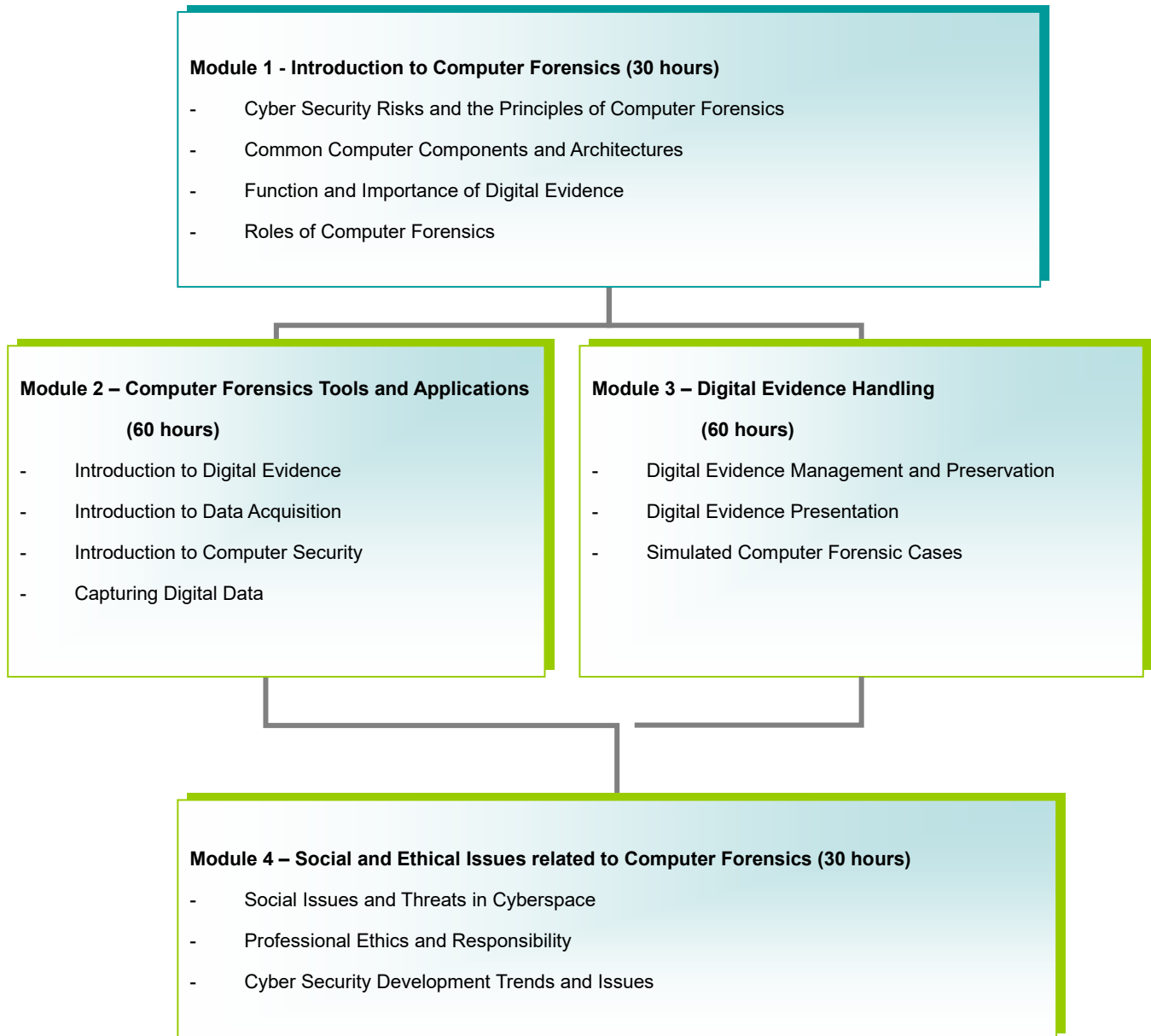


Applied Learning

2024-26 Cohort; 2026 HKDSE

Item	Description
1. Course Title	Computer Forensic Technology
2. Course Provider	School of Professional and Continuing Education, The University of Hong Kong
3. Area of Studies/ Course Cluster	Engineering and Production/ Information Engineering
4. Medium of Instruction	Chinese or English
5. Learning Outcomes	<p>Upon completion of the course, students should be able to:</p> <ul style="list-style-type: none"> (i) describe the need, principles, roles, and requirements of computer forensics; (ii) describe individual stages of computer forensics process; (iii) explain the function and importance of digital evidence in computer incident; (iv) apply the procedures in collecting and preserving digital evidence by computer forensic technology; (v) analyse the digital evidence using computer forensics tools; (vi) describe the social and ethical issues in computer forensics; (vii) demonstrate communication, collaboration and interpersonal skills; and (viii) enhance self-understanding and explore directions on further studies and career pursuits.

