



Professional Placements Building a Future

School of Computing and Mathematical Sciences
Liverpool John Moores University

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Introduction

This guide is a one-stop reference for current and potential providers of student professional placements. The School is home to around 1100 students at any one time and is responsible for placing around 200 students each year in year-long work placements. We have been operating placements since the early 1980s and therefore have a wealth of experience that can help your Company and our students get the most out of the professional placement scheme.

The School of Computing and Mathematical Sciences is responsible for an extensive portfolio of full-time, sandwich and part-time courses at post graduate and undergraduate levels together with professional development courses for industry. Our policy is to provide quality research and undergraduate education which is both intellectually rigorous and practically oriented to the needs of industry and commerce.

The School has 10 specialist teaching laboratories comprising around 300 PCs, which are overseen by a team of 10 technicians. All machines are dual-bootable between Windows XP and Linux and we also have a number of dedicated Apple Mac machines for specialist applications. We operate our own dedicated multimedia labs and a special purpose game development lab which are equipped with state-of-the-art equipment suitable for our courses.

As a School we recognise the importance and benefits of industrial liaison to the development of our degree courses and our students' knowledge.

We believe the combination of the University and the workplace can:

- Enrich the students' experience by providing an excellent mix of practical and formal training which ultimately develops marketable skills.
- Enrich the company which offers such opportunities by drawing on university expertise to provide additional knowledge and manpower.

We therefore require our students to undertake a year's work experience in industry as part of their undergraduate degree course.

Feedback from participating companies and students have shown that both have found these student professional placements to be a mutually rewarding experience.

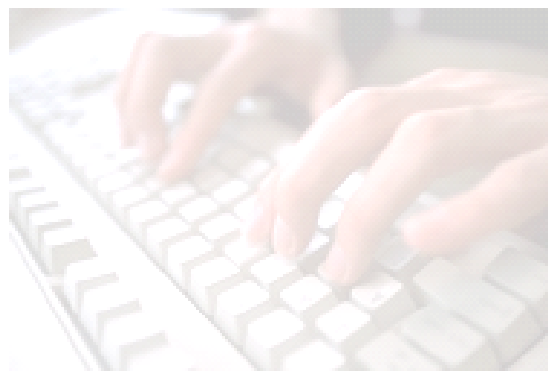


What are student professional placements?

All of the School's undergraduate Honours degrees are sandwich degrees. This means that our students pursue two years of study within the University, then undertake a one year professional placement with a company or institution where they will undertake degree-related work followed by a fourth and final year of academic study.

The titles of our BSc (Honours) degrees are:

- Computer Studies
- Computer Forensics
- Information Systems
- IT & Multimedia Computing
- Software Engineering
- Computer Games Technology
- Computer Animation and Visualisation
- Business Mathematics



The duties performed whilst on placement need to be relevant to the student's course with the minimum period of placement being of 12-month duration.

Many placements are with local firms but students have gone further afield. Some have even gone abroad to such places as Australia, Malaysia, USA, Germany and France.

The benefits

Students graduating from this University will have the skills, experience and qualification that will make them ready for the workplace. The placement year provides the ideal bridge for both employees and their potential employers. Upon graduation, some students have been offered employment with the company that employed them for their placement.

The School has a specialist Advisory Board made up of industrialists and academics. This Board ensures the content of each and every module we teach is relevant to the workplace. In addition, feedback from companies taking our students on placement is always welcome.

In particular, student placements provide a unique opportunity for organisations to:

- Develop IT skills in-house
- Add support to an existing workforce
- Utilise the latest techniques and methods without paying large consultancy fees.

A number of companies decide to sponsor students during their final year of studies with a view to offering full-time employment upon graduation. This is a good method of ensuring that your new employees have the necessary skills on entering your organisation and eliminates the time consuming and costly process of recruiting.

