What are adolescents, psychopaths, and white-collar fraud artists thinking? Why does emotional trauma for victims of abuse last so long? Why is eyewitness memory so poor? Do violent video games lead to violent children? Lawyers and courts, including the U.S. Supreme Court, are already integrating neuroscience research into their arguments and opinions on questions such as these. This Neuroscience and the Law course will introduce the exciting new field of “neurolaw” by covering issues such as the neuroscience of criminal culpability, brain-based lie detection, emotions, decision making, and much more. How the legal system can and should respond to new insights on topics such as adolescent brain development, addiction, psychopathy, Alzheimer’s, the effects of combat on soldiers’ brains, and concussions from sports injuries will be discussed and analyzed. (Note that all scientific material in the class will be presented in an accessible manner; no previous science background is required or assumed.)

Course Aims and Objectives

Aims. This course has several interrelated aims:
(1) to introduce you to the most important questions emerging from the intersection of law and neuroscience;
(2) to foster interdisciplinary dialogue between the legal, psychology, and neuroscience communities;
(3) to enable law students to harness brain research to become better practicing attorneys; and
(4) to encourage non-law students to see the legal implications of neuroscience research.

Law students completing this class will be exposed to path-breaking scientific research, learn how that research may (or may not) be
applicable to legal questions, and learn more about how your own brain works (and can work better) as a legal actor. Graduate students completing this class will be introduced to a variety of ways in which the legal and policy system operates; be exposed to a many legal and policy implications of neuroscience research; and learn about how future neuroscience research may further improve law and public policy.

Specific Learning Objectives. By the end of this class, students will:
(1) Gain exposure to the many ways in which neuroscience research is being deployed in legal contexts such as criminal proceedings, civil litigation, state and federal legislation, regulatory oversight, and policy evaluation.
(2) Think critically about whether, and under what conditions, neuroscientific evidence should be admitted in courtroom proceedings.
(3) (For law students) Learn a set of legally relevant “brain basics” – how the brain works, how researchers study it, and different types of brain measurement and monitoring devices.
(4) (For law students) Learn what questions to ask, and what further resources to consult, if and when you are confronted with neuroscience evidence in your practice.
(5) (For law students) Develop a better understanding of how and why legal actors (including you) act and think, thereby allowing for refinement in your legal advocacy skills.
(6) (For students outside the law school) Learn a set of scientifically relevant law basics and how scientific evidence is (or is not) used in lawmaking and legal adjudication.
(7) (For students outside the law school) Develop a better understanding of how neuroscience research might be designed in order to improve law and policy.

Reading Assignments


Additional assigned readings provided in class.

Casebook materials web site: http://www.vanderbilt.edu/lawbrain [user name and password in textbook]
Each class session will involve a mix of lecture and discussion, all focusing on the week’s reading material. Additional contextualizing background on the relevant science will also be provided via lecture.

One of the primary goals of this class is to foster interdisciplinary dialogue between law and neuroscience. In order to do that, law students must be willing to learn about the brain and psychology/neuroscience students must be willing to learn about the law. Just as the field of neurolaw relies on contributions from, and dialogue between, both law and science, so too will the success of this course rest upon your collective willingness to engage with one another. The course is structured to create incentives for genuine interdisciplinary exchange.

While the final paper will comprise the vast majority of your grade, you will also be submitting discussion questions (twice during the semester), and making a brief (no more than 5 minute) oral presentation on an assigned day.

Class Requirements

Class attendance policy: Attendance at regularly scheduled class meetings is a really, really good idea. It is crucial for consolidating the materials covered in the assigned readings and for doing well on all components of your final grade. I do not “take roll.” Until individuals demonstrate otherwise, I assume you’re all adults who are at the University to learn and participate in pushing human knowledge forward.

Assignments for Students. All students must complete the following assignments in order to pass the class:
- Presentation, at least two times over the course of the semester (on days of your choosing) of reaction(s) to/question(s) about the week’s readings.
- Completion of a paper of at least 30 pages. The paper will be due on or before the last day of the exam period.

Academic Integrity

This class is subject to The University Rules, including the Student Code of Conduct and other policies related to academic integrity. Any violation of these regulations, such as plagiarism or cheating, will be penalized accordingly and could result in a failing grade for the class. More egregious violations can result in University sanctions, up to dismissal. The Student Code of Conduct document can be accessed at: http://www.uc.edu/ucinfo/conduct.html.
Special Needs Requirements

Students with documented special needs (such as an identified visual impairment, hearing impairment, physical impairment, communication disorder, or specific learning disability that may influence their performance in this course) should meet with me at some time during the first week of the course. Reasonable provisions will be arranged according to the guidance of Disability Services to ensure an equitable opportunity for all students to meet all the requirements of this course.

Approximate Timetable, Subject to Revision

**Week 1: 26 & 28 Aug. An Overview of the Issues**
Chapter 1, pp. 1-40

**Week 2: 2 & 4 Sept. Individuals and Groups**
Chapter 2, pp. 41-68
Chapter 3, pp. 69-100

**Week 3: 9 & 11 Sept. Law, Behavior, and Responsibility**
Chapter 4, pp. 101-120
Chapter 5, pp. 121-150

**Week 4: 16 & 18 Sept. The Science**
Chapter 6, pp. 151-190
Chapter 7, pp. 193-220

**Week 5: 23 & 25 Sept. Practice, Limits, and Cautions**
Chapter 8, pp. 221-244
Chapter 9, pp. 245-267

**Week 6: 30 Sept. Violence and the Brain**
Raine handouts
**NO CLASS ON 2 OCT**
Adriane Raine lecture 1 Oct, 4:00 114 Law School

**Week 7: 7 & 9 Oct. Injured Brains**
Chapter 10, pp. 267-302
Chapter 11, pp. 303-334

**Week 8: 14 & 16 Oct. Weird Law School Holiday**
**NO CLASSES THIS WEEK**
   Chapter 12, pp. 335-374
   Hardcastle handout

Week 10: 28 & 30 Oct. Memory and Emotions
   Chapter 13, pp. 424-467
   Chapter 14, pp. 421-448
   GUEST LECTURE ON 28 OCT

Week 11: 4 & 6 Nov. Lies and More Lies
   Chapter 15, pp. 449-514

Week 12: 13 Nov. Judging
   Chapter 16, pp. 515-540
   NO CLASS ON 11 NOV—Veteran’s Day

Week 13: 18 & 20 Nov. Developing Brains
   Chapter 17, pp. 541-590
   GUEST LECTURE ON 18 NOV

Week 14: 25 Nov. Addicted Brains
   Chapter 18, pp. 591-630
   Hardcastle and Hardcastle handout
   NO CLASS ON 27 NOV—Thanksgiving

Week 11: 2 Dec. Cognitive Enhancement
   Chapter 19, pp. 631-666

FINAL PAPERS DUE ON 18 DEC by 5:00 PM.