NEW YORK CITY COLLEGE OF TECHNOLOGY  
The City University of New York  
School of Arts & Sciences  
Department of Social Science  
Course Outline

Course code: ECON 2820ID  
Course title: Behavioral Economics  
Class hours/credits: 3 class hours, 3 credits  
Prerequisite: ECON 1101 or ECON 1401; MAT 1275 or higher; PSY 1101  
College Option: Interdisciplinary

Catalog Description: This interdisciplinary course examines the factors that underlie the judgment/decision making processes of economic agents. Behavioral economics challenges the rationality assumption of standard economic theory and encompasses the role of emotion, psychological biases and heuristics to understand non-rational decision making.

RECOMMENDED TEXTBOOK and MATERIALS*

Primary text:  

Recommended:  

Additional assigned readings from journals, newspaper and magazine articles.

Other sources:  
http://nudges.org/  
http://www.inudgeyou.com/decisions-into-the-future-nudging-time-consistent-choices/

* The textbook used in a particular section will be chosen by the instructor.

COURSE INTENDED LEARNING OUTCOMES/ASSESSMENT METHODS: To develop an understanding of the fundamental concepts of behavioral economics and how it improves the standard theory to describe human choice accurately. Specifically, course objectives include the following:

<table>
<thead>
<tr>
<th>LEARNING OUTCOMES</th>
<th>ASSESSMENT METHODS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate an understanding of the standard economic theory particularly the theory of rational choice under certainty and uncertainty.</td>
<td>1. The midterm and final exams, which will include essay questions, will test students’ understanding of the standard economic theory.</td>
</tr>
<tr>
<td>2. Critically evaluate the rational choice</td>
<td>2. Class discussions of assigned articles and</td>
</tr>
</tbody>
</table>
theory using real-world examples, and provide examples on how heuristics can lead to systematic errors and biases in decision making.

other supplementary readings, and experiments conducted in class.

3. Demonstrate an understanding of how behavioral economics incorporates psychological factors into standard theories to adequately describe human choice, and to improve the predictive power of economic theories.

3. Both exams and class discussions will help students to grasp rational choice theory and prospect theory. Extensive use and variety of real-world examples will help students to understand the additions of prospect theory to the standard economic theory.

4. Develop an understanding of how behavioral economics can be used to improve individual decision making in different spheres of life, and how it can be used in economic policy making.

4. Class discussions, in-class experiments, and assignments that point out deviations from rationality in decision making, and how decisions can be improved. Class discussions on welfare-enhancing policy proposals by behavioral economists, and video presentations by leading figures in the field which will help students understand how behavioral economics can be used to design sound economic policies.

GENERAL EDUCATION LEARNING OUTCOMES/ASSESSMENT METHODS

<table>
<thead>
<tr>
<th>LEARNING OUTCOMES</th>
<th>ASSESSMENT METHODS*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. KNOWLEDGE:</strong> Understanding this relatively new sub-discipline of economics, and how predictive power of its theories can be used in economic policy making. Understanding whether people make poor choices and they could be helped to make better choices.</td>
<td>1. Class discussions, assignments and exams that test understanding of key concepts and that require students to express their understanding in writing.</td>
</tr>
<tr>
<td><strong>2. SKILLS:</strong> By taking advantage of comparative framework used in the classroom, develop an ability to critically evaluate different theories of decision making. Identify the role of heuristics and deviations from rationality when making decisions in every sphere of life. Develop and strengthen the ability to discuss concepts and thoughts in writing.</td>
<td>2. Completion of essay questions on assignments and exams; class discussions of questions tied to topics covered in class and to supplemental short readings, and articles on timely relevant issues where students analyze, evaluate and consider policy options.</td>
</tr>
<tr>
<td><strong>3. INTEGRATION:</strong> Students should be able to apply the concepts and theories presented in the course to various decision problems they might encounter outside the classroom.</td>
<td>3. Class discussions and experiments held in the classroom will help students to identify any deviations from rationality.</td>
</tr>
<tr>
<td><strong>4. VALUES, ETHICS, AND RELATIONSHIPS:</strong> Work creatively with others in group problem solving.</td>
<td>4. In-class group assignments that encourage student discussion and sharing of ideas and perspectives.</td>
</tr>
</tbody>
</table>

* may vary slightly per instructor to suit their own needs
SCOPE OF ASSIGNMENTS and other course requirements*

Students will be asked to work on and turn several mandatory homework assignments consisting of questions which are designed to help them better understand the concepts covered in the classroom.

