Instructor: Dr. Stephen Lippi
Email: stephen.lippi@angelo.edu
Phone: 325-486-6923
Office: Academic 104C; Class: A007
Office Hours: MW: 11AM-4PM, or by appointment

Course Description
This course aims to explore the impact that lifestyle factors (diet, exercise, stress, sleep) have on our brain and on us as a whole (in both diseased and non-diseased persons). With this in mind, we begin the course by exploring Alzheimer’s disease (AD) (what it is, the effects of AD in humans, mouse models, and treatments) and then apply how these various factors can impact neurological functioning and behavior. Students will analyze journal articles, lead the class in discussion of topics, and maintain journal entries throughout the semester detailing their current habits/behaviors and how they can make improvements in their own lives.

Course Credits
3 credits

Prerequisite Skills
Accessing Internet websites, using ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of this course.

Student Learning Outcomes

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<tr>
<th>Student Learning Outcome</th>
<th>Assignment(s) or activity(ies) validating outcome achievement:</th>
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<tbody>
<tr>
<td>By completing all course requirements, students will be able to:</td>
<td>Exams &amp; Research Presentations</td>
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<tr>
<td>Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)</td>
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</table>
Learn to analyze and critically evaluate ideas, arguments, and points of view

Ongoing COVID-19 precautions

With COVID-19 still playing a significant role in our lives on and off campus, students should prioritize their health and aim to be conscious of their fellow classmates. To that extent, I ask that if you are not feeling well and cannot complete your daily wellness check to please not attend class. While masks are not mandated or required by Angelo State University as they were in the 2020-2021 school year, I ask that if you can, please wear one in this class. Masks are strongly encouraged, especially indoors. They have been shown to be effective at preventing the spread of droplets that can spread COVID-19 and other illnesses (flu). Since this class meets at full capacity, masks will also be effective at preventing spread of droplets to others near you, since social distancing cannot always be accomplished.

Course Delivery
This is a face-to-face course with learning resources and supplemental materials posted in Blackboard. Students unable to attend class in person can find all resources on Blackboard.

Required Texts and Materials
Texts:
- Still Alice (Lisa Genova)
- Healthy Brain, Happy Life (Suzuki, Wendy)
- Decoding Darkness (Tanzi, Rudolph & Parson, Ann)
- Assorted Journal Articles

Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Grading

Evaluation and Grades
Course grades will be determined as indicated in the table below.
### Assessment

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percent/Points of Total Grade</th>
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</thead>
<tbody>
<tr>
<td>Exams (2)</td>
<td>40% (20% each)</td>
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<tr>
<td>Student Research Presentation (1)</td>
<td>25%</td>
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<tr>
<td>Article Summaries (12)</td>
<td>25%</td>
</tr>
<tr>
<td>Journal Entries (Discussion Board) (8)</td>
<td>10%</td>
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<tr>
<td><strong>Total</strong></td>
<td>100%</td>
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</table>

### Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

- **A** = (90-100%)
- **B** = (80-89%)
- **C** = (70-79%)
- **D** = (60-69%)
- **F** = (0-59%)

### Teaching Strategies

Students are expected to be “active learners.” It is a basic assumption of the instructor that students will be involved (beyond the materials and lectures presented in the course) discovering, processing, and applying the course information using peer-review journal articles, researching additional information and examples on the Internet, and discussing course material and clinical experiences with their peers.

### Assignment and Activity Descriptions

**Exams (2): 20% each, 40% total**

Students will have one week to complete each exam. The exams will primarily consist of short answer questions, allowing students to demonstrate understanding and mastery of course material. Alongside short answer questions, students may be asked to diagram pathways, compare and contrast methods, or complete reflection-type questions. Exam 1 will test students’ knowledge of Alzheimer’s disease while exam 2 (which will be turned in according to the final exam schedule) will encompass the effects of lifestyle factors on brain health. All exams will be turned in on Blackboard.

