



 ONLINE COURSE CONDUCTED ONCE A YEAR

Advanced DNA Interpretation

Given activity level propositions

TARGET AUDIENCE

DNA reporting officers with experience in writing statements given sub-source level propositions. Participants are expected to have a good theoretical and practical background in probabilistic reasoning, as well as up-to-date knowledge in the field of evaluation of DNA profile comparisons.

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

ORGANISATION

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

INTRODUCTION

This advanced online course focuses on how to assess biological results given activity level propositions in order to promote a safe administration of justice. It is designed to train practitioners in the most up-to-date approaches to the evaluation of biological results. The content is based on the use of likelihood ratios, an approach that is supported by the International Society of Forensic Genetics, and a variety of reference documents, guidance notes and standards, across jurisdictions.

The course relies on the use of Bayesian networks (BN) for the probabilistic evaluation of biological results, when the issue regards not so much the source of the DNA, but the activities from which it resulted.

OBJECTIVES

- Be able to address DNA casework given activity level propositions
- Be able to explain evaluative reasoning in Court and feel at ease with expert debate and the published literature
- Have specialized and up-to-date knowledge in the field of evaluation of forensic biological results when accounting for transfer, persistence, recovery and prevalence of biological trace material
- Feel at ease in writing communications on how to convey the value of biological results when propositions refer to activities



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



Online course



Certificate of participation
5 ECTS credits



4,500 Swiss Francs



Online registration



The course lasts 13 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

REVISITING UNCERTAINTY IN FORENSIC SCIENCE AND PROBABILISTIC INFERENCE

- Laws of probability
- Hierarchy of propositions and principles of forensic interpretation

EVALUATION USING BAYESIAN NETWORKS (BNs): GENERAL ASPECTS AND SOFTWARE FUNCTIONALITIES

- Capturing probabilistic reasoning through BNs
- Methodology for constructing BNs

CASE PRE-ASSESSMENT

- Management of cases and needs
- Use of BNs for case pre-assessment

ASSESSING THE ABSENCE OF (MATCHING) DNA

- Use of likelihood ratio formula

EVALUATION OF TRACES RECOVERED ON A VICTIM OR A CRIME SCENE

- Cases studies and examples

EVALUATION OF TRACES RECOVERED ON A SUSPECT

- Cases studies and examples

COMBINING RESULTS IN (ALLEGED) SEXUAL OFFENCE CASES

- Preliminary tests, differential extraction, DNA profiles

CASE STUDIES

EXAMINATION

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

ACADEMIC DIRECTORS

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

CONSULTANTS

- **Professor Colin Aitken**,
University of Edinburgh, Scotland
- **Dr. Sc. Ian Evett**,
United Kingdom

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:
sefe@unil.ch