

## ***Sex, Love, & The Neuroscience of Relationships***

**COMU 131 13527**

**3 Credits**

**Spring 2019**

**Wednesday 12:00-3:00**

**Aiken Center 110**



**Instructor:** Jeremiah Dickerson, MD; Child & Adolescent Psychiatry

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### **Course Description:**

*What is this thing called love? ~ Cole Porter*

Healthy relationships and positive social support are critical components of overall wellness. This course will survey the state-of-science of close relationships, sexual behavior, and the human experience of love and intimacy. Experiencing love is an important aspect of living a meaningful life yet it's a concept that is challenging to fully understand, embrace, and inhabit. We will navigate a nuanced understanding of love and relationships through an interdisciplinary approach using elements of film, art, music, literature, and philosophy to complement data garnered from developmental psychology and neuroscience. The brain, after all, is considered our most powerful sexual organ and neuroscience can help us to answer the questions of why, who, when, and how we love and develop relationships.

Throughout the course, we will examine the neurobiology of love and relationships across the lifespan while exploring aspects of attraction, attachment, affection, identity, pathology, and neurodiversity. Discussion will be driven by the latest research.

## Course Goals

1. The learner will explore the relationship between sexual and interpersonal behaviors and the underlying biological and environmental influences on healthy lifestyles and decision-making.
2. The learner will develop an understanding about the complexity of human relationships and the fundamental emotion of love.
3. The learner will appreciate the diversity of human sexual and intimate experiences and use neuroscience to help explain this variability along the spectrum of wellness to pathology across development.

## Required Texts

- **The Chemistry Between Us: Love, Sex, and Science of Attraction** by Larry Young and Brian Alexander (2014)

**Class Outline:** Each class is 3 hours (180 minutes)

- Students are expected to attend the entire class in order to receive full participation
- Each class will start with an in-class quiz on the assigned readings and accompanying discussion on the readings. This will be followed by a student-led discussion and interactive teaching session.

## Pre-Class Assignments

For each class, there will be a range of readings assigned. For most classes, students will be required to read (or watch, or listen to) at least two of the assignments prior to class.

Students are also expected to submit one discussion question (pertaining to their readings) to Blackboard prior to each class. These questions will be used to guide in-class dialogue and discourse.

**\*\*If one (or more) of the readings is from the required text (*The Chemistry Between Us*), it's expected that all students will read this\*\***

## EVALUATION

- Participation: 40%
  - Based on Reading Quizzes, In-Class Participation, Attendance, & Discussion Question Submission
- Response Papers: 20% (2 x 10%)
- In-Class Exam: 15%
- Presentation: 25%

## SYLLABUS

(subject to change)

## Week One

### January 16th: Introduction, Overview of Relevant Neurobiology, An Overview of Love & Intimacy

We will explore and deepen our curiosities about **emotions**, **love** and **intimacy** - how do we define such terms and how do relationships contribute to success? We will consider different forms and intensities of love and intimacy and how such phenomena (or lack thereof) relate to happiness and well-being. Aspects and principles of **evolutionary** and **social neuroscience** will be discussed. How are we using science to explain the previously unexplainable and understand the power of love and relationships?

What is the role of the media in influencing your notions of sex, love, and relationships?

**Assigned Readings:** None

#### **In-Class**

- Watch: *Won't You Be My Neighbor* (2018)
  - Don't Know What the Angular Gyrus Is? Your Heart Does (*The New York Times*, 11-8-17)
  - Modern Love Podcast 30 - *To Fall in Love, Do This*  
<http://www.wbur.org/modernlove/2016/08/03/to-fall-in-love-do-this-modern-love>
  - Modern Love Podcast 83 - *When Your Greatest Romance is a Friendship*  
<http://www.wbur.org/modernlove/2017/09/27/romance-friendship-modern-love>
  - Startalk Radio Podcast (May 10, 2015) - The Evolution of Love & Sex with Dan Savage at [www.startalkradio.net](http://www.startalkradio.net)
  - Ted Talk: What We Don't Teach Kids About Sex  
[https://www.ted.com/talks/sue\\_jaye\\_johnson\\_what\\_we\\_don\\_t\\_teach\\_kids\\_about\\_sex/discussion](https://www.ted.com/talks/sue_jaye_johnson_what_we_don_t_teach_kids_about_sex/discussion)
  - Ted Talk: The Birds and the Bees are Just the Beginning  
[https://www.ted.com/talks/carin\\_bondar\\_the\\_birds\\_and\\_the\\_bees\\_are\\_just\\_the\\_beginning#t-370971](https://www.ted.com/talks/carin_bondar_the_birds_and_the_bees_are_just_the_beginning#t-370971)
  - The Power of Touch (*The New Yorker*, March 4, 2015)
  - Why Your Cardiologist Should Ask About Your Love Life:  
<https://www.nytimes.com/2018/09/14/opinion/sunday/heart-health-emotions.html>
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## Week Two

