RATIONAL

The undergraduate B-School student must be competitive in theory, research skills, and tools. Major components of the student's toolkit are analytical and problem solving techniques. The analytical part takes into consideration the use of mathematics, statistics, and economic theory to develop and frame problems for making business decisions. This course provides the quantitative tools necessary to develop and frame problems and, more importantly, to forecast their outcomes.

The course also provides a quantitative edge, which is increasingly important in the private sector. Forecasting and problem-solving capabilities are skills in demand by the private sector. Mastering the tools and methods presented in this course ensures success and job mobility in the future.
COURSE BACKGROUND

Economics 420, Managerial Economics, is a one-trimester, three credit hour, undergraduate course that applies economic theory, calculus, and statistical methods to business administration. The course combines mathematical economic theory and forecasting with managerial practice; that is, the use of econometric analysis in the formulation of business policies. The course covers topics on supply and demand, demand estimation and forecasting, costs of production, linear programming, output and product markets, break-even analysis, capital budgeting, risk and uncertainty, and international considerations.

The course is divided into four parts: Topic Area One provides an overview of managerial economics and the quantitative tools required for the course. Under this topic we cover calculus concepts of differentiation, partial differentiation, and may introduce some matrix algebra concepts. Each of these quantitative tools is used extensively in the following subsequent areas. Topic Area Two introduces Consumer and Demand Theory, which concentrates on, the structure of product markets, competition, pricing, and methods and models used to estimate and forecast demand and cost functions, using the standard linear regression model and its extensions. Topic Area Three focuses on production and cost theory, technological change, industrial innovation, and may introduce Linear Programming. Topic Area Four examines market and product structures, strategic behavior and pricing at advanced levels. Areas not covered in class may be included in the preparation of the class project.

PREREQUISITES: Economics 301 and 302, Math 355 (Applied Calculus), and Statistics 362 (Statistics for Management II). All prerequisites must be completed with a minimum grade of C.

REQUIRED TEXTBOOKS

EViews, Student Version 3.1, Quantitative Micro Software

INTENDED AUDIENCE:

This course is offered to upper level undergraduate students, especially those that have fulfilled their calculus and statistics requirements. It is not possible to take the calculus requirement concurrent with this course; however, it is possible to have not completed STAT 362. Students that have not successfully completed all prerequisites may find that a grade of A may not be in their realm of attainment.

SUPPLEMENTAL READINGS AND QUANTITATIVE REQUIREMENTS

Additional readings will be assigned to supplement the material in the required texts. When supplemental readings are assigned, they are considered required reading. It may be helpful on occasion to refer to basic economics, calculus or statistics texts to supplement, clarify, and further explain theories and other conceptual material found in the readings and presented in class. The course assumes students have completed all necessary prerequisites including the qualifying examinations in mathematics.
EXPECTED STUDENT OUTCOMES

Upon completion of this course, the student should be able to (1) describe the neoclassical theory of the firm, (2) use regression analysis to estimated demand, cost, and production functions, (3) model and develop econometric models using time series data and econometric software programs, (4) use break-even, capital budgeting techniques and risk analysis for assessing the firm’s development and competitive strategies, and (4) incorporate all of these tools as practical management techniques in the decision-making process. More importantly, the student should have substantially increased problem solving, analytic and analysis techniques.

INSTITUTIONAL MODALITIES/ACTIVITIES:

The Course will consist mainly of lectures and class discussion with homework exercises. All homework assignments are due one week from the assigned date. All homework is expected on the due date. Late homework will not be accepted. (See Fax number above for difficulties.) Students are expected to attend each class, read material prior to class, and to entertain the instructor with their knowledge of the course material.

The structure of the class is based on learning concepts through the case method. The pedagogy is to present information and materials of what a managerial decision-maker and an intelligent user of quantitative methods should be aware of in the market place. Students will find that most of the problems presented here do not have clear and concise solutions, and that learning is greater when such is the case. Thus, the course’s emphasis is on developing the problem solving and analytical capabilities of students.

GRADING

There will be weekly homework assignments with class discussion (CD=20%), two mid-trimester examinations and final examination (Exams=50%), and an industry analysis with in-class presentation (Paper=30%). The second mid-trimester examination is a take-home examination, will not be graded, but students are expected to complete, as it will provide an extensive review of calculus and statistical, constituting the critical review of these methods for the course. Students are expected to discuss their results directly with the professor. Students are expected to work problems at the end of the chapters of the required textbooks and additional problems, examples, and solutions will be presented in the lecture.

