IVCM welcome brief 2018

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How we got here

- 2007 – need more skilled people …
- 2008 – pilot module (10 electives offered in TUT)
- 2009 – international joint MSc programme opened with UT
  - Cyber Security specialization
- 2014 – Digital Forensics specialization
- 2016 – Cryptography specialization (in Tartu)
- 2017 – tuition/waiver system introduced
- 2018 – major redesign of the curriculum
- Annual curriculum update cycle

Good to know

- Program manager: Rain Ottis, ICT-430
- Program assistant: Siiri Taveter, ICT-429
- Study Information System: https://ois2.ttu.ee
- Wiki: https://courses.cs.ttu.ee/pages/Cyber
- Thesis and course pages: https://ained.ttu.ee/
- HITSA Moodle: https://moodle.hitsa.ee
- FaceBook pages
- Student representatives
- Tallinn course code format: ABC1234
- Tartu course code format: ABCD.12.345

Semester	Cyber Security Specialization / 30 ECTS per semester				
I (Tallinn)	ITC8210 Legal Aspects of Cyber Security	ITC8220 Human Aspects of Cyber Security	ITC8230 Cyber Security Management	ITC8240 Cryptography	ITC8250 Cyber Security Technologies I or ITC8260 Cyber Security Technologies II
II (Tartu)	MTAT.03.307 Principles of Secure Software Design	LTAT.06.003 System Administration	LTAT.06.004 Network Technology I	LTAT.03.001 Programming or MTAT.07.017 Applied Cryptography	FREE STUDY SLOT
III (Tallinn)	ITC8270 Cyber Incident Handling	Special Studies Elective	Special Studies Elective	Special Studies Elective	ITC8200 Thesis Seminar
IV (Tallinn)	TMJ3300 Entrepreneurship and Business Planning	THESIS (24 ECTS)			

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Semester	Digital Forensics Specialization / 30 ECTS per semester				
I (Tallinn)	**ITC8210** Legal Aspects of Cyber Security	**ITC8220** Human Aspects of Cyber Security	**ITC8230** Cyber Security Management	**ITC8240** Cryptography	**ITC8250** Cyber Security Technologies I or **ITC8260** Cyber Security Technologies II
II (Tartu)	**MTAT.03.307** Principles of Secure Software Design	**LTAT.06.003** System Administration	**LTAT.06.004** Network Technology I	**LTAT.03.001** Programming or **MTAT.07.017** Applied Cryptography	**FREE STUDY SLOT**
III (Tallinn)	**ITC8270** Cyber Incident Handling	**ITX8200** System Forensics	**ITX8205** Network Forensics	**Special Studies Elective**	**ITC8200** Thesis Seminar
IV (Tallinn)	**TMJ3300** Entrepreneurship and Business Planning	**THESIS (24 ECTS)**			

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Semester	Cryptography Specialization / 30 ECTS per semester				
I (Tallinn)	**ITC8210** Legal Aspects of Cyber Security	**ITC8220** Human Aspects of Cyber Security	**ITC8230** Cyber Security Management	**ITC8190** Mathematics for Computer Science **or** **MTAT.05.008** Mathematics for Computer Science	**ITC8250** Cyber Security Technologies I **or** **ITC8260** Cyber Security Technologies II
II (Tartu)	**MTAT.07.002** Cryptology I	**MTAT.07.017** Applied Cryptography	**Special Studies Elective**	**Special Studies Elective**	**FREE STUDY SLOT**
III (Tartu)	**MTAT.05.082** Introduction to Coding Theory **or** **LTAT.04.003** Distributed Computing and Block Chains **or** **MTAT.03.286** Design and Analysis of Algorithms	**MJCV.00.036** Practical Skills for Entrepreneur	**Special Studies Elective**	**Special Studies Elective**	**MTAT.07.022** Research Seminar in Cryptography (Thesis seminar)
IV (Tartu)	**Special Studies Elective**	**THESIS (24 ECTS)**			

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Useful hacks and tips

- Plagiarism and cheating will get you in trouble.
- Nominal study load is 30 ECTS. You can be deficient by 6 points (total). Some scholarships might be tied to a full nominal load requirement.
- It is possible to get credits for work experience and prior studies (VÕTA/APEL)
  - They will work for getting your curriculum requirements completed
  - … but these points do not count towards your semester load (30 ECTS nominal)

Useful hacks and tips

- You are allowed to substitute a course with a more complicated course on the same topic (for example, taking Network Technology II instead of Network Technology I).
  - You are generally allowed to take electives from other specializations.
  - Ask Siiri to confirm before you commit to a substitute.
  - Once you have passed (grades are in) the substitute course, inform Siiri so we can move it to the correct module in OIS.

Useful hacks and tips

- If you fail the math test you will have to take ITC8190 to prepare for ITC8240 next year. In essence, you are using the free study slot for this.
- The list of topics to prepare for the test:
  - 1. **Number theory**: divisibility, prime numbers, greatest common divisor (gcd), least common multiple (lcm).
  - 2. **Combinatorics**: combinations, permutations, binary and decimal number systems.
  - 3. **Algebra**: polynomials, linear equations, matrices, quadratic equations, biquadratic equations.
  - 4. **Probability theory**: sample space, events, event algebra, practical probability calculations, dependent and independent events, conditional probability.
  - 5. **Mathematical induction**.
  - The written test contains 20 questions that must be solved in 1h 20m. No materials or technical assistants (calculators, phones, laptops, etc.) are allowed!

Useful hacks and tips

- You can take the Entrepreneurship course on any semester. Most courses, however, are only available on either Fall or Spring semester.

- You can use your free study slot to take an additional course from the special studies electives.

- Make sure you have at least 24 ECTS from both Universities.

- Make sure your e-mail in OIS is correct.

Useful hacks and tips

- There are multiple versions of the curriculum in OIS. Make sure you look at the one that corresponds to your year group (IVCM09/18)
- If you take more ECTS than required in any module then this will count towards your Free Choice requirement. It is not necessary to actually move the courses to Free Studies in this case.

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Useful hacks and tips

- Thesis:
  - you have the 4th semester to finish it
  - but you should start as early as possible
  - the ITC8200 Thesis Seminar is designed to help you
  - POC: Hayretdin Bahsi
- Work practice POC: Olaf Maennel
- Teaching practice POC: Rain Ottis
- VÕTA/APEL POC: Rain Ottis

… and now – introductions!

- My name is …

- I am from …

- I am here because …