Course Syllabus

Course Number/Section/Name:
CIDM 4364 Section 1 Introduction to Quantitative Economics and Finance

Prerequisites: CIDM2342 or permission of instructor

Professor: F. G. Landram

Class Days/Times/Location:
Monday-Wednesday, 2:30-3:45 Classroom Center, Room 219

Office Location: 208D Classroom Center
Office Hours: MW 7:30-9:00, 10:30-2:00, or by appointment
Office Phone: 806-651-2446
E-Mail: flandram@mail.wtamu.edu

WTAMU College of Business (COB) Mission Statement

The mission of the College of Business is to provide high quality undergraduate and graduate business education with a global perspective and ethical awareness. We accomplish this through emphasis on excellence in teaching, which is strengthened by faculty scholarship and supported by professional service.
Terms of Use

A student's continued enrollment in this course signifies acknowledgment of and agreement with the statements, disclaimers, policies, and procedures outlined within this syllabus and elsewhere in the WTClass environment. *This Syllabus is a dynamic document. Elements of the course structure (e.g., dates and topics covered, but not policies) may be changed at the discretion of the professor.*

Course Description

Applications of quantitative methodology in economics and finance with emphasis on forecasting, data analysis, and regression techniques.

Course Materials

Required Textbook. *Analysis of Economic Data*, 2th edition, by Gary Koop

Learning Goals of the BBA Program

The College of Business at West Texas A&M University seeks to prepare students in the BBA degree program for careers in business and to foster their professional growth and advancement via the key learning goals. Each learning goal is accompanied by an operational definition for the goal.

- **Goal 1: Communication**: Graduates of the BBA program will be effective communicators.
- **Goal 2: Critical Thinking**: Graduates of the BBA program will be critical thinkers.
- **Goal 3: Business Environment**: Graduates of the BBA program will be knowledgeable of ethical, global, and social environmental factors and how they relate to business decisions.
- **Goal 4: Functional Business Analyses and Applications**: Graduates of the BBA program will be knowledgeable in the functional areas of business and their integration.
Course Objectives

1. Students will gain a comprehensive understanding of the following:
   (a) An Overview of Statistical Models, Charts, and Computer Analysis
   (b) Data Analysis. A Strategy For Analyzing Regression Data
   (c) Time Series Models – Identifying nonstationary data
   (d) Statistical Models with Time Series Variables. Cointegration, Granger’s error correction model
   (e) Forecasting With Econometric Models.

Map from COB Learning Goals to Objectives for this course

<table>
<thead>
<tr>
<th>COB Learning Goal</th>
<th>Course Learning Objectives</th>
<th>Assessment Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1. Communication: Goal 4. Functional Business Analyses and Applications: Graduates of the BBA program will be effective communicators and knowledgeable in the functional areas of business and their integration.</td>
<td>Students will use spreadsheet technology skills in communicating with tables, charts, and other descriptive statistical methods.</td>
<td>Students who perform at ≥ 70% on homework and tests are deemed to have attained an acceptable learning outcome for these objectives.</td>
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<tr>
<td>Goal 2. Critical Thinking and Goal 4. Functional Business Analyses and Applications: Graduates of the BBA program will be critical thinkers and knowledgeable in the functional areas of business and their integration.</td>
<td>Students will gain a comprehensive understanding of (a) data analysis, time series models, and economic forecasting.</td>
<td>Students who perform at a 70% or higher on homework and tests are deemed to have attained an acceptable learning outcome for these objectives.</td>
</tr>
<tr>
<td>Goal 2. Critical Thinking and Goal 4. Functional Business Analyses and Applications: Graduates of the BBA program will be critical thinkers and knowledgeable in the functional areas of business and their integration.</td>
<td>Students will develop critical thinking skills by selecting the appropriate statistical method, analyzing and interpreting the results. This includes hypothesis testing using analysis of variance, regression, and time series methods.</td>
<td>Students who perform at a 70% or higher on homework and tests are deemed to have attained an acceptable learning outcome for these objectives.</td>
</tr>
<tr>
<td>Goal 2. Critical Thinking and Goal 4. Functional Business Analyses and Applications: Graduates of the BBA program will be critical thinkers and knowledgeable in the functional areas of business and their integration.</td>
<td>Students will acquire critical thinking skills through the usage of spreadsheet technology of descriptive statistics and statistical model building in regression and time series analysis.</td>
<td>Global, cross-cultural and teamwork applications are not taught.</td>
</tr>
</tbody>
</table>
Course Grading Policies

