Instructor
Christian Luhmann
Office hours: TBA, or by appointment
Office: Psychology B250
Phone: 632-7086
Email: christian.luhmann@stonybrook.edu

Course Description
The study of decision making has been a major concern of economics for most of the last century; however, it has only received significant attention from psychologists in the last few decades. Early behavioral studies provided simple cognitive accounts of preferences between chance gambles, multi-attribute consequences, and streams of payment over time. More recent studies have explored the role of emotion, motivation, and social context in such decisions. The newest, and possibly most exciting, frontier in this research area is the effort to understand the ways in which neural processes mediate decision making behavior. The last few years have seen a tremendous push by neuroscientists and their collaborators to apply modern neuroscience methods (e.g., ERP, fMRI, patient studies, and animal models) to economic decisions.

In this course we will discuss what exactly decision making is, how decisions ought to be made (i.e., rational decision making), the systematic flaws observed in people actual decisions, the uniquely psychological factors that influence decision-making (e.g., emotion), and the neural systems that underlie the decisions of both humans and non-human animals. Along the way, we will attempt to better understand the many factors that influence (or should influence) decisions, including value, probability, uncertainty, delay, mood, and physiological state.

Discussion Questions
Before each class meeting, discussion questions will be posted to Blackboard. Answers to the discussion questions are due before class. Please also bring a copy of your answers to class. During class, we will go through the each of the discussion questions and have selected students read their answers. These written answers should act as a starting point for further discussion.

Participation
In a class such as this, your contribution to class discussion is an important part of the class and will thus constitute a portion of your grade. Thus, it is important that all class members prepare adequately so that they are able to discuss the assigned readings when we meet. The discussion questions are meant to structure this preparation, but do not limit your reading to simply answering the posed questions. If you find it useful to take notes on the main points of the readings, feel free to do so.

Though it shouldn’t be the emphasis, the course deals with the substance of everyday life (i.e., decision making), and you may find yourself make connections between the material and your own experiences. For this reason, it seems reasonable to expect that students will bring material in from outside that relates to course material. Examples of such experiences might include as public pronouncements that seem to embody doubtful decision-making principles or
examples of advertising that seem to play on some interesting elements of the psychology of consumer decision making.

**Proposal**

At the end of the semester, you will write a very brief proposal for a research project involving judgment and/or decision making. Your topic should either A) synthesize two or more topics that we have read about during the semester or B) synthesize a topic we have read about during the semester with your own research. To emphasize the focus on synthesis, you will be given strict page limits on the proposal. The hope is that, with this page limit in mind, you will be judicious about what is included/excluded with particular emphasis on the critical, novel contribution your proposed study will provide. A basic template will be available to help you format the proposal.

