

**Department of Information Technology and Decision Sciences**  
College of Business Administration  
University of North Texas

Spring 2012

**BCIS 4630 SYLLABUS**

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<b>Course Number</b>	BCIS 4630 Section 001			
<b>Course Title</b>	Fundamentals of IT Security			
<b>Course Info</b>	<b>Credit Hours</b>	<b>Days</b>	<b>Time</b>	<b>Location</b>
	3	Thursday	6:30 – 9:20 PM	BLB 073
<b>Instructor</b>	Yu “Andy” Wu, Ph.D., Security+, MCSE, CNA			
<b>Office Hours</b>	Thu. 2-5 PM or by appointment	<b>Office</b>	BLB 358J	
<b>E-mail Address</b>	<b>Dr.Wu.UNT@Gmail.com</b>		<b>Phone</b>	940.565.3735
<b>Web Site</b>	<a href="http://www.coba.unt.edu/itds/faculty/wu/bcis4630/">http://www.coba.unt.edu/itds/faculty/wu/bcis4630/</a>			

**Academic Calendar**

Classes begin	January 17, 2012
Beginning this date instructor consent is needed for dropping course	January 31
Last day to drop or withdraw from university with a course of W for a course not passing	<b>February 24</b>
Last day to withdraw from the semester	March 27
Final Examination Period	May 5-11

**Holidays**

Martin Luther King Day	January 16
Spring break	March 19-25

The detailed academic calendar is available at <http://calendar.unt.edu/calendar.cfm?action=list&tags=Academics>

**TEXTBOOKS**

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**Required:** Oriyano, Sean-Philip & Gregg, Michael, *Hacker Techniques, Tools, and Incident Handling*, Jones & Bartlett, ISBN: 978-0-7637-9183-4.

**Required:** Grama, Joanna, *Legal Issues in Information Security*, Jones & Bartlett, ISBN: 978-0-7637-9185-8.

## OTHER COURSE MATERIALS

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*Supplemental readings:* In addition to the required chapters (see schedule) in the textbooks, I may add supplemental readings (*including PowerPoint slides*) for some class sessions. Please check the course website frequently and acquire the materials (downloading them either directly from the site or from the provided URL) and read them *before* you come to the class. Some contents from the readings will be covered in the exams.

*PowerPoint slides:* They are designed to help you understand the course content during and after my lectures; however, studying solely with the slides is not sufficient.

*Software:* Some open source or trial version software may be required for doing some assignments. Refer to the course Web site for instructions on how to obtain them.

## COURSE PREREQUISITES

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BCIS 4610; 2.7 UNT GPA (2.7 transfer GPA if no courses taken at UNT); a grade of C or better in each previously taken BCIS course, or consent of department.

If you have any concerns about these prerequisites, please stop by at the ITDS Dept. to see the ITDS advisor or send him/her an email.

## COURSE DESCRIPTION

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This course introduces you to the various technical and management aspects of information security (InfoSec) and provides you with an understanding of the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

It covers the human, organizational, technical, legal, ethical, and social issues involved in the protection of information systems. You will obtain a basic understanding of the various attacks on and threats to systems, as well as the defense mechanisms to fend them off. You may use this course as the beginning point in preparing yourself to become an IS security professional with business savvy.

## COURSE OBJECTIVES

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At the end of this course you should be able to...

- Describe the important human, organizational, technological, legal, and ethical issues that are involved in protecting information systems.
- Communicate clearly and effectively with technical and non-technical stakeholders of an organization in regard to protection of its information systems.
- Identify the most common security models, information security criteria, system vulnerabilities, types of attacks and threats, and countermeasures and security controls.
- Describe in detail the most effective and widely used technologies to protect information systems and discuss the pros and cons of using each technology.
- Implement basic configuration of and troubleshoot some of the most essential technologies to protect an information system.
- Identify the most popular resources that IS security professionals use to collect and exchange information and to obtain tools to protect information systems.
- Present to others your opinions on the trends and new developments in both sides of the IS security war.

## ASSESSMENTS

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- **Exams**

There will be three exams during the semester – Exams 1, 2 and the Final Exam. All exams are **closed book, closed notes**, and may contain multiple choice questions, programming solution problems, diagramming problems, or any combination of the above. Both Exams 2 and 3 are **comprehensive** in the sense that later topics may build upon earlier ones. However, the focus will be on materials covered since the last exam.

Exams must be taken in class at the scheduled time. It is your responsibility to make arrangements to attend exam sessions. Verifiable emergencies brought to my attention *before* the exam are the only exceptions to this policy. No make-up exams will be given.

- **Labs**

Detailed information on lab instructions and submission method will be available when the labs are assigned.

- **Quizzes**

There will be three unannounced quizzes throughout the semester. I will not make any arrangements for taking the quizzes early or taking a make-up. No exceptions.

- **Points system**

Each exams, quiz, and project carries maximum points that you may earn:

Assessment	Max. Points
Exam 1	60
Exam 2	60
Final	80
Labs	270
Quizzes	30
<b>Total</b>	<b>500</b>

## GRADING POLICY

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Letter grades will be assigned as follows where the cutoff is the lowest number of cumulative points that will be assigned that grade. The cutoff points are strictly adhered to. **I DON'T ROUND "BORDERLINE" POINTS TO "BUMP YOU UP" TO THE NEXT HIGHER LETTER GRADE!**

No "extra work" can make up for your grades at the end of the semester. However, opportunities for bonus points may be available, in the form of more challenging questions on the exams or course-related activities I assigned in class.

