

# IND-1385A: Poverty and the Brain

## Course Syllabus

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

### Course Description:

It is well established that growing up in poverty correlates with disparities in educational achievement, health, and employment. Now an emerging branch of neuroscience asks how poverty affects the developing brain. Over the past 15 years, dozens of studies from Harvard University and Stanford University have found that children raised in meager circumstances have subtle brain differences compared with children from families of higher means. For people in poverty on average, the surface area of the brain's outer layer of cells is smaller, especially in areas relating to language and impulse control, as is the volume of a structure called the hippocampus, which is responsible for learning and memory.

*What Schools Can Do About It?* This course will help you analyze the effects of poverty on education and how educators can play a hand in improving the potential of every student. The strategies and action steps are easy to apply and can really make a difference. Times have changed and now educators are in the business of changing brains for the better. This course is for all teachers who want to make a difference in their students' lives!! Even in the most affluent schools, there are students that are facing their own types of poverty which is abandonment and neglect.

### Course Objectives:

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

- Describe the amazing brain and its limitation in poverty.
- Analyze what strengthens memory in learning.
- Depict how poverty effects people with ELD, dyslexia, and with disabilities.
- Explore practical strategies to reduce the effect of poverty on learning.
- Clarify the significance of the simple characteristics of poverty.

- Demonstrate a deep knowledge of the connection between poverty and the brain in performance-based effective learning.
- Apply a variety of strategies in enhancing the ultimate power of the brain through reducing effects of poverty.
- Recite the difference between a balanced and unbalanced brain.
- Define poverty.
- Name the types of poverty.
- Understand the risk factors of poverty on a macro and micro level.
- Identify the link between the adolescent brain and stress overload? Why it is so critical?
- Take initiative to help poverty students learn.
- Develop a mission, vision, and values regarding poverty within your classroom.
- Learn how to create a social and emotional balance in the classroom.
- Discuss why teachers need to learn to distinguish poverty differences in learning?
- Understand the social and emotional deficits of poverty.
- Explain the correlations between family income and academic success?
- Identify ways that teachers often misinterpret student responses and emotions?
- Discover the effects of continuous and chronic stress on low-income children.
- Identify the complexities of the six types of poverty.
- What is the link between the adolescent brain and stress overload? Why so critical?
- Make appropriate alterations in the environment.
- Embrace the effective strategies from those who have succeeded overcoming effects of poverty.
- Develop plans to analyze data to assess poverty.
- Understand how to use resources necessary to make change happen.
- Create appropriate materials to teach students living in poverty.
- Align teaching students in poverty to Common Core Standards.

### **Takeaways – What this Course Gives You:**

- An understanding of the definition and characteristics of poverty.
- Awareness of how poverty impacts students.
- Evidence-based strategies for teaching students living in poverty.
- Many activities to implement with your students.
- Knowledge of how social and emotional issues affects the brain.
- Specifics on establishing an appropriate learning environment.

- Ability to recognize and teach kids who are ELD, dyslexic, and special ed students.
- A focus on how students are thinking and how they are growing as thinkers and learners.
- Ability to recognize the difference between a balanced and unbalanced brain.
- The three things ALL students bring to school.
- Insight on ways students develop depth in learning.
- Knowledge of how brains develop.
- Understanding how the brain learns.
- A vision for teaching kids in poverty situations.
- Information on how to create step-by-step poverty and the brain classroom lessons.
- Strategies for going beyond the classroom.
- Tools to help teachers to shape timely instructional strategies targeted to immediate student needs.

**Textbook – Dr. Torbati recommends the following textbook:**

- Teaching with Poverty in Mind by Eric Jensen (2014). ISBN-13: 978-1416618898 <https://www.amazon.com/dp/1416618899>

**Assignments:**

**Module 1 Introduction to Poverty and the Brain**

**Assignment 1.1 Reflection and Goals**

Reflect on your experience with poverty and learning then describe your future goals for enhancing learning through this *Poverty and the Brain* course.

**Module 2 Understanding Poverty and the Brain**

Textbook, videos, readings

**Assignment 2.1 Getting Acquainted with Poverty and the Brain**

Designed to acquaint you with the neuroscience of poverty and its effect on the brain.

**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 Poverty and the Brain**

Produce creative activities for teaching the effects of poverty on the brain.

#### **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 the topic of poverty and the brain.

#### **Assignment 4.2 PowerPoint Presentation**

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

