

#### Overview

Programme Code	41440
Programme Title	Forensic Science
Awarding Institution	Liverpool John Moores University
Programme Type	Degree with Foundation

#### Awards

Award Type	Award Description	Award Learning Outcomes
Target Award	Bachelor of Science with Honours (Fnd) - BSHF	N/A
Alternative Exit	Certificate of Higher Education - CHE	Evaluate information using it to plan and develop investigative strategies and to determine solutions to a wide range of scientific problems Evaluate information using it to plan and develop investigative strategies and to determine solutions to a wide range of scientific problems Apply a broad knowledge base, incorporating theoretical concepts and employing a wide range of specialised skills to real and theoretical forensic applications. Apply a broad knowledge base, incorporating theoretical concepts and employing a wide range of specialised skills to real and theoretical forensic applications. Operate in a range of science contexts, and take responsibility for their contributions and outputs. Operate in a range of science contexts, and take responsibility for their contributions and outputs.
Alternative Exit	Diploma of Higher Education - DHE	Generate ideas through the analysis of concepts at an abstract level, with a command of highly specialised skills and the formulation of responses to concrete and abstract problems. Accept responsibility for group and personal work. Analyse and evaluate information, demonstrating significant judgement across a broad range of forensic related areas. A student who successfully completes a placement year will be eligible for the Sandwich award and will, in addition to the above, be able to demonstrate the professional and personal skills necessary for effective employment within a professional environment.

Alternate Award Names	
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## External Benchmarks

Subject Benchmark Statement	UG-Forensic science (2012)
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## Accreditation

### Programme Accredited by

PSRB Name	Type of Accreditation	Valid From Date	Valid To Date	Additional notes
Chartered Society of Forensic Sciences	The Chartered Society of Forensic Sciences provides an accreditation system for both undergraduate and postgraduate courses in forensic science and related topics. Accreditation is given provided the course content meets with the Society's component standards which provide a quality endorsement of the course.			

### Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length Programme Length Unit
Sandwich Year Out, Face to Face	September	LJMU Taught	5 Years
Full-Time, Face to Face	September	LJMU Taught	4 Years

## Aims and Outcomes

Educational Aims of the Programme	The main educational aims of the Forensic Science Programme are to: Provide a body of knowledge and practical training which enables the student to pursue a career in forensic science and in a range of alternative areas of employment which use biomolecular and related analytical techniques.(e.g. B3.2, B3.3). Provide the opportunity for every student to pursue a range of studies commensurate with their individual interests within the area outlined above through informed choice. Permit the student to develop the skills and understanding of scientific methodology (e.g. B3.3, B3.5). Develop transferable skills to enable students to enter non-subject specific employment at graduate level Develop study, information technology (IT),and communication skills to enable students to participate in lifelong learning. Provide the student with skills in independent research to enable them to undertake relevant postgraduate study. Encourage students to engage with the development of employability skills by completing a self-awareness statement. In addition to the aims for the main target award, the sandwich programme aim is to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give the students the opportunity to develop professional skills relevant to their programme of study, as well as attitude and behaviours necessary for employment in a diverse and changing environment.
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### Learning Outcomes

Code	Number	Description
PLO1	1	Understand and be able to apply concepts and principles of the subjects and techniques employed in forensic science including; Scene of crime procedures; Search and recovery procedures; The analysis and evaluation of evidence.
PLO2	2	Use appropriate resources (e.g. IT, Library) to find and organise information.

PLO3	3	Recognise and apply safe working practice in the laboratory and/ or the field with an awareness of good laboratory practice (GLP) COSHH and risk assessments
PLO4	4	Employ a range of methods for the collection, analysis and presentation of information.
PLO5	5	Plan, design and execute a piece of research and produce a concise and precise final report or presentation.
PLO6	6	Manage time and tasks effectively as an individual and as part of a team.
PLO7	7	Use integrative skills to analyse and solve problems, applying numerical and statistical techniques where relevant.
PLO8	8	Communicate scientific information effectively by discussion, written materials, use of images and oral presentations.
PLO9	9	Use the internet, databases, spreadsheets and word processing packages.
PLO10	10	Identify skill levels, personal development targets and employment goals in line with PDP and self-awareness statement.
PLO11	11	Use and develop laboratory skills, principles of experimental method and the research process.
PLO12	12	Understand and apply the principles of general English Law and the Police and Criminal Evidence Act.
PLO13	13	Interpret and apply the principles and methods of disciplines underpinning forensic science, such as anthropology, analytical chemistry, toxicology, molecular biology.
PLO14	14	Evaluate the significance of experimental data or evidence, draw appropriate conclusions and place them in a subject /scientific context.
PLO15	15	Analyse, synthesise, and summarise information.
PLO16	16	Apply knowledge and understanding to modelling, problem solving and hypothesis testing.
PLO17	17	Recognise the implications of professional ethics and standards and apply them.
PLO18	18	Interpret a set of circumstances in a legal context.

