COURSE SYLLABUS
Southern Illinois University

CS410/CS591: Computer Security- Fall 2017

Contact Information:

Instructor: Dr. Shiva Houshmand
Office: EGR A0407D
Office hours: Tue and Thur 3:15-4:30 PM, and Wed 8-11:30 AM or by appointments
Email: shiva [at] cs.siu.edu
Course website: http://online.siu.edu

TA: Chinmay Rajguru
Office hours: Tue and Thur 11:30 AM – 2 PM, and Mon 1:30 PM – 2:30 PM in EGR A409 (tutoring center)
Email: chinmay.rajguru [at] siu.edu

Class Schedule:

| Lectures | Tue & Thurs 2 pm – 3:15 pm | EGRA 420 |

Course Description:

This course is designed to introduce a practical survey of both the principles and practice of cryptography and computer security. Topics include cryptography, access control, software security and malicious code, trusted systems, network and wireless security.

Objectives:

- To learn the principles, mechanisms and implementation of information and communication security in computer systems and networks.
- Understand the fundamentals of cryptography and its deployment.
- To learn the up-to-date securities protocols and explain the design criteria and possible flaws behind them.
- Understand the security threats and their countermeasures.
- To learn to build secure software and systems.
- To learn programming techniques for security protocols.

Prerequisite: CS 306 or equivalent

Required Textbook:

**Course Material:**

Online course webpage available through SIU online (D2L) ([http://online.siu.edu](http://online.siu.edu)). All Lectures, Homework, and Announcements will be accessible through SIU online system. Please make sure that you all have access to the course material. It is your responsibility to check the announcements frequently to follow what is new about the course.

**Grading:**

- Your overall grade will be based on your exams, your homework assignments, quizzes, participation, and project.

- The midterm dates will be announced in class and course calendar. The final exam will be during the assigned time slot (Tuesday Dec 12, 2017 at 2:45 PM – 4:45 PM). Tests may include material covered in earlier tests.

- **Exams:** There will be two exams. The exams will be closed-book and closed-notes. The final exam will be comprehensive. No makeup exams will be given. No early or late final can be given.

- **Homework Assignments:** The due dates will be announced when I post the assignments. Please start working on your problem sets as soon as they are announced to have sufficient time to complete them. Assignments may contain different types of questions from the textbook and elsewhere: arithmetic, problem-solving, open-ended, essay, hands-on, and programming.

- **Project:** There will be a group (2 members) project related to the implementation or simulation of some security protocols for grad students. For undergrads, they can choose to do a project, or they are expected to write an essay in groups of 2 on a security topic of their choice. These topics should be different than the ones covered in the class and should be approved by the instructor.

- **Quizzes:** There can be pop-up quizzes in the class regarding the topic covered in the previous classes. This requires you to be prepared on the covered topics by reading the book and lectures.

- **Participation:** Participation includes attendance, and class and discussion participation. I strongly encourage regular attendance in the class and will take attendance at the beginning of each class. You are responsible for all announcements and for all material presented in the lecture sessions. A general discussion board link has been set up in SIU online to help you during your studies. Feel free to create a new thread or topic to ask questions about lectures or assignments (but do not post solutions to homework!). You should also try to help your fellow classmates by providing ideas to their given queries. Any discussion topic posted on the discussion board will also count towards your participation.
Grading

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<td>Midterm Exam</td>
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<td>Final Exam</td>
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<td>Assignments</td>
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**General Policies:**

- Make-ups and incompletes will be given only in exceptional circumstances.

- **It is very important to complete all problem sets and do them by yourself. You are not to work in groups (except for group project).** You may talk to me or the TA, discuss it generally on discussion board (without explicitly giving the answer) or talk to other students to help you get started on a problem, but you must do the problems individually.

- Cheating (including misrepresenting work from others as your own) is a serious offense! All students should read the [Departmental Policies on Academic Dishonesty](#), which is applicable in all your academic work including in this course.

