

Integrated Studies 001: Decisions and Learning
University of Pennsylvania
Fall 2018

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 6, 2018)

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: Fridays, 1:30-3pm 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 28, 10:30am: Introduction to “Decisions and Learning” with full Teaching Team

Tuesday, August 28, 3:00pm: Introduction to Cognitive Neuroscience with Dr. Kable

Thursday, August 30, 10:30am: Introduction to Philosophy with Dr. Detlefsen

Friday, August 31: First Seminar Session and field trip tour of the Kable lab

Friday, September 21, 5:00pm: Integrative Essay #1

Tuesday, September 25, 10:30am: Cognitive Neuroscience Short Paper #1

Tuesday, October 2, 9:00pm: Philosophy Critical Analysis #1

Thursday, October 11, 10:30am: Cognitive Neuroscience Quiz

Friday, October 19, 5:00pm: Integrative Essay #2

Wednesday, October 31, 9:00pm: Philosophy Critical Analysis #2

Tuesday, November 13, 10:30am: Cognitive Neuroscience Short Paper #2

Monday, December 10, 5:00pm: Integrative Essay #3

Sunday, December 16, 9:00pm: Philosophy Open-Ended Assignment

Thursday, December 20, 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: is.gd/upennholidays

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 9pm on the Sunday 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%

Integration Essay 1: 15%

Integration Essay 2: 30%

Integration Essay 3: 35%

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
Introduction: August 28- August 31	August 28: Introduction to “Decisions and Learning” with Teaching Team	August 28: Introduction to Cognitive Neuroscience NB: this session is not Philosophy, which starts August 30 th	August 30: Introduction to Philosophy	August 31: Seminar: Welcome, Syllabus Review, Field Trip to Cognitive Science Laboratories
WEEK 1: September 3-7: Foundations 1	September 4: 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 4: The Knower as Universal • René Descartes, <i>Discourse on the Method</i>	September 6: Integrative Lecture by Drs. Kable and Detlefsen The Histories of Cognitive Neuroscience and Philosophy	September 7: Seminar
WEEK 2: September 10-14: Foundations 2	September 11: Decision-making under risk and uncertainty: how does the brain encode uncertainty? Background: • Ward, Chapters 2&4 (esp. pp. 119-133); review 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 11: Reactions to the Knower as Universal -- the Knower as Particular; and Knowledge and Injustice • bell hooks, “The Politics of Radical Black Subjectivity” • Miranda Fricker, “Introduction” in <i>Epistemic Injustice: Power and the Ethics of Knowing</i>	September 13: Integrative Lecture by Dr. Kaplan Integration Skills: Reading	September 14: Seminar
WEEK 3: September 17-21: Foundations 3	September 18: 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 18: Evidence: Knowing and Acting • The W.K. Clifford-William James Debate	September 20: Integrative Lecture by Dr. Krut-Landau Evidence in Cognitive Neuroscience and Philosophy	September 21: Seminar 5pm, by submission to Canvas: Integration Essay #1

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
<p>WEEK 4: September 24-28: Foundations 4</p>	<p>September 25: 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 25: Philosophy of Education 1: the aims of education, cognitive and political • Paolo Friere, <i>Pedagogy of the Oppressed</i> (selections) Optional (you may comment on this reading if you wish, and Detlefsen will draw upon elements of it lecture): • Yusef Waghid, <i>African Philosophy of Education Reconsidered: On Being Human</i></p>	<p>September 27: Integrative Lecture by Dr. Tuma Responsibility</p>	<p>September 28: Seminar</p>
<p>WEEK 5: October 1-5 Individual Learners: Failure</p>	<p>NB: Philosophy lecture will occur in the morning</p> <p>October 2: Philosophy of Education 2: Failure • Aislinn O’Donnell, “Another Relationship to Failure: Reflections on Beckett and Education”</p> <p>9pm, by submission to Canvas: Philosophy critical analysis #1</p>	<p>NB: Cognitive Neuroscience lecture will occur in the afternoon</p> <p>October 2: 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 4: FALL BREAK; NO CLASS</p>	<p>October 5: FALL BREAK; NO SEMINARS</p>

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
<p>WEEK 6: October 8-12 Individual Learners: Habits</p>	<p>October 9: 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 9: Philosophy of Education 3: Interruption of habits • Andrea English, “Transformation and Education: The Voice of the Learner in Peters’ Concept of Teaching”</p>	<p>October 11: Integrative Lecture by Dr. Kable In class: Cognitive Neuroscience Quiz (Methods & Neuroanatomy)</p>	<p>October 12: Seminar</p>
<p>WEEK 7: October 15-19 Social Decisions: Thinking about the Human World: Race</p>	<p>October 16: Ingroups, outgroups and prejudice: does brain activity reflect implicit attitudes? Background: • Ward, Chapter 9 (esp. 276-290) Target article: • Phelps E, O'Connor K, Cunningham W, Funayama E, Gatenby J, Gore J & Banaji M (2000). Performance on indirect measures of race evaluation predicts amygdala activation. <i>Journal of Cognitive Neuroscience</i>, 12, 729–738.</p>	<p>October 16: Philosophy of Education 4: 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 18: Integrative Lecture by Dr. Tuma</p>	<p>October 19: Seminar 5pm by submission to Canvas: Integration Essay #2</p>

