules that count towards the overall credit requirement but not the number of subject-related credits.

A summary of the credit requirements per year is as follows, with a minimum of 90 subject credits (compulsory plus optional) required for each year.

Year	Compulsory	Optional		Electives	
		Min	Max	Min	Max
1	120	0	0	0	0
2	120	0	0	0	0
3	90	15	15	15	15

### Module lists

#### **Year 1 (Level 4)**

Compulsory modules	Module Code	Credits	Semester
Forensic Science Principles	CHE-10039	15	1
Chemical Science Principles	CHE-10038	15	1
Cybercrime	CSC-10042	15	1
Understanding Crime	CRI-10010	15	1
Forensic Analysis	CHE-10037	15	2
Forensic Identification	CHE-10042	15	2
Investigating Crime: Criminological Perspectives	CRI-10014	15	2
Criminal Justice: Process, Policy & Practice	CRI-10013	15	2



## Year 2 (Level 5)

Compulsory modules	Module Code	Credits	Semester
Spectroscopy and Advanced Analysis	CHE-20011	15	1
Forensic Genetics	CHE-20021	15	1
Mental Health and Offending	CRI-20022	15	1
Crime and Justice in a Global Context	CRI-20018	15	1
Drugs of Abuse	CHE-20012	15	2
Criminalistic Methods	CHE-20010	15	2
Policing and the Police	CRI-20021	15	2
Research Methods in Criminology	CRI-20018	15	2

## Year 3 (Level 6)

Compulsory modules	Module Code	Credits	Semester
Evaluation of Evidence: Explosives and Arson	CHE-30033	15	1
Forensic Science Team Project	CHE-30011	15	1-2
Interpretation, Evaluation and Presentation of Evidence	CHE-30028	30	1-2
Criminology Dissertation	CRI-30046	30	1-2
Optional modules	Module Code	Credits	Semester
Forensic Geoscience	CHE-30034	15	2
Forensic Toxicology	CHE-30010	15	2

For further information on the content of modules currently offered, including the list of elective modules, please visit: [www.keele.ac.uk/recordsandexams/az](http://www.keele.ac.uk/recordsandexams/az)

## Learning Outcomes

The table below sets out what students learn in each year of the Programme, the modules in which that learning takes place, and the main ways in which students are assessed on their learning. 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.

### Year 1 (Level 4)

Subject Knowledge and Understanding		
Learning Outcome	Module in which this is delivered	Principal forms of assessment (of the Level Outcome) used
<i>Successful students will be able to:</i>		
Know the underlying concepts in and principles of forensic and analytical science and an ability to evaluate and interpret these	CHE-10038 Chemical Science Principles CHE-10039 Forensic Science Principles CHE-10037 Forensic Analysis CHE-10042 Forensic Identification	End of module examinations Class tests Problems sheets Laboratory Proformas and Reports Practical examination Essay Oral presentation

Explain the distinctive characteristics of criminology as a discipline	CRI-10010 Understanding Crime	Review/analysis of research paper: unseen multiple choice examination
Recognise the relationship between crime and other social problems	CRI-10010 Understanding Crime	Review/analysis of research paper: unseen multiple choice examination
Recognise and describe the relationships between crime, responses to it and social divisions and diversity	CRI-10010 Understanding Crime CRI-10013 Criminal Justice: Process, Policy & Practice	Review/analysis of research paper; unseen multiple choice examination Court report: online test; essay.
Recognise and illustrate the impact of social change on crime and ways of responding to it	CRI-10010 Understanding Crime CRI-10013 Criminal Justice: Process, Policy & Practice	Unseen multiple choice examination Court report: online test; essay.
Describe the development and current organisation and operation of official and unofficial responses to crime	CRI-10013 Criminal Justice: Process, Policy & Practice	Court report: online test; essay.
Recognise different approaches to social scientific research and their use in investigating crime and responses to it	CRI-10010 Understanding Crime CRI-10013 Criminal Justice: Process, Policy & Practice CRI-10014 Investigating Crime	Review/analysis of research paper; unseen multiple choice examination Court report: online test; essay. Essay; exam
Describe the processes involved in gathering, evaluating and presenting the evidence of a criminal event	CRI-10014 Investigating Crime	Essay; exam
Describe the development and current organisation, governance and operation of crime investigation.		
Identify different representations of crime investigations in the media and by agents of crime control.		

