GCS – 2025/2026 – Q1
Introduction

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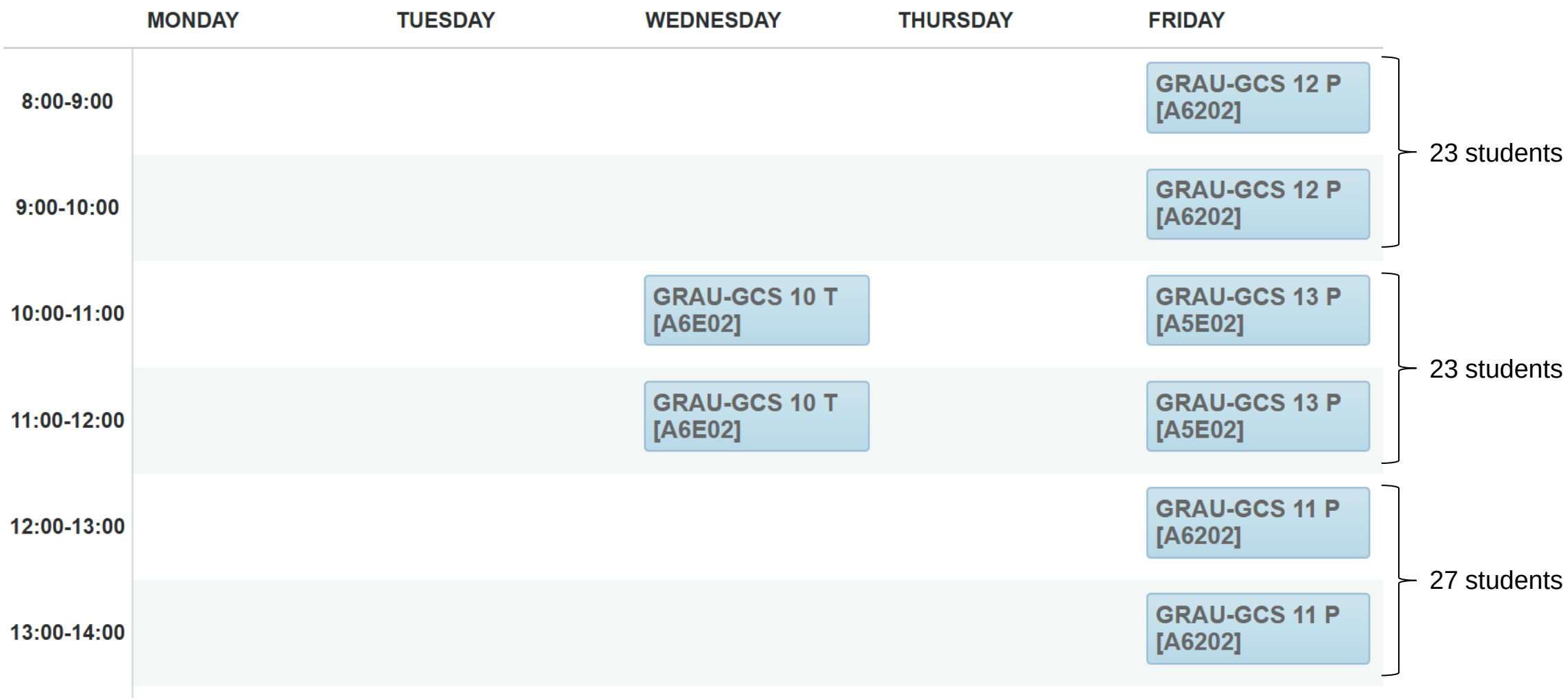
Overview

- **Short Description**
  - This subject aims to provide elementary knowledge and resources on cyber security aimed at training IT engineering professionals with a broad base on good practices when it comes to protecting IT systems, mitigating vulnerabilities, and preventing risks

- **Learning Objectives**
  - Know basic concepts about cyber security, cybercrime, and risk and vulnerability analysis
  - Identify different problems and solutions in current, emerging and disruptive technologies
  - Work in a team to carry out the exercises and practices
  - Successfully complete guided practices on cyber security

