

**IMPORTANT:** This syllabus form should be submitted to OAA ([gsbs\\_academic\\_affairs@uth.tmc.edu](mailto: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.

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|---|--|
| <p>Term and Year: <b>Fall 2022</b></p> <p>Course Number and Course Title:<br/><b>GS14 1021:Current Topics in the Neurobiology of Disease</b></p> <p>Credit Hours: <b>1</b></p> <p>Meeting Location: <b>McGovern Medical School</b></p> <p>WebEx/Zoom Link:<br/><a href="https://uthealth.webex.com/uthealth/j.php?MTID=mbe8909975c0992f57bf16b8361cc337e">https://uthealth.webex.com/uthealth/j.php?MTID=mbe8909975c0992f57bf16b8361cc337e</a></p> <p>Password: NOD22</p> | <p>Program Required Course: <b>No</b></p> <p>Approval Code: <b>No</b><br/>(If yes, the Course Director or the Course Designee will provide the approval code.)</p> <p>Audit Permitted: <b>Yes</b></p> <p>Classes Begin: <b>August 29, 2022</b></p> <p>Classes End: <b>December 9, 2022</b></p> <p>Final Exam Week: <b>Dec. 12-16, 2022</b></p> |
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**Class Meeting Schedule**

| Day     | Time     |
|---------|----------|
| Tuesday | 12:00 pm |
|         |          |

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| <p><b>Course Director</b><br/>Name and Degree: <b>John Byrne, PhD</b><br/>Title: <b>Professor, June &amp; Virgil Waggoner Chair</b><br/>Department: <b>Neurobiology and Anatomy</b><br/>Institution: <b>UTH</b><br/>Email Address: <a href="mailto:John.H.Byrne@uth.tmc.edu">John.H.Byrne@uth.tmc.edu</a><br/>Contact Number: <b>713-500-5602</b></p> <p><b>Course Co-Director/s:</b><br/>Name and Degree: <b>Jordan Lake, MD, MSc</b><br/>Title: <b>Associate Professor</b><br/>Department: <b>Internal Medicine, Infectious Diseases</b><br/>Institution: <b>UTH</b><br/>Email Address: <a href="mailto:Jordan.E.Lake@uth.tmc.edu">Jordan.E.Lake@uth.tmc.edu</a></p> | <p><b>Instructor/s (see attached class schedule)</b></p> <ol style="list-style-type: none"> <li>1. Name and Degree<br/>Institution:<br/>Email Address :</li> <li>2. Name and Degree<br/>Institution:<br/>Email Address :</li> <li>3. Name and Degree<br/>Institution:<br/>Email Address</li> </ol> |
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Name and Degree: **Rodrigo Hasbun, MD, MPH**

Title: **Professor**

Department: **Internal Medicine, Infectious Diseases**

Institution: **UTH**

Email Address: [Rodrigo.Hasbun@uth.tmc.edu](mailto:Rodrigo.Hasbun@uth.tmc.edu)

Name and Degree: **Joy Schmitz, PhD**

Title: **Louis A. Faillace, MD, Professor, Director,  
Center for Neurobehavioral Research on Addictions**

Department: **Psychiatry and Behavioral Sciences**

Institution: **UTH**

Email Address: [Joy.M.Schmitz@uth.tmc.edu](mailto:Joy.M.Schmitz@uth.tmc.edu)

**Course Description:**

This course is an integrated approach to neurological diseases, which includes background information as well the diagnosis, the treatment, and the biological mechanisms of the diseases under study. The topic for Fall 2022 is “Neurobiology of HIV”. HIV infection is associated with neurological and cognitive difficulties. Antiretroviral drugs used to combat HIV have been shown to reduce neurocognitive dysfunction but numerous challenges remain. In addition to cognitive health, people living with HIV are vulnerable to psychosocial stressors, substance use disorders, and HIV-related stigma. This course will provide students with a broad understanding and appreciation of key topics related to the impact of HIV infection in the brain, specifically: (1) HIV-associated neurocognitive disorders; (2) biological therapies for HIV; and (3) the psychosocial impacts of HIV infection. Online lectures will be given by leading experts in the field from UTHHealth and other universities across the country.