## Course Structure

Programme Structure Description	<p>The programme is offered in full-time and full time sandwich. The programme is structured around the University Academic Framework. Credits will be gained as modules are passed. The modular programme allows students to structure their programme of study within certain prescribed limits. Students must satisfy the programme requirements at each level to allow them to graduate with their designated degree title. Core modules teach the essential knowledge and skills, which every forensic science graduate can be expected to have. Core modules at levels 4 and 5 are also designed to provide students with the skills and knowledge needed to study a range of more specialised modules at level 6. They have been carefully chosen as a foundation on which to make an informed choice of optional modules, primarily at levels 5 and 6. These optional modules give students the opportunity to pursue their particular areas of interest within the programme. Study Abroad Students will be offered the opportunity of 120 credits of study abroad at Level 5. The aim is to provide students with an additional year of study at an approved overseas partner that will complement their programme at LJMU. Students will be enrolled on a 480 credit honours with study abroad programme. Of those 480 credits, 120 will be taken via a Level 5 study abroad module (5106FSBMOL), the modules to be studied in the host institution must be agreed in advance. The Level 5 mean for the final award mark will be calculated based upon the 240 credits at Level 5. Sandwich Year (5107FSBMOL) The aim is to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give the students the opportunity to develop professional skills relevant to their programme of study, as well as attitude and behaviours necessary for employment in a diverse and changing environment. The placement year will follow Level 5 and students will be enrolled on a 480 credit honours sandwich programme. The Level 5 mean for the final award mark will be calculated based upon the 240 credits at Level 5.</p>
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<b>Programme Structure - 660 credit points</b>	
<b>Level 3 - 120 credit points</b>	
<b>Level 3 Core - 120 credit points</b>	CORE
[MODULE] 3412FNDSCI Human Anatomy and Physiology Approved 2022.01 - 20 credit points	
[MODULE] 3417FNDSCI Fundamental Science Skills Approved 2022.01 - 20 credit points	
[MODULE] 3418FNDSCI Introduction to Chemistry Approved 2022.01 - 20 credit points	
[MODULE] 3419FNDSCI Introduction to Biochemistry and Cell Biology Approved 2022.01 - 20 credit points	
[MODULE] 3420FNDSCI Further Chemistry Approved 2022.01 - 20 credit points	
[MODULE] 3421FNDSCI Introduction to Molecular Biology and Genetics Approved 2022.01 - 20 credit points	
<b>Level 4 - 120 credit points</b>	
<b>Level 4 Core - 120 credit points</b>	CORE
[MODULE] 4101FSBMOL Forensic Science Research Methods 1 Approved 2022.01 - 20 credit points	
[MODULE] 4102FSBMOL Crime Scene Investigation Approved 2022.01 - 20 credit points	
[MODULE] 4103FSBMOL Forensic Chemistry Approved 2022.01 - 20 credit points	
[MODULE] 4104FSBMOL Forensic Science Approved 2022.01 - 20 credit points	
[MODULE] 4105FSBMOL Molecular Bioscience for Forensic Sciences Approved 2022.01 - 20 credit points	
[MODULE] 4308NATSCI Forensic Field Skills Approved 2022.01 - 20 credit points	
<b>Level 5 - 260 credit points</b>	
<b>Level 5 Core - 100 credit points</b>	CORE

[MODULE] 5101FSBMOL Forensic Science Research Methods 2 Approved 2022.01 - 20 credit points	
[MODULE] 5102FSBMOL Trace Evidence Analysis Approved 2022.01 - 20 credit points	
[MODULE] 5103FSBMOL Analytical Forensic Science Approved 2022.01 - 20 credit points	
[MODULE] 5104FSBMOL Molecular Forensics Approved 2022.01 - 20 credit points	
[MODULE] 5105FSBMOL Forensic Methods Approved 2022.01 - 20 credit points	
<b>Level 5 Optional - 20 credit points</b>	OPTIONAL
[MODULE] 5103PS Investigation Skills Approved 2022.01 - 20 credit points	
[MODULE] 5313NATSCI Forensic Human Identification Approved 2022.01 - 20 credit points	
<b>Optional placement - 120 credit points</b>	OPTIONAL
<b>Placement Year - 120 credit points</b>	OPTIONAL
[MODULE] 5107FSBMOL Sandwich Year - Forensic Science Approved 2022.01 - 120 credit points	
<b>OR Study Abroad - 120 credit points</b>	OPTIONAL
[MODULE] 5106FSBMOL Study Year Abroad - Forensic Science Approved 2022.01 - 120 credit points	
<b>Level 6 - 160 credit points</b>	
<b>Level 6 Core - 80 credit points</b>	CORE
[MODULE] 6101FSBMOL Advanced Forensic Methods Approved 2022.01 - 20 credit points	
[MODULE] 6103FSBMOL Expert Witness Approved 2022.01 - 20 credit points	
[MODULE] 6105FSBMOL Forensic Science Research Project Approved 2022.01 - 40 credit points	
<b>Level 6 Optional - 80 credit points</b>	OPTIONAL
[MODULE] 6102FSBMOL Drug Analysis and Toxicology Approved 2022.01 - 20 credit points	
[MODULE] 6104FSBMOL Modern Technology in Forensic Science Approved 2022.01 - 20 credit points	
[MODULE] 6214NATSCI Forensic Bioscience Approved 2022.01 - 20 credit points	
[MODULE] 6311NATSCI Forensic Anthropological Genetics Approved 2022.01 - 20 credit points	

