

COURSE: Statistics II		
DEGREE: Dual Bachelor in Law and Economics	YEAR: 2	TERM: 1

WEEKLY SCHEDULE

WEEK	SESSION	DESCRIPTION	GROUPS		Special room for session (computer classroom, audio-visual classroom...)	WEEKLY SCHEDULE FOR STUDENT		
			LECTURES	SEMINAR		DESCRIPTION	CLASS HOURS	HOME-WORK HOURS Maximum 7 H
1	1	Chapter 1 theory I: Review of statistical concepts. Inference in one population. Point estimation and confidence interval estimation.	X			Study of Chapter 1 part I contents.	1,5	6
1	2	Chapter 1 practice I: Solving exercises - inference in one population. Point estimation and confidence interval estimation.		X		Solving exercises for Chapter 1 part I.	1,5	
2	3	Chapter 1 theory II: Confidence intervals for the mean: normal population (known variance), large samples. Confidence intervals for the proportion.	X			Study of Chapter 1 part II contents.	1,5	5
2	4	Chapter 1 practice II: Solving exercises - confidence intervals for the mean: normal population (known variance), large samples. Confidence intervals for the proportion.		X		Solving exercises for Chapter 1 part II.	1,5	
3	5	Chapter 1 theory III: Confidence intervals in a normal population: mean (unknown variance) and variance.	X			Study of Chapter 1 part III contents.	1,5	6
3	6	Chapter 1 practice III: Solving exercises - confidence intervals in a normal population: mean (unknown variance) and variance.		X		Solving exercises for Chapter 1 part III.	1,5	
4	7	Chapter 2 theory I: Basic concepts in hypothesis testing. Null and alternative hypotheses. Test statistic, significance level, Type I and Type II errors. Procedure.	X			Study of Chapter 2 part I contents.	1,5	6
4	8	Chapter 2 practice I: Solving exercises with tests of hypotheses.		X		Solving exercises for Chapter 2 part I.	1,5	
5	9	Chapter 2 theory II: p-value. Example of tests for the mean, proportion. Power of a test.	X			Study of Chapter 2 part II contents.	1,5	6
5	10	Chapter 2 practice II: Solving exercises with tests of hypotheses.		X		Solving exercises for Chapter 2 part II.	1,5	

6	11	Chapter 2 theory III: More examples of tests. Tests and confidence intervals.	X			Study of Chapter 2 part III contents.	1,5	5
6	12	Chapter 2 practice III: Solving exercises with tests of hypotheses; power of a test.		X		Solving exercises for Chapter 2 part III.	1,5	
7	13	Chapter 3 theory I: Comparing two populations. Confidence intervals and hypothesis testing for the differences in means and proportions in independent samples.	X			Study of Chapter 3 part I contents. Reviewing Chapters 1 and 2. Preparing for the midterm.	1,5	7
7	14	Chapter 3 practice I: Solving exercises - comparing two populations. Midterm 1 (Chapters 1 and 2)		X		Solving exercises for Chapter 3 part I. Reviewing Chapters 1 and 2. Preparing for the midterm.	1,5	
8	15	Chapter 3 theory II: Comparing two populations. Confidence intervals and hypothesis testing for the ratio of variances in independent samples. Differences in means in paired samples.	X			Study of Chapter 3 part II contents.	1,5	6
8	16	Computer Lab 1 (Chapters 1, 2 and 3). Using software to calculate confidence intervals and perform hypothesis testing in one and two populations.		X	Computer lab	Solving exercises for Chapter 3 parts I and II.	1,5	
9	17	Chapter 4 theory I: Covariance, correlation and scatterplot. Simple linear regression model: formulation.	X			Study of Chapter 4 part I contents.	1,5	6
9	18	Chapter 4 practice I: Solving exercises - covariance, correlation and scatterplot. Fitting a simple linear regression model.		X		Solving exercises for Chapter 4 part I.	1,5	
10	19	Chapter 4 theory II: Simple linear regression model - formulation and assumptions, parameter estimation, properties of the estimators.	X			Study of Chapter 4 part II contents.	1,5	6
10	20	Chapter 4 practice II: Fitting a simple linear regression model, inference for the parameters.		X		Solving exercises for Chapter 4 part II.	1,5	
11	21	Chapter 4 theory III: Simple linear regression - inference.	X			Study of Chapter 4 part III contents.	1,5	5
11	22	Chapter 4 practice III: Solving exercises for the linear regression model. Mean response and forecast estimation.		X		Solving exercises for Chapter 4 part III.	1,5	
12	23	Chapter 4 theory IV: Simple linear regression - inference. Confidence and prediction intervals.	X			Study of Chapter 4 part IV contents. Reviewing Chapters 3 and 4. Preparing for the midterm.	1,5	7
12	24	Chapter 4 theory IV: Solving exercises - simple linear regression, inference. Confidence and prediction intervals. Midterm 2 (Chapter 3 and part of Chapter 4)		X		Solving exercises for Chapter 4 part IV. Reviewing Chapters 3 and 4. Preparing for the midterm.	1,5	

13	25	Chapter 5 theory I: Model diagnostics in a simple linear regression model. ANOVA.	X			Study of Chapter 5 part I contents.	1,5	6
13	26	Computer Lab 2 (Chapter 4): Fitting a simple linear regression model. Residual analysis. Fitting a multiple linear regression model.		X	Computer lab	Solving exercises for Chapter 5 part I.	1,5	
14	27	Chapter 5 theory II: Linear regression model in matrix notation. Multiple linear regression.	X			Study of Chapter 5 part II contents.	1,5	7
14	28	Chapter 5 practice I: Solving exercises - linear regression model in matrix notation. ANOVA. Multiple linear regression.		X		Solving exercises for Chapter 5 part II.	1,5	
SUBTOTAL							42 + 84 = 126	
15		Tutorials, project handing -in, etc				Group tutorial class Individual tutorials and/or make-up classes Preparation for the final exam	1,5	10,5
16-18		Assessment				Preparation for the final exam Final exam		12
TOTAL							150	