

COMPUTER SCIENCE 980-INTRODUCTION TO COMPUTER SECURITY -COURSE OUTLINE

<u>Instructor:</u>	Anna S Chiang, master degree in Computer Science Microsoft Certified System Engineer, CompTIA A+ and Security+
<u>Class Schedule:</u>	On-Line, Aug 26-Dec 15, course syllabus can be accessed after Aug 22 via ETUDES www.myetudes.org , see next page for login instruction.
<u>Office Hour:</u>	Mon/Tues/Wed/Thurs 11:30 am-5:30 pm (in CE229) Sat afternoon by appointment only (e-mail ChiangA@wlac.edu)
<u>Office/e-mail :</u>	CE 229, 310-287-4253 ChiangA@wlac.edu

Important and useful information

On campus orientation for on-line students: Saturday, August 24 at 2 pm in CE105A and
Friday, Aug 23 at 11 am in CE105A

UC/CSU Transfer Honor Credit <http://www.wlac.edu/transfer/index.html#honors>
(contact the instructor for honor credit)

LACCD student's e-mail system <http://www.wlac.edu> -> for student ->e-mail-> student can forward
LACCD e-mail to another personal e-mail- click on "instruction" and "video".

Disabled Student Service <http://www.wlac.edu/DSPS> -students must contact DSPS office to obtain an
approved accommodation request.

Job placement assistance see ETUDES announcement soon.

CSIT Division Web Site <http://www.wlac.edu/CSIT> with the following useful information:

Division announcement –scholarship and internship opportunities

CS faculty office hour and computer lab open hour

Petition for degree & certificate

Job assistance for long-term unemployed, under-employed and veterans

Discount Voucher for CompTIA A+ Network+ Security+ Linux+

Free Software Download (Windows 7, Server 2008, VMWare, Microsoft ACCESS and Visio Studio)

Requirement for AA/AS degree and Certificate of Achievement in the following :

Degree and Certificate in Computer Science (10 major courses)

Degree and Certificate in Computer Network and Security Management (10 major courses)

Degree and Certificate in Computer Web Support and Database Administration (10 major
courses) Certificate of Achievement in Computer Network Management (requires 6 courses)

Certificate of Achievement in Information System Security (requires 6 courses)

Certificate of Achievement in Business Application and Database Management (requires 6 courses)

Certificate of Achievement in Web Support and Administration (requires 6 courses)

Faculty advisor and major declaration

Please note that students must declare a major in order to become eligible for scholarship and internship opportunities. To declare a major, please obtain the form of change request from CS division website www.wlac.edu/csit click the link on the left menu.

By default, your instructor can be the faculty advisor; please see the instructor during the posted office hour or you can make an appointment with the following fulltime faculty advisor:

Ashok Patil –Degree, transfer, and certificate in Computer Science- PatilA@wlab.edu

Anna Chiang-Degree, transfer and certificate in Computer Information Science/Computer Network and Security Management- ChiangA@wlab.edu

Marcus Butler-Microsoft, CISCO, VMWare training ButlerM@wlab.edu

Manish Patel-Degree and certificate in Web development and Database Administration- PatelM@wlab.edu

Important date to remember

Last day to drop class with a refund/no owed is Sept 6, 2013

Last day to drop class w/o a “W” is Sept 6, 2013

Last day to drop a class with a “W” is Nov 15, 2013

College closed on Sept 2, Nov 11, Nov 28-Dec 1.

Exclusion policy

Students who are inactive in the class may result in **exclusion**. **It is a student’s responsibility** to drop the class. Failure to drop the class in a timely manner will result in “Failure” on the transcript.

Incomplete policy

A Student who has successfully completed more than 75% of the course work and has communicated with the instructor with a justifiable explanation may be considered for an incomplete grade

Course description

This course introduces the basic concepts of computer security. Students will learn a full range of security concepts & techniques and apply them to the most popular operating systems used today. The topics include: Vulnerabilities and Attacks, Cryptography, Network Infrastructure, Network Security, System Security and Application Security. This course combined with CS985 is also designed to help candidates preparing to take CompTIA Security+ certification exam. It is one of the courses leading to AA/AS degree/Certificate in Network and Security management and AA/AS degree/certificate in Web Support and Database Administration.

