**The Anxious Brain**

**PSY 1922**

Instructor: Hannah Berg

Email: bergx805@umn.edu

**Introduction and Course Objectives:** Anxiety is a core part of human existence; all of us have experienced it to some degree. But what exactly is anxiety? Would we be better off without it? Why does it affect some more than others, and why have recent decades been called “the age of anxiety?” There are many ways to answer these questions; in this course, we will start with the human brain. The purpose of this course is to use neuroscience to better understand the human experience of anxiety. By the end of the course, students should be able to: 1) define anxiety in terms of its emotional, physiological, and behavioral components; 2) identify the brain processes involved in the expression and inhibition of anxiety; and 3) explain mechanisms by which existing treatments for anxiety are effective. In the long term, students should be able to make connections between neuroscience and real-world instances of anxiety.

**Required Reading:**

*Anxious: Using the Brain to Understand and Treat Fear and Anxiety.* Joseph LeDoux (2016)

**Grading:**

Written reflections: 33

In-class activities and participation: 33

Final paper proposal: 10

Final paper: 20

Final presentation: 4

TOTAL POINTS: 100

% Points Earned Grade % Points Earned Grade

93.0 – 100.0% A 73.0 – 76.9% C

90.0 – 92.9% A- 70.0 – 72.9% C

87.0 – 89.9% B+ 67.0 – 69.9% D+

83.0 – 86.9% B 63.0 – 66.9% D

80.0 – 82.9% B- 60.0 – 62.9% D

77.0 – 79.9% C+ 0 – 59.9% F

**Late work:** Assignments will be docked 10 points per day late. If an assignment is more than 10 days late, it will no longer be worth any points.

**Extra Credit:** You may earn up to 10 points of extra credit in this course. The Research Experience Program (REP) allows individuals to complete psychology research studies in our department in exchange for extra credit. We are allowing up to 10 extra credit points for the class, with each REP point equalling 1 point in the class. More information on how to sign up for various studies can be found here: https://fmp.cla.umn.edu/PsyREP/projects.php. In general, you earn 1 REP point per 30 minutes of study participation. Therefore, to earn all 10 points in REP, you will likely have to spend ~ 5 hours over the course of the semester participating in research studies.

If participating in research is uncomfortable for you for any reason, we are offering a different type of extra credit that you can complete in lieu of REP points. You may complete up to 2 additional written reflections (up to 5 points each, depending on the quality of the paper) for a total of 10 extra credit points. The book cites many scientific research studies to back up its claims, summarizing and synthesizing findings from each study, but by necessity many details of the studies are left out. Therefore, reading the scientific articles themselves can be a nice adjunct to the book, and can help illustrate how individual studies contribute to a body of knowledge. The articles are cited as superscripts in the main text, and full citations can be found in the “bibliography” section at the end of the book. You can then access the articles through the UMN library (<https://www.lib.umn.edu/>). For extra credit, read any scientific article cited in the book and turn in a 1 page (double-spaced), Times New Roman (size 12), summary of the article. What were the main findings of the study? How do the authors of the article interpret the findings? In what ways does the article support LeDoux’s arguments in the book?

**Reading:** You will have assigned reading due each week. Readings must be completed prior to each class period. Discussions will center on the readings, so it is important that you come to class prepared and ready to discuss the main ideas presented in each reading. In addition to the written reflections described below, it would be a good idea to jot down notes about your own opinions and questions that you have on each reading.

**Written Reflections:** Before each class session you will write a brief (~1 page double spaced) reflection on each chapter of assigned reading. You should summarize what you learned from the chapter, note which sections were the most difficult to understand, and write one or two discussion questions for the class. Each reflection will be worth 3 points.

**In-Class Activities and Participation:** Attendance and active in-class participation is necessary to do well in the course. Attending and participating is worth 3 points per class and there will be in-class participation activities and discussion reflections each week except the class presentation week. These activities are intended to benefit you by allowing you to apply and think more deeply about the material by exposing you to different perspectives and learning styles. We value diverse viewpoints in this course; it makes the discussions livelier and exposes your fellow students to ideas that they may have overlooked.