<b>Subject Specific Skills</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Be able to use basic theories and concepts within forensic and analytical science to develop arguments, make judgements, and evaluate different approaches to solving problems	CHE-10038 Chemical Science Principles CHE-10039 Forensic Science Principles CHE-10037 Forensic Analysis	End of module examinations Class tests Problems sheets Laboratory Proformas and Reports

	CHE-10042 Forensic Identification	Practical examination Essay Oral presentation
Distinguish between and evaluate the principal ways of measuring crime and victimisation	CRI-10010 Understanding Crime	Review/analysis of research paper: unseen multiple choice examination
Recognise the main theoretical traditions in criminology and illustrate their application in understanding different forms of crime and criminal justice processes, policies and practices	CRI-10010 Understanding Crime CRI-10013 Criminal Justice: Process, Policy & Practice	Unseen multiple choice examination
Identify some of the main ways in which crime and ways of responding to it are represented in the media and by agents of crime control	CRI-10010 Understanding Crime CRI-10013 Criminal Justice: Process, Policy & Practice	Unseen multiple choice examination Court report: online test; essay.
Recognise and describe the contributions, complexities and limitations of a range of investigatory and evidence-gathering techniques.	CRI-10014 Investigating Crime	Essay; exam
Recognise and illustrate the impact of processes of social change such as globalisation on crime investigation.		
Recognise and illustrate the impact of processes of social change such as globalisation on crime investigation.		
Recognise the social context in which investigative techniques and practices have emerged and operate.	CRI-10014 Investigating Crime	Essay; exam

<b>Key or Transferable Skills (graduate attributes)</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Be able to present, evaluate and interpret qualitative and quantitative data	CHE-10038 Chemical Science Principles CHE-10039 Forensic Science Principles	End of module examinations Class tests Problems sheets
Can communicate the results of work accurately and reliably, with structured and coherent arguments	CHE-10037 Forensic Analysis CHE-10042 Forensic Identification	Laboratory Proformas and Reports Practical examination
Have started to acquire some of the qualities and transferable skills necessary for employment		Essay

requiring the exercise of some personal responsibility		Oral presentation
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## Year 2 (Level 5)

<b>Subject Knowledge and Understanding</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
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	CHE-20010 Criminalistic Methods CHE-20011 Advanced Spectroscopic Analysis CHE-20012 Drugs of Abuse CHE-20021 Forensic Genetics	End of module examinations Class tests Problems sheets Laboratory Proformas and Reports Group mini-project report
Know the main methods of enquiry in forensic and analytical science and be able to critically evaluate different approaches to solving problems		
Explain the impact of globalisation and other processes of social change on crime and criminal justice	CRI-20018 Crime and Justice in a Global Context	Essay; unseen examination
Explain the relationship between theory, methodology and methods in criminological research	CRI- 20020 Research Methods in Criminology	Research Proposal Report: Qualitative Data Analysis Exercise
Trace and account for the historical development of, and current trends in, policing, primarily in England and Wales	CRI-20021 Policing and the police CRI-20022 Mental Health and Offending	Reflective analysis and essay

