

COMP 2109 A (Fall 2026): Introduction to Security and Privacy

General Course Information

- **Course Registration Number (CRN):** 31094 (https://central.carleton.ca/prod/bwysched.p_display_course?wsea_code=EXT&term_code=202630&disp=26236736&crn=31094)
- **Classes run:** Sep 09, 2026 to Dec 11, 2026
- **Weekly Schedule:** Tuesdays and Thursdays 2:35pm to 3:55pm
- **Room:** Check on Carleton Central
- **Instructor:** Dr. AbdelRahman Abdou (abdou at scs.carleton.ca)
- **Office hours:** By appointment.
- **Office:** HP5130
- **Course prerequisites:** (COMP 1006 or COMP 1406) with a minimum grade of C-, and COMP 2401 with a minimum grade of C-.
- **Carleton's Academic Calendar:** here (<https://calendar.carleton.ca/academicyear/>). Important dates and deadlines can be found here: Dates, Deadlines, and Regulations--Registrar's Office (<https://carleton.ca/registrar/regulations/>), including class suspension for Fall, Winter breaks, and statutory holidays.
- **Material and Resources:** Permanent Record, Edward Snowden (Picador softcover, Metropolitan Books hardcover, 2019). Please acquire/order a copy for the first week of class. It is essential for Project 1 (14% of term mark). Other resources will be online or available through Carleton library (electronically) or Brightspace.

Course Calendar Description

A tour of Internet security and privacy. Societal impacts and case studies. Topics from: protection goals of stakeholders; history of public key cryptography; programming languages and security; security engineering and testing; cybercrime and malware; Internet privacy and anonymity; government surveillance; regulation; ethics; blockchain applications.

Grading Scheme

The course has the following grading scheme:

- **20%** Class Participation
- **15%** Midterm 1 (Tuesday, October 13)
- **15%** Midterm 2 (Tuesday, November 17)
- **16%** Summary Reflections (roughly weekly). Due on Fridays at noon on Brightspace.
- **14%** Technical Report on the book Permanent Record (Due in October 6)

- **20%** Final Exam

Missed/Late Assessments: No late submissions for summary reflections are accepted. Your best 8 summary reflections will be used to calculate your summary reflections grade.

A student missing any of the midterms or the final receives a mark of zero.

Special Note: For any course assessment, a set of students may be selected to meet with TAs or the instructor to discuss their work. These students must demonstrate an understanding of their submissions. Failure to do so convincingly will result in losing up to the full marks for that assessment.

Course Outline

Week	Date (2026)	Topic
Week 1	Sep 8	(No class)
	Sep 10	Course Intro
Week 2	Sep 15	Security and privacy landscape
	Sep 17	
Week 3	Sep 22	Public key cryptography (history + impact on society) + Bitcoin
	Sep 24	
Week 4	Sep 29	
	Oct 1	
Week 5	Oct 6	Assets, protection goals, different stakeholders and their priorities
	Oct 8	
Week 6	Oct 13	Midterm 1
	Oct 15	Computer/Internet (threat models, security and privacy)
Week 7	Oct 20	
	Oct 22	Special Topics (TBD)
Week 8	Oct 27	Fallbreak (No classes)
	Oct 29	
Week 9	Nov 3	Privacy & anonymity, pseudonymity, linkability, partial identity
	Nov 5	
Week 10	Nov 10	
	Nov 12	
Week 11	Nov 17	Midterm 2
	Nov 19	Privacy regulation, governments, and ethical issues
Week 12	Nov 24	
	Nov 26	Programming languages & software security
Week 13	Dec 1	Cybercrime and crimeware
	Dec 3	
Week 14	Dec 8	Software security - security testing and software development
	Dec 10	
Week ∞	TBD	Final Exam

School of Computer Science Laptop Requirement

Every student that has been enrolled in a 1000-level (i.e., first year) course offered is required to have a laptop. This includes COMP1001, COMP1005, and COMP1006. For more information, please visit here (<https://carleton.ca/scs/scs-laptop-requirement/>), and then review the requirements here (<https://carleton.ca/scs/scs-laptop-requirement/laptop-specs/>).