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
<p>WEEK 8: October 22-26 Social Decisions: Thinking about the Human World: Class</p>	<p>October 23: Game theory: can neural measures solve the tragedy of the commons? Background: • Ward, Chapter 7 (esp. pp. 217-233) • Nasar S, “Nash’s Rival Idea,” A Beautiful Mind, Chapter 10 Target article: • Krajbich I, Camerer C, Ledyard J & Rangel A (2009). Using Neural Measures of Economic Value to Solve the Public Goods Free-Rider Problem. <i>Science</i>, 326, 596–599.</p>	<p>October 23: Philosophy of Education 5: classics in early American philosophy of education; education within diverse democracies • John Dewey, selections from Democracy and Education, and various papers</p>	<p>October 25: Integrative Lecture by Dr. Kaplan</p>	<p>October 26: Seminar</p>
<p>WEEK 9: October 29- November 2 Social Decisions: Conformity and Preferences</p>	<p>October 30: 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 30: Social Philosophy 1: When is it harmful to conform? • Simone de Beauvoir, selections from <i>The Second Sex</i></p> <p>At 9pm on Wednesday, October 31, by submission to Canvas: Philosophy critical analysis #2</p>	<p>November 1: Integrative Lecture by Dr. Detlefsen</p>	<p>November 2: Seminar</p>
<p>WEEK 10: November 5-9 Social Decisions: Altruism and Selfishness</p>	<p>November 6: 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 6: Social Philosophy 2: Egoism and Altruism • JeeLoo Liu, “Moral Reason, Moral Sentiments and the Realization of Altruism: A Motivational Theory of Altruism”</p>	<p>November 8: Integrative Lecture by Dr. Tuma</p>	<p>November 9: Seminar</p>

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
<p>WEEK 11: November 12-16 Social Decisions: Cooperation, Punishment, Forgiveness</p>	<p>November 13: Cooperation: what sustains cooperation? Background: • Pinker S, “Revenge,” The Better Angels of Our Nature, Chapter 8 Target article: • Crockett M, Clark L, Tabibnia G, Lieberman MD, Robbins TW (2008). Serotonin modulates behavioral reactions to unfairness. Science, 320, 1739.</p> <p>10:30 am (before class), by submission to Canvas: Cognitive Neuroscience Short Paper #2</p>	<p>November 13: Social Philosophy 3: Punishment and forgiveness • David Novitz, “Forgiveness and Self-Respect”</p>	<p>November 15: Integrative Lecture by Dr. Kable</p>	<p>November 16: Seminar</p>
<p>WEEK 12 November 19-23</p> <p>***PLEASE NOTE: TUESDAY AND WEDNESDAY FOLLOW THURSDAY AND FRIDAY SCHEDULES***</p>	<p>November 20: special session: conversation with Professor Martha Farah, Psychology</p>	<p>NB: November 20: NO CLASS; THURSDAY SCHEDULE DUE TO THANKSGIVING HOLIDAY</p>	<p>NB: WEDNESDAY, NOVEMBER 21 WILL FOLLOW FRIDAY SCHEDULE DUE TO THANKSGIVING HOLIDAY</p> <p>Wednesday, November 21: seminars</p>	<p>NO CLASSES ON THURSDAY, NOVEMBER 22 AND FRIDAY, NOVEMBER 23 DUE TO THANKSGIVING HOLIDAY</p>

Weekly Theme	Cognitive Neuroscience Tuesdays 10:30-11:50 a.m. ARCH 208	Philosophy Tuesdays 3:00-4:20 p.m. ARCH 208	Integrative Session Thursdays 10:30-11:50 a.m. ARCH 208	Seminar Fridays 10:00-10:50, 11:00-11:50, 12:00-12:50, and 1:00-1:50 Various locations
<p>WEEK 13 November 26-30 Social Decisions: Emotions and Punishment</p>	<p>November 27: Emotions and decision making: what is the role of anger is social decision-making? Background: • Ward, Chapters 4 (esp. pp. 99-119) & Chapters 10 (esp. pp. 306-320) Target article: • 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>	<p>November 27: Social Philosophy 4: Anger and Vengeance • Asghar Farhadi, <i>Forushande (The Salesman)</i>; film available on Amazon Prime, as a DVD available from Netflix, as a DVD on hold at van Pelt Library, and possibly via a class screening on Monday, 26th November if sufficient class interest)</p>	<p>November 29: Integrative Lecture by Dr. Detlefsen</p>	<p>November 30: Seminar</p>
<p>WEEK 14: December 3-7 Social Decisions: Markets and Ethics</p>	<p>December 4: 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 4: Social Philosophy 5: Ethics and business • Robert L. Arrington, “Advertising and Behavior Control”</p>	<p>December 6: Integrative Lecture by Dr. Krut-Landau</p>	<p>December 7: Seminar LAST CLASS FOR INTG001</p>

Monday, December 10, 2018 at 5pm, by submission to Canvas: Integration Essay #3

Sunday, December 16, 2018 at 9pm, by submission to Canvas: Open-Ended Philosophy assignment

Thursday, December 20, 2018 at 5pm, by submission to Canvas: Cognitive Neuroscience Take-Home Essay Final