

01204312 Probability and Statistics

1st semester 2019 (July – November) 3 Credits

Section 1

Instructor Information

Instructor: Associate Prof. Anan Phonphoem, Ph.D. (รศ.ดร.อนันต์ ฝนเพิ่ม)
 Office: Building 15, Room 407 (and Room 710: IWING Lab)
 Office Hours: Monday 12:00 – 2:00 PM or by appointment
 Tel. No.: 02-7970999 Ext. 1428
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Instructor Information

Instructor: Assistant Prof. Supaporn Erjongmanee, Ph.D. (ผศ.ดร.สุภาพร เอื้อจงมานี)
 Office: Building 15, Room 424
 Office Hours: By appointment
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Course Information

Lecture: Section 1: Thu 1:30 – 4:30 PM (Room 203)
 Class URL: <http://www.cpe.ku.ac.th/~anan>
 Prerequisite:
 Course Description: Probability; conditional probability and independence of events; random variables; distribution and density functions; functions of one random variable; multiple random variables; operations on one and multiple random variables; laws of large numbers; central limit theorem; random processes; basic statistics; parameter estimates; hypothesis testing; application to computer engineering problems.
 Text Book:

1. “Probability and Stochastic Processes: A Friendly Introduction for Electrical and Computer Engineers,” Roy D. Yates and David J. Goodman, John Wiley & Sons, Inc., **Second Edition, 2005**, ISBN 0-471-45259-9
2. “Probability and Statistics for engineers and scientists,” Anthony Hayter, **Third Edition, 2007**, ISBN 0-495-10878-2
3. “Modern Mathematical Statistics with Applications,” J.L. Devore and K.N. Berk, Springer, **Second Edition, 2012**, ISBN 1-461-40390-1
4. “Probability, Statistics, and Random Processes for Electrical Engineering,” A. Leon-Garcia, Pearson, **Third Edition, 2008**, ISBN 0-131-47122-8

 Supplement:

1. “Probability, Random Variables, and Stochastic Processes,” 3rd Edition, Athanasios Papoulis, McGraw-Hill
2. “Statistics,” D. Freedman, R. Pisani, and R. Purves, W.W. Norton & Company, **Fourth Edition**, ISBN 0-393-93043-2

Grade

Midterm Exam:	40 %
Final Exam:	40 %
Homework & Assignment:	10 %
Project:	10 %

If ((Attendance Score \geq 85%) and (You are the 1st rank for the particular grade))

Then (one stop adjustment automatically) /* e.g. “C+” becomes “B” */

Grading Policy

- Your Grade is based on the overall class performance. However, the cumulative score **below 50%** is considered as **fail (F)**.
- An “**F**” grade will be given to any form of cheating (for all parties).
- Make-up exam will only be provided for restrict circumstances such as severe illness.
- You are not allowed to take a midterm exam if you miss more than 2 lectures and also not allowed to take final exam if you miss more than 4 lectures.

Attendance Score

Description (Before Midterm: Aj. Anan)	Score (0 – 1)
0 – 15 min	1
15.01 – 90 min (Before break)	0.5
> 90 min (After break)	0
If missing class	
• with “letter of leave of absence in advanced”	0.5
• without “letter of leave of absence in advanced”	0

Assignment Policy

- All hard-copy assignments must be handed in at the beginning of the class (> 15 min. is considered late). For soft-copy will be timed by the local time stamp.
- No Late assignment will be graded.
- No credit for plagiarism and considered as cheating.
- No credit for copying homework or assignment (for all copies) and considered as cheating.

Tentative Course Schedule

Week	Description	
1	Orientation and Intro to Prob. Theory	Anan Phonphoem
2	Conditional Prob, Independent	Anan Phonphoem
3	Discrete Random Variable I	Anan Phonphoem
4	Discrete Random Variable II	Anan Phonphoem
5	Multiple Discrete Random Variables	Anan Phonphoem
6	Continuous Random Variable	Anan Phonphoem
7	Mixed Random Variables	Anan Phonphoem
8	Multiple Continuous Random Variables	Anan Phonphoem
	Midterm Exam	
9	Introduction to Statistics	Supaporn Erjongmanee
10	Probability vs. Statistics I	Supaporn Erjongmanee
11	Probability vs. Statistics II	Supaporn Erjongmanee
12	Statistical Estimation	Supaporn Erjongmanee
13	Confidence Interval	Supaporn Erjongmanee
14	Hypothesis Testing	Supaporn Erjongmanee
15	Project Presentation	Anan Phonphoem & Supaporn Erjongmanee
	Final Exam	