The placement process

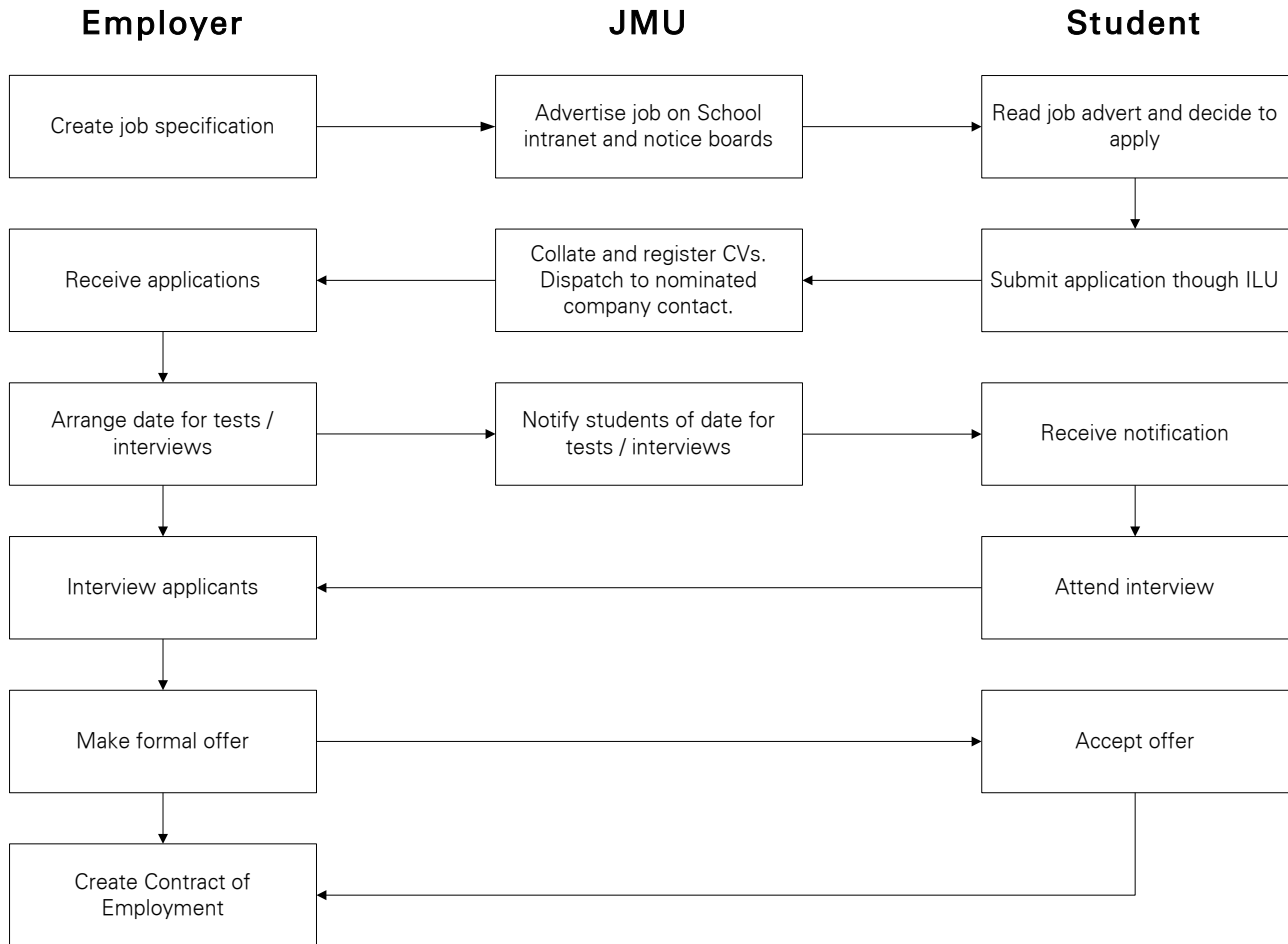
The School's dedicated Industrial Liaison Unit (ILU) is responsible for the University's administration of all placements. The Unit's personnel consist of a dedicated Industrial Liaison Tutor and a full-time Industrial Support Officer.

The typical process of placing students is as follows:

1. A job description is provided by the employer. This specification is internally advertised on the School notice board and intranet together with an application deadline date previously agreed between the employer and the ILU.
2. The student must apply by whatever method is requested by the prospective employer. This may take the form of a curriculum vitae or a standard application form. All applications are then collated and despatched to the nominated contact within the company.
3. Mutually convenient dates are then arranged for aptitude tests and/or interviews. All necessary arrangements can be made by the School's Industrial Liaison Unit.

