AALBORG UNIVERSITY

Learn the fundamental principles of information security and data protection

Take the course: Modern Security with Cutting-Edge Technologies

The course "Modern Security with Cutting-Edge Technologies" equips you with diverse security technologies, used for fortifying IT systems against present and future threats, and it helps you to establish defense mechanisms and thus to secure IT systems and infrastructure in the long term.

In the IoT era, securing not only computers but also smaller connected devices like mobiles, tablets, security cameras, RFID access control, and smartwatches is critical due to their vulnerability to cyber-attacks. Factors like limited processing power, weak authentication, and outdated software make these devices susceptible. A breach in one device can compromise the entire network. In order to protect a company's network against attacks, it is necessary to be able to understand and identify the attacks that may be against the network. Therefore the curriculum covers the topic of cryptanalysis (attacks or finding weakness in the system) and finding solutions to that.

Target group
Developers, teachers, technical project managers and individuals who work with IT projects or software development and want a deeper insight into IT security and to be better grounded in assessing security aspects and risks in existing or planned IT projects.

Duration
October 2024 – June 2025

Application deadline
1. June 2024. After the application deadline, you are welcome to contact the university for any available places.

Language
English

Price
DKK 24,000

Course provider
Aalborg University

Questions about admission, enrollment, and billing inquiries
Study secretary Heidi Sørensen
E-mail: hso@es.aau.dk
Phone number: +45 9940 7256

Questions regarding the curriculum
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"In the course "Modern Security with Cutting-Edge Technologies", the students are not only learning about new technologies within cyber security. While the course offers a good understanding of the technologies, the focus is also to apply this knowledge to understand the possibilities the technologies create and with what limitations. This ensures that the knowledge can be translated into solutions in e.g. the cyber security domain, but also that it provides the participants with the foundation to better assess security risks and take relevant counter measures given the technological developments around us. For example, the use of resource-limited devices impacts both the attack surface and the possibility to counter the attacks, while the emergence of quantum threats further complicate the tasks of securing company devices."

Professor Jens Myrup Pedersen, teacher for Modern Security with Cutting-Edge Technologies.

Read more, see teaching dates and sign up here:
https://master-it-vest.dk/fagpakker/softwarekonstruktion/modern-security-with-cutting-edge-technologies/

It-vest
networking universities

Study a Master of IT
– IT competencies for you and your company

The master programme of IT is a continuing and further education for people who work professionally with

- software development
- IT management
- business development with IT
- IT security and information security
- product and service development with it
- teaching within the field of IT.

Through subjects at Master of IT, you can:

- Develop your professional and personal skills to work solution-oriented and innovatively with IT-related tasks.

- Get access to the latest knowledge based on the universities' IT research.

- Get a theoretical foundation that helps you make highly qualified analyses and decisions that support your practical work.

- Become professionally challenged and get time for professional immersion together with both lecturers and fellow students.

The subjects on the master programme of IT are organised within two tracks:

Software Construction

covers all aspects of software development: specification, design, construction, analysis, verification, security.

Organisation

covers IT for organisational and business change processes – including IT strategy and IT management.

Choose one subject, several subjects or the full programme

The teaching is part-time and is organised around a number of seminars combined with online communication, reading and writing assignments.
You decide for yourself whether you want to take one or more subjects on the programme. The subjetcs are combined in courses with a duration of 5-9 months. It is possible to combine three courses and a master's project and obtain an academic degree as MSc.

Specialisation in IT security and information security

A special opportunity is that you can combine courses and a master's project to become a specialist in either IT security or information security. The specialisation in IT security is offered on the track of Software Construction. The specialisation in information security is offered in the track of Organisation.

COURSE within the track	COURSE within the track	Elective COURSE	MASTER'S PROJECT within the track
15 ECTS	15 ECTS	15 ECTS	15 ECTS

Need supervision?

You are always welcome to contact It-vest and the networking universities with questions about a Master of IT. It-vest: Tel: +45 7027 6850, e-mail: it-vest@it-vest.dk

www.master-it-vest.dk

The master programme of IT is offered by the It-vest cooperation between the University of Southern Denmark, Aalborg University and Aarhus University.

JESPER LUND KLARIS,
Head of Development – EG Housing

"The strength of the structure of the master of IT is that it is a very intense course with very intensive teaching sessions. The combination of theory at a high level and presenters from the industry giving their take on how the theory works in practice is also really good. This makes it all come together nicely."

JOHN MADUM,
chief consultant, and information security advisor

"I am specialized in IT security and to work based on an academic background is a clear advantage. Studying on a master's level, you get the necessary theories, tools and methods to make decisions which are not just based on a gut feeling."

JESPER MØLLER JAKOBSEN,
software developer at Mindworking A/S

"Master of IT has given me useful tools, a better overview of our software architecture and a greater insight into what lies 'below' the surface of the system. My new knowledge entails that I, today, have been given more responsibility and an opportunity to work with software architecture – I was previously primarily a developer."

Winner of the Informatics Europe 2020 Best Practices in Education Award

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