Administrative Information

Instructor: Jennifer Xue HU
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Office Hour: TBA

Course Description: Lecture, two hours. Should be taken prior to taking course 11. Coverage of essential mathematical and spreadsheet tools that Economics majors use in their core courses and upper division elective courses. Review of algebra (graphing lines, solving systems of equations), geometry (determining areas), calculus (first derivatives, partial differentiation, elementary integral calculus), and Excel (handling data, using simple arithmetical, mathematical, and financial functions, use of Solver), Offered in summer only. P/NP grading

Grading: Pass/no pass. To pass this course, you are expected to complete all three assignments with at least 60% of the cumulative score.

Important Dates
Week 2 Class 1: Problem Set 1 Due
Week 3 Class 1: Problem Set 2 Due
Week 4 Class 2: Problem Set 3 Due
Course Schedule

**Week 1 Class 1**  Algebra I
Set, Sequence, Functions and Graphs, Solving System of Equations

**Week 1 Class 2**  Algebra II
Concavity, Convexity, Monotonicity, Integral, Derivative and Partial derivative

**Week 2 Class 1**  Optimization I
Unconstrained Optimization, First and Second Order conditions

**Week 2 Class 2**  Optimization II
Constrained Optimization, Rule of Substitution and Lagrangian Method

**Week 3 Class 1**  Excel Getting Started
Workbooks and Worksheets, Cell Basics, Filing, Computations on Cell Ranges, Fundamentals of Excel Formulas

**Week 3 Class 2**  Excel Functions and Charts
Useful Functions in Excel, Charts

**Week 4 Class 1**  Solver in Excel
Formulating and Solving Linear Programs in Excel

**Week 4 Class 2**  Advance in Excel
Reference functions, Introducing Visual Basic (VBA) Subroutines