

# **BMES 3984: Perspectives in Neurorehabilitation: Insights from Lived Experience**

**Spring 2026**

## **Course Sessions**

Wednesdays @ 9-11:30am

## **Locations**

Lecture: Norris 325

Community Immersion: Blacksburg Community Center, University Mall Shopping Center

Hospital Immersion: Carilion Roanoke Community Hospital (101 Elm Ave, Roanoke, VA 24013)

## **Credit Hours**

3 credits

## **Instructors**

### Primary Instructor

Netta Gurari, PhD

Norris Hall 224

[gurari@vt.edu](mailto:gurari@vt.edu)

### Clinical Instructor

Kevin Parcetich, PT/DPT/NCS

[kparcetichii@radford.edu](mailto:kparcetichii@radford.edu)

### Teaching Assistant

Nahid KalantaryArdebily

Norris Hall 233

[nahidkalantary@vt.edu](mailto:nahidkalantary@vt.edu)

## **Office Hours**

Wednesdays @ 2-3pm in Norris Hall 233

For an appointment request, email Dr. Gurari <[gurari@vt.edu](mailto:gurari@vt.edu)>

## **Course Description**

This course offers students an immersive and interdisciplinary exploration of the lived experience of individuals navigating life after a brain injury. Through direct engagement with individuals with a brain injury, their carepartners, and healthcare professionals, students will gain insight into the complex medical, emotional, and societal challenges involved. Students will participate regularly in hands-on learning experiences, including community visits and clinical shadowing opportunities. Guest lectures and classroom interactions with healthcare providers will provide additional context on the neurorehabilitation process. By combining observational, experiential, and reflective learning methods, this course emphasizes the development of empathy, critical thinking, and an understanding of interdisciplinary collaboration in neurorehabilitation. Upon completion, students will have a deeper appreciation of the challenges and resilience associated with a brain injury, and be empowered to pursue careers that integrate technical skills with human-centered design and care.

## **Course Structure**

The course is designed to introduce students to the lived experience of brain injury through weekly meetings that engage students in discussions of daily life, healthcare systems, and recovery processes.

## Learning Objectives

Upon successful completion of this course, the outcomes are:

1. **Describe** various brain injuries and **evaluate** their impact on individuals and carepartners, including challenges in housing, transportation, healthcare access, and daily life.
2. **Explain and assess** the roles of healthcare professionals in neurorehabilitation and how they collaborate to support patient recovery.
3. **Analyze and reflect** on the real-world effects of brain injury on daily living, social participation, and well-being through immersive learning experiences.
4. **Apply interdisciplinary knowledge to co-design** innovative, stakeholder-informed solutions that meet identified needs of individuals with brain injuries.

## Syllabus

| Topic   | Percentage of Course |
|---|----------------------|
| Overview of neurorehabilitation, e.g., <ul style="list-style-type: none"><li>• Neurophysiology</li><li>• Adult neurological conditions</li><li>• Principles of neurological rehabilitation</li><li>• Physical therapist</li><li>• Occupational therapist</li><li>• Speech language pathologist</li><li>• Assistive technologist</li><li>• Psychiatry</li><li>• Psychology</li><li>• Social worker/case manager</li><li>• Nursing</li><li>• Rehabilitation engineer</li><li>• Recreational therapist</li></ul> | 60%                  |
| Immersion <ul style="list-style-type: none"><li>• Direct engagement with individuals with lived brain injury expertise</li><li>• Clinical observation of interdisciplinary neurorehabilitation teams</li></ul>  | 40%                  |
| <b>TOTAL</b>  | <b>100%</b>          |

## Enrollment Requirements/Considerations

### Carilion Clinic

Complete Clinical Rotation Application

### Immersion Risk Acknowledgement

Acknowledgement of Risk Form

### FERPA

FERPA Release Form

## Prerequisites

None.

## Textbook

There is no textbook requirement for this class. Selected readings will be assigned and shared with students.

## **Class Size Limit**

21 students (due to classroom capacity limitations set by the university).

## **Methods of Instruction**

The format of this course will include, but is not limited to, lecture, community immersion, clinical immersion, and active discussion. Learning will occur both in off-campus community and on-campus classroom environments.