### **January 23rd: The Social Brain**

We will be discussing the social brain and the neuroscience of human relationships will be introduced. What **chemicals** are involved and why are such chemicals important? The **importance of relationships** will be explored and we'll attempt to further understand why and how humans engage in interpersonal experiences from infancy to adulthood. **How do scientists research love and sex? What are social determinants of health?**

### Assigned Readings:

- ❑ **Everyone Read:** Introduction & Chapter 1 from *The Chemistry Between Us*
- ❑ **Choose One:**
  - ❑ *Social - Why Our Brains Are Wired to Connect* by Matthew Lieberman - Part One (p. 3-35)
  - ❑ *Bonk, The Curious Coupling of Science and Sex* (2008) by Mary Roach. Chapter One: The Sausage, the Porcupine, and the Agreeable Mrs. G.

### Student Presentation & Discussion:

- ❑ What Happened to the Girls in Le Roy, The New York Times Magazine, March 2012
- ❑ GroupThink, The Brainstorming Myth, The New Yorker, Jan 30, 2012
- ❑ Protean nature of mass sociogenic illness: From possessed nuns to chemical and biological terrorism fears. British Journal of Psychiatry, □□2002. 180, 300-306

### In-Class

- Watch: BBC Documentary *The Brain* by David Eagleman. Chapter 5: Why Do I Need You?
  - How Do We Study Love? <https://theanatomyoflove.com/category/how-do-we-study-love/>
  - Ted2017: The Secret to Living Longer May Be Your Social Life [https://www.ted.com/talks/susan\\_pinker\\_the\\_secret\\_to\\_living\\_longer\\_may\\_be\\_your\\_social\\_life](https://www.ted.com/talks/susan_pinker_the_secret_to_living_longer_may_be_your_social_life)
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## Week Three

### January 30th: The Neuroscience of Love & Emotions - Romantic Love

**The brain in love** - what does this mean and what does it look like? How is the brain involved in love and sex? This neuroscience introduction will serve as the foundation for more detailed discussions in later course sessions. **Can you be addicted to love and sex?**

### Assigned Readings:

- ❑ **Choose One:**
  - ❑ *OnBeing* Podcast with Helen Fisher, Feb 12, 2015 <https://onbeing.org/programs/helen-fisher-this-is-your-brain-on-sex-apr2017/>
  - ❑ *RadioLab* Podcast This Is Your Brain On Love, Aug 28, 2007 <https://www.wnycstudios.org/story/91744-this-is-your-brain-on-love>
- ❑ **Everyone Read:**

- ❑ Chapter 13 - Limerence from *The Social Animal* by David Brooks (2012)
- ❑ Lust for Life, *Scientific American Mind*, March 2016

**Student Presentation & Discussion:** The Sex Recession, *The Atlantic*, December 2018

### In-Class

- Scientific Studies: Last Week with John Oliver  
[https://www.youtube.com/watch?time\\_continue=663&v=0Rng1NpHdmw](https://www.youtube.com/watch?time_continue=663&v=0Rng1NpHdmw)
- Top 10 Love at First Sight Scenes in Movies at  
[https://www.youtube.com/watch?v=Lrb\\_hlpM4c](https://www.youtube.com/watch?v=Lrb_hlpM4c)
- Review the Passionate Love Scale (PLS) <https://theanatomyoflove.com/relationship-quizzes/the-passionate-love-scale/>
- TedEd: What is Love? <https://ed.ted.com/lessons/what-is-love-brad-troeger#watch>
- *Can You Really Be Addicted to Sex?* *The Economist*, Nov 13, 2017
- Addicted to Love: What is Love Addiction and When Should It Be Treated? *Philosophy, Psychiatry, & Psychology*, Volume 24, Number 1, March 2017, pp. 77-92
- **Discussion Topics**
  - Dorsomedial Prefrontal Cortex Mediates Rapid Evaluations Predicting the Outcome of Romantic Interactions. *The Journal of Neuroscience*. November 7, 2012. 32(45): 15647-15656
  - Love is more than just a kiss: a neurobiological perspective on love and affection. *Neuroscience*. 2012 Jan 10;201:114-24.
  - Social Neuroscience of Love. *Clinical Neuropsychiatry*. 2012, 9, 1, 3-13.
  - The Neural Basis of Romantic Love. *Neuroreport*. 2000 Nov 27;11(17): 3829-34.
  - Romantic Love vs. Drug Addiction May Inspire a New Treatment for Addiction. *Front Psychol*. 2016; 7: 1436.
  - The Common Neural Bases Between Sexual Desire and Love: A Multilevel Kernel Density fMRI Analysis. *J Sex Med*. 2012 Apr; 9(4): 1048-54.
  - Neuroimaging of Love: fMRI Meta-Analysis Evidence Toward New Perspectives in Sexual Medicine. *J Sex Med*. 2010 Nov; 7(11): 3541-52.
  - Romantic Love: An fMRI Study of A Neural Mechanism for Mate Choice. *J Comp Neurol*. 2005 Dec 5; 493 (1): 58-62.
  - The Brain Reaction to Viewing Faces of Opposite- and Same-Sex Romantic Partners. *PLoS One*. 2010 Dec 31; 5(12).
  - Love-Related Changes in the Brain: A Resting-State Functional Magnetic Resonance Imaging Study. *Frontiers in Human Neuroscience*. 2015 Feb; 9(71)

