

## Psychology 398

### Decision & Choice

The course covers current theory about decision, both rapid intuitive decisions and slow deliberate decisions. Grades: 35% mid-term exam; 65% final exam. The mid-term exam is an in-class quiz. I will present a review/summary lecture prior to the mid-term. Mid-term is after topic 10 (likely Oct. 21, depending on progress.)

#### Approximate order of the lectures

- September* 9 Introduction: why study decision?  
11 What would a theory of decision look like?  
16 Rational decision defined.  
18 Some essentials of probability theory.  
23 cancelled  
25 How people (mis)understand random events.  
30 Human decisions are often poor  
    memory distortion  
    Anchor effects
- October* 2 Human decisions are often poor  
    (mis)categorization  
7 Human decisions are often poor  
    Integrating information  
9 Updating probabilities: Bayes's Theorem  
14 Thanksgiving  
16 Review  
  
21 Mid-term quiz  
  
23 Inverse probabilities & base-rate neglect  
28 Confirmation bias  
30 Prospect Theory
- November* 4 Evaluation of Prospect Theory  
6 Things that upset the apple car  
    Sacred Values  
11 Kahneman on two-factor theory  
13 Rapid (intuitive) decisions  
    Threshold ideas  
18 Detection theory & decision bias  
    ROC curves  
    Z-ROC curves  
20 Beyond Detection theory: RT as a response measure  
25 Decision depends on expectation, not on stimuli  
    Information theory  
27 Predicting Accuracy and RT simultaneously  
    Diffusion model & its alternatives