GARY W. ROLLINS COLLEGE OF BUSINESS

UNIVERSITY OF TENNESSEE AT CHATTANOOGA

Department *of* Finance and Economics

ECON 4600: Introduction to Econometrics

Fall 2019

CRN#41542, **Lecture, 3 credit hours**

Instructor: Md Rafayet Alam, Ph.D.

Email and Phone Number: rafayet-alam@utc.edu 423-425-4180

Office Hours and Location: Tuesday & Thursday 9.30 am to 10.45 am & 12.15 pm to 1.30 pm: and by appointment. Location: 545 Oak street, Room 204

Course Meeting Days, Times, and Location: Tuesday and Thursday 1:40 to 2:55 DAVP 133

Course Catalog Description: The study of issues in economics and statistical tests of economic models through regression analysis. Also recommended for non-economics majors with an interest in economics and mathematics.

Course Pre/Co Requisites: ECON 1010, ECON 1020, 6 hours in Economics at the 3000- and 4000-level completed, and MGT 2140 or MATH 4130, or department head approval.

Course Student Learning Outcomes: This course introduces some important economic models in the form of algebraic equations. It then shows how statistical techniques can be used to estimate those equations. In addition, it points out some shortcomings of available data and demonstrates, where possible, how to overcome these shortcomings.
The goal of this course is for the student to learn how to develop and manipulate simple economic models. Students will also learn how to extend the analysis introduced in introductory statistics to the estimation of these models, recognizing the weaknesses of the data employed. In each case, they will develop an understanding of the material by using a standard econometrics package to apply relevant theory to a set of data.

Course Fees: Differential tuition applies

Required Course Materials: Econometrics By Example by Damodar Gujrati, 2ND edition.

Supplemental/Optional Course Materials: STATA

Technology Requirements for the Course: STATA

Technology Skills Required for Course: STATA

Technology Support: If problems are encountered with UTC email accounts or with UTC Learn, contact IT Solutions Center at 423-425-4000 or email itsolutions@utc.edu.

Course Assessments and Requirements:

Your course grade depends on:

1. The grades on a set of assignments. I will provide in-detail instructions about the assignments in the class. **These assignments and classroom participation account for 25% of the course grade.**

2. **Two** examinations. **Each examination accounts for 25% of the course grade.**

3. A research project and Presentation. (**Account for 25% of the course grade).**

The Research Project:

This project will be individual project and will take the form of an empirical study. The project will advance through the following steps:

1. Finding an interesting, important and executable research idea.

Students have to find an area of interest, review the relevant literature, figure out a way to contribute, discuss with the instructor and finalize the topic.

2. Data collection and analysis of the descriptive statistics.

Students have to collect the data professionally, analyze the descriptive statistics, record the sources, definition and construction of the data, and show the instructor.

3. Estimating the correctly specified empirical model and interpreting the results.

Students have to choose an appropriate econometric model after discussing with the instructor. Have to run the benchmark model and other variations using *STATA,* get the results and record the codes. Students have to interpret the results correctly.

4. Writing an academic paper.

Students have to write an academic paper in professional format. In addition to the results, they will also mention the policy implications of the findings and possible future extension.

*5. **Presenting the paper in various forums such as in the class, UTC ReSEARCH Dialogue, Economics and Finance conferences etc..***

Students have to prepare a presentation and will present their works in various forums.

Course Grading

Course Grading Policy: A ten point grading scale will be employed.

100 to 90 is an A

89-80 is a B

79 to 70 is a C

69 to 60 is a D

59 and below is a F.

Instructor Grading and Feedback Response Time: As soon as possible.

Course and Institutional Policies

Late/Missing Work Policy: No late submission or make-up exams without legitimate reason and prior approval.

Student Conduct Policy:

Honor Code Pledge: I pledge that I will neither give nor receive unauthorized aid on any test or assignment. I understand that plagiarism constitutes a serious instance of unauthorized aid. I further pledge that I exert every effort to ensure that the Honor Code is upheld by others and that I will actively support the establishment and continuance of a campus-wide climate of honor and integrity.

This Honor Code is incumbent upon all participants and will be strictly enforced in this class.

Course Attendance Policy: Regular Attendance is highly recommended.

Course Participation/Contribution: Classroom activities engaged in by students and the instructor will consist of much more than simply discussion of the text. It is virtually impossible to do well in this course without regular attendance.

Course Learning Evaluation: Course evaluations are an important part of our efforts to continuously improve the learning experience at UTC. Toward the end of the semester, you will

receive a link to evaluations and are expected to complete them. We value your feedback and appreciate you taking time to complete the anonymous evaluations.

Course Calendar/Schedule: Click here to enter text.

Week 1-5

1. Linear regression models, functional forms of regression models, dummy variables.

2. Regression diagnostics: Multicollinearity, Heteroscedasticity, Autocorrelation.

Hw-1

Step-1 of the project.

Week 6

3. Empirical estimation technique of Panel data.

Hw-2

Step-2 of the project

Week 7-10

4. Econometric Forecasting techniques.

Hw-3

Step-3 of the project

Week 11-12

5. Cointegration and Error-correction model.

Hw-4

Step-4 of the project.

Week 13-15

6. Asset Price volatility (ARCH/GARCH)

Hw-5

Step-5 of the project.