PROVISIONAL COURSE OUTLINE

1. INTRODUCTION

Introductory Class Meeting

Study: **A&L** Preface and sections 1.1-1.4 of chapter 1.

SCARCITY, CHOICE, and OPPORTUNITY COST. (No lecture, *but there is an assignment*.) A. ("A" means there is an assignment).

2. MODELS

This quarter I am going to get you to read and think about this material on your own.

Master: ET1: *Theories and Models* and think about the quotations at the front of the Manual. (<u>A good Journal topic!</u>)

Study: ***Sets and Numbers***, **MR1. Be sure** that you have really **mastered** the *properties of real numbers* that are listed at the end of MR 1.

3. SUPPLY AND DEMAND (L,A) ("L" means that I lecture on this material.)

The supply and demand models of Marshall and Walras. Qualitative Comparative Statics. Tax Incidence. Consumer and Producer Surplus.

Master: MR 2-4 *Functions, Linear Functions, Simultaneous Linear Equations*, and the **five** *Supply and Demand* sections of

the Manual, **ET 2-6** in the order in which they appear in the Manual. This will provide you with all of the mathematics and economics you need to know for this part of the course.

A&L Master sections 3.1-3.3, and 3.4-3.7 of chapter 3.

4. INCOME DETERMINATION (L,A)

National Income Accounting. The Income Determination Model. Fiscal Policy and Balanced Budgets. Foreign Trade.

Master: ET 7-10 *Macro Models and Models I-3*

A&L Master: Section 3.10 and study section 3.11 of chapter 3.

FIRST MID-TERM?

WE WILL SPEND MOST OF THE REST OF THE COURSE ON MICROECONOMICS (SOMETHING HAS TO GIVE!) BUT *YOU* NEED BRING YOUR KNOWLEDGE OF Econ 207 UP TO SCRATCH!

5. THEORY OF THE FIRM

Break-Even Analysis. Introduction to Differential Calculus. Cost curves. Profit Maximization under Perfect Competition and Monopoly. Elasticity and Revenue. Averages and Marginals.

Master: The first two *Calculus* sections of the Manual, **MR 5-6**.

A&L Study: Chs.4.1- 4.9, 5.1-5.3,5.6, 6.1-6.3, 7.3 -7.5.

If you have never done differential calculus then you should take Math 157 before, or with, Econ 208. If, despite my warnings, you take on the task of mastering (very elementary) differential calculus while doing Econ 208 do not be surprised to find that you are suddenly in over your head and are sinking fast. If you do try Econ 208 before Math 157 then you need to start working on the calculus section of the Manual (and look at assignments A12-A17) **ASAP!** That is, on *the weekend of January10-11*! **If you decide to pursue this route then discuss your decision and your reasons for it in your Journal or come and talk to me**.

Even if you have done differential calculus – and *especially if that was some time ago* – then you need to look through MR's 8-11 and assignments A12-A17 to see what you are familiar with, and what is new to you, and then start working on the unfamiliar material **ASAP!**

A&L provide a superb coverage of all the calculus we need (and much more), so master the assigned sections of the A&L Manual so that you are not simultaneously struggling with new math, new (perhaps) economics, and the high level cognitive task of integrating them into that body of knowledge that all economics majors should possess.

6. ELASTICITY (L,A).

Master: *Elasticity* **ET 11** *Higher-Order Derivatives* and *Extrema of Functions of One Variable* **MR 7-8.**

A&L Master: Section 4.1 and Ch.5.

WE DO NOT HAVE ENOUGH TIME TO STUDY MONOPOL-ISTIC COMPETITION AND OLIGOPOLY - AGAIN SOMETHING

☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺

SMILE - AFTER ALL, IT'S ONLY THE END OF THE WORLD!

I was born and educated and spent the first thirty-five years of my life in England. As any of you who may have come into contact with Monty Python will be aware: irony, exaggeration, lampoon, satire, and all sorts of politically incorrect behavior are considered humorous on the other side of the Atlantic and I may from time to time slip back into my old ways. Please do not take **_everything_** that I say, *even with a straight face*, seriously, and let me apologize in advance if I should, inadvertently, tread rather heavily on some gentle person's tender psyche. (You really don't need to worry about the Piranha Pit or the impaling-stakes, they are only used in the utmost extremity, which I am sure will not be necessary this quarter. You may wish to see the Ashes of Problem Students that are on display in my office.)

☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺☺

HAS TO GIVE! BUT IT IS UP TO **_YOU_** TO BRING YOUR KNOWLEDGE OF Econ 206 UP TO SCRATCH IN AREAS WE DO NOT HAVE TIME TO COVER in Econ 208.

SECOND MID-TERM

7. PRODUCTION AND COSTS

Factor Markets in the short- and long-runs. Isoquants and Isocosts. Returns to scale. Production functions - Cobb-Douglas.

Master: MR 9 *Functions of Two Variables*.

Most of you will have problems with visualizing the graphs of these functions – they are *two-dimensional surfaces* in *three-dimensional spaces*. You need to work on the diagrams in MR 9 and the material in A&L.

A&L Study 8.1-8.2, 8.6-8.7, 9.1-9.5.

8. EXTREMA: FUNCTIONS of TWO VARIABLES

Extrema of functions of two variables. Price discrimination. Multiplant firms.

Master: *Extrema of Functions of Two*, **MR 10**.

A&L Study 8.11.

THIRD MID-TERM?

9. CONSTRAINED EXTREMIZATION

Models of consumer and producer behavior. Indifference curves and budget lines. Isoquants and isocosts. Derivation of demand curves. Duality.

Master: *Constrained Extremization: Functions of Two Variables*, **MR 11**.

A&L Study 10.1-10.7, 11.1, 11.4.

THIS IS AN ENORMOUS AMOUNT OF MATERIAL TO BE COVERED IN TEN WEEKS. If you take out the three classes devoted to exams and the half class used to introduce the course and the half class to do a student evaluation, then that only leaves us with *thirteen classes* to cover *nine topics*. If we are to have any chance of achieving our goals **you** must be **very self disciplined** and **very pro-active.** *You must keep well ahead of the lectures*, *particularly during the first few weeks* when we will be covering material that you should be quite familiar with. **Keeping ahead** means reading the Manual, your principles texts, A&L, and doing the assignments in the order set out in this Course Outline – even though that means you will get well ahead of the lectures. Remember that the **university** expects you **minimum** of **eight hours of study each week**.

It is my hope, but not my expectation, that we will complete the section on supply and demand on January 12, and the macroeconomic models by January 31 so that both of these topics can be included in your first mid-term on January 24. (We just managed to do this last quarter.) Student feedback has always urged me to move more quickly in the first part of Econ 208, so that more time can be devoted to calculus in the remainder of the

course - especially the calculus of functions of two variables that is so important in your upper division courses. It seemed to work in the spring although we were less successful last quarter – I was less ruthless than I need to be. Let us hope that it will work with your class – it will *if you are willing to put in the commitment.* Certainly, if we are to achieve this goal then **you will have to be unremittingly hard working, self-motivating, and proactive**!

I hope to devote the period from February 2 to February 28 to univariate calculus (with an exam on February 10). That will leave us with the period from February 28 through March 9 to grapple with bivariate calculus and the wonders of constrained extremization (with an exam on March 2). However, because economists are a pragmatic breed, I will adapt the course as I see what transpires.

Ideally by the end of the quarter you will have found the time to master *all* of the theoretical material in Econ 206 and 207 that, hopefully, you once knew – hence the importance of having copies of principles texts to hand. This is one of the few times in your life when you will have the opportunity to re-do something that you may not have mastered on your first attempt. Don't squander this opportunity!

I HOPE YOU ENJOY THE COURSE, MASTER THE MATERIAL AND FIND THAT KNOWING THE MATERIAL IS HELPFUL IN YOUR OTHER ECONOMICS COURSES.

If you find a typo – or a "thinko" – then send me an e-mail with the *precise page, paragraph and sentence* where I have gone astray. I will also be ***delighted*** if you point out errors – especially mathematical ones – which I inevitably make in lecturing to you.