**Student Research Presentations (1): 25%**

Students are expected to lead a discussion on a particular topic covered in class. This will consist of a ~45-minute presentation in the second half of class (following the first half led by Dr. Lippi). Each student is expected to find a review and a peer-reviewed journal article about their chosen topic and present a “lecture” to the class over that given subject. This “lecture” will be in the form of a PowerPoint
presentation. You will need to provide the class an overview of your topic (the review is good for this), introduce your article, detail the hypotheses/methods/results/discussion of the article, and allow for questions. Students will sign up for presentation slots the first 2 weeks of the semester and presentations will begin the 5th week of the semester. Your review and peer-reviewed article need to be approved by me ahead of time and will be shared with the class so that all students can ask questions and engage in discussion. All students are encouraged/expected to read the articles that are being presented on.

Article Summaries (12): 25%
Each week, students will turn in a one-page written summary of that week’s journal article. These articles will be located on Blackboard. *If you need to change the margins or spacing to make it a page, that is fine (meaning, turning your fonts down, or increasing the margins). Each summary is to include the following:

- Brief summary of the study
- Discussion of 1-2 methods used within the study - why did the authors use those methods?
- Discussion of 2-3 results found in the study - did these findings make sense with what the authors were hypothesizing?
- 1-2 questions that students have after reading the study

These summaries are meant to provide students ample opportunities to analyze scientific literature and prepare them for discussion of that given topic. Students will submit these summaries onto Blackboard prior to the start of class.

Journal Entries (8): 10%
When we start to discuss lifestyle factors (diet, exercise, stress, sleep), each week students will detail their current habits/behaviors and the next week detail how they are changing those particular habits/behaviors and how they would like to change them. These will be completed in Discussion Board post submissions on Blackboard each week before the start of class (see dates below).

Assignment Submission
All exams, article summaries, and journal entries will be submitted online through Blackboard. Issues with technology use arise from time to time. If a technology issue does occur regarding an assignment submission (before the deadline), email me at stephen.lippi@angelo.edu and attach a copy of what you are trying to submit. Please contact the IT Service Center at (325) 942-2911 or go to your Technology Support tab to report the issue. This lets your faculty know you completed the assignment on time and are just having problems with the online submission feature in Blackboard. Once the problem is resolved, submit your assignment through the appropriate link. This process will document the problem and establish a timeline. Be sure to keep a backup of all work.

POLICY ON LATE OR MISSED ASSIGNMENTS
Due dates and times for assignments are posted. Failure to submit your assignments on the assigned date will result in a ten percent deduction for each day after the posted deadline. No assignments will be accepted more than one week past the assigned due date.

General Policies Related to This Course
All students are required to follow the policies and procedures presented in these documents:
Student Responsibility and Attendance
Each student is expected to arrive on time to each class and attend class regularly. However, if you are unable to attend because you are feeling ill, that is certainly fine. You all are graduate students and are expected to be in class each week (except in serious circumstances).

COVID-19 and Attendance: If you have had an exposure event, feel any less than 100%, or are unable to complete your daily wellness check, do not come to class. Attendance will be taken each week and masks are highly encouraged.

Academic Integrity
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Health and Human Services adheres to the university’s Statement of Academic Integrity.³

Accommodations for Students with Disabilities
ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website.⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services

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1 https://www.angelo.edu/student-handbook/
2 https://www.angelo.edu/catalogs/
3 https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
4 https://www.angelo.edu/services/disability-services/
Incomplete Grade Policy
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your article summary write-ups, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas, rather than simply copying sections of the text.

Assignments are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.

Student Absence for Observance of Religious Holy Days
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Syllabus Changes
The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student’s responsibility to look for such communications about the course on a daily basis.