## **\*Written Assignment #1 Due February 13th\***

### **Neuroscience of Kindness & Compassion**

**In class, we viewed the documentary *Won't You Be My Neighbor* (2018), which explores the impact of Fred Rogers and his television program *Mister Rogers' Neighborhood*.**

The filmmaker indicates that he “wanted to make a film to remind people about the value of radical kindness...it’s this idea that kindness is not a naive notion like believing in unicorns and rainbows or something. It’s like oxygen: it is vital, and it needs to be nurtured.”

Using this film as a foundation, compose a paper broadly exploring the neuroscience of prosocial traits such as kindness, altruism, acceptance, and compassion. Consider how we, as parents, family members, and as a society can cultivate kindness in children. Additionally, is there evidence that kindness and compassion in medicine can itself be ‘healing’?

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## Week Four

### Feb 6th: Parent - Infant Love & Attachment; Early Adversity & Stress

What is so unique about the bond between a parent and a child and how does this initial bond influence other relationships throughout a child’s life? We will depict how positive and loving early relationships have enormous implications on our lifelong well-being and capacity for love and study how raising a child can affect parental neurobiology. **Epigenetic principles** and the notion of **mirror neurons** will be introduced and we’ll review the work of **Harry Harlow**.

We’ll discuss **attachment disorders**, the impact of postpartum depression, and review **Spitz’s** work on early deprivation.

#### Assigned Readings:

- Everyone Read:** Chapter 4 from *The Chemistry Between Us*
- Choose One:**
  - The Science of Success by D. Dobbs (December 2009, *The Atlantic*)
  - Chapter 5 - Attachment from *The Social Animal* by David Brooks (2012)
  - Anguish of the Abandoned Child (April 2013, *Scientific American*)

**Student Presentation & Discussion:** Chapter Seven - Getting on the Same Wavelength: Attachment and Attunement from *The Body Keeps the Score* by Bessel van der Kolk (2014) & The Lifelong Effects of Early Childhood Adversity and Toxic Stress, *Pediatrics* 2012;129:e232–e246

#### In-Class

- Watch: Far From The Tree (2018)
- Review the website for the Center on the Developing Child:  
<http://developingchild.harvard.edu>.
- Andrew Solomon’s Ted Talk: Love, No Matter What ([www.ted.com](http://www.ted.com))
- Review the website: <https://acestoohigh.com>

- What Happens to a Woman's Brain When She Becomes a Mother? (January 2015, *The Atlantic*). <http://www.theatlantic.com/health/archive/2015/01/what-happens-to-a-womans-brain-when-she-becomes-a-mother/384179/>
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## Week Five

### **February 13th: Social Environment & Development**

During class, we will screen the film ***Wounded Places - Confronting Childhood PTSD in America's Shell-Shocked Cities*** (Raising of America - Early Childhood and the Future of Our Nation) and reflect upon the themes of trauma, poverty, and resilience. Are Zip Codes predictive of one's health?

