

MGT/P285-Time Series Analysis and Forecasting

PREREQUISITE COURSE: MGT/P/B-203B

LECTURES: Wednesday 9:00 a.m. - 11:50 a.m.
2310 Gallagher Hall

INSTRUCTOR: Chih-Ling Tsai
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OFFICE HOURS: Friday 2:00 p.m.-4:00 p.m. or by appointment

TEXT (Option): Forecasting Principles and Applications, by Stephen A. DeLurgio. The ISBN number is 0075611201. If you would like to purchase the book, you may get it from the web site. I will lend a hard copy of the book to each group with three students.

NOTES and Handouts: Please purchase the MGT/P285 Notes and MGT/P285 Numerical Handouts from the UCD Bookstore.

APPROXIMATE MATERIAL TO BE COVERED: Chapters 1 through 10

USE OF COMPUTERS: Package: Minitab (Windows)
You can either rent or purchase the software MINITAB (version 19) from the <http://www.onthehub.com/minitab/>

IMPORTANT DATES:

Wednesday, 4/1/20	First day of class
Wednesday, 5/6/20	Due day of the “Project Proposal”
Wednesday 6/3/20 (and Friday 6/5/20 if it is needed)	Presentation day of the project
Monday, 6/8/20 (11:50 am)	Due day of the “final project”

OBJECTIVES: Helps managers employ the past data to forecast future values, such as costs, revenues, sales, product demands, prices, inventory levels, interest rates, advertising budgets, etc. The covered materials include trend analysis, moving average and exponential smoothing, time series decomposition method, regression analysis, and Box-Jenkins models. Both the statistical principles and the practical details of these methods will be addressed. In addition, business studies homework and a project are assigned to enhance the abilities of empirical data analysis.

HOMEWORK: Five assignments will be given on a weekly basis. You need to follow the guidelines of “Handbook on Writing Data-Driven Business Reports” to write your five homeworks and final project.

Assignments and final project can be done in groups of **three** students (or **four students with my permission**). Each group needs to hand in **one hard copy as well as its associated pdf file**.

Each student needs to hand in **one to two pages lecture summary weekly** for the first **eight** weeks’ lectures.

GRADING:	Final project	40%
	Homework	50%
	Lecture Summary	10%

THE GUIDELINE OF THE FINAL PROJECT REPORT

In this course, you need to submit a final project report by analyzing a real business data.

The data can be either collected by you or obtained through databases, journals, newspapers, or magazines. I strongly recommend that you start to think about your project after the first day of lecture. I will share my experience and knowledge with you about how to write a project report. In the middle of this quarter, you need to hand in two to three pages of a project proposal. Then I will discuss with you your project in detail. Of course, I will guide and monitor each of you to accomplish your project through the whole quarter. If you have any problems on your project, please don’t hesitate to see me at your earliest convenience. A possible format of the final project report (and the homework) is attached. You can modify this format so that the readers can easily understand you objects, processes, and findings. Finally, I expect that you can use what you have learned from this course to conduct real data analysis by yourself.

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ABSTRACT

1. INTRODUCTION
2. DATA CHARACTERISTICS
3. MODEL SELECTION, EVALUATION AND INTERPRETATION
4. FORECASTING
4. CONCLUSIONS and RECOMMENDATIONS
5. APPENDICES
6. REFERENCES

Note: You can follow the steps given below to review a few samples of the final project report and homework. In particular, please carefully study “Handbook on Writing Data-Driven Business Reports”.

1. Connect to CANVAS and choose the course MGT285-001-SQ-2020.
2. Click on the FILES, there should be seven folders, which include the sample of the homework and the sample of the final project.

Note: I do not tolerate cheating. In addition, please visit the website “<http://sja.ucdavis.edu/files/cac.pdf>” to study the “the Code of Academic Conduct” and visit participate.ucdavis.edu to understand participation requirements.