## **Course Attendance Expectations**

Class attendance and involvement is both a privilege and an expectation. Please plan to speak up throughout the lectures and engage in question asking and discussion. This is a unique learning opportunity for all course members, including the course instructors, on the lived brain injury experience field of neurorehabilitation. No one will have all the answers as many unknowns remain surrounding a brain injury. That said, with good student engagement, through asking about areas of confusion and discussing ideas of interest, as a class we may be able to identify how better to ask our questions in a way that could lead to meaningful improvement in the lived brain injury experience.

This course is attendance-based and includes in-class activities and interactions with invited professionals who generously volunteer their time to engage with our class. Timely attendance is essential to show respect for their contributions, to ensure a professional learning environment, and to help students develop professional norms expected in academic and workplace settings.

Students who arrive late or miss a class without prior approval will receive a zero for any in-class exercises conducted that day and incur an automatic **1% reduction in their final course grade**.

For students who have concerns with in-person attendance (e.g., illness), we can accommodate the physical absence with a zoom invitation. The student would be required to maintain engagement as if the student was in person (e.g., video on, ask questions). A 2-hour written notice to the course instructor (Dr. Gurari) is required for this virtual option. Please reach out to the Office of the Dean of Students to first complete the absence verification process.

Students who cannot attend a class can reach out to the Office of the Dean of Students, whose staff can provide advocacy in the absence verification process. The Office of the Dean of Students considers absence verification for any of the following reasons: illness or death of a family member or friend; off-campus medical appointments or hospital admissions; court subpoenas; military orders; and observances of religious, cultural, ethnic, meaning-making, or faith-based beliefs. Students who choose to request an excused absence directly from the course instructor (Dr. Gurari) due to a religious observance should do so during the first two weeks of classes. Students are responsible for making arrangements with the course instructor (Dr. Gurari) as soon as possible to complete any work missed due to the absence.

## **Immersive Experiences**

During one week, students will be required to travel to the Carilion Roanoke Community Hospital located in Roanoke. During three weeks, students will meet at Blacksburg community locations. Please communicate with the course instructor Dr. Gurari <gurari@vt.edu> at the time of understanding that an immersion is not feasible due to an unforeseen experience.

For immersive visits, students may encounter scenarios that are uncomfortable. We ask that students avoid judgments during immersive experiences and share any concerns with the Primary Instructor (Dr. Gurari). We will provide preliminary training for potentially uncomfortable scenarios throughout the course. The opportunity to engage with individuals who have a brain injury is a privilege, and we are grateful to our community volunteers who make this experience possible.

We have taken many steps to ensure a safe environment for the students in their immersive experiences. We will discuss in class safety considerations to avoid any unexpected scenarios. We expect that students will maintain professionalism during their immersive experiences. If the students note any red flags and/or feel discomfort relevant to their safety during their immersive experiences, we ask that the student remove themselves from the experience immediately and notify the course instructors, including Dr. Gurari <gurari@vt.edu>. There will not be any negative consequences for meeting the course requirements. Together with the course instructor, a plan will be developed to ensure that the student can safely complete the course.

If students would like to maintain their engagement with these individuals after the course, this is possible through a follow-up conversation with the [Brain Injury Solutions PALS program](#) manager Melissa Barnes <melissa@bisolutions.org>. Virginia Tech has a VT SYNAPSE (Students Supporting Brain Injury) group that may also be of interest to students to continue this line of exposure/training.

## Professionalism

Professional behavior, such as class attendance and engagement, suitable attire, no food in class, and complete preparation for each class session, demonstrates your dedication to this course and your personal and career growth.

Cell phone, smartwatches, instant messaging, etc usage are not permitted in class. Cell phones/smartwatches/instant messaging/etc must be turned off or put on silent during class. Your participation grade will be impacted if your cell phone/smartwatch/instant messaging/etc rings during class at any point (no warnings before deduction).