<b>Subject Specific Skills</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Can apply underlying concepts in and principles of forensic and analytical science outside the context in which they were first studied	CHE-20010 Criminalistic Methods CHE-20011 Advanced Spectroscopic Analysis CHE-20012 Drugs of Abuse CHE-20021 Forensic Genetics	End of module examinations Class tests Problems sheets Laboratory Proformas and Reports Group mini-project report
Can use a range of forensic and analytical techniques to undertake a critical analysis and to propose solutions based on the outcome of that analysis		
Evaluate the capacity of	CRI-20018 Crime and Justice in a	Essay; unseen examination

criminological theory and research, including comparative analysis, to explain contemporary developments in crime and social control	Global Context	
Recognise the relevance and limits of criminological knowledge in explaining the consequences of rapid social change		
Evaluate criminological theories and apply them to the analysis of contemporary social problems and institutions		
Undertake further study at the forefront of criminology		
Analyse the history, logics and processes of quantitative and qualitative social science research in criminology	CRI- 20020 Research Methods in Criminology	Research Proposal
Identify and assess the ethical issues that may arise in relation to criminological research		
Critically engage with scholarly and policy debates about policing and the police	CRI-20021 Policing and the police CRI-20022 Mental Health and Offending	Reflective analysis and essay
Assess the role and contribution of the public police and other institutions through which policing is provided and how they relate to each other		
Identify and evaluate the range of different strategies and approaches by which policing is undertaken, and the debates and controversies to which they have given rise		
Distinguish between the mechanisms and institutions through which policing provision and the use of police powers are governed and held publicly accountable		
Apply new and existing subject knowledge and understanding in criminology and related disciplines to the field of forensic mental health	CRI-20022 Mental Health and Offending	Essay and exam
Identify the range of perspectives through which mental illness, mental disorder and personality		

disorder and their relationship to offending behaviour can be understood		
Evaluate the development of different social, political and medical approaches to forensic mental health		
Identify the reasons for, and potential problems with, defining and predicting dangerous and risky behaviours		
Understand the complexity of challenges facing a wide range of multi-disciplinary agencies (and professionals) tasked with governing offenders with mental disorder		
Compare and contrast the punishment/treatment dichotomy apparent within criminal justice theory and practice		

<b>Key or Transferable Skills (graduate attributes)</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Have acquired skills in the exercise of personal responsibility and decision-making	CHE-20010 Criminalistic Methods CHE-20011 Advanced Spectroscopic Analysis	End of module examinations Class tests Problems sheets
Can effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences in an effective manner	CHE-20012 Drugs of Abuse CHE-20021 Forensic Genetics	Laboratory Proformas and Reports Group mini-project report
Formulate research questions and identify appropriate research strategies to address them	CRI- 20020 Research Methods in Criminology	Research Proposal
Assess the usefulness of computer software in collating, retrieving and analysing research data		
Evaluate and make use of abstract theories in analysing and resolving problems working alone and as a member of a team	CRI-20018 Crime and Justice in a Global Context CRI-20020 Research Methods in Criminology	Essay; unseen examination Individual Report (both qualitative and quantitative data analysis)
Communicate complex arguments supported by appropriate evidence both orally and in writing		Essay; unseen examination Research proposal.
Design a research project and		Research Proposal

undertake a range of basic research tasks making appropriate use of information technology		Individual Report (both parts)
Communicate complex ideas and arguments, supported by relevant evidence, both orally and in writing	CRI-20021 Policing and the police CRI-20022 Mental Health and Offending	Reflective analysis and essay
Evaluate and makes use of theories and concepts in analysing issues and resolving problems, working alone and as a members of a team		
Identify information gaps and develop strategies to fill them by locating and accessing additional information		
Locate, review and evaluate information and data on a research topic and apply to an analysis of the topic		
Produce a variety of written materials of varying lengths and formats, and for different purposes		
Produce written work that is concise, well written and organised, clearly and persuasively argued and supported with relevant evidence drawn from a range of appropriately acknowledged sources		
Participate appropriately and constructively in group discussion		

### Year 3 (Level 6)

<b>Subject Knowledge and Understanding</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Has a systematic understanding of 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	CHE-30010 Forensic Toxicology CHE-30011 Team Project CHE-30028 Interpretation, Evaluation and Presentation of Evidence CHE-30034 Forensic Geoscience	End of module examinations Class test Laboratory reports Case studies Research paper reviews Dissertation Viva examination
Has a conceptual understanding that enables the student to 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		
Possesses an appreciation of the uncertainty, ambiguity and limits of knowledge		
Demonstrate a critical understanding of the theories and concepts underpinning your chosen area of study and critically assess the research literature in this area;	CRI-30046 Criminology Dissertation	Dissertation

