

Secure Systems Track

What is Secure Systems about?

How to protect systems against inside and outside attack

Systems Security

- Networks, software, ships, etc.

Cryptography

- Encryption, authentication, digital signatures, etc.

Faculty

Lecturer in charge: Lachlan Gunn

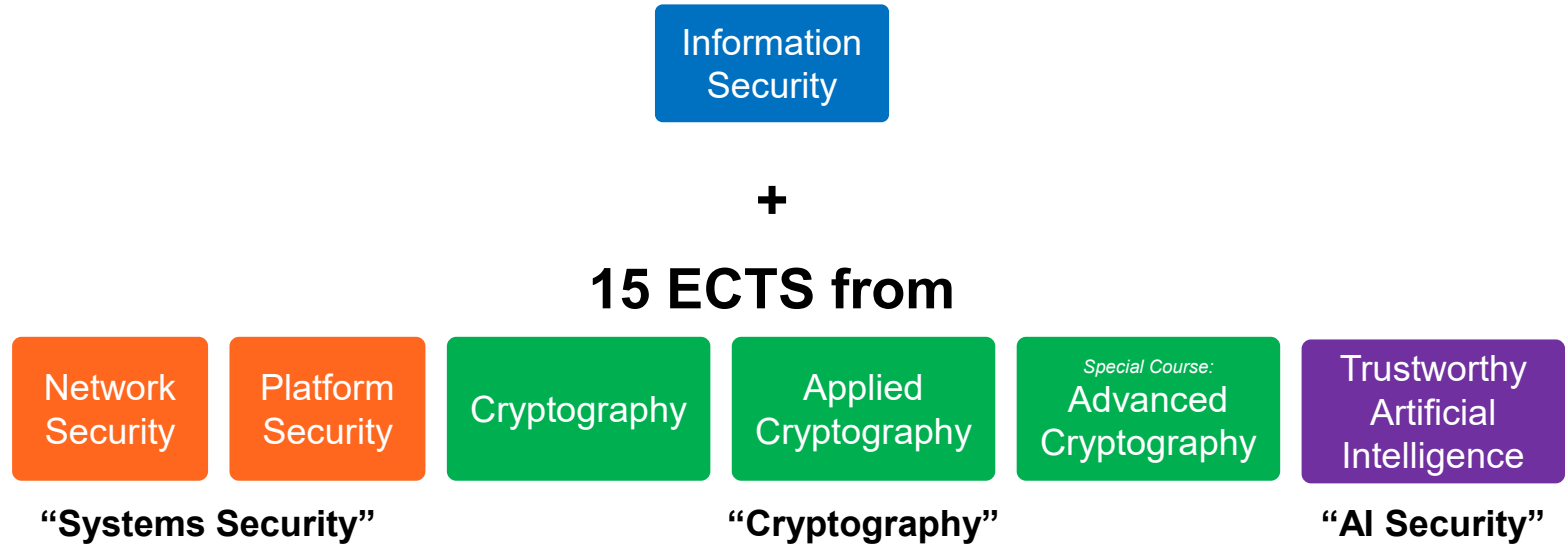
Other key faculty members:

- Tuomas Aura
- Chris Bruszka
- Philip Ginzboorg
- Russell WF. Lai
- Sebastian Szyller
- Sanna Suoranta

<https://www.aalto.fi/en/departments-of-computer-science/security>



Compulsory Courses



Optional Courses

By agreement masters-level courses in

- computer science
- communications
- mathematics

Recommendations on the right

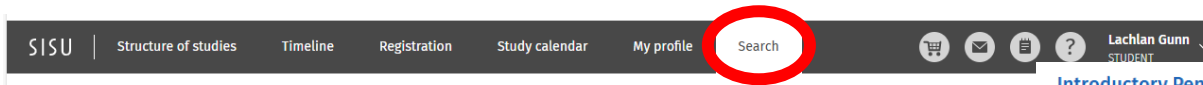
- Not an exhaustive list!

- Seminar in Computer Science
- Special Course in Information Security
- Abstract Algebra
- Number Theory
- Galois Theory
- Probability Theory

Software Security course module

Combines courses from several universities in Finland

- Details on Sisu



[Home](#) > [Search](#) > Cross-institutional courses

Search for courses

Available courses at the higher education institution

Open university selection

Cross-institutional courses

Search for courses at other higher education institutions

Search for courses at other higher education institutions that you can take when you have a study right at Aalto University. You can search for courses by text combination.

Search

Q SEARCH

Search for courses by title or code. The search term must be at least three characters long.

Filters (1 selected)

Cross-institutional network

Software Sec...

Higher education institution that organises studies

Search or select

Language of instruction

Search or select

Teaching in a specific per

Search or select

Field of study

Search or select

[Introductory Penetration Testing and Security Assessment \(5 cr\)](#)

KYBS2001

A cyber attacker uses different vectors and tools to penetrate an information system. Deepen your knowledge of penetration

Cross-Institutional Network: Software Security

Language Of Instruction: English

Higher Education Institution Providing The Studies:

University of Jyväskylä

[Privacy and Security for Software Systems \(5 cr\)](#)

DTEK8102

Cross-Institutional Network: Software Security

Language Of Instruction: English

Higher Education Institution Providing The Studies:

University of Turku

[Secure Programming \(5 cr\)](#)

COMPSEC.300

The aim of the course is to learn basic programming skills of secure programming and secure programming as a part of decit organisation.

Cross-Institutional Network: Tampere higher education cross-institutional studies network , Software Security

Language Of Instruction: English

Higher Education Institution Providing The Studies:

Tampere University

Some Recent Thesis Topics

- zk Rollups in Trusted Execution Environments
- Formal Verification of Confidentiality Guarantees in a Blinded Memory SoC
- Agentic AI for Penetration Testing
- Attestation of Distributed Applications
- Utilizing large language models in reverse engineering:
Annotating decompiled binary code
- Establishing Trusted Channels for Confidential Workloads
- Towards formally verifying the TLS 1.3 Key Schedule Security in SSBee

HAIC

Helsinki-Aalto Institute for Cybersecurity

- Joint initiative of Aalto, University of Helsinki, and VTT

Various events relevant to students

- HAIC Talks (4/year) by national and international speakers
- Meet & Greet event (company presentations and networking)
- Company visits





**EMPOWERING
WOMEN
IN CYBER
SECURITY**

Event Overview

Women4Cyber Finland invites guests to its annual **Empowering Women in Cybersecurity (EWICS)** event

Date: 23 October 2026

Location: Aalto University, Marsio Building, Espoo

What to Expect

Inspiring keynote speakers

Hands-on workshops

Partner exhibition stands where attendees can meet and engage directly with industry representatives

Stay Connected- Follow us on LinkedIn and Instagram for updates

Visit our website: <https://www.women4cyberfinland.com>



#EWICSFI26