

Integrated Studies 001: Decisions and Learning
University of Pennsylvania
Fall 2017

Teaching Team Information

Cognitive Neuroscience

Professor Joe Kable, Richards Building D505, kable@sas.upenn.edu, 215-746-3873
Office Hours: Tuesdays, 2:00-3:00 p.m. and by appointment

Philosophy

Professor Karen Detlefsen, Cohen Hall 466, detlefse@sas.upenn.edu, 215-898-5560
Office Hours: Thursdays, 12:15-1:45 p.m. and by appointment (starting September 7, 2017)

Seminars

Dr. Judith Kaplan, Cohen Hall 175, juka@sas.upenn.edu
Office Hours: Tuesdays, 1:30-3:00pm and by appointment

Dr. Raphael Krut-Landau, Cohen Hall 175, rkrut@sas.upenn.edu
Office Hours: Thursdays, 2:30-4:00pm and by appointment

Dr. Julio R. Tuma, Cohen Hall 435, tuma@sas.upenn.edu, 215-898-4772
Office Hours: Tuesdays, 1:30-3:00pm and by appointment

Texts

There is one text for the course, available at the Penn Bookstore (corner of Walnut and 36th Streets):

The Student's Guide to Social Neuroscience (second edition) by Jamie Ward, paperback version (ISBN-13: 978-1138908628; ISBN-10: 1138908622).
Psychology Press.

In addition to this text, readings for the Cognitive Neuroscience and Philosophy streams are available on the Canvas course website.

Key Dates:

Tuesday, August 29, 10:30am: Introduction to “Decisions and Learning” with full Teaching Team
Tuesday, August 29, 3:00pm: Introduction to Cognitive Neuroscience with Dr. Kable
Thursday, August 31, 10:30am: Introduction to Philosophy with Dr. Detlefsen
Friday, September 1: First Seminar Session and field trip tour of the Kable lab
Tuesday, September 19, 9:00pm: Philosophy Critical Analysis #1
Tuesday, September 26, 10:30am: Cognitive Neuroscience Short Paper #1
Friday, September 29, 5:00pm: Seminar Argument Summary
Tuesday, October 17, 10:30am: Cognitive Neuroscience Quiz
Friday, October 20, 5:00pm: Seminar Integration Essay 1a
Sunday, October 29, 9:00pm: Philosophy Critical Analysis #2
Tuesday, November 14, 10:30am: Cognitive Neuroscience Short Paper #2
Friday, November 17, 5:00pm: Seminar Integration Essay 1b
Monday, December 11, 5:00pm: Seminar Integration Essay 2
Sunday, December 17, 9:00pm: Philosophy Open Ended Assignment
Tuesday, December 19, 5:00pm: Cognitive Neuroscience Take-Home Essay Final

If you intend to miss class for religious holidays that are not observed by the university, you must inform the appropriate professor of your anticipated absences by **September 15th** if you wish to request that alternative arrangements be made. For the university’s policy on religious holidays, see: <http://provost.upenn.edu/policies/pennbook/2013/02/13/policy-on-secular-and-religious-holidays>

Seminar Times & Locations:

Please attend the seminar assigned to you by the Registrar:

301 Dr. Tuma, Fridays 10:00-10:50, Arch 110
302 Dr. Tuma, Fridays 11:00-11:50, Arch 110
303 Dr. Raphael Krut-Landau, Fridays 11:00-11:50, Cohen 392
304 Dr. Raphael Krut-Landau, Fridays 12:00-12:50, Cohen 392
305 Dr. Judith Kaplan, Fridays 12:00-12:50, College Hall 311A
306 Dr. Judith Kaplan, Fridays 1:00-1:50, College Hall 311A

Assessment and Course Grade Breakdown

You will receive one single grade for Integrated Studies 001.

Each of the two streams and the Seminar is worth 30% of this single grade. The Thursday integrative session is worth 10% of this final grade.

The grade breakdown for each stream is as follows:

Cognitive Neuroscience (30% of INTG001 grade)

Participation (in class discussions and out-of-class web surveys): 10%

Short Paper #1: 20%

Quiz: 20%

Short Paper #2: 20%

Take-home essay final: 30%

Philosophy (30% of INTG001 grade)

Three reading responses (150-250 words each*), on any three weeks of your choosing, to be submitted on Canvas by 1pm on the

Monday before lecture: 9% (3% each)

Critical Analysis #1 (800-1,000 words): 23%

Critical Analysis #2 (1,200-1,500 words): 31%

Open-ended Assignment (1,800-2,000 words): 37%

*The three reading responses have a **strict upper word limit** of 250 words each.

