

01204528 Queueing Theory

1st semester 2010 (June – September)

Instructor Information

Instructor: Associate Prof. Anan Phonphoem, Ph.D. (รศ.ดร.อนันต์ พลเพิ่ม)
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Course Information

Lecture: Tue 6 – 9 PM (Room 203)
Class URL: <http://www.cpe.ku.ac.th/~anan>
Prerequisite: (Recommended 01204213)
Course Description: Single server and multi-server: Exponential, Erlang, constant and general form of input and time service; limited source, dependent service, consumer and producer rate and service priority.
Text Book: “Queueing Systems,” Volume I: Theory, Leonard Kleinrock, A Wiley-Interscience Publication, 1975, ISBN 0-471-49110-1
Supplement: 1. “Fundamentals of Queueing Theory,” 3rd Edition, Donald Gross and Carl M.Harris, A Wiley-Interscience Publication, 1998, ISBN 0-471-17083-6
2. “Introduction to Queueing Systems,” Sanjay K.Bose, Kluwer/Plenum Publishers, ISBN 0-306-46734-8
3. “Data Networks” 2nd Edition, Demitri Bertsekas and Robert Gallager, Prentice-Hall, 1992, ISBN 0-13-201674-5

Exam Date

Midterm Exam: Tue, Aug 10 (6 -9 PM)
Final Exam: Tue, Oct 5 (6 – 9 PM)

Grade

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

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.
- More than 20 min. late is considered as 0.5 class attendances and more than 40 min. late is considered as missing one lecture.

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	Class Date	Note	Description
1	Tue, June 8		Introduction to Queueing Theory
2	Tue, June 15		Probability Theory Review
3	Tue, June 22		Markov Chains
4	Tue, June 29		Birth-Death Queueing Systems
5	Tue, July 6		Classical Queueing System: M/M/1
6	Tue, July 13		M/M/ ∞ , M/M/m and its family
	Tue, July 20	No Class	Graduation Ceremony
	Tue, July 27	No Class	Lent's Day
7	Tue, Aug 3		Special case of M/M/...
Tue, Aug 10 (6 -9 PM)			Midterm Exam
8	Tue, Aug 17		M/G/1 System
9	Tue, Aug 24		M/G/1 Queue with vacations and batch arrivals
10	Tue, Aug 31		G/M/m System
11	Tue, Sep 7		Multiaccess Communication
12	Tue, Sep 14		Queueing Theory in Research
13	Tue, Sep 21		Queueing Theory Applications
14	Tue, Sep 28		Project presentation
Tue, Oct 5 (6 – 9 PM)			Final Exam