

Master's Programme in

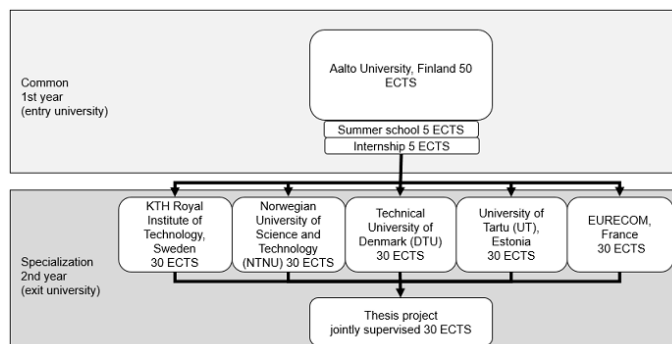
Security and Cloud Computing (Erasmus Mundus)



SECCLLO - Master's Programme in Security and Cloud Computing (Erasmus Mundus)

Acquire a world-class education and a double degree in information security!

<p>Degree: Two Master's degrees, one from each university studied in (a double degree).</p> <p>ECTS: 120 ECTS</p> <p>Duration: 2 years, full-time</p> <p>Language of Instruction: English</p> <p>Participation fee: €3 000/year (EU/EEA students) €9 000/year (non-EU/EEA students)</p> <p>Erasmus Mundus scholarships: max. €32 000 (EU/EEA students) max. €47 000/€49 000 (non-EU/EEA students)</p>	<p>SECCLLO is an Erasmus Mundus double degree programme in the field of Computer Science, more specifically, <i>Security and Cloud Computing</i>. The studies offer both practical engineering knowledge and theoretical insights into</p> <ul style="list-style-type: none"> • <i>secure systems engineering</i>, • <i>distributed application development</i>, • <i>network and service architectures</i>, and • <i>cloud and mobile platforms</i> <p>We combine practical engineering skills with a strongly research-based curriculum. This way, we aim to attract special talent and educate game-changing, highly professional engineers to meet both the immediate hiring requirements and the long-term needs of the European ICT industry.</p> <p>Two years, two universities, double degree During the two-year SECCLLO studies, students will gain a unique experience of studying in two different countries while obtaining a broad understanding of the latest and future technologies for secure cloud and mobile computing systems.</p> <p>The first-year of studies (60 ECTS) is taken at Aalto University, Finland, and it concludes with a summer school and a summer internship. For the second year, students choose one of the specialization options (30 ECTS) offered by the other consortium universities:</p> <ul style="list-style-type: none"> • Communications Systems Design (KTH, Sweden) • Information Security (NTNU, Norway) • Reliable Distributed Systems (DTU, Norway) • Cryptography (University of Tartu, Estonia) • Big Data Security (EURECOM, France) <p>The final semester of the SECCLLO programme is dedicated to the Master's thesis (30 ECTS), jointly supervised by professors from both universities the student has studied in.</p>
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Industry and research collaboration

The *associate members* of the SECCLO programme promote the future employability of the students by offering internship and thesis positions, company visits and contributions to the course contents.

The current associate members are:

- *F-Secure Corporation*, Finland
- *VTT Technical Research Centre of Finland*
- *Intel Labs Europe*, Germany
- *Nokia Bell Labs*, France
- *Cybernetica AS*, Estonia
- *GuardTime*, Estonia

All SECCLO students will also become members of *Helsinki-Aalto Center for Information Security (HAIC)*, a strategic initiative set up by Aalto University and the University of Helsinki to create a network of industrial partners to support research and educational programmes in information security.

Admission requirements

The general admission criteria is a high quality Bachelor's degree in Computer Science or Information Technology (to be completed by 31 July 2018). The required background consists of sufficient studies in:

- mathematics (linear algebra, calculus, probability theory, statistics, and discrete mathematics)
- good programming skills
- algorithms and data structures
- databases
- theory of computing
- computer networks
- software engineering
- project and team work

Knowledge of the following areas is considered an advantage: additional knowledge of mathematical methods, mobile applications, web software and online services, operating systems, distributed computing, embedded systems, advanced computer networking, information security and cryptography.

The applicant's previous academic performance in these subjects will be evaluated based on the grade point average (GPA) and results in key courses. Very good previous study success is expected. The admission process is competitive.

Language test requirements

The applicants are expected to have excellent command of English. The recognized language tests and their minimum score requirements are listed below. For exemptions to the language test requirements, see the programme website.

	<i>Minimum total score</i>	<i>Minimum writing score</i>
<i>TOEFL IBT</i>	92	22
<i>TOEFL PBT</i>	580	4.0
<i>IELTS</i>	6.5	5.5
<i>CAE/CPE</i>	A, B, C	-
<i>Pearson</i>	59	50

Further information on applying

For further information on applying, required application documents and application deadlines, please see the programme website. The first application period to the SECCLO programme takes place in December 2017-January 2018. The first intake of students will begin their studies at Aalto University in September 2018.

Why SECCLO?

Industry demand

- There is a *shortage of professionals* in Europe and worldwide who are able to develop products and services for the modern cloud and mobile computing platforms and do this in a secure way.

Innovation and R&D focus

- SECCLO differs from most information security programmes in that it *links security studies with product and service development skills*. The ability to innovate and develop new products and services is what has the most potential for creating *new business growth*.

International experience

- The programme provides its students with the profound experience of *working and studying in multiple countries* in an international environment. Two Master of Science degrees from two universities mean *wider opportunities for employment*.

Industry contacts already during studies

- Mandatory summer internship between 1st and 2nd year studies, industry involvement in courses and industry thesis projects are some of the examples of how SECCLO students are able to create industry contacts during full-time studies.

Competitive Erasmus Mundus scholarships

- The generous Erasmus Mundus scholarships offered for the best students allow you to concentrate on your studies without financial worries.

Proven success of our predecessor, NordSecMob

- Out of over 200 NordSecMob alumni, 95% had a job within 6 months after graduation. They work in all the biggest ICT companies, including Ericsson, Microsoft, Nokia, Google, Facebook, Amazon, Accenture, Skype, Siemens,...

Join us now!
secclo.aalto.fi
secclo@aalto.fi



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