Attention!

This is a representative syllabus.
The syllabus for the course when you enroll may be different.

Use the syllabus provided by your instructor for the most up-to-date information. Please refer to your instructor for more information for the specific requirements for a given semester.

Feel free to contact the Psychology Advising Office for any questions regarding psychology courses either by email (psychadvising@osu.edu) or phone (614.292.5750).

Thank you!
PSYCHOLOGY 5089: Cognitive Aging, Neurodegeneration, & Neuroplasticity

Spring 2022 – In-Person
Undergraduate Class
Graduate Class

COURSE OVERVIEW

Instructor

Credits: 3

Course description

This course will cover changes in adult cognition (emphasis on memory) and the brain (emphasis on structural and functional MRI studies) as a result of normal aging and age-related neurodegenerative diseases (such as Alzheimer’s disease and vascular dementia). The course will also cover modifiable health factors that contribute to neuroplasticity and may attenuate age- and disease-related neural and cognitive decline, such as nutrition, fitness, physical activity, exercise, and videogaming. Course content will thus cover the spectrum of cognitive and brain health among older adults: from the super-agers to those with dementia.
Major themes:

This course will cover 3 major themes:

1. **The effects of aging on cognition and the brain.** The course will cover age-related trajectories of performance across cognitive domains with a focus on memory. The course will also cover structural and functional MRI studies that have examined age-related brain alterations.

2. **Cognitive and neural correlates of age-related neurodegenerative disease.** The course will cover the cognitive and neural transition from normal aging to dementia. Students will learn the defining features of cognitive impairments and brain alterations in older adults who do not yet meet criteria for dementia, such as mild cognitive impairment, vascular cognitive impairment (no dementia), and motoric cognitive risk syndrome. Students will also learn about the hallmark cognitive and brain changes in common neurodegenerative diseases, such as Alzheimer’s disease.

3. **Modifiable health factors associated with neuroplasticity.** Although there is a common belief that there is ubiquitous cognitive and neural decline as we age, there is in fact remarkable individual variability. The course will cover the latest research identifying variables that may attenuate age- and disease-related cognitive and neural decline. The course will cover the relationship among modifiable variables, such as physical activity, fitness, nutrition, videogaming, cognitive health and brain health.

Course learning outcomes

By the end of this course, students should successfully be able to:

1. Students will be able to describe the trajectory of cognitive decline across different cognitive domains.
2. Students will be able to describe which brain structures are most susceptible to age-related decline.
3. Students will be able to describe different types of age-related changes in brain activation.
4. Students will be able to describe prodromal disease states based on cognitive and brain data.
5. Students will be able to differentiate the presentation of various neurodegenerative diseases, such as Alzheimer’s and cerebrovascular disease.
6. Students will be able to describe the evidence for health factors to attenuate brain decline in aging and disease.
7. Students will learn to work within a small group to lead a class discussion.
8. Students will learn to give a scientific oral presentation.

How this course works

Mode of delivery:

- In-person (at least 76%)

Pace of course activities: Students are expected to keep pace with course deadlines.
• PowerPoint slides and journal articles will be posted on Carmen
• See the syllabus for specific assignment and exam dates and deadlines
• A typical week will entail reading 3-4 journal articles or chapters, viewing PowerPoint slides and attending class. Throughout the semester, you will also have small group activities to meet with your peer group to discuss your presentation assignments. Some of these will also require your group to meet and communicate outside of our scheduled class time.

Credit hours and work expectations: This is a 3-credit-hour course. According to Ohio State policy, students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Attendance and participation requirements: The following is a summary of everyone's expected participation:

• Participating in online activities: AT LEAST ONCE PER WEEK
  You are expected to log in to the course in Carmen every week. During most weeks, you will probably log in several times. If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.

• Office hours: OPTIONAL
  Office hours are optional. You are welcome to stop by my virtual office during office hours or schedule an appointment. I'm happy to help!

COURSE MATERIALS AND TECHNOLOGIES

The primary source of materials will be scientific journal articles and some book chapters that will be made available in Carmen.

Course technology

TECHNOLOGY SUPPORT

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

• Self-Service and Chat support: ocio.osu.edu/help
• Phone: 614-688-4357(HELP)
• Email: servicedesk@osu.edu
• TDD: 614-688-8743

TECHNOLOGY SKILLS NEEDED FOR THIS COURSE

• Basic computer and web-browsing skills
• Navigating Carmen (go.osu.edu/canvasstudent)
• CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)
• Recording a slide presentation with audio narration (go.osu.edu/video-assignment-guide)
• Recording, editing, and uploading video (go.osu.edu/video-assignment-guide)

REQUIRED EQUIPMENT
• Computer: current Mac (MacOs) or PC (Windows 10) with high-speed internet connection
• Webcam: built-in or external webcam, fully installed and tested
• Microphone: built-in laptop or tablet mic or external microphone
• Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

REQUIRED SOFTWARE
• Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Full instructions for downloading and installation can be found at go.osu.edu/office365help.

