COURSE DESCRIPTION

An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding 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.

The purpose of the course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of Security activities, methods, methodologies, and procedures. Coverage will include inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing functions.

COURSE MATERIALS

Textbook and Resources:


CLASS ORGANIZATION & ADMINISTRATION

Attendance:

The Instructor expects your attendance at each and every class; however, actual attendance is up to the student. Grade performance is a demonstrated function of attendance, preparation and participation. You can get behind very easily by skipping classes, resulting in a poor understanding of the material, which will show up as a poor grade for the class. Any class sessions missed by the student are the student's responsibility to make up, not the instructor's. Late arrival that causes disruption, early departure that causes disruption, excessive conversation among students (a disruption in its own right), inappropriate use of electronic devices that cause disruptions, and other actions that disrupt the classroom are unacceptable.
Guidelines for submitting work:
All homework assignments are to be submitted through the assignment tab in Blackboard. Assignments will be posted on Blackboard. Late assignments will not be accepted!

Electronic Devices:
In order to minimize the level of distraction, all watches, beepers and cellular phones must be on quiet mode during class meeting times. Students who wish to use a computer/PDA for note taking need prior approval of the instructor since key clicks and other noises can distract other students. Recording of lectures by any method requires prior approval of the instructor.

Email Messages:
Remember to put the course name (MIS345) in the subject field of every e-mail message that you send me. E-mail messages that are missing this information are likely to be automatically redirected to a folder the instructor will seldom check, and it is not our responsibility to respond to these.

General Assignments:
Two-Three general assignments are due throughout the term. Details and due dates for these assignments will be posted on the blackboard. Each of these assignments is weighted equally.

Late assignments will not be accepted! You may turn the assignment in early. Assignments are submitted via blackboard (digital dropbox) unless specified otherwise.

Semester Project:
A group project will be performed with delivery during the last week of class. Details of this group project assignment will be available on blackboard later.

Internet Services Account:
pegasus.rutgers.edu is the name of the server used to provide students with an e-mail account and space for a Web page. Accounts may be applied for online. You are responsible for knowing and following all policies that are posted on the RUCS site.

If you already have established a pegasus account prior to registering, make sure that your account is active and that you know your password before the second week of class.

Your e-mail address on pegasus will be userid@pegasus.rutgers.edu and the address of your Web page will be http://www.pegasus.rutgers.edu/~userid.

More instructions for creating a web page are available at http://oit.rutgers.edu/websupport.html

Computer Labs:
Please be aware of and follow all computer lab user policies. Details on the location and time for computer labs will be posted/updated on the schedule later.

Quizzes:
Quizzes will be given throughout the semester, approximately split over each third of the semester. Quizzes will always cover the material covered since the last Quiz or Exam. The quizzes will be combinations of objective and short-answer questions. Makeup quizzes will not be given. However, the lowest quiz grade will be dropped. Any class material missed by the student is the student's responsibility to acquire.
Exams:
There will be one (1) examination – a final exam. The content will come from the text and other material presented in lecture sessions. Note that material presented in class will supplement the assigned reading. Therefore, class attendance and good note taking are essential tactics for success.

There will be no make-up examinations. It is the student’s responsibility to arrange for an excused absence before the exam. A grade of zero will be assigned if the exam is missed without an excused absence.

FINAL GRADE ASSIGNMENT

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Quizzes (Top 2 scores will be considered)</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Homework’s</td>
<td>15%</td>
</tr>
<tr>
<td>Semester Project</td>
<td>20%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: There will be no extra credit assignments, quizzes, or exams. Therefore, please plan to put in your best effort right from the start.

<table>
<thead>
<tr>
<th>Grade Evaluation (Tentative):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A,A-</td>
<td>90% - 100%</td>
</tr>
<tr>
<td>B+,B,B-</td>
<td>89% - 75%</td>
</tr>
<tr>
<td>C+,C,C-</td>
<td>74% - 60%</td>
</tr>
<tr>
<td>D</td>
<td>60% - 50%</td>
</tr>
<tr>
<td>F</td>
<td>49% or below</td>
</tr>
</tbody>
</table>

Evaluation criteria explained:
Students are expected to be active participants in each class meeting. Full credit for participation will be extended to students who regularly ask questions, share observations, and contribute relevant personal experiences.

