

### **Information**

Dates: Friday, August 19<sup>th</sup> to Sunday, August 21<sup>st</sup>

Time: 8.00AM – 5.00PM

Instructor: Ray Zuniga

Instructor's Email: [raymond.zuniga@american.edu](mailto:raymond.zuniga@american.edu)

Location: Ward Circle Building Rooms 2 and 3

### **Course Description and Objectives**

The Math and Economics Boot Camp is a review of basic math, algebra, and microeconomics for MPP students as well as MPA students concentrating in policy analysis. Its purpose is to prepare you for courses that require a basic level of competence in these subject areas. These courses include Quantitative Methods for Policy Analysis I & II and Economics for Policy Analysis. The main objective of this boot camp is improved student performance in these courses. We also hope that the boot camp will reduce any "math anxiety" that students bring to these courses. The Math and Economics boot camp; however, is not an introduction to the MPP or MPP Program.

In order to cultivate a relaxed atmosphere, the Math and Economics boot camp is ungraded and not for credit. We want to encourage you to focus on learning the concepts that are presented, rather than worry about earning a good grade.

### **References**

There are no required textbooks for the Math and Economics boot camp. We will provide you with a packet that includes course exercises. If you're interested in reviewing some of the topics covered, the references listed below are a good place to start.

Beecher, J.A.; Penna, J.A.; and Bittinger, M.L. 2007. *College Algebra* (3rd edition). Addison Wesley.

Larson, R.; and Hostetler, R.P. 2010. *College Algebra* (8th edition). Brooks Cole.

Lial, M.L.; Hornsby, J.; and Schneider, D.I. 2008. *College Algebra* (10th edition). Addison Wesley.

Mankiw, N.G.M. 2007. *Principles of Microeconomics* (4th edition). Thomson South-Western.

## Schedule<sup>1</sup>

### Friday

**Topics Covered:** Notation, Operators, Order of Operations, Basic Probability, Logarithms, Exponents, Fractions, Expected Value, Equation of a Line, Tangent Lines, Manipulating Mathematical Equations, Solving Systems of Equations with One or Two Unknowns

**Agenda:**

8.00AM – 9.00AM: Breakfast & Registration

9.00AM – 9.15AM: Introductions

9.15AM – 12.30PM: Lecture

12.30PM – 2.00PM: Lunch & Meet your professors from PUAD 601 and 670

2.00PM – 5.00PM: Lecture

### Saturday

**Topics Covered:** Microeconomics vs. Macroeconomics, Positive vs. Normative Analysis, Opportunity Cost, Comparative Advantage vs. Absolute Advantage, Gains from Trade, Supply and Demand, Elasticity, and Thinking on the Margin: Marginal Cost and Marginal Benefit

**Agenda:**

8.00AM – 9.00AM: Breakfast & Informal question & answer session with instructor

9.00AM – 12.30PM: Lecture

12.30PM – 2.00PM: Lunch

2.00PM – 5.00PM: Lecture

### Sunday

**Topics Covered:** Market Failures, Government Failures, Efficiency and Equity, Consumption and Leisure Decisions, Tax Analysis

**Agenda:**

8.00AM – 9.00AM: Breakfast & Informal question & answer session with instructor

9.00AM – 12.30PM: Lecture

12.30PM – 1.30PM: Lunch

1.30PM – 3.00PM: Policy exercise & Wrap-up

3.00PM – 5.00PM: Catch-up & Review

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<sup>1</sup> The schedule may change at the instructor's discretion.