Thursday Integrative Sessions (10% of INTG001 grade)

Attendance and in-class exercises: 100%

Seminar (30% of INTG001 grade)

Attendance & Participation: 20%

Short Argument Summary: 10%

Integration Essay 1: 15%

Integration Essay 1b: 20%

Integration Essay 2: 35%

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30 a.m.-12:00 p.m. ARCH 208	Philosophy Tuesdays 3:00-4:30pm ARCH 208	Integrative Session Thursdays 10:30 a.m.-12:00 p.m. ARCH 208	Seminar Fridays 10-11; 11-12; 12-1; and 1-2 Various locations
Introduction: August 29- September 1 Introduction	August 29: Introduction to “Decisions and Learning” with Teaching Team NB: this session is not Cognitive Neuroscience, which starts August 29 th	August 29: Introduction to Cognitive Neuroscience NB: this session is not Philosophy, which starts August 31 st	August 31: Introduction to Philosophy	September 1: Seminar: Welcome, Syllabus Review, Field Trip to Cognitive Science Laboratories
WEEK 1: September 4-8 Individual Decision Makers: Reasoning and Decisions	September 5: Decision-making under certainty: is there a neural signal of value or utility? Background: • Ward, Chapters 2&4 (esp. pp. 119-133) Target article: • Chib V, Rangel A, Shimojo S, O’Doherty JP (2009). Evidence for a common representation of decision values for dissimilar goods in human ventromedial prefrontal cortex. <i>Journal of Neuroscience</i> , 29, 12315-12320.	September 5: The human mind and a classic expression of the human mind • René Descartes, <i>Meditations on First Philosophy</i> , Meditations 1 and 2	September 7: Integrative Lecture by Dr. Detlefsen	September 8: Seminar
WEEK 2: September 11-15 Individual Decision Makers: Risk and Decisions	September 12: Decision-making under risk and uncertainty: how does the brain encode uncertainty? Background: • Ward, Chapters 2&4 (esp. pp. 119-133) Target article: • Hsu M, Bhatt M, Adolphs R, Tranel D, Camerer CF (2005). Neural systems responding to degrees of uncertainty in human decision-making. <i>Science</i> , 310, 1680-1683.	September 12: Ethics of Belief and Religion 1: Prudential belief • Blaise Pascal, “The Wager”	September 14: Integrative Lecture by Dr. Kaplan	September 15: Seminar
WEEK 3: September 18-22 Individual Decision Makers: Uncertainty and Decisions I	September 19: From utility to choice: how do we decide when to decide? Target article: • Shadlen MN & Newsome WT (1996). Motion perception: seeing and deciding. <i>PNAS</i> , 93, 628-633.	September 19: Ethics of Belief and Religion 2: Evidence and the need to act • The W.K. Clifford-William James Debate 9pm, by submission to Canvas: Philosophy critical analysis #1	September 21: Integrative Lecture by Dr. Kable	September 22: Seminar

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<p>WEEK 4: September 25-29 Individual Decision Makers: Uncertainty and Decisions II</p>	<p>September 26: Delay of gratification: when should we eat the marshmallow? Background: • Mischel W, “In Stanford University’s Surprise Room,” <i>The Marshmallow Test</i>, Chapter 1 Target article: • Kidd C, Palmeri H, Aslin RN (2013). Rational snacking: young children’s decision-making on the marshmallow task is moderated by beliefs about environmental reliability. <i>Cognition</i>, 126, 109-114.</p> <p>10:30 am (before class), by submission to Canvas: Cognitive Neuroscience Short Paper #1</p>	<p>September 26: Ethics of Belief and Religion 3: Skepticism and gullibility • David Hume, “Of Miracles”</p>	<p>September 28: Integrative Lecture by Dr. Krut-Landau</p>	<p>September 29: Seminar</p> <p>5pm (before sunset), by submission to Canvas: Seminar Argument Summary</p>
<p>WEEK 5: October 2-6 Individual Learners: Failure</p>	<p>October 3: Learning value: what role does error play in learning? Background: • Montague R, “Sharks Don’t Go On Hunger Strikes,” <i>Your Brain is (Almost) Perfect</i>, Chapter 4 Target article: • Waelti P, Dickinson A, Schultz W (2001). Dopamine responses comply with basic assumptions of formal learning theory. <i>Nature</i>, 412, 43-48.</p>	<p>October 3: Philosophy of Education 1: Failure • Aislinn O’Donnell, “Another Relationship to Failure: Reflections on Beckett and Education” • Article on the work of Carol Dweck, “Praising Intelligence”</p>	<p>October 5: FALL BREAK; NO CLASS</p>	<p>October 6: FALL BREAK; NO SEMINARS</p>

