

Course	ITM 5600 – Information and Communications Security																
Term	Fall I, 2009																
Instructor	Name: John Gray Phone: (618) 978-2407 Email: grayj@webster.edu																
Catalog Description	Students survey computer and information security topics, including threat techniques and protective techniques. Risk analysis, contingency planning, password techniques, encryption, network protocols, malicious code, trusted operating systems, and network security techniques are emphasized.																
Prerequisites	ITM 5000. This course is somewhat technical in nature although the management side will be stressed to the maximum extent possible.																
Course Level Learning Outcomes	After completing this course, students will: <ul style="list-style-type: none"> • know and understand the important technical and management terminology, concepts, principles, techniques, and theories related to the technical aspects of information and communications security management. • be able to effectively apply important technical and management concepts, principles, practices, techniques, and theories needed to critically analyze an organization’s information and communications security requirements. • be able to effectively apply important technical and management concepts, principles, practices, techniques, and theories needed to design and recommend appropriate security solutions. • be able to effectively apply important technical and management concepts, principles, practices, techniques, and theories needed to manage the implementation and on-going administration of recommended security solutions. 																
Materials	There are two books required: <i>Security in Computing, 4th ed.</i> ISBN: 0-13-239077-9, Prentice Hall, 2003, Charles P. Pfleeger. <i>The Cuckoo's Egg : Tracking a Spy Through the Maze of Computer Espionage</i> , ISBN: 0-7434-1146-3, November 1990, Clifford Stoll.																
Grading	a. Grading Scale: <table style="margin-left: 40px;"> <tr> <td>A</td> <td>93 - 100%</td> <td>A-</td> <td>90 - 92%</td> </tr> <tr> <td>B+</td> <td>87 - 89%</td> <td>B</td> <td>83 - 86%</td> </tr> <tr> <td>B-</td> <td>80 - 82%</td> <td>C</td> <td>70 - 79%</td> </tr> <tr> <td>F</td> <td>0 - 69%</td> <td></td> <td></td> </tr> </table>	A	93 - 100%	A-	90 - 92%	B+	87 - 89%	B	83 - 86%	B-	80 - 82%	C	70 - 79%	F	0 - 69%		
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	<p style="text-align: center;">b. Grading Criteria:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">- Class participation</td> <td style="width: 10%; text-align: center;">10%</td> <td>Attendance and participation in class discussions. Students are also required to bring in an article from newspapers, magazines, Internet news web sites, etc., that relates to computer security and lead a discussion on the article.</td> </tr> <tr> <td>- Article on Security Topic</td> <td></td> <td></td> </tr> <tr> <td>- Research Paper</td> <td style="text-align: center;">30%</td> <td>A research paper done on a topic pertaining to computer or network security. Minimum of 10 pages, double spaced. At least 5 sources must be researched and cited. Details will be provided the first night of class.</td> </tr> <tr> <td>- Mid-Term Exam</td> <td style="text-align: center;">30%</td> <td>Take home exam comprised of essay questions. More details as it approaches. At least one question will come from the book "The Cuckoo's Egg".</td> </tr> <tr> <td>- Final Exam</td> <td style="text-align: center;">30%</td> <td>Similar approach to mid-term exam.</td> </tr> </table> <p>Note: Assignments turned in after the identified date will be subject to a grade reduction of 5 points per day for each day they are late. If you are going to have difficulty meeting the assignments of Internet Research or either exam, please notify the instructor as early as possible. Early notification and coordination allow for more options.</p>	- Class participation	10%	Attendance and participation in class discussions. Students are also required to bring in an article from newspapers, magazines, Internet news web sites, etc., that relates to computer security and lead a discussion on the article.	- Article on Security Topic			- Research Paper	30%	A research paper done on a topic pertaining to computer or network security. Minimum of 10 pages, double spaced. At least 5 sources must be researched and cited. Details will be provided the first night of class.	- Mid-Term Exam	30%	Take home exam comprised of essay questions. More details as it approaches. At least one question will come from the book "The Cuckoo's Egg".	- Final Exam	30%	Similar approach to mid-term exam.
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Activities	<ul style="list-style-type: none"> • Short lectures • Facilitated discussion of assigned readings • Short, moderately complex cases and exercises • Research paper • Article Discussions • Midterm and final exams 															
Policy Statements: University Policies	<p>University policies are provided in the current course catalog and course schedules. They are also available on the university website and will be discussed the first night of class. This class is governed by the university's published policies. The following policies are of particular interest:</p> <p>Academic Honesty The university is committed to high standards of academic honesty. Students will be held responsible for violations of these standards. Please refer to the university's academic honesty policies for a definition of academic dishonesty and potential disciplinary actions associated with it.</p> <p>Drops and Withdrawals Please be aware that, should you choose to drop or withdraw from this course, the date on which you notify the university of your decision will determine the amount of tuition refund you receive. Please refer to the university policies on drops and withdrawals (published elsewhere) to find out what the deadlines are for dropping a course with a full refund</p>															