4. When interviews are completed and a selection is made, a formal offer of a minimum of 12 months employment is made by the company.
5. A Contract of Employment is issued by the company which should state the start date and salary, together with rules and regulations covering discipline, conduct and dress codes.

This process is shown in more detail in the diagram below:



Advice on the average salary for a student can be obtained from the Industrial Liaison Unit.

What is expected?

From the Employer

First and foremost a valid job is expected with a reasonable salary. An industrial supervisor within the company should be appointed as a 'mentor'. This industrial supervisor will usually be the person who is responsible for the student and their work throughout their placement period. This industrial supervisor will agree with the student, at the beginning of the placement, the technical and professional/personal skills the student can expect to develop during the placement period. This is confirmed in the Learning Agreement submitted to the University at the start of the placement. Towards the end of the placement, the industrial supervisor is asked to complete a very short questionnaire about the student.

Some companies perform their own annual assessment and a copy of this assessment may be kept on the student's personal file for future reference.

Companies must provide a safe working environment and ensure students will be treated in accordance with applicable legislation.

The Learning Agreement

The Learning Agreement is a document signed by both the student and their company supervisor outlining the technical and professional/personal skills the student can expect to develop during the year.

This helps to form the basis of a good working relationship and can be used to assess the progression of the particular student during the placement.

From the University

The University provides a visiting tutor who visits or makes contact, three times during the year with both the student and the industrial supervisor and provides the Industrial Liaison Unit with written progress reports.

The University Tutor will normally handle all queries regarding the student and/or his/her placement throughout the placement period. In addition, support with all aspects of Professional placements is provided by our dedicated Industrial Liaison Unit during office hours. Voicemail will be in operation outside office hours. All enquiries will be treated in the strictest confidence.

In addition to the visits, a Placement Day is held at the University in April/May. It is hoped that all employers will allow their student/s the time away from the workplace to attend. This day provides students with the opportunity to speak with various academic and administrative members of staff in preparation for their final year.

From the Student

The student is expected to perform the tasks given to him/her by the company in a professional manner. She/he is expected to confirm to company standards.

At the start of the placement, the student must submit to the University a Learning Agreement signed by themselves and their company supervisor outlining the technical and professional/personal skills the student can expect to develop during the year.



Before passing on to the fourth and final year of their course each student must submit, initially through the organisation to which they are attached, a formal Placement Report on the work on which they have been engaged. A copy of this report is finally submitted to the ILU for assessment by the University Tutor.

Where reports contain sensitive or confidential information, arrangements can be made for the report to be assessed on the company premises by the University Tutor. The report will then remain the property of the company or organisation.

If reports received from the industrial supervisor, university supervisor and the student are satisfactory; the student is allowed to progress to the final year of his/her degree.

Our students and courses

The following pages give some idea of the topics our students have studied throughout their degree. The student's curriculum vitae will contain details of modules studied on years one and two, together with their first year results. Students study a number of core subjects for the appropriate named degree. In addition, each student undertakes a specified number of options and electives at each level of study.

Detailed course leaflets are available for all of our degrees can be obtained online via the JMU website.

<http://www.ljmu.ac.uk/StudyLJMU/Courses/82814.htm>

BSc (Hons) Computer Studies

The programme aims to produce graduates who are able to play a significant role in the provision of information in a business environment by the development of effective and reliable computer-based systems. Therefore, the overall educational aim is to provide an integrated, coherent and practically-based education in the theory, methods, tools and techniques of such information system provision. Sufficient depth is provided in the programme to allow the development of specialism within the subject while the balance of the programme is ensured by the breadth of study.

The specific aims of the programme are:

- To understand the underlying concepts, formal foundations and theory of computer-based information systems;
- To develop the knowledge, skills and abilities necessary for the investigation, analysis, design and development of large scale software systems;
- To provide an educational foundation that both addresses leading edge developments in the industry and provides for future professional development, equipping students with the appropriate knowledge and skills for a wide variety of employment and/or further study.



BSc (Hons) Computer Forensics

The two principal themes in the programme are the development of practical computer forensics skills, and the management involved in developing successful investigations for law enforcement, national security and the commercial or public organisation. This is underpinned by themes of computing and networking.