## Teaching, Learning and Assessment

Teaching, Learning and Assessment	<p>Formal lecture sessions, practicals, workshops and computer sessions, seminars, tutorials, group work and independent study. Problem based learning and case studies are an important aspect of the programme. In heavily practical based modules, assessment can be by portfolio of work completed during the module sessions. Crime scene processing is assessed in groups although individual marks are assigned. Expert witness statements and court room skills are also assessed. Examinations (essay style, MCQ and short answers), essays, reports, reviews, practical tests (to assess both understanding and technical competence), oral presentations, poster presentations are also used as means of assessment. Students are encouraged to use self-assessment throughout the course and peer assessment is used in a number of modules. Presentations, whether oral or written (such as posters) are the main areas in which this is applied. Cognitive skills are developed in many taught sessions, with an increasing emphasis as students progress from level 4 through level 6. Such skills are especially developed during level 6 modules, especially the honours project module. Lead lectures, tutorials, case studies, laboratory practical classes, research based teaching materials and methods, literature reviews, seminars are all used. Students' cognitive skills are assessed in a variety of ways: "practical intelligence" is tested in practical tests in scene-of-crime related modules; analysis, synthesis and summarising of information is assessed by report writing, analysis/ abstracting of research papers and the dissertation. The students ability for critical thinking is assessed in numerous ways including case studies and presentations, reviews and the project module. The honours project permits students to demonstrate the full range of their cognitive skills. Practical skills are taught during practical classes (a component of most modules) and during execution of the honours project. At level 4 the teaching of basic practical skills common to all PBS programmes is incorporated into the Skills module. Experiments and information retrieval tasks get progressively more complex at level 5. Students are expected to develop these skills independently at level 6 when completing the honours project and during some of the modules incorporating analysis, evaluation and interpretation of evidence. Practical skills are evaluated directly through assessed practicals and via portfolio based assessment but also by appraisal of practical and project reports. The honours project/WBL portfolio and other level 6 reports allow students to demonstrate the full range of skills they have acquired whilst presentations and exams allow a more theoretical assessment of practical knowledge. As well as having the opportunity to develop transferable skills in all academic modules, key skills are specifically taught in the research methods modules at Level 4 and 5 (4101FSBMOL and 5101FSBMOL). Teaching on these modules includes instruction in small tutorial groups. Key skills are also practiced in the honours project module, 6105FSBMOL. Throughout this time students will have a personal tutor who will oversee PDP sessions at level 4, 5 and 6 and the student also has a project supervisor at level 6 who will provide support and guidance. Key skills are assessed through coursework at all levels in all modules and specifically in the modules mentioned above. Module instructions for these modules and additional materials are on Canvas, as well as marking sheets on other modules contain detailed instructions on how the key skills are assessed.</p>
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### Opportunities for work related learning

Opportunities for work related learning
<p>Students are provided with the opportunity to undertake a sandwich placement. Additionally they are encouraged to attend lectures by outside practitioners in the field given outside of formal lectures. Within modules, specialist topics are covered by external lecturers from (for example) Merseyside police etc. The facility to attend an autopsy is also provided. Much of the content of a number of forensic specific modules is work related and based on problem based learning techniques.</p>

### Entry Requirements

Type	Description
A levels	88 points at A-level, with grade C at chemistry and/or biology.
Other international requirements	Non-native English speakers will have to prove an appropriate level of proficiency in English language ability equivalent to 6.0 IELTS.

BTECs	a BTEC Ordinary Certificate or National Diploma with three level III units in appropriate subjects passed with distinction, merit, merit.
Alternative qualifications considered	Applicants should have GCSE passes in five subjects at grade C or above, and in common with standard University policy, these should include Mathematics and English Language at grade C or above, or equivalent. Students can claim Recognition of Prior Learning (RPL) and Recognition of Prior Experiential learning (RP(E)L) in accordance with the assessment regulations.
International Baccalaureate	International Baccalaureate: Acceptable on its own and combined with other qualifications •Additional information: 88 UCAS points
NVQ	Candidates with a relevant HNC/HND may be admitted straight into level 5 of the degree course, i.e. gain RPL for the whole of level 4. Owing to the very applied nature of the second year, these candidates will not be able to claim any additional RPL at level 5. Candidates employed by an accredited forensic science laboratory and having relevant experience may be considered for RP(E)L at level 5.

## Programme Contacts

### Programme Leader

Contact Name
Helen Burrell

### Link Tutor

Contact Name
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