<b>Subject Specific Skills</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
Can describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline	CHE-30010 Forensic Toxicology CHE-30011 Team Project CHE-30028 Interpretation, Evaluation and Presentation of Evidence CHE-30034 Forensic Geoscience	End of module examinations Class test Laboratory reports Case studies Research paper reviews Dissertation Viva examination
Undertake a field- or library-based investigation of your own, showing how you have applied available literature to your study;	CRI-30046 Criminology Dissertation	Dissertation
Explain the methods used in your investigation, acknowledge problems and limitations, and comment on how these affect your findings and conclusions.		
Recognise, interpret and evaluate theories, concepts and research in defined areas at the forefront of criminology	All Criminology modules	Modules are assessed in a variety of ways including: essays; short research papers; closed and open book unseen exams; case studies and presentations
Apply established criminological theories and methods of inquiry to understanding and resolving new and unfamiliar criminological problems in areas of current research activity		
Describe and make critical judgements about developments in current areas of research in criminology		
Identify possible directions in		



which further empirical research and theoretical development might take place in areas of criminology at the forefront of the discipline		
Communicate ideas informed by contemporary research and new developments in criminological theory both orally and in writing		
Manage their own learning making use of appropriate criminological materials in a current area of research activity		

<b>Key or Transferable Skills (graduate attributes)</b>		
<b>Learning Outcome</b>	<b>Module in which this is delivered</b>	<b>Principal forms of assessment (of the Level Outcome) used</b>
<i>Successful students will be able to:</i>		
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).	CHE-30010 Forensic Toxicology CHE-30011 Team Project CHE-30028 Interpretation, Evaluation and Presentation of Evidence CHE-30034 Forensic Geoscience	End of module examinations Class test Laboratory reports Case studies Research paper reviews Dissertation Viva 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		
Can exercise initiative and personal responsibility, exercise decision-making in complex and unpredictable contexts and appreciate need to undertake professional development	CHE-30011 Team Project CHE-30028 Interpretation, Evaluation and Presentation of Evidence	Team project interviews Project report Crime scene investigation reports Court expert witness statement Court presentation and cross-examination
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	CHE-30011 Team Project CHE-30028 Interpretation, Evaluation and Presentation of Evidence	Team project interviews Project report Court expert witness statement Court presentation and cross-examination Dissertation Viva examination
Can communicate information, ideas, problems and solutions to	CHE-30011 Team Project CHE-30028 Interpretation,	Research paper reviews

both scientific and non-scientific audiences	Evaluation and Presentation of Evidence CHE-30029 Forensic Dissertation CHE-30034 Forensic Geoscience	Dissertation Viva examination Team project report Technical leaflet Crime scene investigation reports Court expert witness report Court presentation and cross-examination
Work productively in a largely unstructured context exercising initiative and personal responsibility	All Criminology modules	Modules are assessed in a variety of ways including: essays; short research papers; closed and open book unseen exams; case studies and presentations
Make decisions and plan activity in uncertain and unpredictable contexts		
Undertake appropriate further training of an academic, professional or practical nature		

## 9. Final and intermediate awards

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

<b>Honours Degree</b>	360 credits	You will require at least 120 credits at levels 4, 5 and 6  You must accumulate at least 270 credits in Forensic Science and Criminology (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 Forensic Science and Criminology.
<b>Diploma in Higher Education</b>	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
<b>Certificate in Higher Education</b>	120 credits	You will require at least 120 credits at level 4 or higher

**Forensic Science and Criminology with International Year:** in addition to the above students must pass a module covering the international year in order to graduate with a named degree in Forensic Science and Criminology with international year. Students who do not complete, or fail the international year, will be transferred to the three-year Forensic Science and Criminology programme.