**Poor, unprofessional behavior can lead to removal from an experience in the classroom. If removed from an experience due to poor behavior, the student will receive a grade of '0' for that experience.**

## Professional Attire Expectations

Students are representing the course, the program, the faculty, and the university as professionals. These expectations are intended to create a positive, professional presence for all with whom they interact. Furthermore, these expectations will help the student understand the dress code policies for those involved in the healthcare profession. This policy defines course expectations of business casual dress across all settings. **Poor choice in professional attire could lead to removal from an immersive experience, particularly in the hospital setting where professionalism is demanded.** If removed from an experience, the student will receive a grade of '0' for that experience. Please contact the course instructors if any questions arise regarding presenting oneself professionally in attire.

1. Personal cleanliness, as well as clean apparel, is expected.
2. Students are expected to use good judgment in choosing apparel. Dress should be neat, clean, practical, and appropriate for professional work. Students should not wear clothing with inappropriate images or language.
  - a. Required
    - i. Clean, pressed dress shirt, button-down shirt, polo shirt, or blouses
    - ii. Clean, pressed pants
    - iii. Dresses or skirts (no skirts shorter than 2" above the knee)
    - iv. Clean, pressed outerwear such as a knit sweater or blazer
    - v. Clean closed-toed and closed-heel footwear, with a heel height  $\leq 2$  inches
    - vi. Clothes that do not include words, images, brand
  - b. Not Appropriate
    - i. Non-formal jeans or leggings
    - ii. Form-fitting stretch pants (e.g., leggings)
    - iii. Sweatpants or pajama pants
    - iv. Cropped pants above the ankles (i.e., Capri pants); must be ankle length or longer

- v. Jumpsuits, overalls, or other denim garments
- vi. Shorts
- vii. Spaghetti strap or halter style tops
- viii. Dresses or skirts in community and clinical settings
- ix. No pullover sweatshirts or hooded sweatshirts
- x. Open toe or open-heeled footwear, slippers, or sandals
- xi. Camouflage or tie-dyed patterns

## Grading

- In-Class Exercises (25%)
  - In-class exercise will primarily be administered for assessment of preparation and background knowledge content (i.e., are you keeping up) and cannot be made up. Once the in-class exercise has passed, any student who has not submitted responses and does not have an excused absence will be given a 0% for that exercise.
- Verbal Reflections (25%)
  - Students will verbally record themselves speaking about a prompted topic. Students will be provided with a guide and rubric for each verbal reflection so that they can address the targeted points.
- Final Student Presentation (20%)
  - Students will present a summary of their immersion experiences in a final presentation. Students will be provided with a rubric so that they are aware of the points to target.
- Final Exam (30%)
  - The written exam will be cumulative, covering the material presented in lectures, immersion sessions, and reading assignments. The final exam ensures students have a shared foundational understanding of neurorehabilitation concepts that supports meaningful engagement during immersive experiences.

## Assignment Late Policy

All scheduled in-class exercises, examinations, immersions, and presentations are to be performed at their scheduled time. If you miss a class or assignment, it is your responsibility to make up the work and get lecture notes from a classmate. We understand that occasionally circumstances arise that do not allow for punctual submission of assignments. **Please contact us at least 24 hours before an assignment is due to discuss the possibility of making arrangements.** Students unable to fulfill their course requirements at the scheduled time, when due to illness or an “unavoidable” circumstance (as deemed by the instructor to have a verifiable and legitimate reason), will be given suitable opportunity to make up the missed work without penalty. In the case of “unavoidable” circumstances, there may be the opportunity for a “make-up” assignment to count for credit, and proper documentation of the circumstance may be required depending on the situation. If you do not have an approved absence, it is unlikely that you will be able to make up for the missed work.

## Grading Errors

If an error is found in your grade on an assignment, please provide a written description of the error to the primary instructor (Dr. Gurari) within one week. If the error is legitimate, your grade will be corrected. If the error is identified more than one week after the graded assignment is provided, it is unlikely that your grade can be changed.

## Inclement Weather Days/University Closings

If Virginia Tech is closed, the immersive and class scheduled for that day will be cancelled. Instruction will be provided for how to proceed with the course to make up for the missed class period.

