

# Department of Computer Science

1803 Avenue I  
Suite 214, Academic Building One

Huntsville, Texas  
P.O. Box 2090 • 77341-2090

(936) 294-3846  
Fax • (936) 294-4312



## COURSE SYLLABUS Information Security DFSC 4317 - Spring 2018

**Location:** Academic Building 1, Room 211  
**Time:** Tuesdays and Thursdays, 11:00 am - 12:20 pm  
**Instructor:** Dr. Umit Karabiyik (**Dr. K**)  
**Office:** Academic Building 1, Room 212E  
**E-mail:** [umit@shsu.edu](mailto:umit@shsu.edu)  
**Phone:** (936) 294-4785 (leave VM if unanswered)  
**Office hours:** Tuesdays/Thursdays 2:00pm – 3:30pm, or by appointment  
**TA Name:** Naciye Celebi – [nxc038@shsu.edu](mailto:nxc038@shsu.edu)  
**TA Hours:** Wednesday 11am-1pm, Academic Building 1, Room 200C

**Catalog description:** This course provides an introduction to basic security needs. The course will include, but not be limited to individuals vs. government privacy issues, federal encryption standards, the different layers of security currently available, the practical application of user level and system level cryptography, and strategies for evaluation and selection of security methods. **Prerequisite:** DFSC 2316 and 3 advanced DFSC hours.

**Course Description:** As businesses and consumers become increasingly dependent on complex multinational information systems, it is more imperative than ever to protect the confidentiality and integrity of data. In this course, we will take a practical approach to information security by focusing on real-world examples and hands-on lab activities such as software security, network security, web security, system security, digital forensics, and cryptography labs.

### Instructor's Objectives:

**Important:** Learning fundamental principles, generalizations, or theories.

**Essential:** Learning to apply course material (to improve critical thinking, problem solving, and decisions)

### Additional department goals supported by this course include:

a) Developing a strong technical foundation in the computational sciences, b) an understanding and sensitivity for professional ethics, c) appreciation for the need to pursue professional and related learning activities for life. Students are expected to: a) employ quantitative and technical evaluations in seeking optimal problem solutions, b) maintain and increase their professional knowledge/skill sets, c) develop their ability to express abstractions in the form of algorithms and d) to extend the discipline through original cognitive processes.

### Textbook and Other Course Materials:

**Title:** Computer Security  
**Author:** Wenliang Du  
**ISBN:** 978-1-5483-6794-7  
**Required Textbook**



**Each student also need a laptop to work on labs in and outside of the class. If you don't have a laptop, please contact with Dr. K in the first week of the class for possible accommodations. In addition to the laptop, students must have a USB memory stick with at least 8GB available space.**

## Course Requirements:

### *Assignments/Labs:*

- There will be multiple and various assignments including homework and labs. Assignment due dates will be posted along with the assignments files.
- Assignments are writing intensive and require that you understand the material thoroughly. Answers with little detail or that demonstrate a lack of mastery of the subject matter will result in few if any points.
- All lab reports must be neatly typeset and must name of all the students involved, class and lab name on the first page. Turn in neat, readable, typeset solutions for full grade.
- Lab assignments will require students to perform hands-on work related to course content. This will allow students to understand the real life implementation of current state of the art information security issues.
- Most in-class lab work will be completed in groups.
- Each homework assignment contains a number of questions relevant to the course content (including textbook and lectures) as well as possible research components which require students to conduct individual research and possible lab exercises.
- All type of assignments/labs must be typed in MS Word document and submitted to the relevant **BLACKBOARD PAGE** by due dates. The name of all assignment/lab submissions should be in this format “[first&last\_name] - DFSC 4317 A2” which indicates Assignment 2 (L2 for Lab 2) submission of a student for this course.
- In doing any of your assignments, you are forbidden from referring to any resources other than your own course notes, the class notes or other material suggested by me. In particular, you are not allowed to consult your friends. You are not allowed to use material from previous years of this course, and you are not allowed to use the Internet to “find” partial/complete solutions if the instructor does not explicitly direct you.
- Copying and plagiarism is prohibited. Assignments must be done individually by each student. Cheating on homework/labs **WILL NOT** be tolerated. A grade of “F” for the assignment/course and appropriate disciplinary action will be awarded to any student caught cheating.
- All assignment documents should contain the name of student and the date on which assignment was submitted.
- If any programming is required in the assignments, codes/scripts must be provided in the submission.

