The Institute of Telecommunications Management seeks to develop quality and socially responsible professionals for the telecommunications industry by providing a quality education and a foundation for life-long learning.

**General Program Learning Goals** (goals covered by this course are indicated):

- Graduates should be able to communicate effectively verbally and in writing.
- Graduates should solve strategic problems with a creative and innovative approach.
- Graduates should demonstrate leadership skills demanded of a person in authority.
- Graduates should possess a global economic and management perspective.
- Graduates should possess the necessary skills and values demanded of a true professional.

**Instructor:**

Dr. Kuang-Chiu Huang, PhD (黃光渠)
Office telephone: 2757575 ext 53229
Office: 62509
kuangchi@mail.ncku.edu.tw
Friday 10:00 - 11:00 A.M. & or by appointment
http://moodle.ncku.edu.tw/

**TA Information:**

Office telephone: 2757575 ext 53271 ext 1071
Office: 62x07
Email:

**Course Description:**

This course enables the graduate students, concentrating on telecommunications, to analyze, evaluate and design suitable policy for network security from both technological and managerial perspectives. Therefore, the content covers the engineering oriented approach to discuss system architecture of wired/ wireless network, cryptography and business oriented probing into network administration, planning, policy, development, maintenance, and management. To enhance learning motivation and make the course have some fun, news about network security will be discussed each week, hand-on activities and several labs would be provided to enrich students’ exposure on the management of network security. In addition, mathematical background would not be emphasized and would be provided where is needed. (It means that students don’t need to worry too much about math of the course)
Course Objectives:

After learning from news discussion, class lectures, hand-on, labs, group projects, problem solving skills and case study of network security, students are enabled to apply the knowledge to compare, analyze, evaluate, and design suitable network security policy to balance protection and convenience.

Content Summary:

Textbook content would be covered

- Security Fundamentals
  - Security is the result of risk assessment and management
  - Properties of a good network environment
  - Computer security fundamentals
- The Threats
  - Threats to network security
  - Techniques and technology for security management
  - Managing system protection
  - Cryptography and its applications
  - Wireless security
- The Management and Policy Side of Security
  - Network design and project management
  - Security management
  - Legal and ethical issues

Textbook Information:

- Required textbook:

- Other reference books:

Course Requirement:

Grade for the course will be based on labs, quizzes, a group based poster, group project report, midterm and final exams, and class participation.

Grading Policy:
### General Learning Goals

<table>
<thead>
<tr>
<th></th>
<th>Participatio &amp; quiz</th>
<th>Homework</th>
<th>Term Project</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMU</td>
<td>✔ Oral Commu./ Presentation 30</td>
<td>✔ Written Communication 10 25</td>
<td>✔ 20 25</td>
<td>✔ 20</td>
</tr>
<tr>
<td>CPSI</td>
<td>✔ Creativity and Innovation 10 10 10 5</td>
<td>✔ Problem Solving 20 25</td>
<td>✔ 20 25</td>
<td>✔ 25</td>
</tr>
<tr>
<td>LEAD</td>
<td>✔ Leadership &amp; Ethic 10</td>
<td>✔ Analytical Skills 20 25</td>
<td>✔ 20 25</td>
<td>✔ 25</td>
</tr>
<tr>
<td>GLOB</td>
<td>✔ Global Awareness 20 10 15 10</td>
<td>✔ Social responsibility</td>
<td>✔ 15</td>
<td></td>
</tr>
<tr>
<td>VSP</td>
<td>✔ Values, Skills &amp; Profess. 10 10</td>
<td>✔ Information Technology 20 25</td>
<td>✔ 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✔ Management Skills 10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

**Academic Honesty:** In our undergraduate program academic integrity is extremely important. Because of this, any act of academic dishonesty discovered during the exams will be taken seriously, and will be referred to the department committee on undergraduate academic dishonesty for appropriate action, including a falling grade in the course and possible dismissal from the university.

**Important:**

Homework and labs are due next week (Students are encouraged to discuss with their peers but they have to finish their homework, individually.) All homework and lab report have to be submitted through the new digital teaching platform.

Group project contains two parts: One is a written report and the other is an oral presentation. Both report and PPT have to be submitted through the new digital teaching platform.