GENERAL INFORMATION

Subject Coordinator: Associate Professor Yi Mu
Telephone Number: 02 4221 5228
Email: ymu@uow.edu.au
Location: 3.218

Associate Professor Mu’s Consultation Times During Session
Day: Monday
Time: 13:30-15:30
Day: Wednesday
Time: 13:30-15:30

Subject Organisation
Session: Spring Session, Wollongong Campus
Credit Points: 6
Contact hours per week: 2 hrs Lecture + 1hr tutorial
Lecture Times & Location: Mon 16:30 18:30 35.G45
Tutorial Day, Time and Location can be found at: http://www.uow.edu.au/student/sols/timetables/index.html

Students should check the subject’s web site regularly as important information, including details of unavoidable changes in assessment requirements will be posted from time to time. Any information posted to the web site is deemed to have been notified to all students.

Content
This subject provides a survey of network security technologies, and explores them in practice. This includes but is not limited to, network-based threats, security failure in cryptographic and network protocols, authentication servers, certificates and public-key infrastructures, security provisions in communication protocols and standards, electronic mail security, firewalls and intrusion detection systems.

Objectives
At the completion of this subject students should be able to:
  i) understand network vulnerabilities and network-based attacks
  ii) apply a range network security technologies such as firewalls and intrusion detection systems for securing networks
  iii) use appropriate security standards and network security tools to enhance security of a distributed system
  iv) evaluate, compare and recommend network security applications and systems.

Attendance Requirements
It is the responsibility of students to attend all lectures/tutorials/labs/seminars/practical work for subjects for which you are enrolled.
It should be noted that the amount of time spent on each 6 credit point subject should be at least 12 hours per week, which includes lectures/tutorials/labs etc.

Satisfactory attendance is deemed to be attendance at approximately 80%* of the allocated contact hours. Attendance rolls may be kept for lectures, TUTORIALS and laboratories. If you are present for less than 80%* you need to apply for special consideration, otherwise a fail grade may be recorded.

Students MUST attend their allocated tutorial unless they have the written permission of the subject coordinator.

Method of Presentation
Lecture notes and other subject resources will be available from the subject’s E-Learning site at http://www.uow.edu.au/lol. ey will also be placed in the /share/cs-pub/368 directory accessed through banshee.

Lecture Schedule
A proposed Lecture schedule for the subject is as follows:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Assessment Tasks Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction, Symmetric key cryptography.</td>
<td>Assignment 1 out</td>
</tr>
<tr>
<td>2</td>
<td>Asymmetric key cryptography, PKI.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>PKI, Email security.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Authentication systems, Kerberos.</td>
<td>Assignment 1 due (start)/Assignment 2 out</td>
</tr>
<tr>
<td>5</td>
<td>Kerberos, IPSec.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>IPSec, IPSec: IKE.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>VPN, SSL/TLS.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SSH, Comparisons.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Wireless security.</td>
<td>Assignment 2 due (end)/Assignment 3 out</td>
</tr>
<tr>
<td>10</td>
<td>Wi-Fi Protected Access (WPA), Mobile IP.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Mobile IP, Design of End-to-End protocols</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Design of End-to-End protocols, Firewalls.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Revision</td>
<td>Assignment 3 due (start)</td>
</tr>
</tbody>
</table>

Subject Materials
Textbooks:
The text book for this course is:
It will be available to purchase from the University Bookshop. The following reference books could also be useful.

These readings/references are recommended only and are not intended to be an exhaustive list. Students are encouraged to use the library catalogue and databases to locate additional readings

Assessment
This subject has the following assessment components.

<table>
<thead>
<tr>
<th>Assessment Items &amp; Format</th>
<th>Percentage of Final Mark</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments (Three): Programming, short answers, protocol design.</td>
<td>40% (Split as 10,20,10)</td>
<td>Weeks 4, 9 and 13 (See the timetable).</td>
</tr>
<tr>
<td>Final exam</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

Notes on Assessment
Unless otherwise notified by the subject coordinator, all written assignments must be submitted electronically. All assignments are expected to be completed independently. Plagiarism may result in a FAIL grade being recorded for that assignment.
Submission of Assessment Items
Assignments are to be submitted electronically by the due time (using “submit” via banshee). Email submissions are unacceptable.

Return of Assessment Items
Electronic submission assignments will not be returned to students. Students will receive their results, and possibly comments, by email.

Penalties for late submission of Assessment Items
Late assignments without granted extension will be marked but the mark awarded may be reduced by 25% for each day late. Assignments will not be accepted four or more days late.

