Course Title:

Foundations in Brain Injury Rehabilitation

Course Description:

This asynchronous online course is designed to provide students with an overview of the foundations of brain injury rehabilitation. Through a combination of lectures, readings, case studies, and experiential activities, students will learn about the impact of brain injury on cognitive, perceptual, social, and emotional functions, as well as strategies for supporting recovery and rehabilitation. Topics covered in this course include rehabilitation planning, lifestyle changes to support recovery, hospital-based and community-based interventions, and return to work and life changes.

Course Learning Objectives:

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

- Define brain injury and explain how it impacts function
- Identify key components of a rehabilitation plan
- Describe how lifestyle changes can support recovery
- Explain strategies for supporting recovery of cognitive and perceptual functions
- Develop behavioral management plans
- Describe hospital-based and community-based interventions
- Develop strategies for return to work and life changes

Course Structure and How the Course Works:

This course is a self-paced, asynchronous online course hosted through Thinkific. Students will have access to all course materials upon registration and can complete the course at their own pace. The course consists of 12 units, each containing reading assignments, lectures, case studies, experiential activities, and links and resources for additional learning. At the end of each unit, students will be required to complete activities and reflections to reinforce their learning. The final unit will contain a summative review and final assessment.

Unit 1: Introduction to Foundations in Brain Injury Rehabilitation

- Welcome
- Course Learning Objectives



- Course Structure and How the Course Works
- Thinkific Help Centre
- Brain Injury Rehabilitation Basics (Course Textbook)

Unit 2: What is a Brain Injury and How Does it Impact Function?

- What is a Brain Injury?
- Symptoms of Brain Injury
- How Does the Brain Work?
- Activity 1: Learning about Neuroendocrine Function and Hormones
 - o Activity
 - \circ Reflection
- Experiential Learning 1: Sensory Activity
 - o Activity
 - \circ Reflection

Unit 3: How to Create a Rehab Plan

- Reading Assignment
- Assessment Dictate/write
- Activity 1: Brain Injury Guidelines Resources
 - Activity
 - Reflection
- Activity 2: Create a Rehabilitation Plan
 - Activity
 - Reflection
- Links and Resources for Additional Learning

Unit 4: How Lifestyle Changes Can Support Recovery, and How to Support Your Client

- Introduction to Lifestyle Changes: Why is this Important?
- Nutrition and the Brain
 - Experiential Learning 1: The Brain and Nutrition
- Fitness and the Brain ** Slide 4 re stress hormones
 - Experiential Learning 2: The Brain and Fitness
 - o Buffalo Concussion Treadmill Test and Return to Activity
- Balancing the Autonomic Nervous System
 - Experiential Learning 3: Balancing the Autonomic Nervous System
- The Brain and Sleep
 - Experiential Learning 4: The Brain and Sleep



- Experiential Learning Reflection
- Links and Resources for Additional Learning

Unit 5: Foundational Cognitive and Perceptual Functions, and Strategies to Support Recovery

- Reading Assignment
- Foundational Cognitive and Perceptual Functions Case Studies
- Strategy Application to Motor Recovery
- Activity 1: Awareness-Building Exercise
 - Case Study Introduction
 - o Anticipatory Video
 - o Awareness-Building Exercise: Anticipatory Video Reflection
 - Reflective Video
 - o Awareness-Building Exercise: Reflective Video Reflection
 - o Case Study Reflection
- Vision, Vestibular and Motor Function
- Activity 2: Understanding the Impact of Vestibular/Ocular-Motor Function Deficits
 - Abnormal Vision Examples Video
 - Activity (administer the VOMS)
 - \circ Reflection
- Headache Management
 - Activity 3: Managing Headaches
 - Activity
 - Reflection
- Links and Resources for Additional Learning

Unit 6: Executive Function, Social and Behavioural Function, and Emotional Health

- Reading Assignment
- Executive Function, Behavioural, Social Case Studies
- Mental Health Support
- Activity 1: Supporting Executive Function
 - o Menu Activity
 - \circ Reflection
 - o Example
- Activity 2: Create a Behavioural Management Plan
 - o Activity
 - o Reflection
- Experiential Learning 1: Where Does Anxiety Come from and how do we Manage It?



- Experiential Learning 2: Strategies to Manage Cortical Anxiety and Depression
- Experiential Learning 3: How do Thoughts Impact the Brain?
- Experiential Learning: Reflection
- Links and Resources for Additional Learning

Unit 7: Hospital-Based Intervention and Strategies

- Hospital-based strategies
- Activity 1: Planning for Discharge
 - o Activity
 - \circ Reflection

Unit 8: Home-Based Intervention and Strategies (personal care (showering), cooking, home maintenance, etc.)

- Reading Assignment
- In-Home Case Studies
- Activity 1: Home Safety
 - o Activity
 - Reflection
- Activity 2: Meal Preparation Rehabilitation Plan
 - o Activity
 - o Reflection
- Activity 3: Housekeeping Routine Rehabilitation Plan
 - Activity
 - Reflection
- Links and Resources for Additional Learning

Unit 9: Community-Based Intervention and Strategies (shopping, transportation, school, etc.)

- Reading Assignment
- Community-Based Considerations and Case Examples
- Activity 1: Grocery Shopping Rehabilitation Plan
 - o Activity
 - \circ Reflection
- Experiential Learning: Study Skills
 - \circ Activity
 - \circ Reflection
- Links and Resources for Additional Learning



Unit 10: Return to Work and Volunteer Intervention and Strategies

- Reading Assignment
- Foundational Strategies and Considerations for Return to Work
- Activity 1: Job Analysis and Modified Plan
 - Activity
 - o Reflection
- Experiential Learning 1: Employe and Employee Evaluation
 - Activity
 - Reflection
- Links and Resources for Additional Learning

Unit 11: Life Changes

- Reading Assignment
- Life Changes and Stages Case Studies
- Activity 1: Going to University
 - Activity
 - \circ Reflection
- Activity 2: Moving to a New Apartment
 - o Activity
 - \circ Reflection
- Activity 3: New Baby
 - o Activity
 - \circ Reflection

Unit 12: Summative Review

- Review and Reflection
- Foundations in Brain Injury Rehabilitation Final Assessment
- Course Review

Assessment and Grading:

The course assessment will include a final assessment, which will test students' understanding of the key concepts covered in the course. The final assessment will consist of multiple-choice questions. To receive a passing grade, students must achieve a minimum score of 70% on the final assessment.

In addition to the final assessment, students will be required to complete activities and reflections throughout the course. These activities and reflections are designed to reinforce



students' learning and provide opportunities for self-reflection and application of course concepts. While these activities will not be formally graded, they are mandatory, and students are expected to complete them to the best of their ability.

Course Materials:

- Brain Injury Rehabilitation Basics (Course Textbook)
- Supplementary readings, videos, and resources provided within each unit

Technical Requirements:

To access this course, students must have access to a reliable internet connection, a computer or mobile device with audio and video capabilities, and an updated web browser.

Course Policies:

- Plagiarism and academic dishonesty will not be tolerated and may result in disciplinary action.
- Students are expected to conduct themselves in a professional and respectful manner in all course interactions.
- In the event of technical difficulties or other issues, students are encouraged to contact the instructor at <u>brainelevationconsulting@gmail.com</u> or <u>Thinkific Help Centre</u> for assistance.

Disclaimer:

The information contained in this course is intended for educational purposes only and is not a substitute for professional medical advice, diagnosis, or treatment. The author and publisher of this course are not liable for any damages or injuries arising from the use of the information presented.

