# Blockchains & Distributed Ledgers

Course Administrativia

Petros Wallden, Michele Ciampi, Dimitris Karakostas

#### **Course Overview**

- Lectures: Weekly, Wednesday 11.10 13.00, 50 George Square, 50GS\_Lecture Theatre G.03
- Website (open): <u>https://opencourse.inf.ed.ac.uk/bdl</u> (also check the learn page and the piazza)
- Course assessment:
  - Assignment: (requires smart contract programming) (30%)
  - Exam (December diet): Multiple-choice questions (more later). (70%)

# Office hours

- We use Piazza as a forum for questions
  - You can find a link for it in the course's Learn page, under *Discussions (Piazza)*
- You must **sign up** to be able to ask questions and read the answers
  - Feel free to answer the questions by your fellow students
- **<u>Do not</u>** email the course's staff or TAs about course-related questions
  - Whenever possible, post a <u>public question on Piazza</u>
  - To discuss a private matter (e.g., solution questions, clarifications for marks, other sensitive matters), post a <u>private question on Piazza</u> and make it *visible to all teaching staff*
- <u>**Please do not</u>** ask the course's staff or TAs to grant you coursework extensions we can't</u>
  - Review the University's relevant <u>late submission policy</u> (we follow rule 1)
  - Contact the <u>Student Support Team</u> for extra information

### Contact

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- Teaching Assistants: Konstantinos Brazitikos, Xinshu Ma, Christina Ovezik, Amirreza Sarencheh, Yu Shen, Yu Xia
- Course Secretary: Yesica Marco Azorin
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#### **Tentative Lecture Schedule**

- 1. (20.09.2023) Introduction to blockchains and distributed ledgers (PW).
- 2. (27.09.2023) Blockchain-related data structures (MC).
- 3. (04.10.2023) A blockchain as a platform and introduction to Ethereum (DK).
- 4. (11.10.2023) Pitfalls and security vulnerabilities in smart contracts (DK).
- 5. (18.10.2023) The consensus problem (PW).
- 6. (25.10.2023) Byzantine fault tolerance, permissionless vs. permissioned ledgers (PW).
- 7. (01.11.2023) Economics, game theory, and incentives (PW).
- 8. (08.11.2023) Anonymity and privacy, P2P networking, wallets (MC).
- 9. (15.11.2023) Secure Multiparty Computation (MC).
- 10. (22.11.2023) Blockchain applications & post-quantum security (PW).
- 11. (29.11.2023) Summary and overview, student questions (All).

## **Coursework Schedule**

- Assignment (counts 30%)
  - Available on 18.10.2023
  - Submission deadline: 15.11.2023, 12.00 (noon)
  - Marks returned: 29.11.2023

## **Coursework Notes**

- Report submission
  - Reports are submitted via Learn
  - Please *follow the instructions* on each assignment's description
    - Some assignments might require you to submit multiple files
    - Some assignments might require specific naming for the submitted files
- Late submission policy
  - Rule 1: Extensions are permitted (3 days) and Extra Time Adjustments (ETA) of 7 days are permitted and can be combined
    - <u>https://web.inf.ed.ac.uk/infweb/student-services/taught-students/information-for-students/information-for-all-students/your-studies/late-coursework-extension-requests</u>
  - You can make as many submissions as you want; *the last submission will be marked*