There will be two in-term exams, plus a Final Exam. Student participation in class discussions is very important and it will count towards 15% of the final grade.

METHOD OF GRADING – elements and weight of factors determining the students’ grade*

- First exam (Warm-up) 10%
- Second exam 15%
- Homework assignments 30%
- Final exam 30%
- In-class assignments; individual/group discussion; class participation; attendance 15%

*Scope of Assignments and Method of Grading to be determined at discretion of the instructor.

ACADEMIC INTEGRITY POLICY STATEMENT

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

COLLEGE POLICY ON ABSENCE/LATENESS

A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester as follows:

<table>
<thead>
<tr>
<th>Class Meets</th>
<th>Allowable Absence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 time/week</td>
<td>2 classes</td>
</tr>
<tr>
<td>2 times/week</td>
<td>3 classes</td>
</tr>
<tr>
<td>3 times/week</td>
<td>4 classes</td>
</tr>
</tbody>
</table>
It is the responsibility of the instructor to keep accurate records of every student’s attendance and to inform each class orally and in writing of the applicable attendance policy during the first two weeks of class meetings each semester.

Excessive Absence
If a student’s class absences exceed the limit established for a given course or component, the instructor will alert the student that a grade of “WU” may be assigned. If a student remains officially registered for a course and never attends that course, a final grade of “*WN” will be assigned. If the student withdraws officially from the course, he/she will be assigned a grade in accordance with the existing withdrawal policy of the College.

Appeals
A student wishing to appeal the excessive absence status and the impending grade should request a meeting with the chairperson of the department in which the course is offered. The chairperson will consult with the instructor to render a decision. A student wishing to appeal a “WU” grade may do so through the Committee on Course and Standards.

Lateness
It is the responsibility of the instructor to keep a record of lateness and to inform each class orally and in writing of the lateness policy during the first two weeks of class meetings of each semester.

SAMPLE SEQUENCE OF TOPICS AND TIME ALLOCATIONS*

Week 1: What is behavioral economics?
- Will be taught by an economist, and a psychologist.
- The “Rational Man” assumption in standard economic theory and Bounded Rationality in Choice. (*homo economicus vs. Humans*)
- Standard economic theory as a normative theory rather than a descriptive theory.
- Introduce behavioral economics as a descriptive theory, and that it attempts to describe human choice behavior without ruling out irrational choice behavior.

Assigned readings:
1) Angner, Introduction, pgs. 3-8. 2) Kahneman, Introduction, pgs. 3-15;
Additional reading:

Week 2: The theory of rational choice under Certainty.
- Will be taught by an economist.
- Introducing the theory of rational choice with a focus on consumer’s choice problem.
- Defining rational preferences, listing and explaining the axioms that preferences of a consumer must follow.
Introducing indifference curves, budget set, utility, and choice under certainty.

Assigned readings:
Angner, Ch 2: Rational Choice under Certainty, pgs. 11-28.
Additional reading:

Week 3: Decision-Making under Certainty and Prospect Theory.
- Will be taught by an economist.
- Explore whether we can predict human choice behavior in real-world settings using the theory of rational choice.
- Class discussion on the failure to take into account opportunity costs, sunk costs when making decisions.
- Introducing Prospect Theory and value functions after a discussion on loss aversion, reference dependence, and the endowment effect.


Additional readings:

Week 4: Class discussion on the influence of heuristics and biases on the decision making process, and an application on labor supply of NYC cab drivers.
- Will be taught by a psychologist.
- Running class experiments to observe the influence of heuristics (for example; anchoring, the law of small numbers and sampling effects, availability heuristic, regression to the mean, less is more) on decision making of students.
- Talking about the labor supply decisions of NYC cab drivers.