Course objectives

1. Identify Threats

2. Identify Attacks and Malicious Code
3. Establish Security Baselines
4. Understand Access Control Models
5. Understand Authentication Methods
6. Understand Cryptographic algorithms
7. Use Cryptography on Files & Disks
8. Manage Digital Certificate
9. Understand Public Key Cryptographic standards
10. Understand Web, VPN and Mail Transport Protocol
11. Audit Privilege & Use Monitoring Tools
12. Protect Communication-Based Attacks
13. Harden Operating System
14. Harden Web Browser & Web Server
15. Apply Intrusion Detection System

Student learning outcome

At end of the course, the successful student will be able to explain the concepts of confidentiality, integrity, and availability. The successful student will be able to explain the fundamental concepts and best practices related to authentication, authorization and access control. The successful student will be able to identify common threats, vulnerabilities and mitigation techniques.

Required course material and equipment

About Certification Exam

CS980 and CS985 are designed to help students prepare for CompTIA Security+ certification exam.

Students who plan to take CompTIA Security+ can contact instructional assistant Laurent Phung via PhungL@wlaac.edu for a discount exam voucher.

The publisher Testout Corp offers **Security Pro** certification exam to students of CS980/985 at the end of semester, this certification exam must be scheduled and supervised by the instructor. Students should schedule an on-campus exam with the instructor during the final week.

Required Equipment: This class is offered 100% on-line, student must have computer with Internet connection in order to access college official course shell (ETUDES) and Testout LabSim site.

Required material: Testout Security Pro SY0-301 and SSCP

A multimedia web based E- Learning including course simulation, demo, chapter & lesson notes, lab simulation and exam simulation.

How to purchase the course material on-line? (or see “RESOURCES” on ETUDES course shell)

To access the student discount pricing (\$89) students need to go to www.testout.com and enter the promotional code 14-346ta. This will take students to a page designed for West Los Angeles' students. Here students will need to enter the school name **West Los Angeles College**. This will check with Testout's database to verify if the school is authorized to purchase at this price. Because of this, it needs to be entered

EXACTLY as above (including capitalizations). The student will also need to enter the instructor's name Anna Chiang. The course material is now browser based, it works on Apple computer too. You can access the course material via LabSim.Testout.com without downloading client program. The program may prompt you to download Microsoft Silverlight to enhance multimedia effects.

If for any reason students need to purchase the required material from WLAC bookstore, please order it via the web site of WLAC's bookstore <http://store450.collegestoreonline.com> or contact Nilhson Zelaya in bookstore (310-287-4381).

In order for the instructor to keep track of students' performance on lab simulation, each student must add himself or herself to "West Los Angeles College" and "class of CS980 Fall2013" the first time logging into the labsim.testout.com. See instruction on the left menu "resource" of ETUDES course shell.

Testout Product Activation Code

Once you place the order on-line, you will receive an e-mail confirmation and product activation code in a few minutes. Please note that Testout no longer sends out DVD or LabSim manual, everything is online now.

Publisher Information

TestOut Corporation 1-800-877-4889 or e-mail the representative Jeff Hanks via JHanks@testout.com if you have any questions about your account.

Testout LabSim account

If the student has an account with Testout previously set up, the same account will be used for this class.

On-line course shell ETUDES login instruction

If you are a first-time online student, please see the dates for orientation (top of page 1). To log on to on-line class, go to <http://www.myetudes.org> or www.wlac.edu/online where you will find links to on-line tutorial, login instructions and Technical Requirements.

Example: Juan Straub, 88-459-0210, birthday is July 4.

The Login ID will be the first 2 letters of first name plus the first 2 letters of last name plus the last 5 digit of student ID, password is birthday.

- User ID: just90210
- Password: 0704

After logging in, double click the course you are enrolled.

If you are a first-time on-line student, make sure your Browser settings are as follow:

Tools->Internet Option-general->security setting->add www.myetudes.org or www.wlac.edu/online as a trusted site.

Student Information System

You can view your transcript, update your personal information via Student Information System.

<http://www.wlac.edu>->register class->enter student ID and pin number.

To be eligible for scholarship and internship, students must have a major declared in Student Information System, to declare a major, see the left menu link on division web site www.wlac.edu/csit.

