

Course Information

BUS 634
Econometrics
3 Credit Hours

Instructor Information

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Doane University

Contact Information

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Communicating With the Instructor

This course uses a "three before me" policy in regards to student to faculty communications. When questions arise during the course of this class, please remember to check these three sources for an answer before asking me to reply to your individual questions:

1. Course syllabus
2. Announcements in Blackboard
3. The "Water Cooler" discussion board

This policy will help you in potentially identifying answers before I can get back to you and it also helps your instructor from answering similar questions or concerns multiple times.

If you cannot find an answer to your question, please first post your question to the "Water Cooler" discussion board. Here your question can be answered to the benefit of all students by either your fellow students who know the answer to your question or the instructor. You are encouraged to answer questions from other students in the discussion forum when you know the answer to a question in order to help provide timely assistance.

If you have questions of a personal nature such as relating a personal emergency, questioning a grade on an assignment, or something else that needs to be communicated privately, you are welcome to contact me via email or phone. My preference is that you will try to email me first. I will usually respond to email and phone messages from 8am to 5pm on weekdays, **please allow 24 hours for me to respond**. I am the primary caregiver for a relative and sometimes cannot answer the phone, so please do not be offended if it goes to voicemail. Just leave a message and I will get back to you.

If you have a question about the technology being used in the course, please contact the Doane University Help Desk for assistance (contact information is listed below).

Course Catalog Description

Course description: A course that examines the application of statistical methods to test and estimate economic relationships. After developing the theoretical constructs of classical least squares, common problems encountered when applying this approach, including serial correlation, heteroscedasticity, and multicollinearity, are discussed. Techniques for dealing with these problems are then examined. Models with lagged variables are considered, as is estimation with instrumental variables and two-stage least squares. This course is graded.

Course Prerequisites

None

Course Textbook and Materials

Required: Business Forecasting, John E. Hanke and Dean W. Wichern, 9th edition, 2009, Pearson Education, Inc, Upper Saddle River, New Jersey, ISBN 13: 978-0-13-230120-6

In addition **you must have Microsoft Excel to complete assignments.**

Learning Objectives

MBA Outcomes – This course addresses the bolded MBA outcomes

Knowledge Based Outcomes

1. Graduates will exhibit a critical awareness of the principles at play in the current economic climate and how strategies and solutions play to solve the current problems
2. Graduates will possess the ability to compare and contrast ethical theories and practices
3. Graduates will exhibit awareness of the economic, political, social and technological advances affecting global business

Skills Based Outcomes

1. **Graduates will employee advances problem solving in order to develop reflective and innovative business strategies**
2. Graduates will demonstrate successful and complex project management skills based on methodology and methods
3. Graduates will be able to communicate and critique, verbally and in writing, complex

strategies

- 4. Graduates will use data, gathered and observed to evaluate organizational performance**
- 5.** Graduates will display the ability to be self-directed and lead others
- 6.** Graduates will demonstrate they can function autonomously and take responsibility for managing professional practices in a highly complex, unpredictable and changing environment
- 7.** Graduates will initiate and manage high level professional activities in a strategic context
- 8.** Graduates will demonstrate ability to work in a team environment and take responsibility for team performance
- 9.** Graduate will demonstrate the ability to lead and coach

Course Objectives

At the completion of this course students will be able to:

1. Evaluate the power and the limitations of data (MBA S4)
2. Use data to predict future metrics needed for decision making (MBA S1 and S4)
3. Apply appropriate econometric techniques effectively to analyze issues and evaluate options (MBA S1)
4. Integrate econometric methods to inform decisions (this is the overall course objectives, the first three lead to this) (MBA S1)

Unit Objectives

Module 1: Statistics Review and Advanced application of basic statistics in a business environment (MBA S4)

- Select appropriate data collection methods
- Identify and apply basic statistics such as mean, median, standard deviation, z-scores and hypothesis test
- Employ basic statistical methods to a variety of business questions including estimation of demand elasticity, determining if layoffs are needed, cost variation
- Evaluate statistical solutions to various business questions to determine appropriate conclusions

Module 2: Introduction to Linear Programming (MBA S1 & S4)