The main aims are:

- To provide students with the technical skills required for the implementation of computer forensics investigations;
- To prepare students with the management skills required in order to implement investigations in organisations and law enforcement;
- To provide students with the knowledge of the wide range of issues involved in the implementation of computer forensics investigations, such as security and legal, ethical and privacy requirements.

BSc (Hons) Information Systems

The two principal themes in the programme are systems analysis and design, and managing software projects. This is underpinned by themes of IT infrastructure and business organisation theory and practice.

The main aims are:

- To prepare students to analyse organisations' practices, identify their problems, and design and produce IT solutions;
- To prepare students to manage business and technical situations;

- To foster the development of lifelong learning skills.

BSc (Hons) IT and Multimedia Computing

B.Sc. (Hons) in IT and Multimedia Computing is a joint honours degree that provides students with a comprehensive education, skills and learning experience in both Information Technology and Multimedia Computing technologies. The programme addresses the requirements for graduates with a solid computing background in general and specific knowledge and understanding of latest developments in I.T. and multimedia.

The specific aims of the programme are as follows:

- To provide students with a fuller understanding of current and developing IT and multimedia technologies;
- To facilitate students in the development of expertise in areas of direct and complementary relevance to gaining employment;
- To encourage students to become autonomous learners;
- To provide students with an understanding of current IT and multimedia research issues;
- To develop students' analytical, creative, problem-solving and evaluation skills;
- To provide a platform for career development, innovation and/or postgraduate study.

BSc (Hons) Software Engineering

The overall aim of the course is to provide a balanced, integrated and practical based education in the tools, techniques and methods employed by the practitioner in the area of Software Engineering in organisations where software development is a major activity.

The specific aims of the course are as follows:

- To enable the student to acquire the skills needed in the investigation of user requirements and the development of a suitable design using the appropriate formal and semi-formal requirements specification and design methodologies;
- To enable the student to acquire the skills required to produce software which meets an external specification to the appropriate timescale and standards;
- To enable the student to acquire the skills needed to determine the quality of software through the appropriate testing, verification and evaluation procedures;
- To enable the student to acquire an understanding of the techniques and methods used in the estimation, planning and control of software projects;
- To provide a suitable learning environment for the practical application of the concepts of software engineering in a realistic software development situation.

BSc (Hons) Computer Games Technology

BSc (Hons) in Computer Games Technology will provide students with a comprehensive education, skills and learning experience in all aspects of computer games design, programming and related technologies. It is distinctive in that it provides a strong conceptual and methodological grounding and seeks to develop a rich and up-to-date set of practices and techniques which students can exploit in state-of-the-art computer game software design and implementation.

The programme also aims to provide students with an education and learning experience that will equip them to operate as autonomous computing professionals.

The specific aims of the programme are as follows:

- To provide students with a fuller understanding of current and developing computer games technologies;
- To facilitate students in the development of expertise and interest in topic areas of direct and complementary relevance to gaining employment;
- To encourage students to become autonomous learners;
- To provide students with an understanding of current computer games technology research issues;

- To develop students' analytical, creative, problem-solving and evaluation skills;
- To provide a platform for career development, innovation and/or further postgraduate study.

BSc (Hons) Business Mathematics

This programme focuses on the application of mathematics and statistics in business and commerce, and employment therein. Hence it may be characterised as 'practice-based' (as referred to in the MSOR benchmark statement).

Its main aims are:

- To produce graduates with the mathematical and statistical knowledge to model, solve and analyse business problems using the increasingly sophisticated quantitative techniques adopted by major commercial institutions;
- To develop skills which can be utilised in unfamiliar situations, e.g. the ability to conjecture, justify and evaluate;
- To enhance students' key and transferable skills such as communication, applications of IT, working with others, improving their own learning, etc.;
- To develop in students an awareness of knowledge and skills necessary for a career as a quantitative analyst in the commercial world;
- To produce graduates capable of progression to postgraduate areas of study.

BSc (Hons) Computer Animation & Visualisation

This programme provides students with a comprehensive knowledge, the skills and learning experience in all aspects of computer animation and visualisation production and the related tools and technologies. It is distinctive in that it provides a strong conceptual and methodological grounding and seeks to develop a rich and up-to-date set of practices and techniques which students can exploit in state-of the art computer animation and visualisation creation, production and applications.

