**CHIANG MAI UNIVERSITY**

**Bachelor of Science (Software Engineering)**

**College of Arts, Media and Technology**

**1st Semester / Academic Year 2020**

**Course SE 361** **(953361)** Computer Network and Protocols 3 (3/3 – 0 – 0/0) credits

Room 217 CAMT Section 701, Online Class

**Prerequisite:**   
SE 211 (953211) Computer Organization, **OR**  
ANI 102 (951102) Introduction to Computer and Animation

**Course Description**

The course provides an introduction to fundamental concepts in the design and implementation of computer communication networks, their protocols, and application. Topics to be covered include: reviews on data communication, overview of computing network, data link technologies, internet model, addressing, transport, and applications.

**Instructor**

Phudinan Singkhamfu, Ph.Dphudinan.s@cmu.ac.th   
Office Room 419

**Course Materials**

**Text Recommended**

* Forouzan, B. A. (2007), **Data Communications and Networking**, McGraw-Hill, Inc.
* Forouzan, B. A. (2002), **TCP/IP Protocol Suite**, McGraw-Hill, Inc.

**Course Website**Please check the course announcement all homework assignments will be post at the following website: https://www.facebook.com/groups/953361.Comp.Network.1.2020/

**Course Contents**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Clip Number** | **Topics** | **Hours** | **Course Activities** | **Lecturer** |
| 1 | Course Outline, and Reviews on Data Communication | 3 | Lecture and Discussion | Phudinan |
| 2 | Introduction and Historical - Background of Computer Networking | 3 | Lecture and Discussion | Phudinan |
| 3 | Internet Model and Transmission Media | 3 | Lecture and Discussion | Phudinan |
| 4 | Datalink Layer Technologies | 3 | Lecture and Discussion | Phudinan |
| 5 | Internet Protocol (IP) and its Supporting Protocols | 6 | Lecture, Discussion and Tool | Phudinan |
| **Midterm Examination** | | | | |
| 9 | Routing and Routing Algorithms | 4.5 | Lecture and Discussion | Phudinan |
| 10 | Transport over IP | 3 | Lecture and Discussion | Phudinan |
| 11 | Application Layer | 7.5 | Lecture, Discussion, and Tool | Phudinan |
| 12 | Internet Security | 3 | Lecture and Discussion | Phudinan |
| **Final Examination** | | | | |
| **Total 45 Hours** | | | | |

*Note: Some topics of the contents might be subject to change or add. The notice will be announced in the course website.*

**Course Work**

* Lectures
* Assignments
* Quizzes
* Online midterm and final examinations

**Grading System**

* Attendance and Class Participation ***10%***
* Assignments  ***20%***
* Midterm Examination ***35%***
* Final Examination  ***35%***

**Total** **100%**

**Course Policies**

* Any late submissions for the assignment and coursework will **NOT** be accepted.
* The student who does not take the final exam will fail this course.
* The evaluation is based on a *Criterion-referenced*. The letter grades will be A, B+, B, C+, C, D+, D, or F.
* The following letter grades may also be given:
* “I” Incomplete
* “P” In progress
* “W” Withdrawn
* I have right to adjust the grading system and course content depend on how the students perform.
* Use of cell phone or laptop in the classroom is permitted only for taking note and working on course-related activities.
* No smoking in the classroom.

**8. Cheating Policies**

Academic misconduct, a.k.a., cheating, is considered as a very serious offence in software engineering classes. It is mainly due to that, it devalues the effort of honest students. Therefore, all suspected cases will be aggressively pursued, and confirmed cases will be punished to the full extent permitted by the university.

Policy for cheating in software engineering courses

* First offense for cheating on
  + An exam (or quiz): zero on the exam (or quiz)
  + An assignment: zero on the assignment and 10 points subtracted from final course total.
* Multiple instances of cheating of any kind: failure in the course.