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<p>WEEK 6: October 9-13 Individual Learners: Habits</p>	<p>October 10: Habits and goals: are there distinct neural systems for habitual actions? Background: • Duhigg C, “The Habit Loop,” <i>The Power of Habit</i>, Chapter 1 Target article: • Killcross S & Coutureau E (2003). Coordination of actions and habits in the medial prefrontal cortex of rats. <i>Cerebral Cortex</i>, 13, 400-408.</p>	<p>October 10: Philosophy of Education 2: Interruption of habits • Andrea English, “Transformation and Education: The Voice of the Learner in Peters’ Concept of Teaching”</p>	<p>October 12: Integrative Lecture by Dr. Kable</p>	<p>October 13: Seminar</p>
<p>WEEK 7: October 16-20 Social Decisions: Thinking about the Human World</p>	<p>October 17: Theory of mind: are there parts of the brain specialized for thinking about other people? Background: • Ward, Chapter 6 Target article: • Castelli F, Frith C, Happe F & Frith U (2002). Autism, Asperger syndrome and brain mechanisms for the attribution of mental states to animated shapes. <i>Brain</i>, 125, 1839-1849. In class: Cognitive Neuroscience Quiz (Methods & Neuroanatomy)</p>	<p>October 17: Philosophy of Education 3: classics in early American philosophy of education; the Washington-Du Bois debate on education and race • selections from Booker T. Washington’s and W.E.B. Du Bois’s philosophies of education</p>	<p>October 19: Integrative Lecture by Dr. Tuma</p>	<p>October 20: Seminar 5pm by submission to Canvas: Seminar Integration Essay #1a</p>

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<p>WEEK 8: October 23-27 Social Decisions: The Social World of Humans</p>	<p>October 24: Competitive interactions: what's the best strategy in rock-paper-scissors? Background: • Ward, Chapter 7 (esp. pp. 217-233) • Nasar S, "Nash's Rival Idea," <i>A Beautiful Mind</i>, Chapter 10 Target article: • Coricelli G & Nagel R (2009). Neural correlates of depth of strategic reasoning in medial prefrontal cortex. <i>PNAS</i>, 106, 9163-9168.</p>	<p>October 24: Philosophy of Education 4: classics in early American philosophy of education; education within diverse democracies • John Dewey, selections from <i>Democracy and Education</i>, and various papers</p>	<p>October 26: Integrative Lecture by Dr. Detlefsen</p>	<p>October 27: Seminar</p>
<p>WEEK 9: October 30- November 3 Social Decisions: Conformity and Preferences</p>	<p>October 31: Social influence: is conformity driven by changes in preference? Background: • Ward, Chapters 3 (esp. pp. 80-86) and 8 (esp. 254-260) Target article: • Zaki J, Schirmer J, Mitchell JP (2011). Social influence modulates the neural computation of value. <i>Psychological Science</i>, 22, 894-900.</p>	<p>October 31: Social Philosophy 1: When is it harmful to conform? • Serene J. Khader, "Must Theorising about Adaptive Preferences Deny Women's Agency?" At 9pm on Wednesday, Nov. 1, by submission to Canvas: Philosophy critical analysis #2</p>	<p>November 2: Integrative Lecture by Dr. Kaplan</p>	<p>November 3: Seminar</p>