### **Assigned Readings**

- ❑ The Influence of Social Hierarchy on Primate Health. Robert M. Sapolsky, et al. *Science* 308, 648 (2005).
- ❑ The Children of Central City series (<https://projects.nola.com/the-children-of-central-city/>)

**Student Presentation & Discussion:** Psychoneuroimmunology of Early-Life Stress: The Hidden Wounds of Childhood Trauma? *Neuropsychopharmacology Reviews* (2017) 42, 99-114

### **In-Class**

- What Your Zip Code Says About Your Health: <https://www.wnycstudios.org/story/taking-americas-temperature-county-health-rankings>
  - Nadine Burke Harris' Ted Talk: How Childhood Trauma Affects Health Across a Lifetime ([www.ted.com](http://www.ted.com))
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### **\*Written Assignment #2 Due March 6th\*** **Response Paper to Hidden Brain Podcast**

In the March 2018 Podcast episode: *Guys, We Have a Problem: How American Masculinity Creates Lonely Men*, issues of isolation and loneliness are explored - particularly in the male population. Compose a paper discussing your reactions to the podcast. What factors may foster loneliness and disconnection in particular populations? What does research tell us about how connections and interpersonal intimacy is beneficial to our health - physical and mental health?

<https://www.npr.org/2018/03/19/594719471/guys-we-have-a-problem-how-american-masculinity-creates-lonely-men>

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## Week Six

### February 20th: Love in Childhood - Friendship & Empathy

#### Love in Adolescence - Hook-Up Culture

We will examine the shape that love takes during childhood. How do ongoing experiences inform our capacity for human connection and development of friendships? We'll discuss the importance of modeling in building brain neural networks.

Adolescence is an incredibly complicated period of development neurobiologically. Teenage brain changes will be studied, with special attention paid to how these changes affect interpersonal exchanges and influence **impulse control, reward-seeking, arousal, and desire**. How do early romantic relationships contribute to healthy adolescent development and identity formation? The brain's **Limbic System** plays a central role in this discussion.

#### Assigned Readings

- ❑ Chapter 3 from *The Chemistry Between Us*
- ❑ What Teenagers are Learning From Online Porn, *The New York Times Magazine* Feb 7, 2018

**Student Presentation & Discussion:** The Power of Play, A Pediatric Role in Enhancing Development of Young Children, *Pediatrics* Volume 142, number 3, September 2018 & Taking Play Seriously, Feb 17 2008 *New York Times Magazine*

#### In-Class

- 10 True Facts About Friendship: What Scientists Have to Say ([http://www.huffingtonpost.co.uk/2014/09/04/10-facts-about-friendship\\_n\\_5764448.html](http://www.huffingtonpost.co.uk/2014/09/04/10-facts-about-friendship_n_5764448.html))
- A Neuroscientist Explains Why We Look at Porn <http://motherboard.vice.com/read/neuroscientist-david-linden-explains-porn>
- ABC News: Millennial Males and Females Discuss 'Hook-Up' Culture

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## Week Seven

### February 27th: Empathy

A guest speaker will explore the neuroscience of empathy, in-group and out-groups, and morality.

#### Assigned Readings: SUBJECT TO CHANGE

- ❑ *A New Model of Empathy: The Rat*, *The Washington Post*, Dec 2011

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J. Dickerson, MD

- ❑ The Insular Cortex, *Current Biology* 27, R580--R586, June 2017

**Student Presentation & Discussion:** Chapter Eleven: Us Versus Them from *Behave, The Biology of Humans at Our Best and Worst* by Robert Sapolsky (2017)

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## Week Eight

### **March 6th: Developing an Identity - Gender & Sexuality; Gender Nonconforming Youth**

The **neuroscience of gender and sexuality development** is controversial, complicated, and enormously interesting. We will examine recent scientific literature and how such data informs how we think about diversity and acceptance.

Focusing on the development of identity during adolescence, we'll further discuss the **development of gender** and examine the associated mental health issues that these individuals are at risk for developing.

#### **Assigned Reading**

- ❑ **Everyone Read:**

- ❑ Trans, Teen, Homeless: America's Most Vulnerable Population. *Rolling Stone*, September 2017
- ❑ *The Scientific American Book of Love, Sex, and the Brain*. Chapter 3: His Brain, Her Brain, Gay Brain, and Other Brains

- ❑ **And Listen to One of the Following:**

- ❑ Radiolab June 30, 2018: Gonads: XY  
<https://www.wnycstudios.org/story/gonads-xy>
- ❑ Radiolab Nov 21, 2018: UnErased: Dr. Davison and the Gay Cure  
<https://www.wnycstudios.org/story/unerased-davidson-gay-cure>

**Student Presentation & Discussion:** Overshadowed by the Amygdala: The Bed Nucleus of the Striata Terminalis Emerges as Key to Psychiatric Disorders, *Molecular Psychiatry* (2016) 21, 450–463

#### **In-Class**

- *Growing Up Trans* (Frontline, 2015): <http://www.pbs.org/wgbh/frontline/film/growing-up-trans/>
  - *The Mask You Live In* (2015)
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# Week Nine: SPRING RECESS

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## Week Ten

### March 20th: Puberty & the Brain Effects of Technology & Media

Principles of decision-making and the underlying neurobiology will be examined. How does the developing brain place adolescents at risk for developing substance use and mental health problems? Notions of **novelty-seeking** and its relationship to **Dopamine** will be introduced.