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5 https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
6 https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
7 https://www.angelo.edu/dept/writing_center/academic_honesty.php
8 https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
Title IX at Angelo State University
Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: www.angelo.edu/incident-form
Face to face: Mayer Administration Building, Room 210
Phone: 325-942-2022
Email: michelle.boone@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit: www.angelo.edu/title-ix.
<table>
<thead>
<tr>
<th>Date</th>
<th>Section</th>
<th>Reading Material</th>
<th>Study Material</th>
<th>Exam/DB Due</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 7</td>
<td>Alzheimer's disease</td>
<td>Ch. 6-10 Decoding Darkness Still Alice</td>
<td>Lippi et al. (2018) A novel hAPP/htau mouse model of Alzheimer's disease: Inclusion of APP with tau exacerbates behavioral deficits and zinc administration heightens tangle pathology</td>
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<tr>
<td>September 14</td>
<td>Curing AD? Cures/Treatments/Meds</td>
<td>Ch. 11-12 Decoding Darkness Still Alice</td>
<td>Mullane &amp; Williams (2018) Alzheimer’s disease (AD) therapeutics – 1: Repeated clinical failures continue to question the amyloid hypothesis of AD and the current understanding of AD causality</td>
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<tr>
<td>September 21</td>
<td>Diet and the brain</td>
<td>Ch. 1-4 Healthy Brain, Happy Life</td>
<td>Yeh et al. (2020) A high-sucrose diet aggravates Alzheimer’s disease pathology, attenuates hypothalamic leptin signaling, and impairs food-anticipatory activity in APPswe/PS1dE9 mice</td>
<td>Exam 1 (AD) Due</td>
<td>Student 1</td>
</tr>
<tr>
<td>October 5</td>
<td>Exercise and the brain</td>
<td>Ch. 5-8 Healthy Brain, Happy Life</td>
<td>Morris et al. (2017) Aerobic exercise for Alzheimer’s disease: A randomized controlled pilot trial</td>
<td>Diet DB 2</td>
<td>Student 3</td>
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<tr>
<td>October 12</td>
<td>Exercise and the brain</td>
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<td>Kim et al. (2019) Protective effect of exercise training against the</td>
<td>Exercise DB 3</td>
<td>Student 4</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Reading Material</td>
<td>Notes</td>
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<td>October 19</td>
<td>Stress and the brain</td>
<td>Ch. 9-10 Healthy Brain, Happy Life</td>
<td>Peterman et al. (2020) Prolonged isolation stress accelerates the onset of Alzheimer’s disease related pathology in 5xFAD mice despite running wheels and environmental enrichment <em>Behavioural Brain Research, 379</em> Exercise DB 4 Student 5</td>
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<tr>
<td>October 26</td>
<td>Stress and the brain</td>
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<td>Hoeijmakers et al. (2017) Early-life stress lastingly alters the neuroinflammatory response to amyloid pathology in an Alzheimer’s disease mouse model Stress DB 5 Student 6</td>
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<tr>
<td>November 2</td>
<td>Sleep and the brain</td>
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<td>Wang et al. (2020) Chronic sleep deprivation exacerbates cognitive and synaptic plasticity impairments in APP/PS1 transgenic mice <em>Behavioural Brain Research, 412</em> Stress DB 6 Student 7</td>
<td></td>
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<tr>
<td>November 9</td>
<td>Sleep and the brain</td>
<td></td>
<td>Okuda et al. (2019) Association between sleep disturbance in Alzheimer’s disease patients and burden on and health status of their caregivers Sleep DB 7</td>
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<tr>
<td>November 16</td>
<td>No class - SfN</td>
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<td>Sleep DB 8</td>
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<tr>
<td>November 23</td>
<td>No class - Thanksgiving</td>
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<tr>
<td>November 30</td>
<td>Cognitive Reserve</td>
<td></td>
<td>Lesuis et al. (2018) Vulnerability and resilience to Alzheimer’s disease:</td>
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<tr>
<td></td>
<td>Brain Plasticity</td>
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early life conditions modulate neuropathology and determine cognitive reserve

| December 7 |   | Final Exam due |

**Student Evaluation of Faculty and Course**

Students in all programs are given the opportunity to evaluate their courses and the faculty who teach them. Evaluations are most helpful when they are honest, fair, constructive, and pertinent to the class, clinical experience, or course. Faculty value student evaluations, and use student suggestions in making modifications in courses, labs and clinical experiences. Angelo State University uses the IDEA (Individual Development and Educational Assessment) system administered through Kansas State University for all course evaluations. The Office of Institutional Research and Assessment administers IDEA for the entire university, online and has established a policy whereby students can complete course evaluations free from coercion.