



ONLINE COURSE CONDUCTED ONCE A YEAR

Essentials of DNA Interpretation

TARGET AUDIENCE

Practitioners of forensic genetics – including reporting officers, lawyers, accreditation bodies – having a University degree (at least BSc) or an equivalent degree of a higher education programme

The course is given in English. For exercises, discussions and one-to-one tutorials, French is available as further language.

ORGANISATION

Faculty of Law, Criminal Justice and Public Administration, University of Lausanne, Switzerland

INTRODUCTION

Given by recognized specialists in the field, this online course brings the essentials of evidence interpretation applied in the administration of justice. It is designed to train practitioners in the most up to date approaches to the evaluation and interpretation of DNA given (sub) source level propositions.

The course content is based on the use of likelihood ratios, an approach that is supported by the *International Society of Forensic Genetics*, the *European Network of Forensic Science Institutes*, the *Forensic Regulator for England and Wales* and the *Association of Forensic Science Providers*.

OBJECTIVES

- To have a theoretical and practical background in probabilistic and statistical reasoning
- To be able to address challenging DNA casework (e.g., low template DNA, mixtures, multiple comparisons)
- To be able to explain one's reasoning in court and feel at ease with expert debate and the published literature on DNA interpretation



The course is conducted once a year. Dates of the next session are available on the website.



Online course



Certificate of achievement with 5 ECTS credits



3,500 Swiss Francs



Online registration
Number of participants is limited



The course lasts 12 months with a workload per week of 4 hours on the online platform. Course breaks and holidays are included to allow flexibility.

LEARN MORE



MODULES

INTRODUCTION TO PROBABILISTIC INFERENCE IN FORENSIC SCIENCE

- Laws of probability
- Hierarchy of propositions and the principles of forensic interpretation
- Analysing basic inference problems with Bayesian Networks (BNs)

ESSENTIAL POPULATION GENETICS

- Assigning conditional probabilities; multiple propositions and statement writing

KINSHIP ANALYSIS AND MISSING PERSONS

- Solving interpretation challenges with various pedigrees (e.g., half siblings, nephew, children)

MIXTURE ANALYSIS

- Value of DNA results when there are several contributors, taking into account population substructure and peak heights

NON AUTOSOMAL DNA

- Evaluation of Y-STR and mtDNA comparisons

CHOICE OF TOPICS

- Bayesian Networks: Applications of Bayesian Networks for evaluating DNA profiling results
- How to account for laboratory error and database searching in evaluative reporting
- Optional: answering questions in the courtroom

EXAMINATION

The course delivers 5 ECTS credits if the candidate passes the written online examination that takes place at the end of the course. See specific ECTS credits conditions on the course website.

ACADEMIC DIRECTORS

- **Dr. Sc. Tacha Hicks**,
Faculty of Law, Criminal Justice and Public Administration, UNIL
- **Professor Alex Biedermann**,
Faculty of Law, Criminal Justice and Public Administration, UNIL
- **Professor Christophe Champod**,
Faculty of Law, Criminal Justice and Public Administration, UNIL
- **Professor Franco Taroni**,
Faculty of Law, Criminal Justice and Public Administration, UNIL

CONSULTANTS

- **Professor Colin Aitken**,
University of Edinburgh, Scotland
- **Dr. Sc. Ian Evett**,
Principal Forensic Services Ltd., England

The instructors have theoretical and practical experience with evaluation and interpretation from laboratory to courtroom. They have published over the years numerous scholarly papers and textbooks on the subjects of evaluation and statistics in forensic science.

CONTACT

For academic questions:
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