We will begin to study how **technology influences** the development of contemporary romantic relationships, paying attention to the impact of social networking sites on adolescent behaviors and on the development of intimacy among teens. How does the media and technology shape the act of finding a partner in today's world?

#### Assigned Reading (CHOOSE THREE)

- ❑ The Amazing Teen Brain (June 2015 *Scientific American*)  
<http://www.nature.com/scientificamerican/journal/v312/n6/pdf/scientificamerican0615-32.pdf>
- ❑ The Digital Revolution and the Adolescent Brain Evolution. *J Adolesc Health*. 2012 Aug; 51 (2): 101-105.
- ❑ Increased Screen Time: Implications for Early Childhood Development and Behavior. *Pediatr Clin North Am*. 2016 Oct;63(5):827-39
- ❑ Exploring the Role of Social Networking Sites Within Adolescent Romantic Relationships and Dating Experiences. *Computers in Human Behavior*. February 2016; Vol 55 (A): 76-86.

**Student Presentation & Discussion:** Becoming A Sexual Being: The 'Elephant in the Room' of Adolescent Brain Development, *Developmental Cognitive Neuroscience* 25 (2017) 209-220

#### In-Class

- Watch: Eighth Grade (2018)
- Phone, Tablets, and Their Impact On Kids' Brains  
<https://www.cbsnews.com/news/phones-tablets-and-their-impact-on-kids-brains-60-minutes/>
- Teens & Ethical Romantic Relationships <https://mcc.gse.harvard.edu/teens-and-ethical-romantic-relationships>
- What Makes Us Click? How Online Dating Shapes Our Relationships  
<https://www.npr.org/2018/01/02/572259115/what-makes-us-click-how-online-dating-shapes-our-relationships>

- Lessons in Love for Generation Snapchat  
<https://www.npr.org/2017/11/22/565618299/lessons-in-love-for-generation-snapchat>
- Has the Smartphone Destroyed a Generation?  
<https://www.theatlantic.com/magazine/archive/2017/09/has-the-smartphone-destroyed-a-generation/534198/>
- <http://mashable.com/2017/11/14/is-social-media-screen-time-bad-for-teens-girls-mental-health/#n6T15hBjUOqC>

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### **\*Written Assignment #3 Due April 3rd\*** **Social Stigma & Mental Illness**

In November, 2018 Vermont Public Radio aired ‘This is Us,’ a series exploring mental health care in Vermont. Listening to one or more of these episodes (<http://digital.vpr.net/post/they-are-us-series-exploring-mental-health-care-vermont#stream/0>), think about your own notions of what it means to be mentally ill and discuss how your thinking has evolved about this as you listened to this series. Address how stigma around psychiatric conditions contributes to isolation, not seeking treatment, shame, and poor sense of self. Can neuroscience be used to effectively reduce stigma? Is there evidence that media portrayals and people (including celebrities and athletes) sharing about their experiences with mental illness can also be an effective way to combat stigma?

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## Week Eleven

### **March 27th: Developing Relationships, Monogamy, Pair-Bonding**

Romantic relationships through adulthood will be examined. The acts of dating, partnering, and selecting a mate will be explored through the lens of neuroscience. What is the neural basis of attraction and what’s the role of **Testosterone** and **Estrogen** in attraction?

We will continue to take a look at the psychological, biological, and societal influences that drive us to have sex and express love. The neurobiology of pair bonding will be introduced we’ll further investigate **Oxytocin** and **Vasopressin**.

#### **Assigned Reading**

- Chapters 2, 5, & 6 from *The Chemistry Between Us*
- Affairs of the Lips, *Scientific American Mind*, March 2016
- Is an Open Marriage a Happier Marriage? New York Times Magazine, May 11, 2017 **(Optional)**

**Student Presentation & Discussion:** The Neural Mechanisms and Circuitry of Pair Bonding, Nature Reviews Neuroscience, Vol 19, November 2018

### **In-Class**

- ❑ What Eyes and Odours Reveal About Sexual Attraction, The Economist Oct 14, 2017
  - ❑ Neurobiological Mechanisms of Social Attachment and Pair Bonding. Curr Opin Behav Sci. 2015 Jun; 3: 38–44.
  - ❑ Hormonal Gain Control of a Medial Preoptic Area Social Reward Circuit. Nature Neuroscience Vol 20, 3. March 2017
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## Week Twelve

### **April 3rd: Commitment, Losing Love, Loneliness**

How can love be sustained over time and what does it take to create a healthy atmosphere for love? What gets in the way? We will learn more about the brain's **reward system**, the benefits of sexual activity and **orgasm**, and the **HPA axis**.