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\[ \text{FinalGrade} = 0.10[CD] + 0.50 \left( \frac{\text{Exams}}{2} \right) + 0.40(\text{Paper}) \]
As the paper accounts for 40% of the grade, any illegitimate usage of references and paraphrasing appearing in the document will result in a zero for this portion of the grade. Students are expected to know how to properly cite references and present them in the appropriate bibliographical format.

**WRITING ASSIGNMENTS:**

The course requires a significant amount of writing and the expectation is that undergraduate B-School students be able to demonstrate their writing ability in their work. All assignments, except quantitative exercises, are to be typed using rules of grammar flawlessly and to write well-organized and comprehensive papers. All assignments are to be organized sequentially and presented in a format, which includes:

- Cover page containing the student’s name,
- Title of class, section,
- Number of the homework and assignment, and
- Due date of the assignment.

Each question should be stated with the answer following. Pages are to be numbered and all references and/or documentation should be appended appropriately. Additionally, assignments turned in outside of class hours should be turned into the program secretary (Ms. Dorothy Kennedy) or left at the Public Safety Office so that time documentation is provided.

Whichever style you choose to use (Chicago Manual of Style, American Psychological Association, Modern Language Association, etc.) is up to you; however, you must state the style used in the introduction of your paper, as a footnote. If you need help please purchase or checkout guidebooks from the GSU Library on report writing. Examples of such aids are Barron’s *How to Write Themes and Term Papers*, Turabian’s *A Manual for Writers of Term Papers, Theses, and Dissertations*, or the *Harbrace College Handbook*. Students who have little or no experience in writing research papers should meet with Dr. Becky Nugent, Writing Center Coordinator in Student Development, Governors State University.

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**Format and Style For Research Papers**

*Dr. Becky Nugent, Writing Center Coordinator*

Student Development, Telephone: (708) 235-2105

All written assignments will be graded according to the following guidelines:

**Above Standard:**

A paper in this category will complete all tasks set by the assignment. It will be distinguished by lucid and orderly thinking, and may even introduce an original interpretation of the writing topic. It will be virtually free from errors in mechanics, usage, and sentence structure. There will be evidence of superior control of language. Finally, the paper will clearly show integration of the relevant topic areas covered in the course.

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1 *See Ethical Behavior, page 3.*
Standard:

Papers falling in this category may slight, but not ignore, one of the tasks of the assignment or deal with it only by implication; however, the writer will demonstrate a clear understanding of the topic. The paper will exhibit minor weaknesses in interpretation of the theory but will be free from errors in grammatical and sentence structure.

Qualifying:

Papers in this category show serious difficulty managing the tasks of the assignment and definite weaknesses in analytic thinking. Failing to integrate, in an acceptable fashion, concepts in the topic areas of the course will evidence this. Additionally, the writer's control of language will be uncertain and error prone with respect to grammatical and sentence structure.

Below Qualifying:

Papers in this category will fail to come to terms with the assignment by ignoring tasks. Also, there will be clear lack of understanding relevant concepts and their integration into a clear analytic and problem solving framework. There will be serious and frequent errors in sentence structure, usage, and mechanics, given the impression of distinctly inferior writing.

Non Qualifying:

This category is reserved for the paper in which a combination of errors, conceptual confusion, and disorganization creates the impression of an inability to handle the material at this level of analysis and/or sentence, and grammatical structure is seriously below that expected for upper-level undergraduate students.

COURSE METHODOLOGY:

The framework of analysis consists of lectures that provide the fundamental content of theories and concepts in the textbook and readings. The lectures will disseminate the most important elements and concepts; however, students are responsible for all readings and completing all homework assignments. The course focuses on the principle concepts and, more important, the practical application of the concepts using tools derived from the coursework. A critical element of the course is the development of critical analysis and problem solving skills. Much of this will be accomplished using both qualitative and quantitative methods so it is extremely important to develop problem-solving capabilities to be successful in this course. Thus, problem solving and interpretative skills are part of the toolkit derived from the successful completion of this course.