## 10. How is the Programme assessed?

The wide variety of assessment methods used within Forensic Science and Criminology at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff take care to apply the principles of assessment laid out in the University's assessment strategy and 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 within Forensic Science and Criminology:

A feature of this programme is the wide variety of types of assessment each of which is tailored to the key outcomes of each module and reflects the knowledge and skills expected by graduates from the 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. **Class tests** may be taken either conventionally or online via the Keele Learning Environment (KLE).
- **End of module examinations** in Forensic Science 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. **In Criminology, unseen examinations** in different formats test students' knowledge of criminological theories and the findings of criminological research and their ability to apply that knowledge responsibly in understanding social problems. Examinations may consist of essay, short answer, problem, case study and/or multiple choice questions.
- **Problems sheets** and **data analysis exercises** assess the student's skills in solving numerical and other problems within forensic science and criminology by drawing on their scientific understanding and knowledge, and experience of experimental techniques.

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 pro-formas**, 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** 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. They may also test students' ability to work effectively as members of a team, to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development.
- **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**, including those based on case study material, also test the quality and application of subject knowledge. In addition they allow students to demonstrate their ability to carry out basic bibliographic research and to communicate their ideas effectively in writing in an appropriate scholarly style using the Harvard system of referencing.
- In a similar way to essays, the production of **technical leaflets** enables 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.

- **Research papers / literature / critical reviews** enable the student to demonstrate their effective engagement with the research literature across forensic and analytical science and to 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, 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.
- **Reviews** of other scholars' work test students' ability to identify and summarise the key points of a text and to evaluate the quality of arguments and the evidence used to support them. In the case of work based on empirical research, reviews also assess students' knowledge of research methodologies and their ability to make critical judgements about the appropriateness of different strategies for collecting and analysing data.
- **Research design projects, data analysis reports and short research papers** test student's knowledge of different research methodologies and the limits and provisional nature of criminological knowledge. They also enable students to demonstrate their ability to formulate research questions and to answer them using an appropriate strategy.
- **Portfolios** may consist of a range of different pieces of work but routinely include a requirement that students provide some evidence of critical reflection on the development of their own learning.

The **Dissertation** is an extended project based around the student's own interests and may be empirical (drawing on research conducted by the student) or library-based. It allows students to construct their own research question, design an approach that allows them to answer it, gain ethical approval for their project, and finally conduct, analyse and write-up the findings. Through working on a diverse range of assessments, 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. The diverse assessment strategy also allows the student to be able to demonstrate a wide range of employability skills to potential employers.

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 and non-assessed presentations
- Written formative feedback provided from the tutor reading a draft of a major piece of work such as an essay, the dissertation or a project report

Marks are awarded for summative assessments designed to assess students' achievement of learning outcomes. Students are also assessed formatively to enable them to monitor their own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how students can improve the quality of their 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	Year 1 (Level 4)	Year 2 (Level 5)	Year 3 (Level 6)
Scheduled learning and teaching activities	28%	22%	23%
Guided independent Study	72%	78%	77%
Placements	0%	0%	0%

## 12. Accreditation

Accreditation for this programme will be sought from the Chartered Society of Forensic Sciences upon completion of a full degree cycle. This is a requirement of the Society.

## 13. 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/>

### Course Regulations

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

## 14. What are the typical admission requirements for the programme?

Subject	A-level	Subjects not included	International Baccalaureate	BTEC	Access to Higher Education Diploma	GCSE requirements

Forensic Science and Criminology	ABC/ BBB A level Chemistry or Biology at B or above.  A pass in Science practical will be required if applicant is taking A level Biology or Chemistry (England) **  ** Science practical only required from applicants taking reformed A level Biology, Chemistry or Physics in England.	None	32 points to include Higher Level Chemistry or Biology at 6 or above.	DDD You must have taken specific Science units, please contact us for advice.	Obtain Access to Higher Education Diploma with 122 UCAS Tariff points including a minimum of 30 Level 3 credits at Distinction. You must have taken sufficient Chemistry/Biology credit, please contact us for advice.	English Language at C (or 4) Mathematics at C (or 4)
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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.

