Oakland University
Department of Computer Science and Engineering

Course Title: Security & Privacy in Computing (CSI 3480), CSI 3480, 4.0 credits

Semester:
May 6, 2024 – June 26, 2024.
Refer to the Registrar's Calendar for the last date to withdraw and other important registration related
information.

Class time and place:
Tuesday & Thursday, 11:00 AM – 2:20 PM
EC 554 [Main Campus]

Course format: Accelerated, and HyFlex
This course is an accelerated class, meaning that the duration of course is 8 weeks instead of 16 weeks,
This course is also offered in HyFlex format. For all lectures, I will be present in-person in the normal
class hours and simultaneously hosting a Google Meet video call for those who have selected to attend
remotely. If you decide to change the modality of the class during the semester you need to email the
instructor in-advance. The exams and presentations MUST be in-person and there is no online option!

Instructor:
Name: Solmaz Salehian, Ph.D.
E-mail address: ssalehian@oakland.edu
Office hours: by appointment

Prerequisite Coursework and/or Skills:
CSI 1320 or CSI 1420

Catalog Course Description:
An introduction to principles and practices of security and privacy. Topics include an introduction to
cryptography, host/network exploits and countermeasures, information risk assessment, access control,
threat and incident management, information privacy concepts, privacy requirements, privacy-enhancing
technologies, information privacy management, and legal and regulatory requirements. With laboratory

Learning objectives:
Following completion of this course, students should be able to perform the following:
- Describe the criteria and requirements for security and privacy.
- Explain fundamental concepts and knowledge of security and privacy.
- Understand information security and privacy threats and vulnerabilities and be capable of
  performing exploits.
- Apply tools to protect information security and privacy.
- Comprehend the risks and countermeasures that enhance database, IoT, and cloud security and
  privacy.
- Understand EU data protection and U.S. security and privacy regulations and laws.

Suggested Books:
1. W. Stallings, Effective Cybersecurity: A Guide to Using Best Practices and Standards, AddisonWesley, 2018.
2. Principles of Information Security
   by Michael E. Whitman; Herbert J. Mattord, 7th Edition, 2022
3. Security Awareness: Applying Practical Cybersecurity in Your World
   by Mark Ciampa 6th Edition | Copyright 2024 Available January 2023

You do not need to purchase the book until you would prefer!

Student Assessment:
The course has several assignments and in-class activities, 1 exam and one final project. Letter grades are awarded based on the total number of points achieved. All assignments must be submitted based on the schedule via Moodle. If you need to submit an assignment via email, contact the instructor in advance.

Assignments/Points:

Assignments	Percentile (Points)	
Assignments and labs	25%	250
Quizzes and Class-Activities	15%	150
Exam	30%	300
Final project, presentation and report	30%	300
Total Points	100%	1000

Grading Scale:

Grading Scale %	Grade for Undergraduate Courses	Grade for Graduate Courses
93 and above	A	A
87 – under 93	A-	A-
80 – under 87	B+	B+
75 – under 80	B	B
70 – under 75	B-	B-
65– under 70	C+	C+
60 – under 65	C	C
55 – under 60	C-	C-
50 – under 55	D+	D+
40 – under 50	D	D
under 40	D-	F

Assignments and evaluation criteria are detailed below. Please review these requirements carefully.

- *Assignment and Labs:* The hands-on lab and assignments are built to give you an experience dealing with situations involving various cybersecurity incidents and how to respond/plan such incidents. Lab assignments will come from the lab manual and students will typically answer a short quiz or deliver a brief checklist confirming their understanding of the lab material. Additionally, lab assignments may require students to summarize reading from the short article and describe how to apply the acquired knowledge in the real-world settings. Assignments and labs should be submitted by the due date and you will receive grade for each assignment, please name it as follows for submission: **Assignment#X_Your Name.**
- *In-class activities and Quizzes:* During the lecture, we will have some in-class activities. Additionally, there may be announced quizzes at any time during the semester.
- *Final project, presentation slide and report:* There will be one final project for this course which should be done in a group of three. In the first session of class you will be able to discuss your interest with your classmates and then make the decision about your teammate. Before the due date, you need to inform your teammate to your instructor. Guideline for Project will be provided later. You need to present your final project to the class based on the schedule. You can choose your project with respect to your specialization, however it should meet the requirements based on what you have learned throughout the semester. Also, you need to submit a report for your final project, which provides all the details about your project. Your presentation and your report will be considered in evaluating your final project. Please be sure to name your report as follows: **Your group#_Your Names** (only one person needs to submit the final project and report for each group, however, all team members should participate in the presentation). Project evaluation is based on applicability, brevity, and clarity, in the following areas:
  Part 1 – Problem statement
  Part 2 – Statement of how to solve the problem
  Part 3 – Diagram (or demonstration) of how your solution solves the problem
  Part 4 – References, website, or where to go for more detailed information