- **Transversal Competences**
  - Third Language
  - Teamwork
  - Information Literacy
  - Autonomous Learning
  - Reasoning

Timetable


MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
8:00-9:00
9:00-10:00
10:00-11:00
11:00-12:00
12:00-13:00
13:00-14:00
GRAU-GCS 12 P [A6202]
GRAU-GCS 12 P [A6202]
GRAU-GCS 10 T [A6E02]
GRAU-GCS 10 T [A6E02]
GRAU-GCS 13 P [A5E02]
GRAU-GCS 13 P [A5E02]
GRAU-GCS 11 P [A6202]
GRAU-GCS 11 P [A6202]
23 students
23 students
27 students

Theory Lectures

Session	Title	Evaluation
T0	Introductory Concepts on Cibersecurity	Exam 1
T1a	Cloud computing security	Exam 1
T1b	Software supply chain security	Exam 1
T2	Information Gathering	Exam 1
T3	Monitoring	Exam 1
T4	Incidence Response	Exam 1
T5	Identity Management	Exam 1
T6	IoT & ICS	Exam 2
T7	Secure Communications in 5G and Beyond Networks	Exam 2
T8	Cybersecurity & AI	Exam 2
T9	Blockchain	Exam 2
T10	Quantum Security	Exam 2

Self-learning for some lesson or topic might be proposed!

Exercices (Self-Learning)

Work in Groups
Laptop Needed

Session	Title	Evaluation
E1	Attack Taxonomy and Cybercrime Organization	Reports
E2	Gaming for Cybersecurity Training	Short (5 min) informal presentation & discussion
E3	Cybersecurity Governance and Legislation	Long (15-20 min + questions) formal presentation

Lab (Guided Practices)

Work in Groups
Laptop Needed

Session	Title	Evaluation
L1	Information Gathering & OSINT	Report / Code (Script)
L2	Secure Deployment of Virtualized Environments	Report / Code (Script)
L3	Cybersecurity for AI	Report / Code (Script)
L4	Blockchain Workshop	Report / Code (Script)

Tentative Calendar (Subject to Changes!!!)

Theory (Wednesdays)		Exercises/Practices (Fridays)	
Date	**Session**	**Date**	**Session**
10-Sep	Intro / T0	**12-Sep**	*No Class*
17-Sep	T1a	**19-Sep**	[Classwork] E1-Part1
24-Sep	*No Class (bank holiday)*	**26-Sep**	[Classwork] E1-Part2
01-Oct	T2	**03-Oct**	[Classwork] L1
08-Oct	T1b, T3	**10-Oct**	[Homework] E1 + L1
15-Oct	T4	**17-Oct**	[Classwork] L2-Part1
22-Oct	T5	**24-Oct**	[Classwork + Presentation] E2
29-Oct	**Exam 1**	**31-Oct**	*No Class (mid. ex.)*
05-Nov	*No Class (mid. ex.)*	**07-Nov**	[Classwork] L2-Part2
12-Nov	T6 + Statement E3	**14-Nov**	[Homework] L2 + E3
19-Nov	T7	**21-Nov**	[Presentation] E3
26-Nov	T8	**28-Nov**	[Classwork] L3
03-Dec	T9	**05-Dec**	[Classwork] L4
10-Dec	T10	**12-Dec**	[Homework] L3 + L4
17-Dec	**Exam 2**	**19-Dec**	No Class (Bank Holiday)

= Class attendance is mandatory!

Evaluation

Score Theory (X)

Exam 1 (T0, T1ab, T2, T3, T4, T5, E1)	Exam 2 (T6, T7, T8, T9, T10, E3)
50%	50%

Score Exercises/Labs (Y)

Report E1	Presentation E2	Presentation E3	Report L1	Report L2	Report L3	Report L4
15%	10%	20%	10%	20%	12.5%	12.5%

Final Grade (Z)

$$Z = 50\% \cdot X + 50\% \cdot Y$$

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