How does our brain react to **loss** and **loneliness**? As we age, it's inevitable that we experience loss and our capacity to be alone may increase. The phenomena of **self-love** will be discussed and how this is vital to our own mental wellness and health.

### **Assigned Reading:**

- ❑ **Everyone Read:** Chapter 7 & 8 from *The Chemistry Between Us*
- ❑ **Choose One of the Following:**
  - ❑ Neural Correlates of Long-Term Intense Romantic Love. Scan (2012) 7, 145-159.
  - ❑ Loneliness: Clinical Import and Interventions. Perspect Psychol Sci. 2015 March ; 10(2): 238–249

**Student Presentation & Discussion:** Sex for Fun: A Synthesis of Human and Animal Neurobiology, [Nat Rev Urol](#). 2012 Sep;9(9):486-98.

### **In-Class:**

- Let's Get Serious: Communicating Commitment in Romantic Relationships (J Pers Soc Psychol. 2011 Jun;100(6):1079-94)
- Brain Imaging of Human Sexual Response: Recent Developments and Future Directions [Curr Sex Health Rep](#). 2017;9(4):183-191
- This is What an Orgasm Does To Your Brain [https://www.buzzfeed.com/caseygueren/your-brain-on-sex?utm\\_term=.huwJmNqwB#.fwpvAnGPQ](https://www.buzzfeed.com/caseygueren/your-brain-on-sex?utm_term=.huwJmNqwB#.fwpvAnGPQ)
- Ted Talk: 10 Things You Didn't Know About Orgasm

- [https://www.ted.com/talks/mary\\_roach\\_10\\_things\\_you\\_didn\\_t\\_know\\_about\\_orgasm](https://www.ted.com/talks/mary_roach_10_things_you_didn_t_know_about_orgasm)
- Can You Have Love and a Chronic Illness? <https://www.rewire.org/pbs/love-chronic-illness/>
  - The Surprising Effects of Loneliness on Health, The New York Times, Dec 11, 2017
  - The Neuroendocrinology of Social Isolation. Annu. Rev. Psychol. 2015. 66:733–67
  - Towards a Neurobiology of Loneliness. Psychol Bull. 2014 November ; 140(6): 1464–1504
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## Week Thirteen

### **April 10th: Hate, Callousness, & Unemotionality**

One cannot discuss love without exploring the phenomena of **hate**. What underlies negativity and hate neurobiologically? Are some born with an innate predisposition for being mean and hateful? The diagnosis of **Conduct Disorder** and its underlying psychological and neuroscientific constructs will be examined.

#### **Assigned Reading (Choose Two):**

- ❑ Are Babies Born Good? (January 2013, *Smithsonian Magazine*)  
<http://www.smithsonianmag.com/science-nature/are-babies-born-good-165443013/>
- ❑ Conduct Disorder and Callous-Unemotional Traits in Youth. N Engl J Med 2014; 371:2207-2216.
- ❑ *The Neuroscience of Human Relationships*, 2nd Edition by Louis Cozolino: Chapter 20: Psychopathy - The Antisocial Brain

**Student Presentation & Discussion:** The Developmental Foundations of Human Fairness, Nature Human Behaviour 8 Feb 2017

#### **In-Class:**

- A Dangerous Son (2018 documentary)
  - Inside the Hate Filled Mind of a Mass Murderer (June 2016, *The Washington Post*)  
[https://www.washingtonpost.com/news/speaking-of-science/wp/2016/06/14/inside-the-hate-filled-mind-of-a-mass-murderer/?utm\\_term=.836e3595b3b7](https://www.washingtonpost.com/news/speaking-of-science/wp/2016/06/14/inside-the-hate-filled-mind-of-a-mass-murderer/?utm_term=.836e3595b3b7)
  - The Reckoning (March 2014, *The New Yorker*)  
<http://www.newyorker.com/magazine/2014/03/17/the-reckoning>
  - Real Stories: Psychopaths <https://www.youtube.com/watch?v=60vK6Uw9sSE>
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# Week Fourteen

## **April 17th: Social Cognition & Autism Spectrum Disorders**

Social cognition refers to the psychological processes that enable us to take advantage of being part of a social group. What social signals help us to learn about our world and how are such signals mediated by brain processes? We can learn a great deal by observing one another and notions of **Theory of Mind** and facial recognition/processing will be discussed.

