



## Korea University International Summer Campus (KU ISC) 2022

*Embark on a unique summer*

June 28, 2022 ~ August 4, 2022

### ISC424 – Engineering Statistics

#### I . Instructor

Professor	:	Bara Kim
E-mail	:	bara@korea.ac.kr
Home Institution	:	Korea University
Class Time	:	8:40 am ~ 10:20 am
Office	:	Asan science building #519
Office Hours	:	MW 2:00 am ~ 3:15 am

#### II. Textbook

Required Textbook	:	R. Walpole, R. Myers, S. Myers and K. Ye. (2011). Probability and Statistics for Engineers, Ninth Edition. Pearson. (ISBN: 978-0-321-162911-1)
Recommended Additional Readings	:	Additional Readings and examples may be posted throughout the course.

#### III. Course Description and Objectives

This course covers probability, discrete random variables and probability distributions, continuous random variables and probability distributions, joint probability distributions, random sampling and data description, point estimation of parameters, statistical intervals for a single sample.

#### IV. Grading

Exam 1		30%
Exam 2		30%
Exam 3	:	30%
Assignments	:	5%
Participation	:	5%

- All exams are closed book.
- Students are allowed to bring a calculator during exams.
- Students must turn off their cell phones during exams.

**V . Class Outline** (subject to change)

Date	Topic	Chapter	Remarks
June 28 (Tue)	Orientation Day (no classes)		
June 29 (Wed)	Introduction; Probability	1,2	
June 30 (Thu)	Probability, Cont.	2	
July 1 (Fri)	Probability, Cont.	2	
July 4 (Mon)	Random Variables and Probability Distributions	3	
July 5 (Tue)	Random Variables and Probability Distributions, Cont.	3	
July 6 (Wed)	Mathematical Expectation	4	
July 7 (Thu)	Mathematical Expectation, Cont.	4	
July 11 (Mon)	Exam 1		
July 12 (Tue)	Some Discrete Probability Distributions	5	
July 13 (Wed)	Some Discrete Probability Distributions, Cont.	5	
July 14 (Thu)	Some Continuous Probability Distributions	6	
July 18 (Mon)	Some Continuous Probability Distributions, Cont.	6	
July 19 (Tue)	Functions of Random Variables	8	
July 20 (Wed)	Functions of Random Variables, Cont.	8	
July 21 (Thu)	Exam 2		
July 25 (Mon)	Fundamental Sampling Distributions and Data Descriptions	9	
July 26 (Tue)	Fundamental Sampling Distributions and Data Descriptions, Cont.	9	
July 27 (Wed)	Fundamental Sampling Distributions and Data Descriptions, Cont.	9	
July 28 (Thu)	One- and Two-Sample Tests of Hypotheses	10	
Aug 1 (Mon)	One- and Two-Sample Tests of Hypotheses, Cont.	10	
Aug 2 (Tue)	One- and Two-Sample Tests of Hypotheses, Cont.	10	
Aug 3 (Wed)	Exam 3		
Aug 4 (Thu)	/ Graduation Day		