6. Curriculum Map – Organisation and Structure



7. The Context

- The information on possible further study and career pathways is provided to enhance students' understanding of the wider context of the specific Applied Learning course.
- The recognition of Applied Learning courses for admission to further studies and career opportunities is at the discretion of relevant institutions. Students who have successfully completed Applied Learning courses have to meet other entry requirements as specified by the institutions.

Possible further study and career pathways

Further studies

- e.g. courses related to information technology, computer science

Career development

- e.g. junior computer network administrator, computer data recovery technician

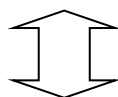
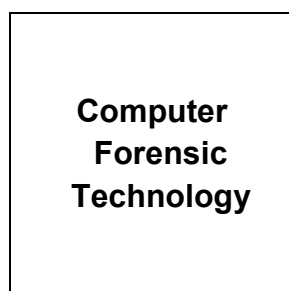
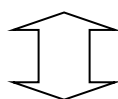
Complementarity with core subjects and other elective subjects

Enhancing and enriching, e.g.

- enhancement of students' learning in understanding and application of **Mathematics** through solving encrypted digital data related problems and apply to experimental practices
- enhancement of students' learning in **Information and Communication Technology** by enriching their knowledge about the latest development of computer forensic technology and related ethical issues

Expanding horizons, e.g.

- students taking **Design and Applied Technology** can broaden their knowledge in information technology and engineering



Relations with other areas of studies/ courses of Applied Learning

e.g.

Business, Management and Law

- enhance students' understanding of the social and ethical issues related to the use of technology

Foundation knowledge developed in junior secondary education

The course is built upon the foundation knowledge students acquired in, e.g.

- **Chinese Language Education** and **English Language Education** – verbal and written communication
- **Mathematics Education** – data handling and calculation
- **Technology Education** – use of information technology
- **Science Education** – analysis of evidence in forming conclusions

8. Learning and Teaching

In this course, student-centred learning and teaching activities are designed to enable students to understand fundamental theories and concepts, develop their generic skills, and address their career aspirations in computer forensic technology field.

Different modes of activities are employed to provide students with a systematic understanding about the context (e.g. lectures to introduce the overview and tools required in computer forensic technology industry) and eye-opening opportunities to experience the complexity of the context (e.g. visit to computer forensic organisation and sharing by industry professionals to widen students' horizon and to develop their understanding of computer forensic technology).

Students acquire an understanding of the requirements, fundamental knowledge and skills essential for further learning within the area through learning-by-practising opportunities in an authentic or near-authentic environment (e.g. students have a better understanding of the professional knowledge required to work as computer forensic technicians and techniques of using computer forensic tools through simulated case studies and related exercises).

Students are also encouraged to develop and apply conceptual, practical and reflective skills to demonstrate entrepreneurship and innovation. Students are given opportunities to integrate the knowledge and skills acquired and consolidate their learning (e.g. in the computer forensic project, students have learning opportunities to collect the digital evidence by using appropriate computer forensic techniques and tools. In the process, students apply the knowledge and skills in collecting and preserving the digital evidence by computer forensics technology at industry standard. Students are expected to demonstrate analytical and critical thinking skills in preparing the project report, and demonstrate the proper values and attitudes in handling digital evidence).

9. Curriculum Pillars of Applied Learning

Through related contexts, students have different learning opportunities, for example:

(i) **Career-related Competencies**

- observe the legal and ethical principles related to computer forensics technology industry;
- explain the practice in collecting and preserving digital data;
- utilise the computer forensics principles and tools to analyse the digital evidence;
- discuss the aptitudes and abilities required for practitioners in computer forensic technology industry, and plan a personal roadmap to different levels of qualifications;
- understand the future development trend of the computer forensic technology industry through visits and sharing by industry practitioners; and
- enhance understanding of industry competency requirements through practical exercises at industry standard.

(ii) **Foundation Skills**

- enhance communication skills both in verbal and written forms through participation in report writing, presentation and practical exercises;
- enhance application skills of information technology through doing research and information collection for assignments and projects; and
- enhance mathematical skills through exercises in computer forensics.

(iii) **Thinking Skills**

- develop critical thinking and analytical skills through discussions on real life cases and practical exercises which will stimulate students' thinking and further understanding of the computer forensics; and
- analyse the digital evidence using computer forensics tools.

(iv) **People Skills**

- develop self-management skills through individual practical exercises and group works;
- enhance team working skills and concept of division of works through group projects and the practical exercises; and
- develop interpersonal communication and interactive skills through conducting exercises at industry standard.

(v) **Values and Attitudes**

- discuss social and ethical issues related to computer forensics; and
- develop self-confidence through successful completion of practical exercises under guidance of tutors.