

ECS 235B Module 1

Administrative Material

Let's Get the Hard Stuff Out of the Way

- Adding the class
 - The department policy controls who gets PTAs; it is available at <https://cs.ucdavis.edu/graduate/policies> (scroll down to “PTA Process and Expectations”)
 - I can only issue PTAs in accordance with those directions (ie, only when *the department* asks me).

General Information

- Who we are
 - Instructor: Matt Bishop, mabishop@ucdavis.edu
 - Office: 2209 Watershed Sciences
 - Office hours: MWF 1:10pm–2:00pm in 22023 Watershed Sciences
 - Phone: (530) 752-8060
 - For email, please put “ECS 235B” in the subject line
 - TA: Lucen Li, lcniu@ucdavis.edu
 - Office: 47 Kemper
 - Office hours: Tu 2:30pm–4:30pm, Th 2:30pm–3:30pm

General Information

- Goals:
 - Learn about the reference monitor and high assurance systems;
 - Learn about the access control matrix model and its variants, and how it is used to analyze the security of classes of systems;
 - Learn about the mathematics underlying security policies and their composition;
 - Learn about the confinement problem and information flow; and
 - Explore other topics of interest.

General Information

- Prerequisites
 - ECS 235A (Computer and Information Security), or knowledge of security commensurate with it
 - Recommended: ECS 150 (Operating Systems); ECS 120 (Theory of Computation)
- Texts:
 - M. Bishop, *Computer Security: Art and Science*, 2nd Edition, Addison-Wesley Professional, Boston, MA (2018). ISBN: 978-0-321-71233-2.
 - *Recommended*: R. Anderson, *Security Engineering: A Guide to Building Dependable Distributed Systems*, 3rd Edition, John Wiley & Sons, Inc., New York, NY (2020). ISBN: 978-1-119-64281-7.

General Information

- Class Web Site
 - It's on Canvas; log in there, and go to ECS 235B
 - If you don't have access and need it, please email me and I will add you
 - This *does not* mean you will be admitted to the course!
 - Backup web site: <http://nob.cs.ucdavis.edu/classes/ecs235b-2024-01>
- Grading (subject to change)
 - Homework is 50% total, and I expect 4 or 5 equally weighted assignments
 - Project is 50%, weighted as described in the handout

General Information

- General UC Davis resources
 - Cover health and wellness, virtual classroom fatigue, etc.
 - You can also come to me and I will either help or suggest where you can get help
 - Web site: <https://ebeler.faculty.ucdavis.edu/resources/faq-student-resources/>
- Academic integrity
 - Paramount!!! And plagiarism is a violation of academic integrity
 - Follow the UC Davis Code of Academic Conduct
 - Available at <https://ossja.ucdavis.edu/code-academic-conduct>
 - I report cheating to the Office of Student support and Judicial affairs; they handle it appropriately

Homework

- Due at 11:55pm on the due date, unless stated otherwise
- Submit it on Canvas
 - I'll give you comments and grades on Canvas too
 - None of this will be on the secondary web site; only on Canvas
- Don't be wishy-washy in your answer
- Write it in good English; be clear and concise
 - An example of a good answer is on the web site
- Submit PDF or text files *only*; do *not* submit other formats!
 - Other formats often don't render well across all systems

Homework

- Late policy: I will accept homework up to 10 week days late
 - You will lose 10% per weekday late, but I will only deduct points if it is more than 5 week days late
 - Example: your homework is due Monday and you turn it in the Wednesday of the next week; that is 8 days late, so your actual score is 20% of what it would have been had you turned it in on time. If you had turned it in on the Friday of the week it was due, you would get the full score.
- Extra credit
 - It is *not* added into your homework score
 - It is used only if your grade is on a borderline (for example, right between an A- and an A); it helps determine which one you get

Term Project

- Goal: get you to explore an area of security in depth
- It can be:
 - Detailed survey or research paper
 - Programming project on validating or working with some formalism
 - Implementing a policy model and formally verify your implementation is correct
- Key rule: ***pick something that interests you***
- Team size: no more than 5
 - If for some reason a team wants more than 5 people, talk to me about it
 - The larger the team, the more I will expect from it

Term Project

Due dates:

- *Project selection*: January 26, 2024; 10% of project score
- *Progress report*: February 9, 2024; 20% of project score
- *Final project*: March 21, 2024, by 8:00pm; 70% of project score

Only one team member should submit these

- *Be sure to name all team members in this submission!*
- Other team members should submit a short note saying who turned it in

Ask Questions!

- If you have a question, at least half the class has the same question in mind
- ***The only stupid question is the one you want answered and don't ask***

So ...

Speak up and ask away!