



ST. FRANCIS XAVIER
UNIVERSITY ECONOMICS:

Instructor: Cornelius Christian
Email: ccchristi@stfx.ca

ECON 401: ADVANCED MICROECONOMICS

Office Hours: By appointment (At NH 508)

Lectures: 3:45pm-5pm, Tue. and Thur.

Description of Course: This is an advanced course in microeconomics, targeted at students considering graduate studies in economics. The course will focus on the underlying theory and structure of economic models, and also on developing mathematical proof skills. We will consider basic real analysis, probability theory, social network analysis, and game theory.

Textbooks (Suggestions but not required):

Microeconomics: Behavior, Institutions, and Evolution by Bowles (2006)

Social and Economic Networks by Jackson (2010)

Microeconomic Analysis (3rd Ed.) by Varian (1992)

Calculus (3rd Ed.) by Michael Spivak (1994)

Cellphone Policy: Please don't use cellphones during class. It is distracting to your fellow students, and to me.

COURSE OUTLINE

1. Introduction

Economic Methodology
Mathematics Preliminaries

2. Some real analysis

Basic Properties of Numbers
Functions
Limits
Differentiation

3. Basic Probability Theory

Discrete and continuous distributions
Bayes' Rule

4. Social Network Theory: Introductory Notes

Background and Motivation
Random-Graph Models
Strategic Network Formation

5. Ideas in Evolutionary Game Theory

Static vs. Dynamic Games
Evolutionarily Stable Equilibrium (ESS)
Evolutionary games

EVALUATION

Your course grade will be determined as follows:

Problem Sets (3 or 4 throughout term):	20%
Midterm Exam (Thur, October 27):	30%
Final Exam (TBA, December):	50%

The final exam will not include the material on real analysis.

ASSIGNMENT POLICY

You may do assignments in groups, but they should be submitted individually. I do not accept late or unstapled assignments.