Terp Young Scholars 2026
Course Title: NEUR 111: The Neuroscience of Stress
Program Dates: July 13 – July 31, 2026

Course Description
Why do some people thrive under pressure while others feel overwhelmed? In this course, we'll explore the biology and psychology of stress to understand how the brain and body respond to challenges, why stress can both help and harm us, and what science says about managing it. Students will learn about the nervous system and hormones that drive the "fight-or-flight" response, examine the impact of stress on health and performance, and practice proven stress management strategies in their own lives.

Learning Outcomes
By the end of this course, students will be able to:

1. Explain how the brain, nervous system, and hormones work together in the stress response.
2. Describe the differences between acute (short-term) and chronic (long-term) stress.
3. Connect stress science to real-world examples in health, school, sports, and daily life.
4. Analyze their own stress patterns and test stress management strategies.
5. Communicate scientific ideas clearly in written reflections and presentations.

Details:
Class Time & Location
Online synchronous M-F 9:30AM -12PM

Course Structure
This is a **3-week intensive college-level course**. We will meet online daily (Monday–Friday) for lectures, discussions, activities, and group activities. Students will be expected to complete nightly readings, short assignments, and practice stress management techniques. *Attendance to all synchronous sessions is required*.

Instructor
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Office Hours
M-F 12PM or by appointment
Schedule a chat this link: https://calendly.com/franssenstrategies/quick

Prerequisites:
High School Biology

Textbooks and Course Information Access
There are no required texts. Supportive readings will be posted on ELMS course site.

Topic Schedule

Date	Topic
Week 1	Why We Have Stress
7/13	What is Stress?
7/14	The Stress Machinery: Brain and Body Basics
7/15	Fight-or-Flight and Beyond
7/16	Acute vs. Chronic stress
7/17	When Stress Helps and When it Hurts
Week 2	Stress, Health, & Behavior
7/20	Stress and the Brain: Learning, Memory, and Plasticity
7/21	Stress and Physical Health
7/22	Stress and Mental Health
7/23	Can We Measure Stress?
7/24	Memory, Emotion, and Decision-making
Week 3	Managing Stress and Thriving
7/27	Why People Experience Stress Differently
7/28	Stress Across Life
7/29	Can We Train the Stress Response?
7/30	Stress Myths and the Neuroscience of Misinformation
7/31	Become Scientists of Stress

Course Format and Expectations

This course is designed as an intensive three-week experience. Although we will meet synchronously each weekday from 9:30 a.m. to 12:00 p.m., our time together will vary from day to day and may include live discussions, mini lectures, videos, readings, experiments, independent work, and collaborative activities.

In a traditional semester, college courses typically require 2-3 hours of work outside of class **for every hour spent in class**. Because this course is offered in a condensed summer format, expecting 6-9 hours each day is unrealistic. Instead, students should expect to spend approximately 1-4 hours outside of class each day completing readings, watching videos, participating in activities, and working on their Lab Notebook, Field Guide, and other assignments. Some days may require less time, and others may require more depending on the topic and assignments.

Success in this course depends less on memorization and more on active engagement. Students are expected to participate fully, ask questions, complete assignments thoughtfully, and approach the course with curiosity. Throughout the three weeks, you will act as both a scientist and a subject of investigation, learning about the neuroscience, biology, and psychology of stress while collecting observations about your own experiences. By the end of the course, you will have

developed a personalized User's Manual for your stress response based on scientific evidence, personal data, and the insights gained throughout the course.

Letter Grade Distribution
A: 89.5 - 100%
B: 79.5 - 89.49%
C: 69.5 - 79.49%
D: 59.5 - 69.49%
F: <59.5%

Assignments and Evaluation
Assignment details, due dates, and grading criteria will be provided on Canvas throughout the course. Because this is an intensive and interactive course, minor adjustments may be made to assignments or activities to best support student learning.

Lab Notebook (20%)
Students will maintain a daily Lab Notebook to document key concepts, vocabulary, diagrams, questions, and observations from lectures, readings, discussions, and activities. These guided notes are designed to help students organize and reinforce scientific concepts introduced throughout the course.

Field Guide (20%)
Students will complete daily Field Guide entries to connect course concepts to real-world experiences. Entries may include stress tracking, observations, reflections, and applications of course material. Together, the Field Guide entries will provide the foundation for the final project.

Quizzes and Knowledge Checks (20%)
Short quizzes and other knowledge checks will be used throughout the course to reinforce major concepts and terminology. Assessments may include multiple-choice, short answer, matching, diagrams, or other formats. The emphasis will be on understanding and application rather than memorization.

Mini Labs and Activities (20%)
Students will participate in hands-on investigations and applied activities designed to explore stress scientifically. Activities may include measuring biomarkers such as heart rate, reaction time, or sleep patterns; analyzing case studies; evaluating scientific claims; and collecting and interpreting data. Some activities will be completed individually, while others may involve collaboration with classmates.

Final Project: User's Manual for My Stress Response (20%)
Rather than a traditional final exam, students will develop a personalized User's Manual for their stress response. Drawing on observations from the Field Guide, concepts from the Lab Notebook, and data collected throughout the course, students will create a scientific

guide to understanding how their body and mind respond to stress. The project will include evidence-based strategies, reflections on patterns observed throughout the course, and a brief presentation of key insights to the class.