Undergraduate Academic Advisors

The Undergraduate Advisors for the School of Computer Science are available in Room 5302HP; or by email (<mailto:scs.ug.advisor@cunet.carleton.ca>). The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

SCS Computer Laboratory

Students taking a COMP course can access the SCS computer labs. The lab schedule and location can be found here (<https://carleton.ca/scs/tech-support/computer-laboratories/>). All SCS computer lab and technical support information can be found here (<https://carleton.ca/scs/tech-support/>). Technical support staff may be contacted in-person or virtually, see this (<https://carleton.ca/scs/tech-support/contact-it-support/>) page for details.

Mental Health and Wellness

The Carleton Wellness Website (<https://wellness.carleton.ca/>) is a wonderful resource link to include in the course outline for students

Academic Accommodations and Regulations

Academic Accommodations. Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes are outlined on the Academic Accommodations website (<https://students.carleton.ca/course-outline/>).

Chat GPT/Generative AI Usage. As our understanding of the uses of AI and its relationship to student work and academic Integrity continue to evolve, students are generally required to discuss their use of AI in any circumstance not described here with the course instructor to ensure it supports the learning goals for the course. However, note the following:

- Many of the assessed activities in this course were designed to be completed by an individual working alone. Unless it is explicitly stated otherwise, the use of any AI system will be considered academic misconduct. This includes, but is not limited to, chatbots or code generators (e.g., ChatGPT, Google Gemini, Microsoft Copilot), research assistants (e.g., Elicit), and image generators (e.g., Stable Diffusion, Dall-E), etc.
- An exception to the above rule is made for automated grammar and punctuation checking tools (such as Grammarly).

- References to any material you use but did not originate must use the IEEE/APA/MLA citation style. Failure to reference materials correctly can result in severe penalties, and the use of manufactured (i.e., falsified) or misleading references will be treated as evidence of plagiarism and considered academic misconduct.
- Everything you submit for evaluation (i.e., assignments, quizzes, tutorials, examinations, etc.) must be the result of your own work and only your own work. If you copy more than five consecutive words or any non-trivial snippet of code from a single source without providing a valid reference, then that is considered plagiarism.

Academic Integrity. Students are expected to uphold the values of academic Integrity, which include fairness, honesty, trust, and responsibility. Examples of actions that compromise these values include but are not limited to plagiarism, accessing unauthorized sites for assignments or tests, unauthorized collaboration on assignments or exams, and using artificial intelligence tools such as ChatGPT when your assessment instructions say it is not permitted.

Misconduct in scholarly activity will not be tolerated and will result in consequences as outlined in Carleton University's Academic Integrity Policy (<https://carleton.ca/secretariat/wp-content/uploads/sites/158/Academic-Integrity-Policy-2021.pdf>). A list of standard sanctions in the Faculty of Science can be found here (<https://science.carleton.ca/students/academic-integrity/>).

Additional details about this process can be found on the Faculty of Science Academic Integrity (<https://science.carleton.ca/students/academic-integrity/>) website.

Students are expected to familiarize themselves with and abide by Carleton University's Academic Integrity Policy (<https://carleton.ca/secretariat/wp-content/uploads/sites/158/Academic-Integrity-Policy-2021.pdf>). Claiming ignorance of or confusion about the academic integrity standards as described in the Policy does not excuse a student from responsibility for violations of those standards.

All quizzes, tests and exams are expected to be completed individually, and without electronic aid; any communication or access of electronic devices (e.g. cellphones) during the test will be considered cheating. Use of Smart Glasses (or other similar assistive technologies) before or during a test is strictly prohibited and is considered an academic integrity violation. Even if you have prescription glasses with assistive technologies, you will not be allowed to use them during the test, so please make sure that you have acceptable prescription glasses. The proctor has the right to ask to inspect your glasses before or during the test. In addition, unless authorized with PMC accommodations, you are NOT allowed to use headphones nor ear buds during a test. Also, during a test, if you choose to wear a baseball cap, sunglasses or anything else that would prevent a proctor from monitoring where your eyes are focused during the test, you will likely be asked by a proctor to move to a different seat. Lastly, you must submit your test before leaving the classroom or it won't be graded.

Student Rights & Responsibilities. Students are expected to act responsibly and engage respectfully with other students and members of the Carleton and the broader community. See the 7 Rights and Responsibilities Policy (<https://carleton.ca/studentaffairs/student-rights-and-responsibilities/#sect1.1>) for details regarding the expectations of non-academic behaviour of students. Those who participate with another student in the commission of an infraction of this Policy will also be held liable for their actions.