### *Exams:*

There will be two exams for this course. The midterms will be scheduled as the semester progresses and related information will be discussed in class and be available on Blackboard. Generally speaking, no make-up for the exams will be provided. Students with legitimate excuses should contact the instructor before the midterm, with appropriate document, to arrange a make-up exam.

### *Late Policy:*

Late submission to the homework will be accepted up to two days after the deadline with a penalty of 10% of the assignment each day. Students with legitimate excuses should contact the instructor before the deadline, if possible, and submit appropriate document afterwards to be exempted from this rule. Submission page for the assignments will be unavailable on the third late day since **it's too late**. On the other hand, no late submission will be accepted for the lab assignments.

### *SEED Labs:*

We will utilize the labs available on <http://www.cis.syr.edu/~wedu/seed/index.html> for our hands-on lab activities in our course. SEED labs were started in 2002 and are funded by a total of 1.3 million dollars from NSF. These are now used by hundreds of educational institutes worldwide. The SEED project's objective is to develop hands-on laboratory exercises (called SEED labs) for computer and information security education. Please go through the website to learn more about SEED labs.

**Grading plan:**    *Assignment/Labs*       50%       (Labs will be likely given every week)

*Midterms*                      50%      (2 Exams, Dates will be announced)

*Grading Criteria:*

|                      |   |
|----------------------|---|
| $\geq 90$            | A |
| $\geq 80$ but $< 90$ | B |
| $\geq 70$ but $< 80$ | C |
| $\geq 60$ but $< 70$ | D |
| $< 60$               | F |

### **Grade-related questions**

It is not possible to provide answers to questions such as the following during the course: “What scores do I have to get for the rest of this class in order to get such and such a grade?” “What is the cutoff score for such and such a grade?” “What were the cutoff scores, or what was the grade distribution, in previous years the class was taught?” “Is there any extra points for this class?”

### **Email**

Email communication is naturally the best way to communicate with me outside of my office hours. Please understand that I will not respond to Email that does not follow appropriate etiquette. At a minimum, your email must include your name, and specifics of your question. It must not include common IRC chat lingo or shorthand. If your email does not conform to the above mentioned minimum requirements, then your email will not be answered. Please be professional in your communication. If you are missing a grade on Blackboard, you may email me a short note informing me of a possible mistake. I will file this note and check on it. I will try to respond to your emails as promptly as possible.

### **Online Course Resources**

All course materials can be found on Blackboard at <https://blackboard.shsu.edu/webapps/login/>. All students must check their SHSU email accounts regularly because instructor may send important announcements via email.

### **Class participation**

In accordance with University Policy (<http://www.shsu.edu/dotAsset/b719129b-9593-424f-9d5a-920e2eda6890.pdf>), regular attendance is required; however, no points will be awarded or subtracted based on your attendance. You are responsible for all material covered in every class, regardless of whether you attended or not. It is your responsibility to obtain notes, assignments, discussion material etc., from fellow class members if you miss a class.

### **Academic dishonesty**

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The university and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. No cheating on an examination or assignments is allowed. A score of zero will be given to the student if such a case occurred.

### **Rules of conduct**

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Please turn off or mute your cellular phone and/or pager before class begins. Students are prohibited from inappropriate behavior in the classroom shall result in a, minimally, a directive to leave class or being reported to the Dean eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking among each other at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. of Students for disciplinary action in accordance with university policy.

### **Visitors in the classroom**

Occasional visiting of classes by responsible persons is allowed with prior arrangement with the instructor, as long as it does not interfere with the registered members of the class or the educational process.

### **Students with disabilities policy**

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should

register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail [disability@shsu.edu](mailto:disability@shsu.edu)). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see: <http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

### **Religious Holidays**

An institution of higher education shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

### **Syllabus Change Policy**

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with in advance notice.