**Grading**

<table>
<thead>
<tr>
<th></th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answers to Discussion Questions</td>
<td>40</td>
</tr>
<tr>
<td>In-Class Participation</td>
<td>40</td>
</tr>
<tr>
<td>Final Proposal</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>August</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Intro</td>
</tr>
</tbody>
</table>
| 30         | Heuristics & Biases – Availability | • Tversky & Kahneman (1973)  
            |                                             | • Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons (1991)                           |
| September  |                              |                                                                                               |
| 5          | No Class – Labor Day         | • Tversky & Kahneman (1973)  
            |                                             | • Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons (1991)                           |
| 7          | Heuristics & Biases - Representativeness | • Kahneman & Tversky (1973)  
            |                                             | • Gigerenzer & Hoffrage (1995)                                                               |
| 12         | Heuristics & Biases – Base Rate Neglect | • Fiedler, Heidelberg, Brinkmann, Betsch, Wild, (2000)  
            |                                             | • Krynski & Tenenbaum (2007)                                                                |
| 14         | Heuristics & Biases – Recognition | • Goldstein & Gigerenzer (2002)  
            |                                             | • Oppenheimer (2003)                                                                        |
| 19         | Heuristics & Biases – Fluency | • Song & Schwarz (2009)  
            |                                             | • Alter & Oppenheimer (2006)                                                                |
| 21         | No Class                      |                                                                                               |
| 26         | Normative Theories of DM     | • Baron (2007), Chap. 3  
            |                                             | • Baron (2007), Chap. 9                                                                     |
| 28         | Neuroeconomics – Initial Brouhaha | • Pesendorfer & Gul (2008)  
            |                                             | • Camerer (2008)                                                                           |
| October    |                              |                                                                                               |
| 3          | Neuroeconomics – Past the Hype | • Glimcher (2011), Chap 5  
            |                                             | • Glimcher (2011), Chap 6                                                                   |
| 5          | Value – Behavioral           | • Ariely, Loewenstein, Prelec (2006)  
            |                                             | • Mantonakis, Rodero, Lesschaeve & Hastie (2009)                                           |
| 10         | Value – Loss Aversion        | • Kahneman, Knetsch, & Thaler (1990)  
            |                                             | • Tom, Fox, Trepel, Poldrack (2007)                                                        |
| 12         | Value – Neural               | • Plassmann, O’Doherty, & Rangel (2008)  
            |                                             | • McClure, Tomlin, Cypert, Montague & Montague (2004)                                      |
| 17         | Uncertainty – Ambiguity Aversion | • Einhorn & Hogarth (1986)  
            |                                             | • Curley, Yates, & Abrams (1986)                                                           |
| 19         | Uncertainty – Odds & Ends    | • Fox & Tversky (1995)  
            |                                             | • Gottlieb, Weiss, & Chapman (2007)                                                         |
| 24 | Uncertainty – Neural | • Hsu et al. (2005)  
• Shafir, Reich, Tsur, Erev, & Lotem, (2008) |
| 26 | Emotion – Empathy Gap | • Read & Loewenstein (1999)  
• Read & Van Leeuwen (1998) |
| 31 | Emotion – Anticipated Emotion | • Kermer, Driver-Linn, Wilson, Gilbert (2006)  
• Rottenstreich & Hsee (2001) |
| 2 | Emotion – Odds and Ends | • Medvec, Maday, & Gilovich (1995)  
| 7 | Neuropsych of DM – IGT | • Bechara, Damasio, Damasio & Anderson (1994)  
• Bechara, Tranel, Damasio, & Damasio (1996) |
| **November** | 9 | No Class – Psychonomics |
• Yechiam, Busemeyer, & Stout (2005)  
• Farah & Fellows (2007) |
| 16 | Temporal DM | • Loewenstein (1987)  
• McClure et al. (2004) |
| 21 | Evolutionary Bases of DM | • Cosmides & Tooby (1996)  
• Ermer, Cosmides, & Tooby (2008) |
| **December** | 23 | No Class – Thanksgiving |
| 28 | Evolutionary Bases of DM | • Rode, Cosmides, Hell & Tooby (1999)  
• Rode & Wang (2000) |
| 30 | DM in Non-Human Animals | • Chen, Lakshminarayanan, & Santos (2006)  
• Lakshminaryanan, Chen, & Santos (2008) |
| 5 | Game Theory – Iterated Reasoning | • Bosch-Domènech, Montalvo, Nagel & Satorra (2002)  
• Weber (2003) |
| 7 | Game Theory – Evolutionary Factors | • Kurzban & Houser (2005)  
• Haley & Fessler (2005) |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Papers</th>
</tr>
</thead>
</table>
• Bechara, Tranel, Damasio, & Damasio (1996). Failure to Respond Autonomically to Anticipated Future Outcomes Following Damage to Prefrontal Cortex. Cerebral Cortex, 6, 215-225.  
• Bechara, Damasio, Tranel, & Damasio (1997). Deciding advantageously before knowing the advantageous strategy, Science, 275, 1293-1295.  
• Farah & Fellows (2007). The role of ventromedial prefrontal cortex in decision making: Judgment under uncertainty or judgment Per Se? Cerebral Cortex, 17, 2669-2674.  