Week 5: Review and First Exam (Warm-up)

- Will be taught by an economist.
• Providing examples of probability judgment.
• Presenting the fundamentals of probability theory; conditional and unconditional probability
• Introducing Bayes’s rule i.e. computing unconditional probability from conditional probability.

Assigned readings: 1) Angner, Ch 4: Probability Judgment, pgs. 61-78.

Week 7: Does the probability theory predict how people actually make probabilistic judgments?
• Will be taught by a psychologist.
• Providing examples of probability judgment.
• Class discussion on heuristics and the biases that they lead to. Running class experiments to observe the influence of heuristics (for example: base-rate neglect, confirmation bias, availability).
• Providing the proposal of behavioral economists to improve the standard economic theory so that it can adequately describe judgment under uncertainty.

Assigned reading: 1) Angner, Ch 5: Judgment under Risk and Uncertainty, pgs. 81-96.

Additional readings:

Week 8: Rational Choice under Risk and Uncertainty.
• Will be taught by an economist.
• Defining risk and uncertainty.
• Laying the foundations of expected utility theory by providing examples on choice under uncertainty. Introducing the expected utility theory which makes use of utility and probability concepts covered in previous lectures.
• Finding the expected value and expected utility of a gamble.

Assigned readings: 1) Angner, Ch 6: Rational Choice under Risk and Uncertainty, pgs. 103-122.

• Will be taught by an economist, and a psychologist.
• Providing examples and class discussion on systematic deviations from the predictions of standard theory. Talking about framing effects, and bundling and mental accounting in decision making under risk.
Prospect theory revisited under conditions of uncertainty by introducing more assumptions about the value function.


Week 10: Review and Second Exam

Week 11: Intertemporal Choice and the Discounted Utility Model.
- Will be taught by an economist.
- Focusing on decisions that involve time as a factor.
- Class discussion on decisions that involve immediate benefits and deferred costs or immediate costs and deferred benefits.
- Working on simple time-discounting problems.
- Introducing the model of exponential discounting and its implication of time consistency.

Assigned readings: 1) Angner, Ch 8: Discounted Utility Model, pgs. 147-156.

Week 12 Time-inconsistency and Self-Control Problems and Its Applications on Health and Wealth
- Will be taught by a psychologist.
- Providing examples to impulsivity and impatience.
- An application on health: Obesity, cancer screening.
- An application on wealth: Saving for Retirement


Week 13: Time-inconsistency and Hyperbolic Discounting
- Will be taught by an economist.
- Introducing the proposal of behavioral economics to capture time-inconsistent behavior by using hyperbolic discounting.
- Introducing beta-delta model.
- A discussion on hyperbolic discounting and its limitations.

Week 14: Behavioral welfare economics and Libertarian Paternalism in economics
- Will be taught by an economist.
- Policy recommendations by behavioral economists to make the world we live in a better place.
- Discussing the welfare-enhancing proposals of behavioral economists such as default options and Save More Tomorrow Program.
- Class discussion of two welfare-enhancing policy proposals by Thaler and Sunstein on school choice and organ donations.
- Showing the “Choice Architecture” presentation by Richard Thaler at Google where he discusses the tools of behavioral economics to improve decision making in health, wealth and happiness.
  https://www.youtube.com/watch?v=Dz9K25ECIpU&list=PLh5BMOdETjOr-19xRD59WRoh1Vwf6zRUW

Assigned readings: 1) Angner, Ch 12: General Discussion, pgs. 207-211. 2) Thaler and Sunstein, Ch 6: Save More Tomorrow pgs. 105-120. 3) Thaler and Sunstein, Ch 7: Naïve Investing, pgs. 120-134. 4) Thaler and Sunstein, Ch 11: How to Increase Organ Donations, pgs. 177-185 2) Thaler and Sunstein, Ch 13: Improving the School Choices

Week 15: Review and Final Exam

*guidelines from which instructors may select or adapt

Reviewed/revised by: Gulgun Bayaz Ozturk, Ph.D., spring 2016