CARMEN ACCESS
You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:
• Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (go.osu.edu/add-device).
• Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes good for 365 days that can each be used once.
• Download the Duo Mobile application (go.osu.edu/install-duo) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Total points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>300</td>
</tr>
<tr>
<td>Journal Article Presentations</td>
<td>100</td>
</tr>
<tr>
<td>Cognitive &amp; Brain Health Project</td>
<td>100</td>
</tr>
</tbody>
</table>

• **Exams**. There will be three exams. Exams will cover material from the readings and lectures. Each exam will consist of multiple choice and possibly some short answer and/or essay questions. Makeup exams will be considered only in the most dire of situations and will require professional documentation.
- Exam 1: 100 points
- Exam 2: 100 points
- Exam 3: 100 points

- **JOURNAL ARTICLE PRESENTATIONS** (Total: 100 points; 2 presentations (40 points each) and 20 points for active participation in other’s presentations). For most classes, there will be a group lead student presentation. The assigned group will be responsible for choosing a relevant journal article on the topic, presentation the journal article, and generating critical points of discussion and thought questions for the class [based on the assigned readings or an alternative article that the group has identified and been approved by me (Dr. Hayes)]. You will be expected to have your presentation and thought-provoking comments and questions posted 48 hours prior to the date you are presenting to the class. Graduate students will be assigned as group leaders and have a primary role in facilitating discussion. Undergraduates may also serve as group leaders and are also expected to contribute (e.g., they will also be speaking, answering questions on the discussion board, and making critical points for the class).

- **COGNITIVE & BRAIN HEALTH PROJECT (100 points).** For this 6-8 week project assignment (upload presentation slides by April 10th at 11:59 PM EST), you will identify a health-related behavior that you would like to change during the semester. You should pick a topic and behavior that you think will have an impact on your cognitive performance and/or brain health (nutrition, avoiding sedentary behavior, physical activity, sleep, alcohol reduction, mindfulness, meditation, etc). During class, groups will discuss the targeted behavior, why you selected it, and your intervention plan [including intervention modality and dose (e.g., frequency, intensity, duration), selection of outcome measures, tracking adherence, barriers to success]. The plan needs to be specific and have well-defined outcome measures. For example, “get in better shape”, “eat healthy”, “sleep better” are examples of appropriate general topics, but then you would need to get more specific. How exactly are you going to define “better shape”? Stronger? Faster? Ability to exercise longer? What types of physical activities will you do? How will you define adherence? How will you track your progress (or lack thereof)? **Why do you think this will help your cognitive function? Is there an outcome metric that you can use to assess cognition?** You will check in with your group throughout the semester to discuss your progress. The purpose of the group is to discuss your idea with others so that they can give you feedback on your project and presentation. Note: you do not have to focus on exercise or physical activity—this is just one example. By April 10th, you will upload your slides to Carmen Canvas. Undergraduates will give data-blitz style presentations, that is, the presentation should be 5 min, and part of your grade will be based on your ability to effectively deliver your presentation in the allotted time. Graduate students will give 10 min presentations and be expected to provide more depth on their chosen topic, including appropriate scientific citations in the introduction and discussion and relevant theoretical issues. Students who are not presenting are expected to comment or ask questions on their peers’ presentations (but a student is not required to comment/ask a question for every peer presentation; 1 question/ comment per 2 or 3 student presentations is fine).
Academic integrity and collaboration: You should discuss your project with other students and instructional staff throughout the semester. Your project must be your own individual work, and should be written in your own words, but you should also consider feedback from your peer group.

- **EXTRA CREDIT** opportunities: Prior to each exam, there will be a discussion board for students to post practice exam questions. Students can earn up to 4 extra credit points per discussion board (12 points total for the semester).

Late assignments

- Late submissions will not be accepted.
- Please refer to Carmen for due dates.

Grading scale

93–100: A  
90–92.9: A-  
87–89.9: B+  
83–86.9: B  
80–82.9: B-  
77–79.9: C+  
73–76.9: C  
70 –72.9: C-  
67 –69.9: D+  
60 –66.9: D  
Below 60: E

Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call 614-688-HELP at any time if you have a technical problem.)