- **Late Policy:** Homework must be submitted by the due time unless you have prior approval of the instructor. Late submissions are not accepted unless you have talked to me prior to the due date.
IMPORTANT DATES *
Semester Classes Begin: 08/22/2017
Last day to add full-term course (without Dean’s signature): 08/27/2017
Last day to withdraw from the University with a full refund: 09/01/2017
Last day to drop a full-term course for a credit/refund: 09/03/2017
Last day to drop a full-term course (W grade, no refund): 10/29/2017
Final examinations: 12/11-12/15/2017

Note: Please verify the above dates with the Registrar calendar and find more detailed information on deadlines at http://registrar.siu.edu/calendars. For add/drop dates that apply to shorter-than-full-term courses, please look at the Schedule of Classes search results at http://registrar.siu.edu/schedclass/index.php

SUMMER SEMESTER HOLIDAYS
Labor Day Holiday 09/04/2017
Fall Break 10/07—10/10/2017
Thanksgiving Break: 11/22-11/26/2017

WITHDRAWAL POLICY ~ Undergraduate only
Students who officially register for a session must officially withdraw from that registration in a timely manner to avoid being charged as well as receiving a failing grade for those classes. An official withdrawal must be initiated by the student, or on behalf of the student through the academic unit, and be processed by the Registrar’s office. For the proper procedures to follow when dropping courses and when withdrawing from SIU visit: http://registrar.siu.edu/students/withdrawal.php

INCOMPLETE POLICY ~ Undergraduate only
An INC grade may be assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments for the course. An INC must be changed to a completed grade within one full semester (undergraduates), and one full year (graduate students), from the close of the term in which the course was taken or graduation, whichever occurs first. Should the student fail to complete the remaining course requirements within the time period designated, the incomplete will be converted to a grade of F and such grade will be computed in the student's grade point average. For more information visit: http://registrar.siu.edu/grades/incomplete.php

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit more than once. For students receiving a letter grade of A, B, C, D, or F, the course repetition must occur at Southern Illinois University Carbondale. Effective for courses taken Summer 2013 or later, only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. This policy will be applied to all transferrable credit in that only the last grade will be used to calculate grade point average. Only those courses taken at the same institution are considered repeats under this policy. See full policy at http://registrar.siu.edu/students/repeatclasses.php

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please refer to the graduate catalog at http://gradschool.siu.edu/about-us/grad-catalog/

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must contact DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://dsservices.siu.edu/

PLAGIARISM
See the Student Conduct Code http://srr.siu.edu/student-conduct-code/

MORRIS LIBRARY HOURS: http://libguides.lib.siu.edu/hours

ADVISEMENT: http://advisement.siu.edu/

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:
http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, and students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For more information on Saluki Cares, call(618) 453-1492, email siciures@siu.edu, or http://salukicares.siu.edu/

SIU's EARLY WARNING INTERVENTION PROGRAM (EWIP)
Students enrolled in courses participating in SIU’s Early Warning Intervention Program might be contacted by University staff during a semester. More information can be found at the Core Curriculum’s Overview webpage: http://corecurriculum.siu.edu/program-overview/

EMERGENCY PROCEDURES
We ask that you become familiar with Emergency Preparedness @ SIU. Emergency response information is available on posters in buildings on campus, on the Emergency Preparedness @ SIU website, and through text and email alerts. To register for alerts visit: http://emergency.siu.edu/

STUDENT MULTICULTURAL RESOURCE CENTER
The Student Multicultural Resource Center serves as a catalyst for inclusion, diversity and innovation. As the Center continues its work, we are here to ensure that you think, grow and succeed. We encourage you to stop by the Center, located in Grinnell Commons, to see the resources available and discover ways you can get involved on the campus. Visit us at http://inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website: Tutoring : http://tutoring.siu.edu/ Math Labs http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit:
http://write.siu.edu/

DIVERSITY
Southern Illinois University Carbondale’s goal is to provide a welcoming campus where all of our students, faculty and staff can study and work in a respectful, positive environment free from racism and intimidation. For more information visit: http://diversity.siu.edu/

MILITARY COMMUNITY
There are complexities of being a member of the military community and also a student, and military and veteran related developments can complicate academic life. If you are a member of the military community and in need of accommodations please visit Veterans Services at http://veterans.siu.edu/

SIU ONLINE: https://online.siu.edu/

Need help with an issue? Please visit SALUKI SOLUTION FINDER at http://solutionfinder.siu.edu/

Office of the Provost http://pvcaa.siu.edu/ Fall 2017