

TRAINING IN THE FORENSIC SCIENCES

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ABSTRACT: The Forensic Science Unit at Strathclyde University has been at the forefront of developing new means of delivering skill based courses to participants. Distance learning packages using the internet, intranet and CD-ROMs are becoming common place at both undergraduate and postgraduate level. This talks aims to discuss the ways in which forensic science can be taught within a university.

KEY WORDS: Forensic science education; University of Strathclyde.

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INTRODUCTION

The Forensic Science Unit (FSU) at Strathclyde University developed in the 1960s from the need to perform drug testing and analysis for the Courts in Glasgow. The FSU quickly gained a reputation for both training and casework.

One aspect that makes Strathclyde University unique in the UK, and one of only a few Universities in Europe, is that it combines teaching, research and casework in the same Department. The teaching benefits from both the casework and research. The integration of all three University activities enhances each other.

Graduates of the University gain employment in one of the operational forensic laboratories throughout the world. The content of the courses delivered, and the methods of delivery, must ensure that the graduates meet the needs of the future employers. It is important that the graduates gain the necessary skill base, plus a logical approach to problem solving.

BSC COURSE IN FORENSIC CHEMISTRY

Currently the FSU provides teaching at undergraduate and post-graduate level as well as non-graduating specialist courses. The undergraduate course, in Forensic and Analytical Chemistry attracts over 50 students per

year, over half of the chemistry students to the entire department. This is a four year degree course, with an additional one year placement in industry. It is important that the graduates gain skills in analytical skills to enhance their employment prospects.

The methods of delivery of information rely in part on the traditional methods of Lectures, Tutorials and Laboratory Sessions. The last year students, Honours Year Students, undergo mock courtroom exercises. The students are provided case notes and must provide a Court Report in line with the Scottish Legal System. The students must present their report as evidence in a mock court room, while being videotaped, with members of staff acting as Prosecution and Defence Lawyers. This communication skills exercise is important in developing necessary skills for the students.

Web based teaching is being developed, making use of the university's intra-net. Students can access lecture notes remotely along with information relating to the laboratory sessions. This access can be from their halls of residence. Video clips and additional information is available to the students through this method of delivery.

Undergraduate distance learning packages are being developed to assist the students. In order to give the practical classes a new dimension the practical sessions focus on a number of different forensic techniques. Videos and CD-ROMs have been developed for all these practical classes.

MSc IN FORENSIC SCIENCE

The MSc in Forensic Science is a one year full time post-graduate degree course. The course, which has a world-wide reputation, attracts approximately 200 applicants per year. Between 30 and 40 students enrol each year. A large number of the graduates go on to a career in forensic science. The class is a mix of UK, other EU and non-EU students. This gives the class and truly international mix. Core courses in Forensic Science are provided to the entire class for the initial part of the course. The class then divides into biology, chemistry, firearms or documents specialities for the remaining course delivery. All the students take part in a three month placement in an operational laboratory.

Crime Scene to Court is the underlying concept behind much of the MSc course. One of the modules requires the students to collect evidence from a Mock Crime Scene, from a field in the outskirts of Glasgow. A video of the collection techniques is made so that the students can gain feedback on their collection technique. The samples are analysed in the FSU laboratory and the students produce Court Reports. The evidence is presented in a mock Courtroom in the presence of a real Sheriff Judge with law students from the Uni-

versity acting as Prosecution and Defence lawyers. A video of the presentation of the evidence is produced, so that feedback on the delivery can be provided.

SPECIALIST COURSES

A growing reputation has been gained from specialist courses in the forensic sciences. Members of an operational laboratory requiring training in a particular field contact the FSU and a course to assist in the training is designed. Each course is therefore different and tailor-made to the course participants. The courses can be held either at Strathclyde University or the host institution. There are advantages to training at the host institution, including larger class sizes, the use of their own equipment and being able to approach a particular laboratory problem. Training courses at Strathclyde can be of smaller size and the participants gain an experience of working in another laboratory.

Training in small class sizes allows feedback to the participants at regular intervals and enhances the learning experience.

PART TIME PHD PROGRAMME

A PhD programme has been in existence for a number of years at Strathclyde University. Recently a programme whereby operational scientists can enrol from their own institution and study part time has been devised. The participant gains from being able to continue in their employment, while, when time permits, pursuing a research interest they may have. Guidance on the research project is provided through the internet by a member of academic staff and by yearly meetings.

This programme has proved popular with operational forensic scientists who are motivated and determined to gain a doctorate in their field of science.

TRAINING OF THE LAW PROFESSION

It is at the Court of Law that the forensic science report is made known. Judges and the Lawyers presenting the evidence (or Advocates in Scotland) need to be aware of the importance and limitations of forensic science. In the courtroom there is little scope for members of the law profession to obtain the necessary understanding of forensic science. The FSU has developed courses for the Advocates and Sheriff Judges. These courses give mock scientific data which is explored in a problem solving format.