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<p>WEEK 10: November 6-10 Social Decisions: Altruism and Selfishness</p>	<p>November 7: Altruism: why do we voluntarily makes sacrifices for others? Background: • Ward, Chapters 7 (esp. pp. 208-217) and 8 (esp. 240-253) Target article: • Harbaugh W, Mayr U, Burghart D (2007). Neural responses to taxation and voluntary giving reveal motives for charitable donations. <i>Science</i>, 316, 1622-1625.</p>	<p>November 7: Social Philosophy 2: Egoism and Altruism • Yang Zhu, “Robber Zhi” • JeeLoo Liu, “Moral Reason, Moral Sentiments and the Realization of Altruism: A Motivational Theory of Altruism”</p>	<p>November 9: Integrative Lecture by Dr. Tuma</p>	<p>November 10: Seminar</p>
<p>WEEK 11: November 13-17 Social Decisions: Cooperation, Punishment, Forgiveness</p>	<p>November 14: Cooperation: what sustains cooperation? Background: • Pinker S, “Revenge,” <i>The Better Angels of Our Nature</i>, Chapter 8 Target article: • Crockett M, Clark L, Tabibnia G, Lieberman MD, Robbins TW (2008). Serotonin modulates behavioral reactions to unfairness. <i>Science</i>, 320, 1739.</p> <p>10:30 am (before class), by submission to Canvas: Cognitive Neuroscience Short Paper #2</p>	<p>November 14: Social Philosophy 3: Punishment and forgiveness • TBD</p>	<p>November 16: Integrative Lecture by Dr. Detlefsen</p>	<p>November 17: Seminar</p> <p>5pm by submission to Canvas: Seminar Integration Essay #1b</p>

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<p>WEEK 12 November 20-24</p> <p>***PLEASE NOTE: TUESDAY AND WEDNESDAY FOLLOW THURSDAY AND FRIDAY SCHEDULES***</p>	<p>November 21: special session on punishment – prison reform in Philadelphia</p> <ul style="list-style-type: none"> • no reading 	<p>NB: November 21: NO CLASS; THURSDAY SCHEDULE DUE TO THANKSGIVING HOLIDAY</p>	<p>NB: WEDNESDAY, NOVEMBER 22 WILL FOLLOW FRIDAY SCHEDULE DUE TO THANKSGIVING HOLIDAY</p> <p>Wednesday, November 22: seminars: writing workshop <i>or</i> open discussion on punishment and prison reform</p>	<p>NO CLASSES ON THURSDAY, NOVEMBER 23 AND FRIDAY, NOVEMBER 24 DUE TO THANKSGIVING HOLIDAY</p>
<p>WEEK 13 November 27-December 1</p> <p>Social Decisions: Emotions and Punishment</p>	<p>November 28: Emotions and decision making: what is the role of anger is social decision-making?</p> <p>Background:</p> <ul style="list-style-type: none"> • Ward, Chapters 4 (esp. pp. 99-119) & Chapters 10 (esp. pp. 306-320) <p>Target article:</p> <ul style="list-style-type: none"> • van Leeuwen B, Noussair CN, Offerman T, Suetens S, van Veelen M, van de Ven J (2017). Predictably angry – Facial cues provide a credible signal of destructive behavior. <i>Management Science</i>. 	<p>November 28: Social Philosophy 4: Anger and Vengeance</p> <ul style="list-style-type: none"> • Asghar Farhadi, <i>Forushande</i> (The Salesman) 	<p>November 30: Integrative Lecture by Dr. Kable</p>	<p>December 1: Seminar</p>

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<p>WEEK 14: December 4-8 Social Decisions: Markets and Ethics</p>	<p>December 5: The brain in the marketplace: why are marketers starting to use brain data? Background: • Wardlaw JM, et al. (2011). Can it read my mind? – What do the public and experts think of the current (mis)uses of neuroimaging? <i>PLoS ONE</i>, 6, e25829. Target article: • Falk EB, Berkman ET, Lieberman MD (2012). From neural responses to population behavior: neural focus group predicts population-level media effects. <i>Psychological Science</i>, 23, 439-445.</p>	<p>December 5: Social Philosophy 5: Ethics and business • Robert L. Arrington, “Advertising and Behavior Control”</p>	<p>December 7: Integrative Lecture by Dr. Krut-Landau</p>	<p>December 8: Seminar LAST CLASS FOR INTG001</p>

Monday, December 11, 2017 at 5pm, by submission to Canvas: Final Integration Essay 2

Sunday, December 17, 2017 at 9pm, by submission to Canvas: Open-ended Philosophy assignment

Tuesday, December 19, 2017 at 5pm, by submission to Canvas: Cognitive Neuroscience Take-Home Essay Final