**Textbook/Supplemental Reading Materials (if any)**

- when necessary directors may provide additional information for students.

**Course Objective/s:**

Upon successful completion of this course, students will gain a broad understanding and appreciation of key topics related to the impact of HIV infection in the brain, specifically: (1) HIV-associated neurocognitive disorders; (2) biological therapies for HIV; and (3) the psychosocial impacts of HIV infection.

**Student responsibilities and expectations/Course Requirements:**

- Attendance
- Completion of final essay based on a course lecture. (PostdoPostdoctoralws are exempt)

**Grading System:** Pass/Fail**Student Assessment and Grading Criteria :** *(May include the following:)*

| Percentage                              | Description  |
|---|--|
| Homework ( %)                           |  |
| Quiz ( %)                               |  |
| Presentation ( %)                       |  |
| Midterm Exams ( %)                      |  |
| Final Exam ( 20 %)                      | Completion of final essay based on a course lecture.<br>(Postdoctorals fellows are exempt) |
| Workshop or Breakout-Session ( %)       |  |
| Participation and/or Attendance ( 80 %) |  |

**CLASS SCHEDULE – Fall 2022**

| <b>Date</b>                 | <b>Duration (Hour(s) taught by lecturer)</b> | <b>Lecture Topic</b>   | <b>Lecturer/s</b>                  |
|-----------------------------|--|--|------------------------------------|
| <b>Tuesday/<br/>Aug. 30</b> | <b>1</b>                                     | <b>Overview neurocognitive disorders in people living with HIV/AIDS</b>                                      | <b>Rodrigo Hasbun, MD, MPH</b>     |
| <b>Sept. 6</b>              | <b>1</b>                                     | <b>HIV 101</b>   | <b>Scott Letendre, MD</b>          |
| <b>Sept. 13</b>             | <b>1</b>                                     | <b>Viral Escape</b>  | <b>Scott Letendre, MD</b>          |
| <b>Sept. 20</b>             | <b>1</b>                                     | <b>CNS as an HIV reservoir</b>   | <b>Serena S. Spudich, MD</b>       |
| <b>Sept. 27</b>             | <b>1</b>                                     | <b>Neurocognitive Assessment</b>   | <b>Steven Woods, PsyD</b>          |
| <b>Oct. 4</b>               | <b>1</b>                                     | <b>HIV and Aging synergy on the brain with neuroimaging research</b>   | <b>Beau M. Ances, MD, PhD</b>      |
| <b>Oct. 11</b>              | <b>1</b>                                     | <b>TBA</b>   |                                    |
| <b>Oct. 18</b>              | <b>1</b>                                     | <b>Biotypes</b>  | <b>Avindra Nath, MD</b>            |
| <b>Oct. 25</b>              | <b>1</b>                                     | <b>HIV testing, adherence to antiretroviral therapy, and retention in HIV care</b>                           | <b>Thomas P. Giordano, MD, MPH</b> |
| <b>Nov. 1</b>               | <b>1</b>                                     | <b>HEROES program as it addresses HIV harm reduction and treatment services for persons who inject drugs</b> | <b>James R. Langabeer II, PhD</b>  |
| <b>Nov. 8</b>               | <b>1</b>                                     | <b>Treatment strategies for substance use and HIV prevention among key populations</b>                       | <b>Glenn-Milo Santos, PhD, MPH</b> |
| <b>Nov. 15</b>              |  | <b>No Lecture</b>  |                                    |
| <b>Nov. 22</b>              |  | <b>No Lecture</b>  |                                    |
| <b>Nov. 29</b>              | <b>1</b>                                     | <b>Effect of cannabinoids on HIV and inflammation</b>  | <b>Emeka Okafor, PhD, MPH</b>      |
| <b>Dec. 6</b>               | <b>1</b>                                     | <b>Immune network dysregulation of the CNS with HIV persistence and OUD</b>                                  | <b>Le Zhang, PhD</b>               |
| <b>Dec. 13</b>              |  | <b>No Lecture</b>  |                                    |

**NOTE:** Provide other class information as needed.