- **Grading and feedback**: Quizzes and exams are scored immediately upon completion in Carmen.
- **Email**: Send emails to both the instructor and the CA. One of us will reply to emails within **24 hours on weekdays when class is in session at the university**.
- **Discussion board**: The instructor or the CA will check and reply to messages in the discussion boards every **24 hours on school days (M-F)**.

OTHER COURSE POLICIES
Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style**: While there is no need to participate in class activities/discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.

- **Tone and civility**: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. Please do not engage other students with negative feedback about them as a person and remember to always rely on the data and to focus on the argument being made, not the person making it. Remember to adhere to the OSU Student Code of Conduct at all times - [https://studentconduct.osu.edu/](https://studentconduct.osu.edu/)

- **Citing your sources**: For your contributions in this course, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)

- **Backing up your work**: Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

- **What is said in class stays in class**: Please do not share any course materials or student contributions outside of this class without clear written permission from the student involved AND the professor.

Zoom/Videoconferencing Guidelines

Some of our interactions in this class will occur through Zoom videoconferencing. Because this mode of discussion has benefits and challenges that differ from in-person class sessions, I want to share my expectations for how we will meet and communicate:

- **Technical Issues**: If you encounter a technical issue with Zoom during a session, first make sure you are using the latest version of Zoom. Next, contact the IT Service Desk at [http://go.osu.edu/it](http://go.osu.edu/it) or 614-688-4357(HELP). If issues continue, contact me after the session to learn how to make up for the missed content either via a recording or other means. I will not be able to address technical issues during a live session.

- **Preparation**: Come to the session having completed any readings or pre-work and be ready to have open, civil, and supportive discussions in video and chat spaces. I ask that you update your Zoom profile with your preferred name and add a picture with your face.

- **Participation**: At the start of our sessions, I’ll share specific expectations for how to use the chat, how to interact, and how to raise questions or concerns as we go. If you are unsure about expectations or are unsure about raising a question, please follow up with me afterward to make sure your questions are answered. Plan to be present during the entire class session for any synchronous sessions. For some activities, I may ask you to share your faces on camera so that we can see each other and connect. Please feel encouraged to use a non-distracting virtual background. Many students and instructors prefer not to share their remote spaces for a variety of reasons. Mute your microphone when others are talking to minimize background noise in the meeting.

- **Recordings**: I will be recording our meetings for the benefit of students who may need to be absent. These links will only be shared with students in our class. Please do not share any
Copyright for instructional materials
The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

Commitment to a diverse and inclusive learning environment

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity of all kinds, including: gender, sexuality, disability, age, socioeconomic status, religion, ethnicity, race, and culture. Your suggestions for new materials to integrate into the syllabus or about how to engage in dialogue in all of these domains are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

Your mental health

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. No matter where you are engaged in distance learning, The Ohio State University’s Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at go.osu.edu/ccsondemand. You can reach an on-call counselor when CCS is closed at 614-292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university’s request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This online course requires use of CarmenCanvas (Ohio State’s learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with me.

- Canvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)
- Collaborative course tools
### COURSE SCHEDULE