**Final Paper and Presentation:** You will write a 5 page double spaced paper explaining a fictional instance of anxiety from a neurobiological perspective. This could come from a book, film, TV show, poem, song lyrics, music video, or anything else you can think of. The paper will take the form of a “vignette” where you introduce the main character, describe what happens in the scene(s) of your choosing, and explain what brain processes might have been at work. **Your final paper must integrate at least three neurobiological principles from the book.** The instructor will provide a list of some of the principles you might choose to include. A large portion of your grade on the project will come from your success in using brain processes to explain the character’s feelings and actions. You will first turn in a 1-page proposal outlining your topic and receive feedback from the instructor. Then, you will turn in your final paper and give a brief (10min) presentation of your vignette to your classmates.

**Makeup Policy:** The university policy for makeup work & absences can be found on https://policy.umn.edu/education/makeupwork. You are allowed 1 unexcused absence; subsequent absences will require written verification of your reason for absence and you will only be given the opportunity to make up missed points if your absence is for a University approved reason (e.g. death in the family, illness with doctor or hospital visit.) Please email the instructor regarding any missed classes and I will send a make-up assignment for the daily points you missed (for approved absences only).

**Class Culture:** Cell phones must be turned off during lecture. Any devices with headphones are not allowed. If you choose to use a laptop to take notes, do not use it to browse the internet or play games—this is distracting and disrespectful to your fellow classmates and to the instructors. I recommend taking physical notes during class. During discussions, please close your laptop. If you would like to reference the readings in electronic format during discussion, please refrain from browsing the internet or playing games while your laptop is open. This is distracting, disrespectful to your classmates, and will negatively impact your grade.

**A note on anxiety.** The experience of anxiety is nearly universal - nearly all humans have experienced it to at least some degree! Some students might even find that bringing up their own experiences with anxiety in class discussion might help to further their understanding. Other students might prefer not to get personal in class, and might choose to contribute to discussions in other ways. **Either one of these approaches is completely acceptable**. Students should feel free to disclose as much or as little as they choose.

That being said, as your instructor, it is not my role to diagnose or treat anxiety in the class setting. **This course is not a replacement for proper mental health care**. If you or someone you know is struggling with anxiety, help is available through the university. I have listed contact information for student mental health care resources at the end of this syllabus.

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| **Week** | **Date** | **Topic** | **Readings and Assignments Due** |
| **UNIT 1: What is anxiety?** |
| 1 | September 5th  | Introductions;Defining fear and anxiety**Activity:** is anxiety ever a good thing? |  |
| 2 | September 12th  | The emotional brain | Ch. 1, 2 |
| 3 | September 19th  | Life is dangerous**Activity:** Adaptive defensive responses | Ch. 3 |
| 4 | September 26th  | The defensive brain | Ch. 4 |
| 5 | October 3rd  | Animals and humans**Activity:** Final paper brainstorm: fictional examples of anxiety | Ch. 5 |
| **UNIT 2: The hard problem of consciousness** |
| 6 | October 10th  | The consciousness problem**Activity:** Who is conscious? How would you know? | Ch. 6 |
| 7 | October 17th  | Memory and consciousness**Activity:** semantic and episodic memory | Ch. 7Final Paper Proposals Due  |
| 8 | October 24th  | Emotion and consciousness**Activity:** Implicit and explicit learning | Ch. 8 |
| **UNIT 3: Treating anxiety** |
| 9 | October 31st  | Forty million anxious brains | Ch. 9 |
| 10 | November 7th  | Changing the anxious brain**Activity:** exposure therapy roleplay | Ch. 10 |
| 11 | November 14th  | Using neuroscience to improve therapy | Ch. 11;FINAL PAPER DUE |
| 12 | November 21st  | Final Presentations |  |
| 13 | December 5th  | Final Presentations |  |

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**STUDENT CONDUCT:** You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/regents.umn.edu/files/policies/Student\_Conduct\_Code.pdf)

If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: http://policy.umn.edu/education/instructorresp.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: http://www1.umn.edu/oscai/integrity/student/index.html.

If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

**MANDATORY REPORTING:** We want to let you know that, in our roles as a University employees, we are required to share any information that we learn about involving possible sexual misconduct with the campus Title IX office. This allows a Title IX staff member to reach out to those who have experienced sexual misconduct to provide information about the personal support resources and options for investigation that they can choose to access.

**DISABILITIES ACCOMMODATIONS:** The University of Minnesota views disability as an important aspect of diversity, and is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

● If you have, or think you have, a disability in any area such as, mental health, attention, learning, chronic health, sensory, or physical, please contact the DRC office on your campus (UM Twin Cities - 612.626.1333) to arrange a confidential discussion regarding equitable access and reasonable accommodations.