The assignments will consist of a number of individual in class and homework tasks. Students will be given specific guidance on the amount of collaboration permitted for each assignment. Unless otherwise specified, all assignments are individual assignments, and thus must be completely the original work of the student submitting them and include proper citations to the published work of others.
| Week #1  | Sep 6  | Introduction to the course  
General Security Concepts and Principles and  
Organizational Security |
|---------|--------|-----------------------------|
| Week #2 | Sep 13 (HW1 assigned) | Role of people in security  
Cryptography |
| Week #3 | Sep 20 (HW1 due) | Cryptography |
| Week #4 | Sep 27 (Quiz 1) | Public Key Infrastructure |
| Week #5 | Oct 4 | Authentication and Access Control |
| Week #6 | Oct 11 (HW2 assigned) | Firewalls, Intrusion Detection Systems & VPNS  
Types of Attacks and Malicious Software |
| Week #7 | Oct 18 (HW2 due) | Host and Data Security  
Application Security |
| Week #8 | Oct 25 (Quiz 2)  
(HW3 assigned) | Wireless Security |
| Week #9 | Nov 1 (Project Outline Due) | Project Work Session  
Incident and Disaster Response |
| Week #10| Nov 8 (HW3 due) | Planning and Risk Management |
| Week #11| Nov 15 | Attack Trees  
Legal Issues and Data Privacy |
<p>| Week #12| Nov 22 (Quiz 3) | Google Searching and Hacking |</p>
<table>
<thead>
<tr>
<th>Week #13</th>
<th>Nov 27</th>
<th>Project Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week #14</td>
<td>Dec 6</td>
<td>Review</td>
</tr>
<tr>
<td></td>
<td>Dec 13</td>
<td>Reading period (no class)</td>
</tr>
<tr>
<td>Week #15</td>
<td>Dec 20</td>
<td>Final Exam</td>
</tr>
</tbody>
</table>

**White Hat Agreement**

**And Code of Ethics**

This is a working document that provides further guidelines for the course exercise. If you have questions about any of these guidelines, please contact the course instructor. When in doubt, the default action should be to ask the instructor.

1) The goal of the project is to search for technical means of discovering information about others with whom you share a computer system. As such, non-technical means of discovering information are disallowed (e.g., following someone home at night to find out where they live).

2) ANY data that is stored outside of the course accounts can be used only if it has been explicitly and intentionally published, (e.g. on a web page), or if it is in a publicly available directory, (e.g. /etc, /usr ).

3) Social engineering for information about individuals from anyone outside of the course is disallowed.

4) Impersonation, e.g. forgery of electronic mail, is disallowed.

5) If you discover a way to gain access to any account other than your own (including root), do NOT access that account, but immediately inform the course instructors of the vulnerability. If you have inadvertently already gained access to the account, IMMEDIATELY exit the account and inform the course instructors.

6) All explorations should be targeted specifically to the assigned course accounts. ANY tool that indiscriminately explores non-course accounts for vulnerabilities is specifically disallowed.

7) Using the web to find exploration tools and methods is allowed. In your reports, provide full attribution to the source of the tool or method.

8) If in doubt at all about whether a given activity falls within the letter or spirit of the course exercise, discuss the activity with the instructor BEFORE exploring the approach further.

9) You can participate in the course exercise only if you are registered for a grade in the class. ANY violation of the course guidelines may result in disciplinary or legal action.
Disability Statement:

Any student with a documented disability needing academic adjustments is requested to notify the instructor as early in the semester as possible, and must do so before the middle of the term. All discussions will remain confidential.

Academic Integrity Statement:

Here at Rutgers Business School, our goal is to ensure that our students have a solid foundation that is grounded in integrity and respect of basic ethical principles. Rutgers University, in conjunction with the RBS Committee, has established an Honor Code that states:

“I pledge, on my honor, that I have neither received nor given any unauthorized assistance on this examination (assignment).” (http://academicintegrity.rutgers.edu/integrity.shtml)

In the future, students may be required to write and sign the Honor Pledge on every major paper, examination and assignment. This Honor Pledge will not displace, modify or amend the standards and procedures set forth in the Rutgers University Code of Student Conduct, (http://judicialaffairs.rutgers.edu/university-code-of-student-conduct), but simply suggest a higher set of standards to which RBS students adhere.

Students are encouraged to study together and to work together on class assignments; however, the provisions for Academic Honesty will be strictly enforced in this class. Every University student is responsible for upholding the provisions of the Student Code of Conduct. The policy on academic integrity can be found at http://cat.rutgers.edu/integrity/policy.html. This is very important. Violations involving plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards will not be tolerated. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program. Refer to the policy for further details.

Frequently students will be provided with “take-home” exams or exercises. It is the student’s responsibility to ensure they fully understand to what extent they may collaborate or discuss content with other students. No exam work may be performed with the assistance of others or outside material unless specifically instructed as permissible. If an exam or assignment is designated “no outside assistance” this includes, but is not limited to, peers, books, publications, the Internet and the WWW. If a student is instructed to provide citations for sources, proper use of citation support is expected. Additional information can be found at the following locations.

http://www.apa.org/journals/webref.html
http://www.lib.duke.edu/libguide/citing.htm
http://bailiwick.lib.uiowa.edu/journalism/cite.html
http://www.cas.usf.edu/english/walker/papers/copyright/ipdummie.html
http://www.indiana.edu/~wts/wts/plagiarism.html
http://plagiarism.phys.virginia.edu/links.html
http://www.arts.ubc.ca/dao/plagiarism.htm
http://alexia.lis.uiuc.edu/%7ejanicke/plagiary.htm
http://webster.commnet.edu/mla/plagiarism.htm
http://www.virtualsalt.com/antiplag.htm
http://www.engr.washington.edu/~tc231/course_info/plagiarism.html
http://quarles.unbc.edu/lsc/rpplagia.html