An introduction to **autism**, a complicated disorder defined by impairments in social relatedness. We'll discuss the genetics and neurobiology theorized to underlie autism and examine intervention strategies.

### **Assigned Reading:**

- ❑ Reaching my Autistic Son Through Disney (March 2014, *The New York Times Magazine*)
- ❑ Autism spectrum disorder. *Lancet*, 2018; 392: 508-20.

**Student Presentation & Discussion:** Neurobiology of Social Behavior Abnormalities in Autism and Williams Syndrome, *Nature Neuroscience* volume 19, pages 647–655 (2016)

### **In-Class:**

- *Autism in Love* documentary
  - VICE: *Autism Under the Lens*
  - Surprising Science Behind Making Friends <http://www.upworthy.com/theres-a-surprising-science-behind-making-friends-and-this-psychologist-is-teaching-it>
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# Week Fifteen

## **April 24th: Mental Health, Stigma, Shame, & Relationships**

Remember, everything about us is geared toward collaboration in social systems. Relationships and our mental health are deeply intertwined; relationships and interactions give us meaning. How are connections and relationships challenged when mental health issues are experienced? We will discuss suicide and shame, focusing on how acceptance and isolation can foster negative outcomes.

### **Assigned Reading:**

- ❑ The Best Way to Save People From Suicide (<https://highline.huffingtonpost.com/articles/en/how-to-help-someone-who-is-suicidal/>)
- ❑ The Touch of Madness, *Pacific Standard*, October 2017

**Student Presentation & Discussion:** Chapter 10: The End of Stigma in *Shrinks, The Untold Story of Psychiatry* by Jeffrey A. Liebermann, MD and Bringing Gloom Into the Light, *New York Times*, November 18, 2018

**In-Class:**

- *Nanette* by Hannah Gadsby
  - Platonic Romance on the Psych Ward, *New York Times* September 2017
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## Week Sixteen

**May 1st: Exam**

Details to be discussed in-class. This exam will be open book and cover the semester's content. Short answer and multiple choice questions.

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**Policies**

- How To Contact Us: Use your UVM email account so we can reply (if needed) with confidential information about your work in the class. In most cases, you will get a reply within one *business* day.
- How We Contact You: Most information will be posted on Blackboard. If we need to contact you individually, we will use your UVM email address. Students are expected to manage their own email accounts so that they can receive messages related to the course.
- Web-based resources: <https://bb.uvm.edu/> This is your gateway to the resources for the course, including readings, videos, and other material. Most of your assignments will be posted here. You are expected to check it regularly.

**Classroom Environment Expectations**

- Students are expected to attend every class, arriving promptly and remaining alert and involved until dismissed by the instructor.
- Faculty and students will promote academic discourse and the free exchange of ideas by listening with civil attention to all individuals.
- *Laptop computers and other web-enabled devices:* Cell phones should not be used during class; laptops are permitted unless otherwise specified. **We want you to be engaged and participating.**

- Absences: As above, attendance is mandatory. **Absences will affect your participation grade.** (Unless you have a scheduled varsity or club athletic event, religious holiday, illness, or family crisis that is covered by UVM policy as appended below).

## Grading & Assessment

### Participation

Participation is critical for this class. Much of the learning will be derived from in-class discussion, presentations, and viewing of multimedia. We expect students to attend every week, be on-time, and participate in the classroom dialogue about the topics being discussed.

For each class, a short quiz on the assigned readings will be expected to be completed. The quiz questions will help to solidify the readings and will be available prior to class. Only answer the questions that relate to the readings you choose; in class, you will work together with other students to complete the quiz in full. These quizzes will count towards your participation grade for the course.

### Written Assignments

Two written assignments will be due over the course of the class.

- Paper One February 13th (All students to complete this paper)
- Response Paper Two - **A CHOICE**: due March 6th or April 3rd depending on which paper you choose to write.

### End of Class Exam

This will be an in-class open-book exam to be taken individually. Details will be discussed in class.

### Presentation & Discussion Leader

Details to be discussed in class. Students, in small groups, will sign-up to lead one class discussion based upon an additional assigned reading and associated content (see above). These presentations should be about 30-40 minutes in length and may include a powerpoint slide set and/or other interactive teaching methods.