Grade	Cutoff
A	450
B	400
C	350
D	300
F	Below 300

Any dispute over grades must be made *in writing and within one week* of the day the exam/assignment was returned to you. Your written appeal must include the original,

graded assignment, and reasons for disputing the grade. Also, note that I may choose to re-grade the assignment in its entirety, which could result in a raising or *lowering* of the grade.

It is far more productive studying before exams than haggling for the points afterwards. However, if you do not understand why an answer is incorrect and want to know how to improve for future exams or assignments, I am happy to discuss them with you.

#### SUBMISSION OF ASSIGNMENTS

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Detailed instruction on assignments (including the format and media in which to submit them) will be distributed in class and and/or via the course Web site. No late assignments will be accepted.

#### MAKE-UP POLICY

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Exams must be taken in class at the scheduled time. It is your responsibility to make arrangements to attend exam sessions. Religious reasons and verifiable medical or other emergencies brought to my attention *before* the exam are the only exceptions to this policy. See "Assessments" section for more details.

#### EMAIL COMMUNICATIONS

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When emailing me, please address it to [Dr.Wu.UNT@Gmail.com](mailto:Dr.Wu.UNT@Gmail.com). Put the course number at the beginning of the subject line, followed by a dash, and then a brief description of the subject matter in a few words, e.g., "BCIS 4630 – My Dog Hacked My Computer". Emails sent to my regular COBA email address could get lost in the various emails I receive daily and IT'S VERY LIKELY I WON'T REPLY TO THEM.

#### RESPONSIBILITIES OF STUDENT

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- You are expected to attend class regularly. If you must miss a class, it is *your* responsibility to cover any missed material with one of your classmates.
- All work completed outside of class must be typed (word processed) and use proper screen captures or non-hand drawn diagrams.
- The professionalism of your work will count towards your grade. This includes spelling and grammar.
- Submit assignments before the due time.
- Hardware failure or inaccessibility is not a valid excuse for late work. This means that if the computer eats your assignment, or if the labs are full, you will not be excused from handing in an assignment on time.
- Missed exams receive a grade of zero.
- You must inform me of any special circumstances that might prevent you from completing course requirements on time.

#### PROFESSIONALISM

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The College of Business Administration is a professional school and one purpose of the college is to educate future managers and corporate leaders on the types of professional behavior that is expected in corporate settings. Therefore, students will be expected to conduct themselves in a highly professional manner at all times. Specifically, students should:

- Be on time for class.

- Be respectful toward faculty, tutors, graders, and fellow students.
- Display tolerance toward varying viewpoints and differences in values.

Violations of professionalism and any disruptiveness will be result in the reduction of one letter grade for every violation. The professor will determine such violations, but will give you one oral warning prior to reducing your grade for unprofessional behavior.

**Cell phones and pagers must be set to vibrate or turned off during class.** Any student whose phone rings or whose pager beeps may be asked to leave for the remainder of the class. You must leave the classroom while you are answering the phone or page.

#### ACCEPTABLE STUDENT BEHAVIOR

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Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at [www.unt.edu/csrr](http://www.unt.edu/csrr).

#### ACADEMIC INTEGRITY

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This course adheres to the UNT policy on academic integrity. The policy can be found at <http://vpaa.unt.edu/academic-integrity.htm>.

#### DISABILITY & ACCOMMODATION

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Any student in this class who has a documented visual or physical impairment, hearing disability, or any other disability covered by the university's services for students with disabilities should contact me during the first week of class to discuss and arrange any instructional accommodations that may be necessary. Students who would like to serve as volunteer tutors, readers or note takers for students needing special assistance are encouraged to contact me during the first week of class.

TENTATIVE COURSE SCHEDULE

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Date	Topic(s)	Readings	Assigned	Due
1/19	Course overview			
	Introduction to security	Ch. 1		
1/26	Foundational concepts	Grams Ch. 1, 13		
2/2	Foundational concepts (cont'd)	Grams Ch. 4, 7, 9		
2/9	Networking	Ch. 2		
2/16	Networking (cont'd)			
	Crypto & PKI	Ch. 3		
2/23	Crypto & PKI (cont'd)			
3/1	<b>Exam 1</b>			
3/8	Sniffing	Ch. 12		
3/15	Scanning	Ch. 6		
3/22	<u>Spring break; no class</u>			
3/29	Malware 1	Ch. 10, 11		
4/5	Malware 2	Ch. 10, 11		

4/12	<b>Exam 2</b>			
4/19	Other Attacks	Ch. 5, 7, 9		
4/26	Wireless Security	Ch. 8		
	Incident Handling	Ch. 14, Grama Ch. 15		
5/3	Firewalls & IDSes	Ch. 15		
5/10	<b>Final</b>			

#### NOTES

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Chapter numbers refer to those in the Oriyano & Gregg book except when preceded by "Grama", which then refers to the Grama chapters.

Changes and adjustments to the schedule can often occur to accommodate guest speakers. Please stay tuned to course announcements.

This syllabus may be modified at the discretion of the instructor at any time. Students will be notified orally in class and/or via email. An updated printed/PDF version may also be provided.