Email Communication

If you have a valid email address in the LACCD system, ETUDES' instructor's announcement will be sent

to your personal email. Otherwise, you should check the instructor's announcement when you first log on to course shell. You might want to update your email address under MyWorkspace-> Account-> Modify if you change e-mail address.

Trouble login to ETUDES

If you have trouble accessing the course on, or after, the start date visit the Online Student Help Desk at <http://www.wlac.edu/online/helpdesk.asp> . Click on Helpdesk Rules where your issue is likely addressed in the Frequently Asked Questions section. If not, post a message explaining the problem or contact the WLAC Distance Learning Program Office at (310)287-4305 or via email: shemwer@wla.edu.

Class rules & guideline on assignment and test

By taking this class, you agree to follow the Class Rules listed below:

- (1) Students who are inactive in the class may result in exclusion, however it is your responsibility to drop the class; failure to drop the class in a timely manner will result in "F" on your record.
- (2) Cheating (or Plagiarism) on assignment/exam/project will result in "Failure".
- (3) You have **five days** to purchase the required material after semester starts, those who got required material earlier can start working on the course.

You will submit assignment and exam via college official on-line site **ETUDES**. You must log on to ETUDES on regular basis to check the following:

Announcement- Check announcement each time after you login, important announcement will be posted.

Syllabus-Course syllabus is attached.

Course Map- Assignments and exams are listed with link based on due day.

Resources- Instruction to order the required material with Testout.

Resources- Instruction to joining a school and enrolling a class within Testout Labsim.

Resources- Orientation to ETUDES

Assignment-follow step a b c d e

- a) copy the review questions to a Word document and save it as a file on your hard drive or flash drive,
 - b) click on "continue later",
 - c) when you finish the work-> save it on your local drive-> go to ETUDES-> open the assignment-> browse and upload it-> click on "finish",
 - d) once you click on "finish", you can't open and view it until the instructor releases the grade,
 - e) you can e-mail the instructor (chianga@wla.edu) requesting for a re-submit if you need to.
- (4) Follow the schedule to work on "Assignment" and "Test". **Do not wait until the last minute** to work on assignments. **Assignments submitted after the due day will receive 10%-90% deductions** (one week late 10%, two weeks late 20%..etc.). The full credit for each assignment is 100 points. Assignment will not be accepted after 3 weeks late.

Tests /Exam- exams are listed by open day.

Discussion and Private Message- You can send messages to the instructor, for urgent issues, please send e-mail to Chianga@wlac.edu. The instructor checks this e-mail on regular basis.

(5) You should print every chapter and lesson “FACTS” from the Testout LabSim subject program, each chapter has several lessons, each lesson has several text outline “FACTS” which help you on the review-question-assignment and can be a study guide for exam too. For most of the review-question-assignment, you can find the answer key from the “FACTS” outlines.

(6) No make-up exam (test). Once you have viewed or taken the exam, you can't open or retake it. There are 6 exams plus final, follow the exam “open and close” schedule. You have **one week** to take the exam. **Do not wait until the last minute to start the exam**, use a clock when you start the exam. The exam is a timed exam, 60 minutes for 33 questions (multiple choices). **THERE IS NO MAKE-UP or RE-TAKE EXAM.** If there is any emergency, e-mail the instructor and schedule an “on-campus” exam within 7 days after exam expires (each student has **only one** opportunity to do so for one exam throughout the entire semester).

(7) Official test is posted on ETUDES, the study guide is the material on Testout LabSim subject course, including lecture, demo, lesson outline & facts, and exam simulation.

Testout exam and lab simulation weigh 15% of semester grade, students can practice over and over again. Exam simulation has answers and explanations which help build your knowledge base. This is for practice and for study guide before taking the **Official Test in ETUDES** as described earlier. Answer key can be reviewed after one week from the test due date. The step-by-step explanation to complete the lab simulation can be printed by starting the lab and clicking on “done”. Lab simulation and exam simulation must reach 80% and above to earn the full credit.

(8). Based on students' experiences, you should take exam as soon as you complete the assignment, since you have gone through all the material completing the assignment, the memory is still fresh.

(9). CE101 is open to CSIT students; please check the division web site www.wlac.edu/csit for lab open hour.

(10). Being a member of Microsoft & VMWare Academic Alliance, the enrolled students can download VMWare, Microsoft operating system (Windows 7 & Server 08) and development tool (Microsoft application like ACCESS not the entire OFFICE suite, Visual Studio) for free, please visit division website www.wlac.edu/csit and click on the left menu to make request, or contact IA Laurent Phung via PhungL@wlac.edu.

