Course description form

1. : Course nameEconometrics2
Econometrics 2
2. :code Course Code
MCNM492
3. : Semester/Year
2025\2024 fourth/ semester
4. : Date this description was prepared
2025/2/1
5. :Available forms of attendance
My presence+ online
6. :(Number of study hours (total)/number of units (total
number of units ,45 :Theoretical hours: 30 hours / Practical hours: 3.5 units
7. (Name of the course administrator (if more than one name is mentioned
Name : Dr.waleed ibahim sultan. waleedsultan502@uomosul.edu.iq Name : salah f.shaba: salahodesh@uomosul.edu.iq Name : Eman f. Mohammd . eman_faisal @uomosul.edu.iq

8. objectives Course	
: practical	:theoretical
Enabling the student to understand and understand the concepts related to econometrics, along with the extent to which the student applies econometrics methods and methods in the practical .field	Enabling the student to understand and understand what is related to econometrics student's awareness the And work to determine of the importance and role of econometrics in practical applications and economic research
Enabling the student to know the solution to the testsT, FR ^{2}, and R $^{-2}$) the student's Depending on (practical experience, importance is not given to the . subject	Enable the student to know multiple regression
Enabling the student to solve mathematical exercises for statistical tests	Enabling the student to know the most important economic and statistical tests
g the student to solve the mathematical Enablin exercises for standard tests and other tests that accompany them	student to know the most Enabling the important statistical tests
The student can identify the most important standard problems and how to get rid of these four standard problems	Enabling the student to know the most important standard problems
st important The student can learn about the mo standard problems and how to get rid of these four standard problems and how to deal with each problem through detection methods and relying on the standard method to get rid of problems in a way that ensures the integrity of the variables and dealing with them through the consequences	Enables the student to know the causes of standard problems facing variables
	The student can learn the most important etecting the four standard methods for d problems (multiple linear correlation - stationarity of variance -non -autocorrelation .(error problem -
	The student can know the economic effects of each of the standard problems

.resulting from them Acquiring skills in dealing with the pillars of - -variables -econometrics (such as data forms), each in proportion to the -relationships .type of variable	ginary The student can identify ima - economic variables

9. Teaching and learning strategies

The strategy	The origins and re, brainstorming, dialogue and discussion statementInteractive lectu concept of econometrics The relationship between Interactive lecture, brainstorming, dialogue and discussion econometrics, mathematics and statistics larifying the goals and pillars of econometricsInteractive lecture, brainstorming, c Interactive lecture and brainstorming Types of economic models Interactive lecture, brainstorming, dialogue and discussion, explaining the multiple linear regression model -ialogue and discussion of contrasts and coInteractive lecture brainstorming, d variations Interactive lecture, brainstorming, explaining the variance of the random (σ 2ui) variable for the significance of T test Interactive lecture, brainstorming, and creating a the parameters lecture, brainstorming, dialogue, and participation in estimating the Interactive (R2) multiple determination coefficient Interactive lecture, brainstorming, dialogue, and participation in the corrected d adjusted and the correcte (R-2) adjusted coefficient of determination .(R-2) coefficient of determination Interactive lecture, brainstorming, dialogue, and participation in the partial correlation coefficient Interactive lecture, brainstorming, dialogue and discussion, assignment of tasks .report (GLM) land general linear mode (F) Interactive lecture, brainstorming, dialogue and discussion, test Interactive lecture, brainstorming, dialogue and discussion, assigning tasks and reporting the multiple linear regression equation using the general linear model (rix methodmat) Interactive lecture and brainstorming of the four standard problems (multiple (error problem -stationarity of variance -non -autocorrelation -linear correlation Interactive lecture, brainstorming, dialogue and discussion of the ity problemmulticollinear Interactive lecture, brainstorming, dialogue and discussion, assignment of tasks reporting of the problem-and self Interactive lecture, brainstorming, dialogue and discussion of the problem of

	stationarity of variance-non rainstorming, dialogue, and discussion on the problem Interactive lecture, b of errors and formal variables

10 . Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard t dialogue styleDirec reporting Assigning tasks and	Econometrics concept emergence of econometrics Objectives of econometrics	udent becomes familiar The stA1 the concept of econometrics with the Explains to the studentB1 origins and concept of econometrics	2 Theore tical	1
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting ndAssigning tasks a	Mathematical application of inequalities	contrasts learnsC1	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting asks andAssigning t	Multiple regression and its interpretations	Estimating equation for multiple B2 regression model	2 Theore tical	2
t examsShor Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	Mathematical application of covariances	How to analyze covariancesD1	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	test stepst-	test- t Definition ofA2	2 Theore tical	3
Short exams Assignment of utyd discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	Testing the significance of explanatory variables	Types of hypothesesB3 Present the null and alternative C3 hypotheses	Practi3 cal	