Please note: All non-native English speaking students are required to undertake a diagnostic English language assessment on arrival at Keele, to determine whether English language support may help them succeed with their studies. An English language module may be compulsory for some students during their first year at Keele.

Accreditation of Prior Learning (APL) 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:

<http://www.keele.ac.uk/ga/accreditationofpriorlearning/>

### 15. How are students supported on the programme?

All students have many opportunities for close contact with the staff – through laboratory sessions, problems classes, tutorials, workshops and other teaching activities. 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 personal tutor is best placed to discuss their overall progress.

Each year of study has an associated Year Tutor for Forensic Science 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 and Criminology 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 members of teaching staff on the Criminology Programme are available to see students during advertised weekly office hours and at other times by appointment. A member of Criminology staff will also act as a dedicated Forensic Science/Criminology link tutor. Module and tutorial group leaders are responsible for

providing support for learning on the modules and in the tutorial groups for which they are responsible. They also give individual feedback on in-course assessments and more general feedback on examinations.

Help, support and advice are also available from each student's Personal Tutor who is a member of staff within either the Forensic Science or Criminology teaching teams. Personal tutors 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 personal tutor should be seen as someone they can approach with confidence for advice on any matter whether academic or personal; if the tutors 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 personal tutor can advise on general matters relating to the whole programme of study.

Non-native English-speaking students are offered language classes, facilities and services by the University's Language Centre. In addition to credit-bearing modules on English for academic study, students also have access to one-to-one tutorials for individual help and advice, and to a wealth of resources for self-study and practice.

## **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 along the main corridor and are complemented by the more recent addition of the Multi-Lab chemical sciences laboratory and a second analytical laboratory in the adjacent wing. All are 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 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 spectrometer, an Inductively-Coupled Plasma Optical Emission Spectrometer (ICP- OES), and Raman microscope. The School has access to XRD, XRF and a scanning electron microscope (with EDX analysis) within the School. Students undertaking project work at level 6 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. The Faculty IT laboratory housing 70 networked PCs is located within the Lennard-Jones Laboratories and a range of software packages for the analysis of spectroscopic and chromatographic data acquired on instruments in our analytical laboratories is available on these computers. Students have access to a wide variety of on-line databases and scientific journals, both in electronic and paper form, through the university library. In addition to the information resources available from the main library, a specialist collection of textbooks and reference books for forensic and analytical science is maintained within the Lennard-Jones building which students may consult or borrow on a short-term basis.

Criminology is taught in teaching rooms equipped with computers, internet access and electronic whiteboards or projection equipment. Rooms may be arranged either in traditional lecture format or more informally to allow students to work together in small groups.

The learning resources available to students on the Programme include:

- The extensive collection of criminological materials relevant to undergraduate study held in the University Library. Built up over 20 years of delivering criminology at this level, these materials include

books, journals and government publications. Much of this material is also accessible online to Keele students from anywhere in the world with a University username and password.

- The Keele Learning Environment (KLE) which provides easy access to a wide range of learning resources including lecture notes, digitised readings electronic materials available in a repository maintained by the University Library and other resources – video, audio and text-based – accessible from external providers via the internet.
- Most modules have electronic resource lists generated using Talis Aspire, a software package that allows students to access electronic journal articles, websites and other resources by clicking on links in a single document.

## **17. Other learning opportunities**

### **Study abroad (semester)**

Students on the Forensic Science and Criminology programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

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 studying in Erasmus+ destinations 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 at Annex A.

### **Other opportunities**

During their time at Keele, students also have the opportunity to hear from, and talk to, a range of guest speakers and presenters including staff from local criminal justice agencies and leading academic criminologists from around the world.

Some of these activities are timetabled as part of taught modules, others are organised separately but are widely advertised and undergraduate students are always welcome to attend.

Other optional learning opportunities for Criminology students vary from year to year but in recent years have included a week long study trip to Ball State University in the American Midwestern state of Indiana. This will incur extra costs.