- Describe the concept of linear programming, including its strengths and weaknesses
- Apply linear programming methods to a variety of problems, such as estimation of demand, and sales
- Evaluate solutions of linear programming applications

Module 3: Application of Linear Programming (MBA S1 & S4)

- Employ linear programming in a broader context such as estimation of profits and impacts of competitor's actions utilizing LSR and OLS
- Analyze indicator variables

Module 4: Multiple Regression (MBA S1 & S4)

- Describe the concept of multiple regression, including its strengths and weaknesses
- Analyze uses of multiple regression and interpret results

Module 5: Problems with Multiple regression (MBA S1 & S4)

- Diagnose statistical and data issues, such as lurking variables, estimation of error
- Analyze how data issues impact results, conduct ANOVA
- Apply the methods for corrections for data problems

Module 6: More Problems associated with Multiple Regression (MBA S1 & S4)

- Identify statistical and data issues associated with multiple regression, such as multicollinearity, autocorrelation and heteroskedasticity
- Diagnose data issues and analyze their impact upon results
- Select and apply the methods for corrections for data problems

Module 7: Multiple Regression Problem Solving (MBA S1 & S4)

- Employ multiple regression in a broader context, such as restricted and unrestricted models, problems of redundant variables, dummy variables and nonlinear regression
- Interpret the results of a variety of regressions

Module 8: Forecasting and Decision Making (MBA S1 & S4)

- Apply various forecasting techniques including time variation, trends, and panel data
- Apply appropriate statistical and econometric tools to business questions
- Choose and explain the use of statistical and econometric tools in decision making

Course Requirements

Attendance Policy

You should plan to work on this course everyday. This means that you absolutely **must have a reliable and consistent internet connection** throughout the duration of the course. This also strongly suggests that you should **not plan to take any vacations** during this course. This is a condensed, fast-pace, course and it would be extremely difficult to catch up after a prolonged absence.

Online Course

This is an online course and therefore there will not be any face-to-face class sessions. All assignments and course interactions will utilize internet technologies.

Computer Requirements

This course requires that you have access to a computer that can access the internet. You will need to have access to, and be able to use, the following software packages:

- A web browser (Chrome or Mozilla Firefox)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microsoft Word

You are responsible for having a reliable computer and internet connection throughout the course.

Email and Internet

You must have an active Doane University e-mail account and access to the Internet. *All instructor correspondence will be sent to your Doane University e-mail account.* Please plan on checking your Doane Gmail account regularly for course related messages.

This course uses Blackboard for the facilitation of communications between faculty and students, submission of assignments, and posting of grades. The Blackboard Course Site can be accessed at <http://bb2.doane.edu>

To complete the assignments for this course you will need to have excel. You can download excel at

Campus Network or Blackboard Outage

When access to Blackboard is not available for an extended period of time (greater than one entire evening - 6pm till 11pm) you can reasonably expect that the due date for assignments will be changed to the next day (assignment still due by midnight).

Attendance/Participation

Preparation for class means reading the assigned readings & reviewing all information required for that week. *Attendance* in an online course means logging into the Blackboard and on a regular basis and *participating* in the all of activities that are posted in the course.

Studying and Preparation Time

The course requires you to spend time preparing and completing assignments. A three-credit course requires 144 hours of student work. Therefore expect to spend approximately 18 hours a week preparing for and actively participating in this 8-week course.

Late or Missed Assignments

ALL assignments must be finished and turned in to complete the course. Unless the instructor is notified BEFORE the assignment is due and provides an opportunity for the student to submit his/her assignment late, points may be taken off for a late assignment.

Rewrites

Students may submit their assignments ahead of their due date for review by the instructor as long as the assignment is provided a minimum of three days prior to the course due date. The instructor will provide feedback on the assignment for consideration by the student.

Submitting Assignments

All assignments, unless otherwise announced by the instructor, MUST be submitted via Blackboard. Each assignment will have a designated place to submit the assignment.

Drop and Add dates

If you feel it is necessary to withdraw from the course, please contact your advisor for full details on the types of withdrawals that are available and their procedures.