## Generative AI

In this course, use of generative AI tools is permitted for select assignments, given that the student is using the AI tool to contribute to their learning of the course content, but not to replace original work. You must properly acknowledge when and how AI tools have been used in your submissions. The world of AI is evolving fast, and we can find the best use cases for these tools by working together. Failure to disclose AI use or submitting AI-generated work as entirely your own without critical engagement will constitute a violation of the Honor Code. If you are ever uncertain about the use of AI, it is your responsibility to ask the instructor before proceeding. If you use any AI tools for an assignment you must cite appropriately, including the tool and the extent to which it was used. Example below:

*“Declaration of Generative AI and AI-assisted technologies in the writing process*

*During the preparation of this work the authors used Grammarly to check grammar and spelling and improve readability. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the work.”*

Failure to follow these guidelines may result in a grade penalty or other disciplinary action as determined by the instructor.

## Course Evaluation

Course evaluations are two-ways, such that students are expected to evaluate the instructors/course in addition to the students being evaluated on their knowledge. Course evaluations will be conducted anonymously in the middle and at the end of the semester. Please take these evaluations of the course seriously as your feedback is instrumental in determining how future versions of the course are taught. The process is intended to be mature and meaningful and is intended to assist with identifying adaptations that will improve potentially the current, as well as future iterations of the course. Any feedback is welcome for instructors beyond these formal evaluation opportunities.

## Funding Acknowledgment

Development of instructional materials and educational activities used in this course was supported in part by funding from the Dana Foundation.

## Learning Environment

Ensuring that all students from diverse backgrounds and learning abilities can contribute, learn, grow, and succeed in this course is our highest priority. As colleagues, we will each commit to showing respect to individuals, to working together to create a learning environment that fosters a sense of belonging and inclusion to all members, and to understanding that our differences are strengths. The course instructors commit to the goal of offering learning materials and activities that express and are respectful of diversity, and in which all students can see themselves in our field. **Your suggestions are encouraged and appreciated.**

Our class is a brave and inclusive space in which we will explore differing perspectives aimed at identifying and analyzing the problems of our time. We will facilitate our discussions, but we are counting on the class as a community to help us structure mutually meaningful conversations, while ensuring that everyone feels included and honored as colleagues sharing the same goals of becoming better humans and creating more equitable and healthy societies and systems. Disagreement should be thoughtful and respectful, and criticism of another’s view should be coupled with **evident and empathetic care** for the person who holds it. Please think of all our various learning environments, whether on campus in our classroom or off campus in our community, and consider your actions and words appropriately.

## Accessibility

Virginia Tech welcomes students with disabilities into the University’s educational programs. The University promotes efforts to provide equal access and a culture of inclusion without altering the essential elements of coursework. If you anticipate or experience academic barriers that may be due to

disability, including but not limited to, chronic medical conditions, deaf or hard of hearing, learning disability, mental health, or vision impairment, please contact the Services for Students with Disabilities (SSD) (540-231-3788, <[ssd@vt.edu](mailto:ssd@vt.edu)>, or visit [www.ssd.vt.edu](http://www.ssd.vt.edu)). If you have an SSD accommodation letter, please meet with Dr. Gurari privately as early as possible to discuss implementing your accommodations. Given the logistics associated with the immersive aspects of this course, accommodations may not be possible if the course instructor (Dr. Gurari) is notified too late.

### **Virginia Tech Mental Health Resources**

One important aspect of the course that we anticipate is that the student will develop emotionally regarding the lived brain injury experience. The student has access to numerous [Virginia Tech resources](#) if desired for support in processing one's emotions as relevant to the course.

### **Virginia Tech Honor Code**

Students enrolled in this course are responsible for abiding by the Honor Code. A student who has doubts about how the Honor Code applies to any assignment is responsible for obtaining specific guidance from the course instructor before submitting the assignment for evaluation. Ignorance of the rules does not exclude any member of the University community from the requirements and expectations of the Honor Code. For additional information about the Honor Code, please visit: <https://www.honorsystem.vt.edu/>.

### **Understanding of Syllabus Statement**

I confirm that I have reviewed the course syllabus, understand the course requirements, and will adhere to the policies. I understand that this course syllabus may be updated during the semester and that I will be notified in writing of any changes. Students will be responsible for abiding by the changes. I will reach out to the course instructor (Dr. Gurari) in good faith if any concerns arise.

Student Name: \_\_\_\_\_

Student Signature: \_\_\_\_\_

Date: \_\_\_\_\_