***The instructor reserves the right to alter the course schedule and assigned readings as needed.***

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Required Readings</th>
<th>Student Presenters</th>
<th>Students’ Potential Journal Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tu, Jan 11</td>
<td>Course Introduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Jan 13</td>
<td><strong>Small Group Activities:</strong> Rank order topic choices for student group presentations, Hold Draft, Discuss potential topics/design for your Cognitive and Brain Health Project (Design Phase; Pre-Post measures)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Tu, Jan 18</td>
<td>Cognitive Aging</td>
<td>Park &amp; Reuter-Lorenz, 2014; Salthouse, 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Jan 20</td>
<td><strong>Small Group Activities:</strong> (study topic, design and methods, data collection, measurement/ outcome metrics finalized and discussed with group) Memory &amp; Aging</td>
<td>Josefsson et al., 2012; Park &amp; Festini, 2017</td>
<td>Group</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tu, Jan 25</td>
<td>Brain Aging: Structure</td>
<td>Raz et al., 2010; Gorbach et al., 2017</td>
<td>Group</td>
<td>McGinnis et al., 2011</td>
</tr>
<tr>
<td></td>
<td>Th, Jan 27</td>
<td>Brain Aging: Diffusion Tensor Imaging</td>
<td>Madden &amp; Parks (Chapter)</td>
<td>Group</td>
<td>Langen.2018</td>
</tr>
<tr>
<td>4</td>
<td>Tu, Feb 1</td>
<td>Brain Aging: resting state fMRI</td>
<td>Salami et al., 2018; Cassady et al., 2019;</td>
<td>Group</td>
<td>Cassaday.2019</td>
</tr>
<tr>
<td></td>
<td>Th, Feb 3</td>
<td>Brain Aging: task-related fMRI</td>
<td>Wang &amp; Cabeza, 2017</td>
<td>Group</td>
<td>Lee et al., 2008</td>
</tr>
<tr>
<td>#</td>
<td>Date</td>
<td>Topic</td>
<td>Researcher(s)</td>
<td>Group</td>
<td>Notes</td>
</tr>
<tr>
<td>----</td>
<td>------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------------</td>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Tu, Feb 8</td>
<td><strong>Small Group Activity</strong>: Cog &amp; Brain Health Project: Adherence Assessment, feasibility of outcome metrics—pick date of your Cog &amp; Brain Health Presentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Tu, Feb 15</td>
<td>Mild Cognitive Impairment</td>
<td>Bondi et al., 2014</td>
<td>Group</td>
<td>Dickerson &amp; Sperling, 2008</td>
</tr>
<tr>
<td></td>
<td>Th, Feb 17</td>
<td>Alzheimer's disease</td>
<td>McKahnn et al., 2011</td>
<td>Group</td>
<td>Ossenekoppele et. al 2019</td>
</tr>
<tr>
<td>7</td>
<td>Tu, Feb 22</td>
<td>Vascular cognitive impairment, No Dementia (VCIND)</td>
<td>Blossom, 2009</td>
<td>Group</td>
<td>Sun et al., 2011</td>
</tr>
<tr>
<td></td>
<td>Th, Feb 24</td>
<td>Vascular Dementia</td>
<td>O'Brien &amp; Thomas, 2015</td>
<td>Group</td>
<td>Wallin et al., 2018</td>
</tr>
<tr>
<td>8</td>
<td>Tu, Mar 1</td>
<td>Motoric Cognitive Risk</td>
<td>Allali et al., 2016</td>
<td>Group</td>
<td>Blumen et al., 2018</td>
</tr>
<tr>
<td></td>
<td>Th, Mar 3</td>
<td>mild TBI and Chronic Traumatic Encephalopathy</td>
<td>Hayes et al., 2017;</td>
<td>Group</td>
<td>Alosco et al., 2018</td>
</tr>
<tr>
<td>9</td>
<td>Tu, Mar 8</td>
<td><strong>Exam 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Mar 10</td>
<td><strong>Small Group Activity</strong>: Post your Cognitive &amp; Brain Health Project to your group discussion page; provide feedback to other group members on their presentation; incorporate their feedback into your presentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tu, Mar 15</td>
<td>Spring Break</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Tu, Mar 22</td>
<td>Nutrition, cognition, and the brain</td>
<td>Morris et al; 2015a; Morris et al., 2015b;</td>
<td>Group</td>
<td>Mujica-Parodi et al., 2020</td>
</tr>
<tr>
<td></td>
<td>Th, Mar 24</td>
<td>Aerobic exercise, cognition, &amp; the brain</td>
<td>Colcombe &amp; Kramer, 2003</td>
<td>Group</td>
<td>ten Brinke et al., 2018</td>
</tr>
<tr>
<td>----</td>
<td>------------</td>
<td>------------------------------------------</td>
<td>-------------------------</td>
<td>-------</td>
<td>------------------------</td>
</tr>
<tr>
<td>12</td>
<td>Tu, Mar 29</td>
<td>Resistance training, cognition, &amp; the brain</td>
<td>Liu-Ambrose et al., 2010</td>
<td>Group</td>
<td>Broadhouse et al., 2020</td>
</tr>
<tr>
<td></td>
<td>Th, Mar 31</td>
<td>Exergaming, cognition, and the brain</td>
<td>Anderson-Hanley et al., 2012</td>
<td>Group</td>
<td>Maillot et al., 2012</td>
</tr>
<tr>
<td>13</td>
<td>Tu, Apr 5</td>
<td>COVID-19: Cognitive and Brain Impact</td>
<td></td>
<td>Group and Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Apr 7</td>
<td><strong>Exam 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Tu, Apr 12</td>
<td>Cognitive and Brain Health Presentations (3 GS; 7 UG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Apr 14</td>
<td>Cognitive and Brain Health Presentations (3 GS; 7 UG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Tu, Apr 19</td>
<td>Cognitive and Brain Health Presentations (3 GS; 7 UG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Th, Apr 21</td>
<td>Cognitive and Brain Health Presentations (2 GS; 8 UG)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>