Course Proposal

Date Submitted: 9/17/2015

Course Name: Brain Magic: Moving, Talking & Thinking Your Students to Their Full Potential

Number of Licensure Renewal Hours: 1hr

Instructor(s)/Contact Information:
1. Candice Benjamin
candice.benjamin@educateteachers.org

Published Description of Course:
Educators hold in their hands the power to literally shape students’ brains. New insights into how the brain functions are now allowing educators to more fully understand the mechanisms that stimulate and grow the brain and drive learning. This new understanding not only provides explanations as to why those tried and true strategies seem to work so well, but it also allows educators to capitalize on new approaches and strategies that will maximize student learning by accessing the brain’s innate learning pathways. In this 1 credit hour course, participants will take an in-depth look at 3 areas of brain-based teaching, specially selected for their positive outcomes and ease of assimilation into any classroom.

Required Text:
No Text Required

Outcomes and Objectives:
By the end of the course participants will...
1. Understand key brain processes related to movement and social interactions and how they can improve achievement
2. Know and be able to implement brain-based movement and social strategies to improve student learning
2. Understand the key developmental stages and brain processes involved in executive functioning.
3. Know and be able to implement brain-based strategies that support the development of executive functioning

Potential Results for Learning:
Cross disciplinary research into how the brain learns is providing educators with a scientific and research-based foundation for implementing strategies that support the innate learning pathways of the brain. Upon completion of the course, participants will be able to implement strategies that are supported by current mind/brain research in order to improve student cognition, learning, and behavior.
Course Topics that Support Instructional Practices and Strategies:
This course looks at three topics as they relate to brain research and learning: movement, social interactions and executive functioning. In each topic, participants will learn about the process(es) of learning based on scientific brain research, explore strategies that support these processes and be able to offer research-based rationale for their use.

Instructor Methods and Course Design:
This is a 1 hour, self-paced course based on current brain-research as it relates to learning and cognition. Course goals will be met through instructor designed lessons, videos, discussion forums, quizzes, and supplemental materials.

How Does This Course Support The Iowa Core?
Examining: Brain Magic instructs teachers on the research-based mind/brain mechanisms that support learning and cognition and strategies that effectively support diverse student learning and achievement across all subject/content areas and grades. By engaging the mind/brain connection, teachers will produce highly proficient learners. This falls in line with the Iowa Core that states school preparation should produce the following:

1. Students who are college and career ready in reading, writing, speaking, listening, and language.
2. Students who are proficient in English, language arts, history, social student, science, and technical subjects in all grade levels.
3. Students who are proficient in 21st century skills, such as critical thinking/problem solving, curiosity, collaboration and leadership.

Research Base/Best Practices:
The research-base for this course is derived from the following sources listed at the end of this document.

Course Time Requirements
Estimated in-class time required: 15 hrs

Course Outline

Module 1: What Is Brain-Based Education

Lesson 1: What is Brain-Based Education? (1hr In)
Topics
1. 12 brain/mind principles
2. Mind, brain education

Lesson 2: The 12 Mind/Brain Principles in the Classroom (PP) (1hr)

Discussion Forum (Mind/Brain connections in the classroom) (1hr)
Quiz 1 (1hr)

**Module 2 : Move to Learn**

**Lesson 3: Movement (.5hrs In)**
Topics
1. Blood flow, oxygenation and neurotransmitters
2. The role of the cerebellum
3. Brain-derived neurotrophic factor (BDNF)
4. Building the brain and improving cognition

**Lesson 4: Movement in the classroom (.5hrs)**
Topics:
1. Cerebellum exercises
2. Brain breaks and yoga
3. Gestures

Discussion Forum (Incorporating movement in the classroom) (1hr)

Quiz 2 (1hr)

**Module 3 – Life is Social...So is Learning!**

**Lesson 4: Social Interactions (1hr)**
Topics
1. Socializing
2. Competition
3. Positive Social Pressure

**Lesson 6: Socialization and Social Isolation (1hr)**
1. The Social Brain and Its Superpowers (video)
2. The Socially Isolated Child

Discussion Forum (Helping the socially isolated student) (1hr)

Quiz 3 (1hr)

**Module 4 : Executive Function—The Art of Thinking**

**Lesson 4: Executive Function (1hr In)**
Topics
1. Patterning
2. Piagetian concepts
3. How Humans Think
4. Developing Executive Function

**Discussion Forum (Executive processes) (1hr)**
Video: Executive Skills for Life and Learning; Center on the Developing Child- Harvard University (~5min) [https://www.youtube.com/watch?v=efCq_vHUMqs](https://www.youtube.com/watch?v=efCq_vHUMqs)

**Discussion Forum (Executive functioning & creativity) (1.5hrs)**
Video: Do schools kill creativity?

**Final Quiz (1hr)**

---

**Evaluation/Grading**

**Course Requirements:**
* Completion of all Discussion Forums (including main posts and responses)
* Completion of all Quizzes
* Completion of Final Course Reflection

**Participant Evaluation:**

**A/Pass Grade**
* Met all course requirements
* Averaged 90% or better on coursework according to the class rubric

**B/Pass Grade**
* Met all course requirements
* Averaged 80%-89% on coursework according to class rubric

**C/Fail Grade**
* Met all course requirements
* Averaged 70%-79% on coursework according to class rubric

**D/Fail Grade**
* Met all course requirements
* Averaged 60%-69% on coursework according to class rubric

**F/Fail Grade**
* Failed to meet 1 or more course requirement and/or
* Averaged less than 60% on coursework.
<table>
<thead>
<tr>
<th>Brain Magic: Class Rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Superior</strong>&lt;br&gt;A/Pass (90%-100%)</td>
</tr>
<tr>
<td><strong>Content</strong></td>
</tr>
<tr>
<td>Demonstrates comprehensive grasp of subject matter, including a thorough understanding of relevant concepts, theories, &amp; issues related to the topic</td>
</tr>
<tr>
<td>All parts of the question/discussion are addressed &amp; thoroughly answered</td>
</tr>
<tr>
<td><strong>Critical Thinking</strong></td>
</tr>
<tr>
<td>A thoughtful statement of position is presented and defended through logical arguments and carefully selected supportive details/documentation</td>
</tr>
<tr>
<td>Ability to think critically is clearly demonstrated in the analysis, synthesis, and evaluation of relevant information, theories, &amp;/or viewpoints</td>
</tr>
<tr>
<td>Makes strong, clear connections between personal/educational setting/experience &amp; content being discussed; includes examples</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
</tr>
<tr>
<td>Writing is well developed, clear &amp; well organized; no or few minor grammar/spelling errors.</td>
</tr>
</tbody>
</table>
Sources referenced in this course