THE PARTICIPANTS ROLE IN THE COURSE

To achieve the highest standard in the course, A, the student will average 93 on homework and examinations. Students averaging higher than 96 are recommended to the Dean of their college for honors consideration. To master course work requires a minimum of three (3) hours of study for every hour of classroom time; that is, students should expect to spend 9 to 12 hours per week outside of class to prepare for each week's class sessions. It is expected that you will plan your study, work, family, and leisure time accordingly.
• The instructor provides 10 hours of office hours on a weekly basis.
• It is recommended that students first meet with the instructor if there are any questions regarding course materials.
• **Students may also receive assistance by calling and leaving questions on the instructor’s voice mail (708.534.4058) at any time of the day or night, and your questions will be answered at the instructor’s earliest convenience.**
• **Students requiring additional assistance may consult the Student Center in Room B-1201 or call 708.534.4090.** The Student Development Center provides tutorial assistance in economics, English, and mathematics.

You will demonstrate your mastery and understanding of the course material through class participation and discussion, the homework assignments, the mid-trimester and final examination, and the industry analysis report. If it becomes apparent through class discussion that students are not current with assigned readings and/or are not coming to class adequately prepared one or more one-hour essay exams on the assigned readings will be given in class.

• **Attendance and Participation**

You are expected to attend class, thus there are no excused absences. Because of the nature and level of quantitative concepts and material, it is imperative that you not miss any classes. As a student studying for a degree you are expected to act in a responsible manner to ensure your attendance in, preparation for, and participation in class. If you are ill, encounter a family emergency, or have a job assignment that requires you to be absent, due allowance will be given. However, you are responsible for notifying the instructor and/or the Divisional Chair, Dr. Richard Finkley at 708.534.4960, of any impending absence(s) and arranging the timely completion and submittal of any assignment(s). Attendance will be taken if necessary. **Your records of attendance and participation determine five percent of the homework and discussion allocation and are usually the determining fact for marginal grades.**

• **Assignments**

All assignments, as indicated above, are due the day requested. **Late assignments will not be accepted.** You may fax, e-mail, or have hand delivered your assignments, by the due date or prior to, if you are to be out of town and/or away on business. All homework should contain a typed cover-page that includes the course title, student’s name, CARS ID number, assignment number, and due date. If the homework is considered quantitative it does not require typing (but the cover page does require typing). However, it is expected that all other written assignments be typed. The student should keep originals of all assignments, with copies turned in to the instructor. Additionally, assignments turned in outside of class hours should be turned into the program secretary (Ms. Dorothy Kennedy) or left at the Public Safety Office so that time documentation is provided.

• **Ethical Behavior**

Each student is expected to follow the University’s requirements as published in the University Catalog, 2004-2005 for Academic Honesty and the University Policy on Academic Honesty, which appears in the Student Handbook. Students are expected to fulfill academic requirements in an ethical and honest manner. This expectation pertains to the following elements: (1) use and acknowledgment of the ideas and work of others, (2) submission of work to fulfill course requirements, (3) sharing of work with other students, and (4) appropriate behavior during examinations.
Syllabus Statement for Persons with Disabilities:

Students who have a disability or special needs and require accommodation in order to have equal access to the classroom, must register with the designated staff member in the Division of Student Development. Please go to Room B1201 or call (708) 534-4090 and ask for the Coordinator of Disability Services. Students will be required to provide documentation of any disability when an accommodation is requested.

About the Instructor:

Anthony Paul Andrews is Professor of Economics and Liberal Studies, holding a joint appointment in the Colleges of Business and Public Administration and Arts and Sciences. Additionally, he is Director of the International Business and Global Grade Research Institute at GSU. He received his B.A. in economics from Hampton University, and the M.A. and Ph.D. from the University of Pennsylvania, specializing in Econometrics/Statistics, Location Theory, and Urban & Regional Planning Theory.

Dr. Andrews has held economist positions with the Bureau of Economic Analysis in the Department of Commerce and the President’s Council of Wages and Prices, both in Washington, D.C. He was Director of Development Planning for the State of Ohio and continues to consult for local, state and national governments through his consulting firm, Develop-Metrics (Pty) Ltd. Recent consultancies include stints with the Central Bank and Ministry of Finance and Development Planning for the Government of Botswana, the United Nations Development Programme (UNDP), International Labour Organization (ILO), Deloitte-Touche, and short-term consultancies in Guinea, Kenya, Sierra Leone, Zambia, Zimbabwe, the Food and Agricultural Organization in Rome, Italy, and the Oxford Food Research Institute, Oxford University.

Research interests: (1) cointegration analysis of time series, (2) forecasting and expectations indices, (3) labor market and firm location theory, (4) economic development planning, and (5) applied microeconometrics.