

IMPORTANT: This syllabus form should be submitted to OAA (gsbs_academic_affairs@uth.tmc.edu) a week before the start of each semester.

NOTE to STUDENTS: If you need any accommodations related to attending/enrolling in this course, please contact one of the Graduate School's 504 Coordinators, Cheryl Spitzenberger or Natalie Sirisaengtaksin. We ask that you notify GSBS in advance (preferably at least 3 days before the start of the semester) so we can make appropriate arrangements.

<p>Term and Year: Fall 2023</p> <p>Course Number and Course Title: GS14 1611: Current Topics in Neuroscience</p> <p>Credit Hour: 1</p> <p>Meeting Location: MSB 7.046</p> <p>Building/Room#: UT McGovern Medical School</p>	<p>Program Required Course: No</p> <p>Approval Code: No (If yes, the Course Director or the Course Designee will provide the approval code.)</p> <p>Audit Permitted: No</p> <p>Classes Begin: Aug. 30, 2023</p> <p>Classes End: Dec. 6, 2023</p>				
<p>Class Meeting Schedule</p>					
<table border="1"> <thead> <tr> <th data-bbox="110 877 808 919">Day</th> <th data-bbox="808 877 1503 919">Time</th> </tr> </thead> <tbody> <tr> <td data-bbox="110 919 808 989">Wednesday</td> <td data-bbox="808 919 1503 989">1:10-2:10 pm</td> </tr> </tbody> </table>	Day	Time	Wednesday	1:10-2:10 pm	
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<p>Course Director:</p> <p>Name and Degree: Shin Nagayama, PhD</p> <p>Title: Associate Professor</p> <p>Department: Neurobiology & Anatomy</p> <p>Institution: UTH</p> <p>Email Address: Shin.Nagayama@uth.tmc.edu</p> <p>Contact Number: 713-500-5862</p>	<p>Instructor/s</p> <ol style="list-style-type: none"> Shin Nagayama, PhD Associate Professor Institution: UTH Email Address: Shin.Nagayama@uth.tmc.edu Michael Beierlein, PhD Professor Institution: UTH Email ad: Michael.Beierlein@uth.tmc.edu John Byrne, PhD Professor Institution: UTH Email Address: john.byrne@uth.tmc.edu Wei Cao, PhD Professor Institution: UTH Email Address: wei.cao@uth.tmc.edu 				

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Course Description:

This course (P/F) will give an overview of the wide range of research being carried out in the GSBS Neuroscience Program and is open to all PhD and MS students. Through presentations and discussions with a different faculty member each week, students will appreciate some of the fundamental ideas and unsolved questions in Neuroscience research and become familiar with the experimental and theoretical approaches used to tackle those questions.

Anyone with an interest in Neuroscience research is welcome to take this class. There are no exams or reading assignments, but students are expected to attend all presentations and actively participate in class discussions.

Textbook/Supplemental Reading Materials (if any)

- N/A

Course Objective:

One of the critical decisions students need to make is to determine the laboratory in which they will have scientific training as graduate students and what scientific direction they want to move forward in the future. This course will help them to find their direction. The course will deliver the opportunity for them to face the multiple faculties and their sciences directly. Students will learn how the front-runner of scientists think and build their scientific directions in the lectures and the conversations with them.

Specific Learning Objectives:

1. Students can directly face advanced neuroscientists and understand and discuss their sciences.
2. Students learn the uniqueness of each faculty's science and their thinking style of building up their scientific directions.

Student Responsibilities and Expectations:

Students enrolled in this course will be expected to perform the following activities each week:

1. Participate in and contribute to course discussions during lectures.
2. Attend all classes and enthusiastically join in the discussion.

Grading System: Pass/Fail

Student Assessment and Grading Criteria :

Percentage	Description
Workshop or Breakout-Session (50 %)	Join the class discussions.
Participation and/or Attendance (50 %)	Attend all classes.

CLASS SCHEDULE - Fall 2023

Date	Duration (Hour(s) taught by the lecturer)	Lecture Topic	Lecturer/s
Aug. 30	1 hour	Protein Misfolding and neurodegenerative diseases	Rodrigo Morales
Sept. 6	1 hour	Network Dysfunction in Alzheimer's Disease	Keran Ma
Sept. 14	1 hour	Brain Circuits and Behaviors	Qingchun Tong
Sept. 20	1 hour	Structure and Function of Synaptic Proteins	Vasanthi Jayaraman
Sept. 27	1 hour	Neuroinflammation in Neuropathophysiology	Wei Cao
Oct. 4	1 hour	Lipid Metabolism in Brain Tumor and Neurodegeneration	Jian Hu
Oct. 11	1 hour	Neuronal Homeostasis in Aging and Neurodegeneration	Andrea Stavoe
Oct. 18	1 hour	Bioenergetic Dysfunction in Models of Neurodegeneration	Kartik Venkatachalam
Oct. 25	1 hour	TBD	
Nov. 1	1 hour	Mechanisms of Neurotransmission and Synaptic Adaptation	Ruth Heidelberger
Nov. 8	1 hour	TBD	
Nov. 15	1 hour	Cellular and Synaptic mechanisms of Thalamic Function	Michael Beierlein
Nov. 29	1 hour	Mechanism of Neurodegenerative Diseases: Answers from Fruit Flies	Sheng Zhang
Dec. 6	1 hour	Mechanisms of Memory	John Byrne