**GRADING:** Only one makeup exam will be given at the end of the semester.

Two lecture exams at 50 points each                      100
One lecture exams at 100 points                        100
Homework/Computer Exercises/Class Project             100
A Final exam                                           100

Total                                      400

A = 360  B = 320  C = 280  D = 240  Disaster = below 240

Course Assignment, Examination, and or Project Policies

**How to make an A.** The key to a good grade is doing the homework in a timely manner and attending the help tutoring sessions when needed. Students are encouraged to give and receive help on the assigned handouts—work together, attend help tutoring sessions, and ask questions in class. Your first assignment is an Excel spreadsheet assignment. Get help if you need it; homework counts ¼ of your grade.

Additional Course Policies

Laptop computers and cell phones must not be operational.

Course Topics

The course contents are divided into three parts:

I. basic fundamentals. vocabulary, symbols, probability tables

II. statistics concepts. central limit properties, hypothesis testing

III. applications. data analysis and forecasting

The Application Phase is the reason why this course is required in the College of Business. It is also the most enjoyable part of the course. However, it requires knowledge of Parts I & II and computer applications;
the final is comprehensive. At the end of this course, your proficiency level of Parts I and II will enable you to understand basic statistical concepts and possess the background needed to proceed to immediate statistics and upper level courses that require statistics. You will also be able to apply statistics in the workplace.

**Computer Applications.** One seldom applies statistics without using the computer. Therefore, most of your homework requires the use of the spreadsheet software Excel.

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**COB Student Resources Link**

The COB has developed a *Student Resources* repository (e.g., APA writing style information, business core reviews, facilities, and other helpful supplements) which can be found on the COB Website: [http://www.wtamu.edu/academics/college-business-facilities-and-resources.aspx](http://www.wtamu.edu/academics/college-business-facilities-and-resources.aspx)

**Dropping the Course:**

Should a student decide to drop the course, it is the student’s responsibility to be aware of the final drop dates and adhere to the WTAMU Ad/Drop policy. Any student participating in the course after the WTAMU posted drop date will be considered active and a grade will be administered at the end of the course for that student.
Repeating Course Work

Students are charged a fee for any course attempted for a third or subsequent time at WTAMU other than a non-degree credit developmental course or exempted courses.

COB Writing Component

Students earning a BBA degree must complete at least one course with a writing component outside of their major as part of the business core requirements. The COB writing component is a requirement in the following courses: IDM 3320(Digital Collaboration and Communication), MGT 3335(Organizational Behavior), FIN 3350(Personal Financial Planning), FIN 4320(Investments), FIN 4321(Portfolio Theory), ECON 4342(Economic Development), and ECON 4370(Economics of Biotechnology and Healthcare). Students in a writing component course are explicitly required to demonstrate knowledge of communication skills. Specific objectives may include but are not limited to the following concepts put forth by the National Business Education Association: (1) ability to organize a written and an oral message coherently and effectively, (2) ability to use technology for communication, (3) ability to research a topic, prepare a report, and present the findings to all organizational levels, and (4) ability to demonstrate critical-thinking skills. Specific course requirements and the role of the writing component with respect to student grading policy are at the discretion of the course instructor of record.

Scholastic Dishonesty

It is the responsibility of students and instructors to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. Commission of any of the following acts shall constitute scholastic dishonesty. This listing is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the examination is given in subsequent sections of the course or as a makeup; plagiarism; submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so; submission of a paper or project prepared by another student as your own. You are responsible for being familiar with the University's Academic Integrity Code, as well as the COB Student Code of Ethics below.

WTAMU COB Student Code of Ethics

Each student enrolled in COB courses accepts personal responsibility to uphold and defend academic integrity and to promote an atmosphere in which all individuals may flourish. The COB Student Code of Ethics strives to set a standard of honest behavior that reflects well on students, the COB and West Texas A&M University. All students enrolled in business courses are expected to follow the explicit behaviors detailed in the Student Code of Ethics.
Code of Ethics:

- Do not use notes, texts, solution manuals, or other aids for a quiz or exam without instructor authorization.
- Do not copy the work of others and/or allow others to view your answers or copy your work during a quiz, exam, or on homework assignments.
- Do not allow other parties to assist in the completion of your quiz, exam, homework, paper, or project when not permitted.
- Do not work with other students on projects or assignments without authorization from the course instructor.
- Properly cite and specifically credit the source of text, graphic, and web materials in papers, projects, or other assignments.
- Do not forge the signature of an instructor, advisor, dean, or another student.
- Provide truthful information for class absences when asking faculty for excused absences or for a make-up for a quiz, exam, or homework.
- Provide truthful information on your resume including work history, academic performance, leadership activities, and membership in student organizations.
- Respect the property, personal rights, and learning environment of all members of the academic community.
- Live up to the highest ethical standards in all academic and professional endeavors.