● Students with short-term disabilities, such as a broken arm, can often work with instructors to minimize classroom barriers. In situations where additional assistance is needed, students should contact the DRC as noted above.

● If you are registered with the DRC and have a disability accommodation letter dated for this semester or this year, please contact your instructor early in the semester to review how the accommodations will be applied in the course.

● If you are registered with the DRC and have questions or concerns about your accommodations please contact your (access consultant/disability specialist).

Additional information is available on the DRC website: https://diversity.umn.edu/disability/ or e-mail drc@umn.edu with questions.

**MENTAL HEALTH & STRESS MANAGEMENT:** As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via http://www.mentalhealth.umn.edu/. There is also a great new program offered by the University called “Learn to Live”, which is online therapy: https://www.learntolive.com/partners.

**RESOURCES FOR STUDENTS:**

Boynton Health Service (health)

**• Website: www.bhs.umn.edu**

• Location: 410 Church St., S.E.

• Description: Provides mental health counseling in addition to SCS.

Student Counseling Services (health)

**• Website: counseling.umn.edu**

• Location: 340 Appleby Hall

• Description: SCS promotes student success through individual and group counseling, along with classes, workshops, and presentations.

The Aurora Center (health)

**• Website: aurora.umn.edu**

• Location: 117 Appleby Hall

• Description: Provides a safe and confidential space for students, faculty, staff, alumni, and family members or friends affiliated with the University of Minnesota, TC or Augsburg College who are victims/survivors/concerned people of sexual assault, relationship violence, or stalking.

Center for Writing (academic)

**• Website: writing.umn.edu/**

• Location: 10 Nicholson Hall

• Description: Resource for general writing assistance.

The Disability Resource Center (academic)

**• Website: https://diversity.umn.edu/disability/**

• Location: 180 McNamara Alumni Center

• Description: Collaborates with students who have disabilities to provide and/or arrange accommodations.

Immigration Response Team (immigration)

**• Website: immigration.umn.edu/**

• Location: 1901 University Avenue SE, Suite 300, Minneapolis

• Description: Provides resources and support to the greater University community on the impact of executive orders and other policy changes, immigration regulations, and issues connected with DACA and immigration status.

International Student and Scholar Services (international students)

**• Website: www.isss.umn.edu/**

• Location: 190 Hubert H. Humphrey School

• Description: Provides advising and counseling to foreign nationals about academic, immigration, legal, career, financial, personal and family issues, as well as issues of cross-cultural adjustment and professional integration upon returning to home countries.

Multicultural Center for Academic Excellence (diversity)

**• Website: diversity.umn.edu/multicultural/**

• Location: 140 Appleby Hall

• Description: MCAE promotes an inclusive atmosphere to foster and enrich multicultural understanding among all members of the University of Minnesota community.

**Standard Statement on Course Requirements**

1. The two major grading systems used are the A-F and S-N. Departmental majors must take major courses on the A-F system; non-majors may use either system. The instructor will specify criteria and achievement levels required for each grade. All students, regardless of the system used, will be expected to do all work assigned in the course, or its equivalent as determined by the instructor. Any changes you wish to make in the grading base must be done in the first two weeks of the semester.

2. The instructor will specify the conditions, if any, under which an "Incomplete" will be assigned instead of a grade. The instructor may set dates and conditions for makeup work, if it is to be allowed. "I" grades will automatically lapse to "F"s at the end of the next semester of a student's registration, unless an instructor agrees to submit a change of grade for a student during a subsequent semester to maintain the grade as an "I".

3. Students are responsible for all information disseminated in class and all course requirements, including deadlines and examinations. The instructor will specify whether class attendance is required or counted in the grade for a class.

4. A student is not permitted to submit extra work in an attempt to raise his or her grade, unless the instructor has specified at the outset of the class such opportunities will be afforded to all students.

5. The University prohibits sexual misconduct in its Administrative Policy: Sexual Harassment, Sexual Assault, Stalking and Relationship Violence. Please contact the Office of Equal Opportunity and Affirmative Action (EOAA) with any questions or concerns (274 McNamara).

6. For assistance with any University-based conflicts or complaints please contact the Student Conflict Resolution Center at sos@umn.edu or call 612-624-7272.