Subject to change notice

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Academic Integrity

Doane University expects and requires all its students to act with honesty and integrity, and respect the rights of others in carrying out all academic assignments. Academic dishonesty, the act of knowingly and willingly attempting or assisting others to gain academic success by dishonest means, is manifested in various measures. Gehring, et al, (1986) suggests that four categories of academic dishonesty exist¹:

- a. Cheating
- b. Fabrication

- c. Facilitating academic dishonesty
- d. Plagiarism

For more information on academic integrity, please visit the website:
<http://catalog.doane.edu/content.php?catoid=4&navoid=191>

Course Grading

Grades and Grading Scale

Assignment of letter grades is based on a percentage of points earned. The letter grade will correspond with the following percentages achieved. All course requirements must be completed before a grade is assigned.

A	100 – 90	C	79 – 70	F	59 and below
B	89 – 80	D	69 – 60		

Summary of Assignments

Vocabulary Quiz (20 each)	160	6%
Problem Set (50 each)	450	18%
Quiz (50 each)	100	4%
Discussion Board/Case Journal (15-65 each)	190	7%
Worksheets (100 each)	800	31%
Case Study (100 each)	800	31%
Exam	50	2%
	2550	

See the requirements for the specific Assignments on Blackboard.

***Expect instructor feedback on assignments within 72 hours.**

How to Succeed in this Course

- Check your Doane email regularly
- Log in to the course web site daily
- Communicate with your instructor

- Create a study schedule so that you don't fall behind on assignments

Accessibility Statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at Doane University facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities. Doane University staff coordinate transition from high schools and community colleges, in-service training for faculty and staff, resolution of accessibility issues, community outreach, and collaboration between all Doane University regarding disability policies, procedures, and accommodations.

Privacy Policy

Blackboard privacy policy

The following privacy policy applies to personal data collected at www.blackboard.com, Behind the Blackboard™ (behind.blackboard.com), or other Blackboard websites, and data collected through the provision of Blackboard products or services (collectively, the "Services"). Blackboard Inc. and its affiliates (collectively "Blackboard") are committed to protecting the privacy of its users. Because Blackboard gathers certain types of information about the users of the Services, we believe you should fully understand the terms and conditions surrounding the use of the information we collect. The following discloses our information gathering and dissemination practices for the Services. If you are using any of the Services through an educational or other institution that is a customer of Blackboard, this policy does not supersede the terms of any agreements between Blackboard and any other party, nor does it affect the terms of any agreement between any user of the Services and their employer, their educational institution or any third party. Please make sure that you read the terms of any privacy policies that you enter into with parties other than Blackboard, including your employer or educational institution, as those policies may also explain how your personal information is used by those parties. Please review the following statement to understand how the information you provide to Blackboard through the Services will be treated.

Student Conduct Statement

Students are required to adhere to the behavior standards listed in **Doane University Policy Manual**

Appropriate classroom behavior is defined by the instructor. This includes the number and length of individual messages online. Course discussion messages should remain focused on the assigned discussion topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board messages may be deleted if an instructor feels it is necessary. Students will be notified privately that their posting was inappropriate.

Student access to the course Send Email feature may be limited or removed if an instructor feels that students are sending inappropriate electronic messages to other students in the course.

Technical Support Contact Information

For technical assistance 24 hours a day, 7 days a week, please contact the Doane University Technology Office Help Desk:

Phone: 402-826-8411
Email: helpdesk@doane.edu
Web: <http://www.doane.edu>

Syllabus Disclaimer

The instructor views the course syllabus as an educational contract between the instructor and students. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes face-to-face, via email or in the course site Announcements. Please remember to check your Doane University email and the course site Announcements often.