- *Exam:* There will one exam for the course.
  EXAM: June 18, 2024

Course Policies:
- *Assignments and Labs:* All assignments and Labs must be completed individually. Normally, general discussion between students about how to solve a problem are allowed. However, is it not acceptable for one student to copy a solution from a peer. Copying or submitting very similar work to another student's work will result in a zero for both students.
- *Quizzes and In-class activities:* The in-class activities will be posted on Moodle and should be submitted individually by due date. The in-class activities are not graded but your attempt for the class activities will be considered during evaluation at the end of semester. You may get some quizzes during the semester and depend on the type of questions in quizzes, you may need to complete it individually or in a team.
- *Final Project:* All projects must be original and self-written code and project copied from somewhere else will not be accepted.
- *Late Work:* Readings, assignments and discussion forum participation must be completed according to the class schedule. It is important to contact the instructor as needed to discuss

personal needs regarding course requirements and assignments. Each assignment has a due date and a cutoff date, which is 3 days after the due date. However, the assignments submitted after the due date and before the cutoff date will be penalized at 5% per day. Assignment submission will not be accepted after the cutoff date. There is no extension (no cutoff date) for the exams and final projects submission.

Classroom Policies:
- Please Put your phone on silent mode during class.
- *ACADEMIC CONDUCT POLICY.* All members of the academic community at Oakland University are expected to practice and uphold standards of academic integrity and honesty. Academic integrity means representing oneself and one's work honestly. Misrepresentation is cheating since it means students are claiming credit for ideas or work not actually theirs and are thereby seeking a grade that is not actually earned. Following are some examples of academic dishonesty:
  a. **Cheating.** This includes using materials such as books and/or notes when not authorized by the instructor, copying from someone else's paper, helping someone else copy work, substituting another's work as one's own, theft of exam copies, falsifying data or submitting data not based on the student's own work on assignments or lab reports, or other forms of misconduct on exams.
  b. **Plagiarizing the work of others.** Plagiarism is using someone else's work or ideas without giving that person credit; by doing this, students are, in effect, claiming credit for someone else's thinking. Both direct quotations and paraphrases must be documented. Even if students rephrase, condense or select from another person's work, the ideas are still the other person's, and failure to give credit constitutes misrepresentation of the student's actual work and plagiarism of another's ideas. Buying a paper or using information from the World Wide Web or Internet without attribution and handing it in as one's own work is plagiarism.
  c. **Falsifying records** or providing misinformation regarding one's credentials.
  d. **Unauthorized collaboration** on computer assignments and unauthorized access to and use of computer programs, including modifying computer files created by others and representing that work as one's own.
 For more information, review OU's Academic Conduct Regulations. (Link to Academic Conduct Regulations: https://www.oakland.edu/deanofstudents/policies/)
- *BEHAVIORAL CODE OF CONDUCT.* Appropriate behavior is required in class and on campus. Disrespectful, disruptive and dangerous behavior are not conducive to a positive learning environment and may result in consequences. Core Standards for Student Conduct at OU includes
  a. **Integrity.** See academic conduct policy points above.
  b. **Community.** Policies regarding disruptive behavior, damage and destruction, weapons, and animals.
  c. **Respect.** Policies regarding harassment, hazing, and sexual misconduct (Link to Sexual Misconduct policy: https://www.oakland.edu/policies/health-and-safety/625/)
  d. **Responsibility**. Policies regarding alcohol, drugs, and other substances
See the **Student Code of Conduct** for details. (Link to Student Code of Conduct: https://www.oakland.edu/deanofstudents/student-code-of-conduct/)

- *Accommodation and Special Considerations.* Oakland University is committed to providing everyone the support and services needed to participate in their courses, including any additional support needed during remote or online learning. Students with disabilities who may require special accommodations should make an appointment with campus Disability Support Services (DSS). If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Support Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. DSS determines accommodations based on documented disabilities. Contact DSS at 248-370-3266 or by e-mail at dss@oakland.edu. For information on additional academic support services and equipment, visit the Study Aids webpage of Disability Support Services website. (Link to Disability Support Services website: https://www.oakland.edu/dss/
- *Mental Health and Well-Being*. Students can only learn when their most basic needs are met. OU Resources for Student Immediate Needs lists support OU provides related to material and mental health needs. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact The OU Counseling Center at Graham Health at (248) 370-3465. or the SEHS Counseling Center at 250A Pawley Hall, (248) 370-2633. Student resources can also be found at the Dean of Students website by clicking on Student Health & Safety Resources. (URL: http://www.oakland.edu/deanofstudents). For immediate 24/7 services contact Common Ground via chat or call or text the word "hello" to 1-800-231-1127.
- *Attendance policy*
  a. **Excused Absence Policy.** This policy for university excused absences applies to any student participating in a University Sponsored Event as an official representative of Oakland University. University Sponsored Events include academic, artistic, athletic and scholarly endeavors, as well as participation in student organizations, including club sports, approved by the Provost or designee. A student must fill out the Excused Absence form and submit it to the professor in advance. For responsibilities and procedures see Academic Policies and Procedures. (Link to Academic Policies and Procedures: https://www.oakland.edu/provost/policies-and-procedures/
  b. **Religious Observances.** Student should discuss with professor at the beginning of the semester to make appropriate arrangements. Although Oakland University, as a public institution, does not observe religious holidays, it will continue to make every reasonable effort to help students avoid negative academic consequences when their religious obligations conflict with academic requirements. See The OU Diversity Calendar for more information. (Link to calendar: https://www.oakland.edu/diversity/calendar/)
- *Preferred Name and Pronoun*

