

IND-1381A:

Neuroscience of Dyslexia and Coping Strategies

Course Syllabus

- **Instructor: Dr. Maryam Torbati**
- **Number of Credits/Units: 3 Semester Credits/Units**
- **Format: Online Self-Paced Course**
- **You will have 6 months from your date of registration to complete the course.**

Course Description:

This course addresses dyslexia's neurobiological origin, its effect on language, literacy development, social and emotional processing, and brain development. Dyslexia is a language-based learning disability which results in people having difficulties with specific language skills, decidedly reading. Additionally, a student with dyslexia will experience difficulties with spelling, writing, and pronouncing words. Dyslexia is not related to low intelligence, and dyslexics don't see letters backwards. We will be exploring strategies for teaching students with dyslexia according to the latest brain research

The focus of this course will be on developing an understanding of dyslexia and the various remediation approaches. You will come away with not only the definition and characteristics of dyslexia but also how to teach a person with dyslexia using a systematic, multisensory approach. By the completion of this course, you will have a greater understanding of dyslexia and the primary approaches to working with these wonderful students!

What is Dyslexia?

According to Harvard University and the International Dyslexia Association, "dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge."

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Course Objectives:

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

- Accept dyslexia as a fact in our classrooms
- Understanding dyslexia in learning & teaching
- Understand that dyslexia need not be an enemy.
- To understand the effects that dyslexia on the body.
- To understand the effects of dyslexia on learning.
- Be able to identify the symptoms of dyslexia.
- Understand the relationship between dyslexia and learning.
- Identify dyslexic student barriers.
- Identify the various types of dyslexia.
- Become aware of the latest research dyslexic pedagogy.
- Acquire appropriate teaching skills.
- Review and analyze strategies that support dyslexic teaching and learning.
- Prepare appropriate activities.
- Organize the classroom environment to maximize instruction.
- Specify classroom conditions that promote teaching dyslexic students.
- Identify ways that technology can be used to assist a teacher with dyslexic students.
- Demonstrate a deep knowledge of dyslexic teaching techniques.
- Develop, expand, or adapt effective and practical dyslexic lessons.
- Summarize the importance of
- Analyze how dyslexic students learn.
- Create appropriate materials to teach dyslexic students.

Takeaways – What this Course Gives You:

- A basic understanding of natural reading development.
- An understanding of the definition and characteristics of dyslexia.
- Mastery of the initial components of written English phonology, including sound/symbol correspondences, syllable types, syllable division, and spelling rules.
- Ability to complete written records demonstrating study progress, including lesson plans, notes, and progress reports.

- Knowledge of how students with dyslexia feel about their learning.
- Appropriate word lists, sentences and stories based on specific phonological components.
- Multisensory teaching methods.
- Awareness of how dyslexia impacts students.
- Ways to teach language learning, language acquisition, language progression, reading and writing.
- Evidence-based strategies for teaching with the brain and emotion in mind.
- Many activities to implement with your students.
- Specifics on establishing an appropriate learning environment.
- Awareness of the importance of social and emotion skills.
- Ability to recognize and teach kids who are low in their self-esteem.
- Recognize the influence of linguistic knowledge on reading and spelling.
- Knowledge of famous and well know people who are dyslexic.
- An understanding that dyslexia is not related t low intelligence.

Textbooks – The course is based on the following textbooks:

- [The World of Dyslexia: Understanding How to Work with the Dyslexic Brain. Find the best Support Solutions and Intervention Strategies for Parents, Teachers, Employers, and Friends.](#) (Nov 26, 2019).
- [The Gift of Dyslexia: Why Some of the Smartest People Can't Read ...and How They Can Learn, Revised and Expanded Edition](#) (Feb 23, 2010)
- [Learn to Read for Kids with Dyslexia: 101 Games and Activities to Teach Your Child to Read](#) by [Hannah Braun M.Ed.](#) Oct 30, 2018).
- [The Dyslexia Empowerment Plan: A Blueprint for Renewing Your Child's Confidence and Love of Learning Overcoming Dyslexia \(2020 Edition\): Second Edition, Completely Revised and Updated](#) by Sally Shaywitz (Mar 24, 2020).

Assignments:

Module 1 Introduction to Dyslexia

Assignment 1.1 Reflection and Goals

Reflect on your experience with dyslexia and describe your future goals for enhancing learning through the *Neuroscience of Dyslexia & the Art & Science of Teaching Learners with Dyslexia* course.

Module 2 Understanding Dyslexia

Textbooks, videos, readings

Assignment 2.1 Meet Dyslexia

Getting acquainted with the neuroscience of dyslexia and teaching methods

Assignment 2.2: Reflection Forum

This assignment will help you to understand and reflect on what you have read about and viewed and how you can transfer this knowledge to your classroom.

Module 3 Preparing to Implement Teaching Methods

Assignment 3.1: Planning to Teach Dyslexic Learners

Produce creative activities for teaching dyslexic learners.

Assignment 3.2: Reflective Forum

This assignment will help you review and implement the module content.

Module 4 Planning and Presentation

Assignment 4.1 Lesson Plan

Create a detailed, multi-paged, 3-Day lesson plan for applying teaching methods for dyslexic learners.

Assignment 4.2 PowerPoint Presentation

Create a 10-slide PowerPoint project based on the course readings and 2-slides of summary.