	<p>and for withdrawing from a course with a partial refund.</p> <p>Special Services If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this class so that these can be provided.</p> <p>Disturbances Since every student is entitled to full participation in class without interruption, disruption of class by inconsiderate behavior is not acceptable. Students are expected to treat the instructor and other students with dignity and respect, especially in cases where a diversity of opinion arises. Students who engage in disruptive behavior are subject to disciplinary action, including removal from the course.</p>
Course Policies	See the Grading and University policy sections in this syllabus.
Weekly Schedule	<p>Week 1 <u>17 Aug</u> Course Introduction Chapter 1: Is there a security problem in computing? Begin reading <i>The Cuckoo's Egg</i>. This book will be discussed during each class session. Also discussed during this class will be research paper topics.</p> <p>Week 2 <u>24 Aug</u> Chapter 8: Administering Security. Chapter 10: Privacy in Computing. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions.</p> <p>Week 3 <u>31 Aug</u> Chapter 11 Legal Issues in Computer Security Chapter 3: Program Security. Viruses, Trojan Horses, Worms, and other forms of Malicious Code. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions. Assign Mid-Term exam.</p> <p>Week 4 <u>7 Sep</u> Return Mid-Term exam. Chapter 4: Protection in general-purpose Operating Systems Sections 4.1, 4.3, 4.4, 4.5. Chapter 5: Designing Trusted Operation Systems, sections 5.1, 5.2, 5.3, 5.4, 5.5 selected concepts only. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions.</p> <p>Week 5 <u>14 Sep</u> Chapter 6: Data Base Security.</p>

	<p>Chapter 7: Security in Networks & Distributed Systems. A handout will be given the night of class as an additional resource. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions.</p> <p>Week 6 <u>21 Sep</u> Chapter 7: Security in Networks & Distributed Systems. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions.</p> <p>Week 7 <u>28 Sep</u> Chapter 2: Basic Encryption & Decryption, sections 2.1, 2.2, 2.7, 2.8 Note: Concentrate on the concepts being introduced and don't worry about the mathematics involved. A handout will be given the night of class as an additional resource. Discussion on <i>The Cuckoo's Egg</i>. Student article discussions. Assign Final Exam</p> <p>Week 8 <u>5 Oct</u> Return Final Exam Chapter 11 Ethical Issues in Computer Security. Student article discussions.</p> <p>Week 9 <u>12 Oct</u> Research assignments are due NLT this date. Final student article discussions.</p>
<p>Additional Information</p>	<ul style="list-style-type: none"> • All quizzes and exams are open book, open notes • SUPPLEMENTAL READINGS: Students may obtain information from a number of sources to assist in completing your research project. Typical sources of information are the Scott AFB library, your local library, computer trade journals and magazines, the Internet, previously used Webster textbooks, as well as other readings. Additional guidance may be sent out via email. • COMPUTER REQUIREMENTS: Final research materials must be typed (either '1.5' or 'double' spaced) using the Times New Roman or Arial character font, with 12 point size for the body of the document.

ITM 5600 Research Paper Guidelines

1. Writing Style: Follow the APA guidelines per Webster at Scott policy. This is not an English class. However, papers should be written to a level commensurate with graduate level writing skills. A few minor edits will not affect your grade. Major problems to include misspelled words will affect your grade. Have a proofreader.
2. Paper Layout:
 - The student may choose any basic outline format that they would like to use. Use other research or white papers to get ideas.
 - As a minimum, each paper must have:
 - **A Cover Page**,
 - Information to include: Title, your name, date (Month & Year), “In partial fulfillment of the requirements for the completion of COMP 5200” and “A research white paper Presented to John Gray Webster University.”
 - **A Table of Contents (TOC)**
 - **Subject Headings** - as many as required.
 - Subordinate subject headings as appropriate.
 - **Bibliography** - at least 5 sources.
 - Appendices as needed.
3. Other general requirements:
 - The report should have 1” margins on Top and Right side. The bottom margin should be 1” but can be adjusted to avoid dangling headers or titles. The left margin should be 1.25” to make the binding easier.
 - Be double-spaced for easy reading and annotations. Any lists or bullet type statements can be single-spaced.
 - Be written in 11 or 12 pitch. If tables are used, the pitch can be adjusted smaller to allow the table to fit on one page.
 - The papers will use Portrait style page setup. Any landscaped pages will be included such that the bottom of the landscaped page will be to the right as viewed by the reader.
 - Have a small soft-sided report cover. Normal 3-ring binders are overkill. Go to Wal-Mart or the BX and get a generic report cover. GBC binding is also acceptable.
 - There are no specific total page requirements. However, anything less than 10 pages will be suspect as to level of effort put into a Masters level report and anything over 30 will be overkill. This is double-spaced text so a 10-30-page report is actually a 5-15-page report. The page count does NOT include the title page, the TOC or the bibliography. Any titled pages used specifically as separation pages with no other content will not be counted either. Hence, separation pages are not required nor encouraged.

TECHNOLOGY CONCEPTS:
WHAT TECHNOLOGY CAN AND CANNOT DO TO SUPPORT
INFORMATION SECURITY

A research paper

Presented to

John Gray

Webster University

In Partial Fulfillment

Of the Requirements

For ITM 5600

By

Ima Student

October 2008