## Written Assignments

Two papers will be due throughout the course. They should be 5 - 6 pages double-spaced (MLA or APA format, size 12, double spaced, Times New Roman, left heading, 1" margins). The response papers will involve some degree of personal examination using the material from the class and reflection on the prompt provided. Papers should include an introduction, thesis

statement, support (with at least 3 references), and conclusion. We will also expect a certain amount of proofreading so that spelling, punctuation, and grammatical errors do not hinder our enjoyment of your writing (use the Writing Center if you need to!).

### Writing Requirements:

- The paper should have an introductory paragraph and thesis statement to let us know the focus of the paper.
- The subsequent paragraphs should be clearly related to your thesis statement, offering support for your argument. Every paragraph should be easily connected to the previous one.
- The paper should be 5-6 pages with 1" margins and double-spacing. The listing of your bibliography does not count as part of the 5-6 pages.
- Every paper should cite *at least* 3 sources to support/define your argument. Appropriate sources include textbooks, journal articles, or *scientific* writing from the media. While blogs, opinion pieces, course lectures, and media samples (TV, movies, music, etc.) are excellent to support your arguments, they *do not* count toward your citations.
- Citations to materials from the course (textbooks, articles) or otherwise should be included parenthetically with author and page number within your paper, e.g., (Young, 24). Course lectures may be cited but *do not* count toward your minimum number of references.
- Citations from course and non-course materials should *also* be listed with full citation information in a reference/bibliography list at the end of your paper. Use APA or MLA style for these citations. *If the reference information is not listed, you will not get credit for the citation.*
- We strongly suggest that you proofread the paper for grammar, spelling, and readability. If that is not your forte, get help from friends, family, the UVM Writing Center, etc.

### Grading Rubric for Writing Assignments:

- 10 points for clear writing (e.g., grammar, punctuation, spelling, clear sentences, no typos) and/or communication of themes
- 10 points for organization (e.g., clear thesis, supporting arguments linked together, conclusion summarizes)
- 10 points for incorporation of resources, references, and ideas/sources from the course (at least 3 citations with reference information required for full credit)
- 10 points for adequately and clearly addressing the assignment prompt in 4-6 pages or in a creative format
- 10 points for creativity in writing, thinking, and presentation of material
- Papers that are turned in late will lose 2 points for each day that they are late. Students requesting an exemption from the late submission policy must present

a written note from a school Dean, Academic Advisor, or personal physician justifying the late submission, which will then be considered by the instructor.

### **Student Learning Accommodations:**

In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Disability Services on campus. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly encouraged to meet with their faculty to discuss the accommodations they plan to use in each course. A student's accommodation letter lists those accommodations that will not be implemented until the student meets with their faculty to create a plan.

Contact SAS:

A170 Living/Learning Center;

802-656-7753;

[access@uvm.edu](mailto:access@uvm.edu)

[www.uvm.edu/access](http://www.uvm.edu/access)

### **Religious Holidays:**

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time. <https://www.uvm.edu/registrar/religious-holidays>

### **Academic Integrity:**

The policy addresses plagiarism, fabrication, collusion, and cheating.

<https://www.uvm.edu/policies/student/acadintegrity.pdf>

### **Grade Appeals:**

If you would like to contest a grade, please follow the procedures outlined in this policy:

<https://www.uvm.edu/policies/student/gradeappeals.pdf>

### **Code of Student Conduct:**

<http://www.uvm.edu/policies/student/studentcode.pdf>

### **FERPA Rights Disclosure:**

The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974.

<http://catalogue.uvm.edu/undergraduate/academicinfo/ferparightsdisclosure/>

## **Promoting Health & Safety:**

The University of Vermont's number one priority is to support a healthy and safe community:

## **Center for Health and Wellbeing:**

<https://www.uvm.edu/health>

Counseling & Psychiatry Services (CAPS)

Phone: (802) 656-3340

## **C.A.R.E.**

If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaffairs>

## **Statement on Alcohol and Cannabis in the Academic Environment**

As a faculty member, I want you to get the most you can out of this course. You play a crucial role in your education and in your readiness to learn and fully engage with the course material. It is important to note that alcohol and cannabis have no place in an academic environment. They can seriously impair your ability to learn and retain information not only in the moment you may be using, but up to 48 hours or more afterwards. It is my expectation that you will do everything you can to optimize your learning and to fully participate in this course.

In addition, alcohol and cannabis can:

- Cause issues with attention, memory and concentration
- Negatively impact the quality of how information is processed and ultimately stored
- Affect sleep patterns, which interferes with long-term memory formation