Special consideration
The School recognises that it has a responsibility to ensure equity and consistency across its subjects for all students. Sometimes, in exceptional circumstances, students need to apply for special consideration in order to complete all assessable work. The University applies strict criteria to the granting of special consideration. Before applying for special consideration students should carefully read the University’s policy. The policy can be found at: http://www.uow.edu.au/handbook/courserules/specialconsideration.html

As an example: If a student requires an extension of time for the completion of an assignment this may be granted in certain circumstances. A request for an extension must be made to the Subject Coordinator via SOLs before the due date.

Electronic submission of Assessment Items
Assignments are to be submitted electronically by the due time. Email submissions are unacceptable.

Remarks on Assessment
☐ The due dates are tentative. They are subject to change.
☐ It is the student’s responsibility to keep a backup of his/her work. There will be no extension granted due to any circumstance related to the failure of students’ own equipment.
☐ Assignments may be scanned with a plagiarism detector.
☐ Students who copy an assignment may receive zero for that assignment. This also covers assignments which may be the product of community effort by several students. Working together is acceptable, but the final coding should be the work of the individual student, as assessment is a measure of your ability. All students involved in plagiarism will have zero marks for that assessment task.
☐ An extension of time for the completion of an assignment may be granted in certain circumstances. A request for an extension must be made to the Subject Coordinator before the due date (via SOLS and via email to the Subject coordinator). Supporting documentation must accompany the request for extension. The Subject Coordinator has the right to determine whether the request can be granted or not.
☐ The minimum requirements to pass this course are as follows:
☐ For the assignments: At least 30% AND a submission made for all assignments. The latter condition can be waived given suitable justification (such as medical certificates).
☐ For the exam: At least 40%

Scaling
Final results in this subject may be scaled. The scaling method that will be used in this subject is as follows.
If E is the student exam mark, and A is the student assignment mark, the student final mark will be determined as follows:

\[
\begin{align*}
\text{if } E &\geq 40\% \text{ of the maximum exam mark: then student final mark is } E + A; \\
\text{if } 35\% &\leq E < 40\% \text{ of the maximum exam mark: then student final mark is } \min\{E+A, 47\} \\
\text{if } E &< 35\% \text{ of the maximum exam mark: then student: final mark is } \min\{E+A, 42\}
\end{align*}
\]

Additional Information
Students must refer to the Faculty Handbook or online references which contains a range of policies on educational issues and student matters.
**Supplementary Exams**

Supplementary Exams will be dealt with in accordance with Special Consideration Policy (http://www.uow.edu.au/handbook/courserules/specialconsideration.html) 6.2 Timing of Supplementary Exams.

While the School normally grants supplementary exams when the student does not sit the standard exam for an acceptable reason, each case will be assessed on its own merit and there is no guarantee a supplementary exam will be granted. If a supplementary exam is granted you will normally be notified via SOLS Mail the time and date of this supplementary exam. You must follow the instructions given in the email message.

Please note that if this is your last session and you are granted a supplementary exam, be aware that your results will not be processed in time to meet the graduation deadline.

**Plagiarism**

When you submit an assessment task, you are declaring the following:

1. It is your own work and you did not collaborate with or copy from others.
2. You have read and understand your responsibilities under the University of Wollongong's policy on plagiarism.
3. You have not plagiarised from published work (including the internet). Where you have used the work from others, you have referenced it in the text and provided a reference list at the end of the assignment.
4. Plagiarism will not be tolerated.
5. Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University’s policies on Plagiarism as set out in the Calendar under University Policies, and in Faculty handbooks and subject guides. Plagiarism has led to the expulsion from the University.

**Student Academic Grievance Policy**

The School aims to provide a fair, equitable and productive learning environment for all its students. The Student Academic Grievance Policy seeks to support the achievement of this goal by providing a transparent and consistent process for resolving student academic grievances.

Any student who has a grievance over a result should obtain a Faculty of Informatics Appeal Against Decision or Action Affecting Academic Experience form from the Informatics Student Enquiry Centre or http://www.uow.edu.au/content/groups/public/@web/@inf/@faculty/documents/doc/uow017433.pdf. The student should firstly take the form to the marker/lecturer to discuss the matter and, if the student is still not satisfied, s/he should take the next step as outlined on the form.

Once the grievance has been considered by the Faculty, if the student still feels the situation has not been fully resolved s/he may consult the Dean of Students. However, the Dean of Students can have no input into the academic judgement of the lecturer and can only review the grievance to ensure proper procedure has been followed.

For more information, please consult the UOW policy in full at http://www.uow.edu.au/handbook/courserules/studacgrievpol.html
This outline should be read in conjunction with the following documents:

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