## 18. Additional costs

Activity	Estimated cost
Field courses – compulsory (none)	£0
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 2017/18 price for these are listed below:  Laboratory Book - £1.00 Laboratory Glasses - £2.00 Laboratory Coat - £9.50  Students will be required to supply appropriate writing equipment but this would be a minimal (<£5) cost. All core textbooks are available in the main University Library. To increase the available 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.	£55
Travel - none unless taking the optional semester/year abroad. These costs will depend upon the location of the partner university.	£0 (unless taking the semester/year abroad)
<b>Total estimated additional costs</b>	<b>£55</b>

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 undergraduate programme.

## 19. Quality management and enhancement

The quality and standards of learning in Forensic Science and Criminology are subject to a continuous process of monitoring, review and enhancement.

- The Learning and Teaching Committee of the School of Chemical and Physical Sciences 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 and as part of the University's Curriculum Annual Review and Development (CARD) process.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Internal Quality Audit (IQA) 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 the Curriculum Annual Review and Development (CARD) process.
- Findings related to the Forensic Science and Criminology 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 Forensic Science and Criminology Programme is considered and acted on at regular meetings of the Student Staff Liaison 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 Forensic Science and Criminology Programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

- UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: <http://www.qaa.ac.uk/quality-code>
- 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](http://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-forensic-science.pdf?sfvrsn=659ef781_10)
- QAA Subject Benchmark Statement: Criminology (2014) [http://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-criminology-14.pdf?sfvrsn=b3e2f781\\_8](http://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-criminology-14.pdf?sfvrsn=b3e2f781_8)
- Chartered Society of Forensic Science (CSFS) Accreditation Scheme; Criteria and Standards; available at: <http://www.csofs.org/accreditation>
- University Regulations and Guidance for Students and Staff: <http://www.keele.ac.uk/regulations>

## 21. Document Version History

**Date of first approved version (v1.0):** 5<sup>th</sup> October 2018

Revision history

Version number <sup>1</sup>	Author	Date	Summary of and rationale for changes
1.1	David Thompson	March 2019	Update to one Level 4 module ('Criminal Justice: Process, Policy & Practice') in Criminology
1.2	Richard Darton	September 2019	Minor wording updates to resources

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<sup>1</sup> 1.1, 1.2 etc. are used for minor changes and 2.0, 3.0 etc. for major changes (as defined in the University’s Guidance on processes supporting curriculum changes)

## Annex A

### Forensic Science and Criminology with International Year

#### International Year Programme

Students registered for Forensic Science and Criminology may either be admitted for or apply to transfer during their period of study at Level 5 to the Single Honours 'Forensic Science and Criminology with International Year'. Students accepted onto this programme 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 Forensic Science and Criminology 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 'Forensic Science and Criminology with International Year'.

#### 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 60% across all modules at Level 5 is normally required)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2<sup>nd</sup> semester of year 2 (Level 5), and by recommendation of the student's personal tutor, 1<sup>st</sup> and 2<sup>nd</sup> 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 Personal Tutoring 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:

- i) Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
- ii) Discuss the benefits and challenges of global citizenship and internationalisation
- iii) Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.

In addition, students who complete 'Forensic Science and Criminology with International Year' will be able to:

- iv) Design, plan and critically evaluate research projects with respect to criminology, record relevant information accurately and systematically and be able to reflect on a range of sources in a critical manner.
- v) Integrate, apply and develop enhanced principles relating to the analysis of criminology; recognise, describe and explain cultural phenomena across national boundaries and reflect critically upon problems relating to contemporary society and culture.
- vi) Reflect upon the international nature of crime and describe and discuss differences between investigative approaches taken in different countries.
- vii) Evaluate the merits and limitations of the different approaches taken to investigating crime in different countries.
- viii) Apply their experiences abroad to the specific graduate attributes associated with their 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.

### **Course Regulations**

Students registered for the 'Forensic Science and Criminology with International Year' are subject to the course 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 Forensic Science or Criminology module with significant overlap to 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](http://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 studying in Erasmus+ destinations 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.