Short exams Assignment of duty sdiscussion	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	Quality of matchmaking	shows the multiple determination B4 R2 coefficient	2 Theore tical	4
Short exams Assignment of duty discussions	Auditory methods boardStyle of writing on the black Direct dialogue style reporting Assigning tasks and	Applications to mathematical problems of the coefficient of determination	The student learns mathematical C4 methods for calculating the corrected or adjusted coefficient of R-2 ,determination	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods ckboardStyle of writing on the bla Direct dialogue style reporting Assigning tasks and	GLM General Linear Model	The student estimates the partial B5 (r) correlation coefficient	2 Theore tical	5
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard dialogue style Direct reporting Assigning tasks and	Assumptions of the general linear model	the linear The student analyzesD2 model	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style Assigning tasks	e linear modelSimpl	Explain to the student the B6 the coefficient relationship between and (R2) of determination Corrected coefficient of (R-2) determination	2 Theore tical	6
Short exams Assignment of duty discussions	Auditory methods of writing on the blackboard Style Direct dialogue style Assigning tasks	Multicollinearity model	How to calculate simple C5 regression equation	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods le of writing on the blackboardSty Direct dialogue style reporting Assigning tasks and	Reasons for the emergence of standard problems	Explains the concept to the B7 Standard problems student	2 Theore tical	7
Short exams Assignment of	Auditory methods kboardStyle of writing on the blac	Causes of standard problems	How to prove that the problem C6 occurred	Practi3 cal	

duty discussions	Direct dialogue style reporting Assigning tasks and				
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard ect dialogue styleDir reporting Assigning tasks and	multicollinearity problemMC	Shows the student the B8 multicollinearity problem	2 Theore tical	8
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting gning tasks andAssi	MC	MC problem Prove that the C7 occurred MC the problem occurs HowD3	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods dStyle of writing on the blackboar Direct dialogue style reporting Assigning tasks and	Perfect and imperfect linear correlation	Explains to the student the B9 implications of the multicollinearity problem	2 Theore tical	9
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard dialogue style Direct reporting Assigning tasks and	an MC Methods for detecting problem	Shows the student how to detect B10 the problem	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard yleDirect dialogue st Assigning tasks	Kluber -Escape method	the The student learns aboutA3 Klein detection method	2 Theore tical	10
Short exams Assignment of duty discussions	Auditory methods ting on the blackboardStyle of wri Direct dialogue style Assigning tasks	Mathematical applications of the multicollinearity problem	learns about processing methodsA4 ways to mathematically LearnsC8 get rid of the problem	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	Reasons for the emergence of the ociationass-problem of self	The student becomes familiar A5 with the concept of the autocorrelation problem	2 Theore tical	11
Short exams Assignment of duty	Auditory methods Style of writing on the blackboard Direct dialogue style	for detecting the Methods autocorrelation problem	The student distinguishes the E2 implications of the autocorrelation problem	Practi3 cal	

discussions	reporting Assigning tasks and				
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard leDirect dialogue sty reporting Assigning tasks and	Detection methods	The student learns how to get rid A5 -Cochran oblem using theof the pr (Orcat method (conversion method How to identify the replay or C 9 repetition method general How to learn about the B11 least squares method	2 Theore tical	12
Short exams Assignment of duty discussions	Auditory methods ackboardStyle of writing on the bl Direct dialogue style reporting Assigning tasks and	test methodDW Watson-	The student distinguishes D4 between detection methods (von ratio Henshaw -Theile -Neumann (test	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	cations of the problem of Impli stationarity of variance-non	the Explain to the studentB12 stationarity of -problem of non variance Forms and reasons for the C10 emergence of the problem	2 Theore tical	13
Short exams Assignment of tydu discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	-the problem of non Exercises on constancy of contrast	Compare and differentiate D5 ection methodsbetween det distinguishes between the E3 implications of a problem	Practi3 cal	
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	decreasing contrast -increasing -	Explains to the student the types B13 of contrast	2 Theore tical	14
Short exams Assignment of duty discussions	Auditory methods Style of writing on the blackboard Direct dialogue style reporting Assigning tasks and	vellum address the Exercises on problem of contrast inconsistency	The student analyzes detection D6 (Spearman test) methods	Practi3 cal	
Short exams Assignment of	Writing style on Auditory methods logue styleDirect dia the blackboard	Disposal methods	specifies the methods of B14 - detection for the student (Park	2 Theore	15

duty discussions	reporting Assigning tasks and		-Quandt) due to non -Coldfeld constancy of variance	tical	
Short exams Assignment of duty discussions	Writing style on Auditory methods rect dialogue styleDi the blackboard reporting Assigning tasks and	Lag – variable Models	The student learns time lag B15 models fictitious and formal comparesD7 metaphors	Practi3 cal	

Course evaluation -11				
Relative weight %	Class	Calendar a week -appointment	Calendar methods	T
5	5	15-1 My theory week	Final theoretical report +	1
10	5 5	Week 3	Quiz hort test 1S	2
15	10 5	Week 9	Midterm test Theoretical and practical	3
10	5 5	Week 12	Short test 2 Quiz	4
20	20	Practical exam week	Final practical test	5
40	40	A week of theoretical exam	Final theoretical test	
100	100		the total	

12-Learning and teaching resources -

1- Saifu-Introduction to Econometrics: Dr. Walid Ismail Al-Saifu and Dr. -Analytical Econometrics BIM Theory and Application Dr. Walid Ismail Al -2 Ahmed Muhammad Mishal

3- Damodar N.Gujarati (2004) Basic Econometric Tata Mc Graw -Hill Edition, 4th Edition, New Delhi

جامعة الموصل
كلية الزراعة والغابات
قسم الاقتصاد الزراعي

Theoretical teacher: Dr. Walid Ibrahim Sultan

Practical teacher: Eman F .Mohammad and salah F. Shaba

gricultural Economics DepartmenHead of the A

Dr. Zwaid fathi abd

,Chairman of the Scientific Committee

Dr.kays N.Ghazal