COURSE/GRADING SCHEDULE

Grading Module	Item	Estimated Time to complete	Materials to review before attempt to complete assignment	Date	Points
Pre Module	Problem set		Read Chapter 1 and watch mini lectures	Due before the first Module	50
(100 points)	Exam		Review Chapter 1 and mini lectures	Due before the first Module	50
Module 1	Vocab quiz	.5 hours	Read Chapter 2 up to page 34	Due Wednesday at midnight	20
(335 points)	Problem set	2.5 hours	Watch the mini lectures and power points	Due Thursday at midnight	50
	Quiz	2.5 hours	Review reading, mini lectures and power points	Due Thursday at midnight	50
prep time* 6 hours	Discussion Board	.5 hours	Review reading, mini lectures and power points	Due Thursday at midnight/Sunday at midnight	15
	Worksheet	2.5 hours	Review	Due Sunday at midnight	100

			reading, mini lectures and power points		
	Case Study	2.5 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
Module 2	Vocab quiz	.5 hours	Read Chapter 2 pages 34 to end	Due Wednesday at midnight	20
(335 points)	Problem set	2.5 hours	Review all power point mini lectures and videos	Due Thursday at midnight	50
prep time* 6.5 hours	Discussion Board	4.5 hours	Read Journal article on Transformational Leadership	Due Thursday at midnight/Sunday at midnight	65
	Worksheet	2.5 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
	Case study	1 hour		Due Sunday at midnight	100
Module 3	Vocabulary Quiz	.5 hours	Read Chapter 6	Due Wednesday at midnight	20
(335	Problem	2.5 hours	Review all powerpoint	Due Thursday at midnight	50

points)	Set		mini lectures and videos		
	Quiz	1 hour	Review reading, mini lectures and power points	Due Thursday at midnight	50
prep time* 6.5 hours	Discussion Board	1 hour	Review reading, mini lectures and power points	Due Thursday at midnight/Sunday at midnight	15
	Worksheet	2.5 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
	Case study	4 hours		Due Sunday at midnight	100
Module 4	Vocabulary quiz	.5	Read Chapter 7	Due Wednesday at midnight	20
(335 points)	Problem set	2.5 hours	Review all power point mini lectures and videos	Due Thursday at midnight	50
prep time* 6.5 hours	Discussion Board	2.5 hours	Read journal article False Consensus	Due Thursday at midnight/Sunday at midnight	65
	Worksheet	2.5 hours	Review	Due Sunday at midnight	100

			reading, mini lectures and power points		
	Case study	2 hours		Due Sunday at midnight	100
Module 5	Vocabulary Quiz	.5 hour	Read Chapters 3 and 4	Due Wednesday at midnight	20
(285 points)	Problem set	4 hours	Review all power point mini lectures and videos	Due Thursday at midnight	50
prep time* 5.5 hours	Discussion Board	1 hour	Review reading, mini lectures and power points	Due Thursday at midnight/Sunday at midnight	15
	Case study	2 hours		Due Sunday at midnight	100
	worksheet	2.5 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
Module 6	Vocabulary Quiz	.5 hour	Read Chapters 5 and 8	Due Wednesday at midnight	20
(285	Problem	2.5 hours	Review all	Due Thursday at midnight	50

points)	set		power point mini lectures and videos		
prep time* 5 hours	Discussion	1 hour	Review reading, mini lectures and power points	Due Thursday at midnight/Sunday at midnight	15
	Worksheet	2 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
	Case Study	2.5 hours		Due Sunday at midnight	100
Module 7	Vocabulary Quiz	.5 hour		Due Wednesday at midnight	20
	Problem set	2.5 hours	Read Chapter 9 and Review all power point mini lectures and videos	Due Thursday at midnight	50
(270 points) prep time* 5 hours	Worksheet	2 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100

	Case study	2.5 hours		Due Sunday at midnight	100
Module 8	Vocabulary Quiz	.5 hour	Review previous module readings	Due Wednesday at midnight	20
(270) points)	Problem set	2.5 hours	Review all power point mini lectures and videos	Due Thursday at midnight	50
prep time* 5 hours	Worksheet	3 hours	Review reading, mini lectures and power points	Due Sunday at midnight	100
	Case study	4 hours		Due Sunday at midnight	100

*prep time includes reading chapter, reviewing instructional materials such as videos, powerpoints and screen captures.

Total points

Pre Module	100
Module 1	335
Module 2	335
Module 3	335
Module 4	335
Module 5	285
Module 6	285

Module 7	270
Module 8	270
Total	2550

Vocabulary Quiz (20 each)	160	6%
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Quiz (50 each)	100	4%
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Worksheets (100 each)	800	31%
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