The specific aims of the programme are as follows:

- To provide students with a fuller understanding of current and developing computer animation and visualisation technologies;
- To facilitate students in the development of expertise and interest in topic areas of direct and complementary relevance to gaining employment;
- To encourage students to become autonomous learners;
- To provide students with an understanding of current computer animation and visualisation research issues;
- To develop students' analytical, creative, problem-solving and evaluation skills;
- To provide a platform for career development, innovation and/or further postgraduate study.

Placement providers

We currently have links with over 850 local and national organisations that have a need for placement students. A selection of the companies and organisations that currently (or have recently) provided placements include:

Afentis Forensics
AppSense
AstraZeneca
AstraZeneca
Bristol-Myers Squibb
Broad Square Primary School
Cheshire Police
CMA CGM (UK) Shipping
Cubic Motion
Experian Decision Analytics
Faiveley Transport
FDM Group
Forensic Telecommunications Services
GE Capital
Halton Housing Trust
Innospec Speciality Chemicals
Jagex
Lilly UK
Liverpool Women's Foundation NHS Trust
Merseyrail
Metropolitan Borough of Wirral
Microsoft
Mouchel Technology Group
National Museums Liverpool
Raith Scientific Consulting
Rolls-Royce Plc
Science and Technologies Facilities Council
Sony
Sudley Infant School
Sudley Junior School
Taskers Plc
The University of Manchester
Universities Superannuation Scheme
Web Services
Zentek Forensics Ltd

Comments from Employers and Students

Dr Zafar Chaudry, Director of IM&T at Liverpool Women's Foundation NHS Trust

We have taken students from John Moores for the last five years now and have found them to be of a very high calibre...many of them have become permanent valued members of our team. We highly value our partnership with John Moores..."

Mr Tony Mooney, Lead Senior Business Analyst for Experian

Experian now offer placements to a number of students each year across different areas of our business.

These placements are mutually beneficial for both the students and Experian with, after the appropriate training, a significant contribution being made to their respective teams and ultimately our business as a whole.

As well as the obvious hard skills they gain from using specific tool sets and products, I personally feel that our placement students gain the most from developing their soft skills i.e. internal and external communication, teamwork, prioritisation of workload, formal and informal meetings, presentation skills etc. As well as helping them in future employment, many students have fed back that this helps them significantly in their busy final year of studies.

We have had some fantastic success stories over the last three years with three of our previous students returning to Experian in full-time positions after obtaining their degree.

We are extremely pleased with the way that this programme is working for us and will hopefully continue to offer placements to LJMU students for many years to come.

Mr Aled Morgan, IT Network Manager, Taskers Plc

As Taskers are a local company who like to work with other local businesses in the Merseyside area I made the recommendation that we utilise the placement scheme offered by John Moores. The placement students we have employed have been of the highest calibre and have each become key members of the IT department and the company as a whole. Two of the more recent students have also gone on to become employed by the company since completing their degrees. As a former student of Liverpool John Moores who took part in the placement scheme myself, I know how valuable an industrial placement can be when building a career in IT.

Leah-Jane Adams, BSc (Hons) Computer Studies, on Placement with Eli Lilly 2009/10

My advice to any student considering a placement year would be, go for it! Students from my placement have got graduate jobs with HP, Sky and Microsoft, to name a few. Most students in my year worried about moving away from home for their placement year, but moving away for a year is in itself a great experience that shows employers that you have confidence and courage. Completing a placement year puts you steps ahead of other graduates and will be an invaluable asset towards any career a graduate decides to pursue.

Kenny Kristiansen, BSc (Hons) Computer Animation & Visualisation, on placement with Halton Housing Trust 2009/10

Working with a team I was able to learn a lot from my colleagues and I experienced how to deal with different problems on a daily basis. I particularly enjoyed tutoring work experience students and being able to work flexibly. Among the many skills I gained on placement were how to solve a variety of hardware and software faults and how to use good time management skills to meet deadlines. The experience I've gained is invaluable and has widened my scope of possible careers within ICT.

Who to contact

If you have any questions concerning Professional Placements, please contact:

Mrs Christine Humphries (Employment Engagement Officer)

Industrial Liaison Unit

Room 607

School of Computing and Mathematical Sciences

Liverpool John Moores University

James Parsons Building

Byrom Street

Liverpool

L3 3AF

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Friday: 9:30am to 3:00pm

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