Keio University Syllabus and Timetable

INTRODUCTION TO CYBERSECURITY

Lecturer(s)	BANA, GERGELY I.
Credit(s)	2
Academic Year/Semester	2024 Fall
Day/Period	Fri.4
Campus	Mita
Classroom	436
Class Format	Face-to-face classes (conducted mainly in-person)
Registration Number	25535
Faculty/Graduate School	INTERNATIONAL CENTER
Year Level	2, 3, 4
Grade Type	S, A, B, C, D
K-Number ▼ Detail	CIN-CO-90313-212-83

Course Contents/Objectives/Teaching Method/Intended Learning Outcome

In this course we introduce the basic concepts of Cybersecurity. We talk about the challenges the interconnectedness of the cyberspace poses to computer networks, the concept of risk, typical patterns of vulnerabilities, attacks and mitigation strategies. We introduce, in a non-technical fashion, the basic concepts of cryptography, and the typical cryptographic building blocks: encryption, digital signatures, authentication codes, public key and secret key infrastructures. We talk about how these building blocks are used to construct secure networks. We also touch upon the legal frameworks handling cyber attacks. Finally we discuss cybersecurity in the context of Japan and East Asia.

Active Learning Methods (1) Description

Discussions, Debates Group work Problem-based learning

Preparatory Study

Review of previous lectures - 1-2 hours 3 homework assignments

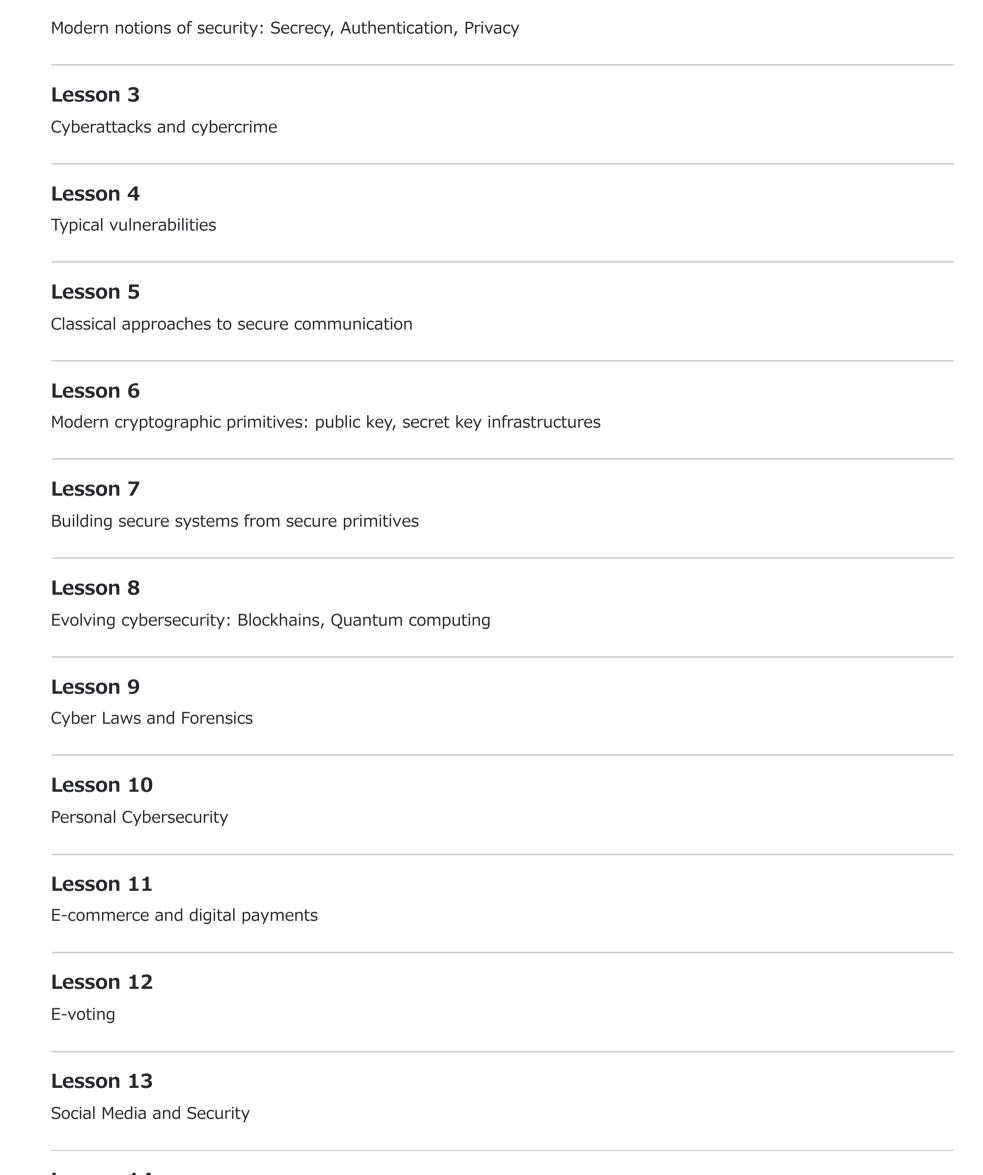
1 final take-home assignment

Course Plan

Lesson 1

Security in an Interconnected World

Lesson 2



Lesson 14

Special cybersecurity challenges in Japan and East Asia

Other

Review and Conclusion

Method of Evaluation

3 homework assignments - 60% 1 take-home final exam - 30%

Class attendance - 10%

Reference Books

Robin Sharp: Introduction to Cybersecurity Ajay Singh: Introduction to Cybersecurity