(11).CS dept. is member of CompTIA education alliance, students can take A+, Network+,Security+ with discount voucher, please contact Laurent Phung via PhungL@wlac.edu or visit division website www.wlac.edu/csit under FAQ.

(12). All other school & class rules will be enforced.

Preliminary Schedule of Lectures/Assignments/Exams

The deadline of assignments and exams may change and will be posted via ETUDES, please pay attention to the deadline of Assignments and Tests posted on **WLAC ETUDES**.

Grading: Exams 35% Lab & Exam Simulation-15% Assignments-40% Final-10%

Testout Module#	Review Question & Lab Simulation due	Exam/Test due
Chapter #1-Introduction		
Chapter #2-Access Control 2.1-2.4 only	Assignment C#1 & 2 due Sept 8	Exam C#1 & 2 due Sept 15
Chapter #3-Cryptography 3.1-3.4 only	Assignment C#3 due Sept 22	Exam C#3 due Sept 29
Chapter #4-Policy & Procedures Organizational Security-skip	Covered in CS985	Covered in CS985
Chapter 5-Physical Security	Assignment C#5 due Oct 5	Exam C#5 due Oct 13
Chapter #7-Network Defenses	Assignment C#7 due Oct 20	Exam C#7 Due Oct 27
Chapter #8-Host Defense	Assignment C#8 due Nov 3	Exam C#8 due Nov 10
Chapter #9-Application defense	Assignment C#9 due Nov 17	Exam C#8 due Nov 24
Chapter #6-Perimeter Defense	Assignment C#6A and #6B due Dec 1 & 8	Final exam on C#6 due Dec 15

College policies

Academic Integrity (Plagiarism)

In accordance with code 9803.28, **academic dishonesty is prohibited and will not be tolerated in this class.** Violations of academic integrity include, but are not limited to, the following

actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade. Academic dishonesty of any type, such as cheating or knowingly furnishing false information, by a student provides grounds for disciplinary action by the instructor or college. In written work, no material may be copied from another without proper quotation marks, footnotes, or appropriate documentation.

- **Plagiarism will result in a zero for the assignment, possible dismissal from the class and disciplinary action from the college.**

Student Conduct

According to code 9803.15, disruption of classes or college activities is prohibited and will not be tolerated. Refer to the catalog and the Standards of Student Conduct in the Schedule of Classes for more information.

Recording Devices

State law in California prohibits the use of any electronic listening or recording device in a classroom without prior consent of the instructor and college administration. Any student who needs to use electronic aids must secure the consent of the instructor. If the instructor agrees to the request, a notice of consent must be forwarded to the Vice President of Academic Affairs for approval.

For more information refer to the attached link:

http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Policies.pdf

Campus resources:

As stated earlier in this syllabus, **if you are having problems, don't let them snowball.** Come and talk with me and check out some of the campus resources available to you.

Office of Disabled Student Programs and Services (DSP&S)

Heldman Learning Resources Center (HLRC), Room 119 | (310) 287-4450.

West Los Angeles College recognizes and welcomes its responsibility to provide an equal educational opportunity to all disabled individuals. The Office of Disabled Students Programs and Services (DSP&S) has been established to provide support services for all verified disabled students pursuing a college education. DSP&S students may qualify for: priority registration, registration assistance, special parking permits, sign language interpreters and assistive technology.

Instructional Support (Tutoring) & Learning Skills Center

Heldman Learning Resources Center (HLRC) | (310) 287-4486

Improve your reading, language, vocabulary, spelling, math fundamentals and chemistry knowledge with convenient, self-paced computer-aided courses in the Learning Skills Center. Increase your knowledge and learning success: sign up for tutoring in various college subjects.

Library Services

Heldman Learning Resources Center (HLRC) | (310) 287-4269 & (310) 287-4486

The WLAC Library provides instruction on how to use the online catalog, periodical and research databases. In addition to a large collection of books, periodicals and videos the WLAC Library has course textbooks which students may use while in the Library. Web access is available in LIRL as well as meeting rooms. The upper floors provide a beautiful view ideal for study.

for more information refer to attached link:

http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Services.pdf