Example Daily Schedule: A Typical Day

Please note that this schedule is only a general guide. Some days may involve longer discussions, guest speakers, extended activities, or additional independent work. Flexibility and active participation are essential to making the most of this intensive course.

Time	What we'll do	Your responsibility
9:30-10	Opening discussion, current topics, review previous day, answer questions	Be on time on zoom! Be ready with questions! Have your homework turned in and available to discuss.
10-10:45	Interactive lectures, videos, demonstrations, group activities	Watch, listen, take notes, fill in your lab notebook, contribute to discussions
10:45-11	Break	Ask questions & gather materials for next assignment (quick bio break if needed)
11-12	Independent work time, small group activities, lab notebook entries, field guide reflections	Reconvene on zoom with small group or large group, complete activities, ask questions before leaving
After class	Assigned readings or videos; Daily Lab Notebook and Field Guide entries; Knowledge checks or quizzes; Mini lab activities and data collection; Preparation for the final User's Manual project	Complete all daily tasks, quizzes, and turn in. Most deadlines are midnight.

Attendance and Participation

Attendance is an essential part of this intensive course. Students are expected to attend all scheduled class sessions and actively participate in discussions, activities, and assignments.

- Attendance will be monitored regularly.
- Students should be prepared to engage during class sessions with their camera on when possible and participate actively in discussions and activities.
- Because the course meets for only fifteen class sessions, each absence represents a substantial portion of the course experience.
- Students are responsible for obtaining missed notes, handouts, announcements, and assignments.
- All deadlines remain in effect even if a student misses class.

- Make-up quizzes and assignments will generally be provided only for documented excused absences and are at the discretion of the instructor.
- Some activities, discussions, and mini-labs may not be fully reproducible outside of class.
- Excessive absences, whether excused or unexcused, may make successful completion of the course impossible and may result in a reduction of the final grade.
- Students are expected to arrive on time and return promptly from breaks or group activities.
- Students are responsible for all announcements, instructions, and assignments communicated during class.
- Students who anticipate missing a major assignment, quiz, or presentation should contact the instructor as soon as possible.
- Professional communication, proactive planning, curiosity, and respect for others are expected at all times.
- Students are encouraged, but never required, to share personal experiences related to course topics.

Late Work Policy
Since the course builds on itself daily, and answers to quizzes and assignments may be posted or discussed following the due date, **no late work or makeup will be possible**. Exceptions are at the discretion of the instructor. Details of University Policy can be found here: http://www.ugst.umd.edu/courserelatedpolicies.html

Re-Grades
Any request for re-grading must be submitted to the course instructor within three days of grade release.

Religious Observances
The University System of Maryland policy "Assignments and Attendance on Dates of Religious Observance" states that students should not be penalized in any way for participation in religious observances and that, whenever feasible, they be allowed to make up academic assignments that are missed due to such absences. However, in accordance with school policy, it is your responsibility to inform the instructor of any intended absences for religious observances or school-sanctioned activities in advance.

Academic Dishonesty
The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. ***It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism.*** For more information on the Code of Academic Integrity or the Student Honor Council, please visit: http://www.studenthonorcouncil.umd.edu/whatis.html

Students with Disabilities

The course staff is committed to providing appropriate accommodation for students with recognized disabilities. If you have been evaluated by Accessibility and Disability Services (ADS) and qualify for specific services, please inform you're the instructor at the beginning of the semester. If you think that you may qualify for some accommodation but have not yet been evaluated, please contact ADS at 301-314-7682 to arrange a consultation.

Inclusive Learning Environment
Positive class community and climate is important for everyone's personal and academic success in the course. Students will be invited to share their thoughts in class; a diversity of opinions is welcome. Respectful communication is expected, even when expressing differing perspectives. Supporting one's statements with research findings is encouraged. In accordance with free speech statutes, speech that contains threats of violence is prohibited.

Names/Pronouns & Self Identifications
I want every student to feel welcome and respected in this course. If you have a preferred name or pronouns that differ from those listed in university records, please let me know or update your information in ELMS. I will do my best to address students according to their preferences, and I ask that everyone extend the same courtesy and respect to their classmates.

Students are welcome to share as much or as little about their identities, experiences, and perspectives as they feel comfortable. Personal information should be self-identified, never assumed, and all members of our class community are expected to treat one another with professionalism, curiosity, and respect.

Notice of Mandatory Reporting
Notice of mandatory reporting of sexual assault, sexual harassment, interpersonal violence, and stalking: As a faculty member, I am designated as a "Responsible University Employee," and I must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to UMD's Title IX Coordinator per University Policy on Sexual Harassment and Other Sexual Misconduct.

If you wish to speak with someone confidentially, please contact one of UMD's confidential resources, such as CARE to Stop Violence (located on the Ground Floor of the Health Center) at 301-741-3442 or the Counseling Center (located at the Shoemaker Building) at 301-314-7651. You may also seek assistance or supportive measures from UMD's Title IX Coordinator, Angela Nastase, by calling 301-405-1142, or emailing titleIXcoordinator@umd.edu.

To view further information on the above, please visit the Office of Civil Rights and Sexual Misconduct's website at ocrsm.umd.edu.