



# HANYANG UNIVERSITY

## Hanyang International Summer School

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	<b>Home University</b>	University of Texas at Arlington			
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<b>Course Information</b>	<b>Class No.</b>	TBA	<b>Course Code</b>		<b>Credits</b> 3
	<b>Course Name</b>	Exploring Research Design and Statistical Analyses Using Korean Data			
	<b>Lecture Schedule</b>	Mon-Thu /			
	<b>Course Description</b>	<p>In a world often driven by numbers, understanding applied statistics is a growing area that is applicable to a variety of different disciplines including education, social sciences, like psychology and sociology, healthcare, government, finance, and more!</p> <p>For the purpose of this course, you will be using an applied statistics lens to learn about how to collect data, manage data, analyze data, and draw important conclusions from data. Furthermore, we will be using a publicly available large-scale Korean dataset to practice conducting different types of statistical analyses using a quantitative methods software.</p> <p>In addition to broadly understanding research design, we will also be investigating different types of analyses including descriptive statistics, correlations, and regressions.</p>			
	<b>Course Objective</b>	<p>This course was designed to be introductory and accessible for students who have little to no background in applied statistics. The course objectives include:</p> <ol style="list-style-type: none"> <li>Understanding the basics of social science research</li> <li>Understanding basic statistical analyses</li> <li>Conducting analyses with Korean data using basic statistical analyses</li> <li>Learning a basic quantitative statistical software</li> </ol>			
	<b>Prerequisite</b>	No prerequisite.			
	<b>Materials/Textbooks</b>	Introduction to Statistical Reasoning in Quantitative Research (Third Edition) by Waigandt & Wang. This textbook is open access and will be provided to students for free on the first day of class.			
<b>Evaluation</b>	<b>Attendance</b>	10 %	<b>Quiz</b>	%	
	<b>Assignment</b>	20 %	<b>Mid-term Exam</b>	30 %	
	<b>Presentation</b>	%	<b>Final Exam</b>	30 %	
	<b>Group Project</b>	%	<b>Participation</b>	10 %	



	Etc.		Evaluation Item	Ratio
				%
				%
<b>Daily Lecture Plan</b>	<b>Week 1</b>	Day 1	Orientation & Opening Ceremony	
		Day 2	Class Introductions/Chapter 1: Introduction and History of Statistics	
		Day 3	Chapter 2: Research Methods and Types of Research	
		Day 4	Chapter 3: Research Topics, Reviewing Literature, Legal/Ethical Issues, and Measurement	
	<b>Week 2</b>	Day 1	Chapter 4: Language of Statistics, Types of Data, Population and Samples	
		Day 2	Chapter 5: Probability	
		Day 3	Chapter 6: Distribution and Graphs	
		Day 4	Chapter 7: Percentiles and Percentile Ranks	
	<b>Week 3</b>	Day 1	Take Home Midterm Exam	
		Day 2	Chapter 8: Measures of Central Tendency	
		Day 3	Chapter 9: Measures of Variability	
		Day 4	Chapter 10: The Standard Normal Distribution	
	<b>Week 4</b>	Day 1	Chapter 11: Correlation	
		Day 2	Chapter 12: Regression and Prediction	
		Day 3	Chapter 15: Categorical Variables	
		Day 4	Take Home Final Exam	