If you do not identify with the name that is listed with the registrar's office, please notify me so that I may appropriately amend my records. In addition, if you prefer to go by a different pronoun, please inform me. When you go to MySail, just above My Courses and Grades you will see "Display or edit your personal information," which allows you to edit your preferred first name. For more name change options and information, visit the Name Services page. (Link to Name Services and Preferred Name Policy: oakland.edu/uts/common-good-core-resources/name-services/)

- *Sexual Misconduct*

Faculty and staff are responsible for creating a safe learning environment for our students, and that includes a mandatory reporting responsibility if students share information regarding sexual misconduct/harassment, relationship violence, or information about a crime that may have occurred on campus with the University. In such cases, the professor will report information to the campus' Title IX Coordinator (Chad Martinez, chadmartinez@oakland.edu or 248-370-3496). You can report such

incidents to the Dean of Students Office directly. Students who wish to speak to someone confidentially can contact the OU Counseling Center at 248-370-3465. Additionally, students can speak to a confidential source off-campus 24 hours a day by contacting Haven at 248-334-1274. The Dean of Students website provides more information on your options and support services. (oakland.edu/deanofstudents/sexual-assault-and-violence-initiative/students/)

- *Add/Drops*

As a student, university policy officially gives you the responsibility to add and drop courses. Put in your calendar deadline dates for dropping courses (even if you think it won't be necessary), and consult the Drop or Not Guide to make a well-informed decision before dropping a course. (https://www.oakland.edu/registrar/registration/dropornot/)

Faculty Feedback: OU Early Alert System

As a student in this class, you may receive "Faculty Feedback" in your OU e-mail if your professor identifies areas of concern that may impede your success in the class. Faculty Feedback typically occurs during weeks 2-5 of the Fall and Winter terms, but may also be given later in the semester and more than once a semester. A "Faculty Feedback" e-mail will specify the area(s) of concern and recommend action(s) you should take. Please remember to check your OU email account regularly as that is where it will appear. This system is to provide early feedback and intervention to support your success. (Link to Faculty Feedback for students: https://www.oakland.edu/advising/faculty-feedback/)

- *Emergency Preparedness*

In the event of an emergency arising on campus, the Oakland University Police Department (OUPD) will notify the campus community via the emergency notification system. The professor of your class is not responsible for your personal safety, so therefore it is the responsibility of each student to understand the evacuation and "lockdown" guidelines to follow when an emergency is declared. These simple steps are a good place to start:

   a. OU uses an emergency notification system through text, email, and landline. These notifications include campus closures, evacuations, lockdowns and other emergencies. Register for these notifications at oupolice.com.
   b. Based on the class cellphone policy, ensure that one cellphone is on in order to receive and share emergency notifications with the professor in class.
   c. If an emergency arises on campus, call the OUPD at (248) 370-3331. Save this number in your phone, and put it in an easy-to-find spot in your contacts.
   d. Review protocol for evacuation, lockdown, and other emergencies via the classroom's red books (hanging on the wall) and oupolice.com/emergencies.
   e. Review with the professor and class what to do in an emergency (evacuation, lockdown, snow emergency).

- *Technology Tools:*
   a. **Technology Back-up Plan**. In the event that your computer crashes or internet goes down, it is essential to have a "backup plan" in place where you are able to log in using a different computer or travel another location that has working internet.
   Any files you intend to use for your course should be saved to a cloud solution (Google Drive, Dropbox, etc.) and not to a local hard drive, USB stick or external disk. Saving files this way guarantees your files are not dependent on computer hardware that could fail.
   b. **Technology Help.** For help using Moodle, use the Get Help link at the top of the Moodle

page (moodle.oakland.edu).

For access to technology and in-person assistance, call or visit the <u>Student Technology Center</u> (Link to Student Technology Center: https://www.oakland.edu/stc/).

For general technology assistance, consult the <u>OU Help Desk</u> (Link to Help Desk: https://www.oakland.edu/helpdesk/).

- *Violence/Active Shooter*: If an active shooter is in the vicinity, call the OUPD at (248) 370-3331 or 911 when it is safe to do so and provide information, including the location and number of shooter(s), description of shooter(s), weapons used and number of potential victims. Consider your options: <u>Run, Hide, or Fight</u>.