Students violating the Student Code of Ethics will be reported to the Dean’s office and are subject to penalties described in the West Texas A&M University Code of Student Life, which may include suspension from the University. In addition, a violator of the Student Code of Ethics may become ineligible for the following:

- Participation in student organizations sponsored by the COB.
- Recognition for College academic honors, awards, and scholarships.

Technology Requirements

All technological requirements for the successful completion of this course are the responsibility of the student, including access to a working computer with broadband internet connection and state-of-the-art security. The student is responsible for all technological problems not related to WTAMU, including but not limited to equipment failures, power outages, and internet breakdowns. Furthermore, students are responsible for all necessary technical and operational skills for completing this course, and for being familiar with WTC (the Angel Learning System) both in a general sense and in a specific sense as pertaining to this course and any materials stored within. The professor is not responsible for any technical matters related to WTC. Students must contact WTC if they have problems accessing and/or using Angel.

Viewpoints Disclaimer

The views expressed in this document, web-based course materials, and/or classroom presentations and discussions are those of the professor and do not necessarily represent the views of West Texas A&M University, its faculty and staff, or its students. Views expressed by

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students are likewise those of the person making such statements. It is understood and expected that each individual within this course will respect and allow individual difference of opinion.

External Websites Disclaimer

Neither the professor, the COB, nor WTAMU are responsible for the content of external websites discussed in the classroom and/or linked to via online course materials, emails, message boards, or other means. Referred websites are for illustrative purposes only, and are neither warranted nor endorsed by the professor, COB, or WTAMU. Web pages change frequently, as does domain name ownership. While every effort is made to ensure proper referencing, it is possible that students may on occasion find materials to be objectionable for reasons beyond our control.

Physical or Educational Access

West Texas A&M University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

Evacuation Statement

If you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assembly area, location of fire extinguishers, fire alarm pull stations and emergency telephone numbers (651.5000 or 911). In the event an evacuation is necessary: evacuate immediately do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

Chemical and Equipment Safety Statement

Safety is everyone's responsibility. Material Safety Data Sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire explosion data, and other important information associated with these chemicals. Before handling or using a chemical, you should refer to the MSDS for that chemical. It is your responsibility to inform the instructor in writing of any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any spill or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe condition, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask your instructor for proper instruction. All injuries, spill of materials and unsafe conditions must be reported to the instructor immediately.
COURSE SYLLABUS for QBA4364

Text: ANALYSIS OF ECONOMIC DATA, by Gary Koop

Prerequisites: An introductory statistics course or equivalent A knowledge of Microsoft Excel is helpful.

Instructor: Dr. F. Landram, Office: 208D, Phone: 651-2446

Objective: The objective of this course is to promote an understanding and appreciation of econometrics (applied data analysis and forecasting) used in business and economic decision making.

Grading:

Two lecture exams at 50 points each: 100 points

One lecture exam at 100 points 100

Final Exam 100

Homework & Class Project 100

TOTAL 400 points

A = 360 B = 320 C = 280 D = 240 Disaster = below 240

Only one makeup exam will be given at the end of the semester.

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Topics Covered: Chapters 1-5. An Overview of Statistical Models, Charts, and Computer Analysis

Chapters 6 – 7. Data Analysis. A Strategy For Analyzing Regression Data

Chapters 8 – 9. Time Series Models – Identifying nonstationary data

Chapter 10. Statistical Models with Time Series Variables. Cointegration, Granger’s error correction model
ASSIGNMENTS

1. Read Chapters 1 and 2. Work Exercise 2.1
2. Work Exercise 2.2

3. Read Chapter 3. Work Exercise 3.5
4. Read Chapter 4. Work Exercises 4.6, 4.7

Test 1.
5. Read Chapter 5. Work Exercises 5.3, 5.4


Test 2.
7. Read Chapter 7. Work Exercises 7.1, 7.3, 7.6

8. Read Chapter 8. Work Exercises 8.2, 8.3


Test 3.
10. Read Chapter 10. Work Exercises 10.6, 10.7,

11. Read Chapter 11. Work Exercises 11.1, 11.5,

Final