



ICT Module

Winter Semester 2023/24

Language of Instruction: English
Last update: 4 May 2023

Please find a list of all eligible courses below. Course descriptions can be found on our [MCR¹](#), [MIR²](#) and [DSOEK³](#) websites. Please note that the list might be subject to alterations.

Subject Code	Subject	ECTS credits
MCR-1	Agile Project Management + Software Security*	1 + 4
MCR-1	Cyber Risk and Resilience Management + Presentation I*	4 + 1
MCR-1	Data Science	5
MCR-1	Information Security Management	5
MCR-1	Network Security Components	5
MCR-1	Privacy & Cryptography	5
MIR-1	Design Thinking	5
MIR-1	Foundations of Research and Ethics	5
MIR-1	IT Governance** or Artificial Intelligence**	5
MIR-1	Entrepreneurship	5
MCR-3	Presentation II	1
MCR-3	SPI-O: Cyber Security & Resilience Strategy, Information Security Governance	5
MCR-3	SPII-O: Enterprise Security Architecture	5
MCR-3	SPII-T: SIEM / CDC	5
MIR-3	IT Protection	5
MIR-3	Elective: Green and Sustainable AI** or Spatial Data Analysis**	5
MIR-3	Data Driven Innovation	5
MIR-3	Writing of Research Proposals	5
FF	Elective: Vehicle Security** or Enterprise (Security) Architecture Management** or Cloud Solution Architect** or CDC Advanced**	5

DSOEK	German Language	3
DSOEK	Scouting Austrian Culture	3
FF	E ³ UDRES ² – I Living Lab ⁴	3

* Please note that these two subjects can only be taken together

** Please note that you can only take one of those subjects

¹**MCR = Master Cyber Security and Resilience.** For further information and course descriptions, please visit:
<https://www.fhstp.ac.at/en/academic-studies-continuing-education/computer-science-security/cyber-security-and-resilience/course-contents#/>

²**MIR = Master Digital Innovation and Research.** For further information and course descriptions, please visit: <https://www.fhstp.ac.at/en/academic-studies-continuing-education/computer-science-security/digital-innovation-and-research/course-contents#/>

³**DSOEK = German Language and Austrian Culture.** For further information and course descriptions, please visit <https://www.fhstp.ac.at/en/international/incoming-students/german-language-classes>

⁴**FF = Optional Subject.** For more information, see course descriptions below:

E³UDRES² – I Living Lab (3 ECTS credits)

In the I Living Lab, students learn how to co-create a solution to a real-life problem by using the method of Design Thinking. They collaborate with other international students as well as external stakeholders. They choose your challenge from the topics of "Health, Wellbeing and Social Inclusion for Regions" or "Digital Solutions & (Applied) Deep Tech for Regions" or "Resilient Economy & Innovation for Regions" or "Creative Industries for Regions' Identity".

Together with regional stakeholders and students from all nine E³UDRES² partner universities, students will develop innovative solutions for relevant challenges. Along the way, they will gain essential future skills and international competences such as

- Personal growth,
- Intercultural competence
- Language skills
- Global engagement
- International disciplinary learning.

Click on the [E³UDRES² website](#) for more information.

Vehicle Security (5 ECTS credits)

The objective of this elective course (Vehicle Security) is to achieve a comprehensive understanding of current vehicle architectures, the protocols used in the vehicle such as CAN or Vehicular Ethernet, and the security problems that arise from them.

Different threat scenarios for components will be discussed based on recent attacks in the field and presentations at security conferences. Using a concrete example, these scenarios will be further examined. Furthermore, an outlook will be given on how the various electronic systems in a vehicle will be interconnected in the future. The content will be supported by practical exercises.

Enterprise (Security) Architecture Management (5 ECTS credits)

Concepts of Enterprise Security Architecture / Enterprise Architecture

Procedures and frameworks:

- Business Capability Maps

TOGAF – The Open Group Architecture Framework

- ADM: Architecture Vision, Business Architecture, Information Systems Architecture, Technology Architecture,

Opportunities and Solutions, Migration Planning, Implementation Governance, Architecture Change Management

SABSA – Enterprise Security Architecture:

- SABSA Matrix: Contextual, Conceptual, Logical, Physical, Component, Operational Layers, etc.

Case study: Building an Enterprise Security Architecture

Cloud Solution Architect (5 ECTS credits)

This course prepares participants for architecting solutions in the AWS Cloud and teaches them to build robust IT infrastructure on AWS. It follows along the "AWS Academy Cloud Architecting" course material and helps students prepare towards an "AWS Solutions Architect Associate" certification.

CDC Advanced (5 ECTS credits)

This course covers advanced topics in CDC technologies and methodologies, building on the CDC Fundamentals course. This includes topics such as endpoint detection and response, network intrusion detection systems, detection engineering, etc.

Please note that you have to choose between "Vehicle Security", "Cloud Solution Architect", "Enterprise (Security) Architecture Management", and "CDC Advanced" as those classes take place simultaneously!