COURSE SYLLABUS

Course: Aiding Students with Learning Disabilities

Presenters: Donna Walker Tileston

Hours: 45

Course Overview

In this course Dr. Donna Walker Tileston covers a broad range of topics in the worlds of brain research and special education. Because she ends every unit with a hands-on practitioner's approach to improving classroom strategies, the brain research is an introduction and provides vital background to a classroom teacher who is working to enlarge his or her toolbox for working with students with special needs. Many of the ideas and classroom strategies, however, apply equally to the regular education teacher and classroom.

After presenting a brief history of special education, Dr. Tileston introduces and explains the key legislation that has changed the lives of people with special needs. She discusses the services schools are required to provide and makes suggestions for what schools can do to best implement the standards set in federal and state laws. Dr. Tileston then focuses on three systems of thinking and the roles they play in learning. She then draws a distinction between declarative knowledge and procedural knowledge, definitions that are used throughout her presentations. She offers many examples of mental models that students may learn to construct in order to increase their ability to recall and organize pieces of information.

Shifting gears to emotional and behavioral disorders, as well as attention disorders and solutions, Dr. Tileston looks first at the brain's involvement in emotions and behavior and attention disorders. For all of the disabilities she explores, Dr. Tileston recommends a variety of tactics to better engage students, including providing much structure, such as scaffolding in curriculum and behavioral expectations; consistency in every aspect of classroom life; and constant positive and specific feedback. Ultimately, this course's goal is to ensure that all students receive a high quality education and become independent and empowered in their learning.

Presenters' Bios

Dr. Donna Walker Tileston has been a leader in education, serving as a teacher, administrator, researcher, writer, software developer, and a national consultant. She is the author of 23 books on educational topics. She has been actively involved in brain research and has published her research under the titles *Strategies for Teaching Differently* (1998) and *Ten Best Teaching Practices: How Brain Research, Learning Styles and Standards Define Teaching Competencies* (2000, 2005). This research led Dr. Tileston to write a bestselling series titled *What Every Teacher Should Know* (2003, 2008). The series has been awarded the Distinguished Achievement Award for Excellence in Educational Publishing by the American Educational Publishers Association and is presently being developed into a series of comprehensive state-of-the-art interactive online courses. Additionally, she has made worldwide presentations on her research. Dr. Tileston received her BA from the University of North Texas, her MA from East Texas State University, and her Ed.D. from Texas A & M University-Commerce.

Course Objectives

After completing this course, educators will know:

- How the brain works and its critical role in learning
- How some cognitive, emotional, behavioral, and attentional disorders are attributed to malfunctions in the brain
- That much of brain research has impacted the current discussions about nature versus nurture, neuroplasticity, and other topics that are related to educating all students
- The importance of the IEP in defining the instruction and other modifications that are to be made for each identified special education student
- The importance of using scaffolding in designing learning activities, cognitive and social, then gradually taking it away so students will become empowered and more in control of their learning
- That meta-analysis available to teachers re-directs their instructional skills to help students learn and process information at a faster rate and also to retrieve information more efficiently
- That meta-analysis available to teachers improves their classroom management skills to help students to gain control over their behaviors, to help them focus
- The increased importance of the concepts of multiple intelligences, and preferred learning styles and modalities in designing learning activities for students with various disabilities
- The increased value in using visuals, mind maps, and other graphics to create order, find patterns, and make connections when teaching students with various disabilities
- Setting high expectations for quality products, as well as for behavior, and articulating what is expected before students begin to work

Student Learning Outcomes

After completing this course, educators will apply the following skills:

- Create learning modules in 'small chunks' to better hold students' focus and attention
- Vary the classroom learning activities frequently
- Model the use of graphics, mind maps, and other visuals, to add organization and structure to the instruction
- Plan scaffolding for each unit of study as well as for teaching social skills and include a plan for gradually reducing the scaffolding
- Give constant positive and specific feedback for learning activities and their products, for classroom behavior and student's interaction with other students and the teacher
- Develop consistency and apply it to all expectations for quality products and classroom behavior
- Communicate to students your high expectations and your plan for working together with the them toward their success

Unit 1: A Free and Appropriate Education
In this unit, Instructor Donna Walker Tileston presents a comprehensive overview of the laws that govern special education. She begins by providing a historical context to today's approaches to special education. She explains the federal and state laws: IDEA; Section 504; the Americans with Disabilities Act; Titles 1, 2, 3, 4, and 5; and the No Child Left Behind (NCLB) Act, detailing the provisions of each. She focuses on how they affect the education of children with special needs. Next, she considers the concept of a "Free and Appropriate Education" and the ideas of Least Restrictive and More Restrictive

Environments as these apply to the types of special education services schools are required to provide. Finally, Dr. Tileston offers suggestions for implementing special education programs that meet the standards established by federal and state laws.

Unit Objectives

After completing this unit, educators will know:

- The role that state and federal legislation has played in defining the goals and context for special education programs
- The provisions of important state and federal laws related to special education
- The importance of the IEP in a special needs student's education
- The standards of free and appropriate education for special needs students
- How the ideas of Least Restrictive and More Restrictive Environments have impact on special education students

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Assess their school's or district's compliance with state and federal laws in administering their special education program
- Strengthen classroom instruction so that it provides both an equitable and a quality education as it targets the needs of special education students

Reading: "Responsible Inclusion for Students with Learning Disabilities"

Participants read "Responsible Inclusion for Students with Learning Disabilities," by Sharon Vaughn and Jeanne Shay Schumm (http://digilib.bc.edu/reserves/ed587/moon/ed58745.pdf), which offers a contrast of responsible with irresponsible inclusion practices for students with learning disabilities. They then respond to the reflection prompts that follow.

Unit 2 : Special Education and the Brain: Part 1

In this unit, Dr. Tileston discusses how the brain works and how understanding its functioning helps teachers understand how their students learn. She begins by considering what it means to be a 'smart' learner and contrasts that with what it means to be a 'slow' learner. Smart learners, she says, use all their memory pathways, while slow learners must be taught in their preferred modality.

She then explores what brain research has taught us about learning and suggests strategies that teachers can use to adapt the findings of that research to their classrooms. She focuses on systems of thinking—the self-system, the metacognitive system, and the cognitive system. She explores how these

systems contribute to the processes by which students learn. She concludes with a few tips about applying this brain research in the classroom.

Unit Objectives

After completing this unit, educators will know:

- How learning takes place in a healthy brain
- The types of learning problems that occur in terms of what brain research has revealed about the functioning of the brain
- Strategies that incorporate the findings of brain research to augment learning of all students and especially special education students

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Understand and explain learning problems in terms of the brain's functioning
- Apply current brain research to their portfolio of teaching skills to better help students retain and retrieve information

Unit 3 : Special Education and the Brain, Part 2

In this unit on brain research, Dr. Tileston focuses on the third of the three brain systems—the cognitive system. She draws a distinction between declarative knowledge—knowledge that we recall—and procedural knowledge—what we do with what we know. She demonstrates a variety of organizers, tools that can successfully help students increase their ability to organize and recall information. She concludes by suggesting that teachers' goals should include helping students construct a variety of mental models, and she gives lively examples of compare and contrast and sequencing models. Aware that designing many advance organizers is very demanding, Dr. Tileston suggests that teachers create communities of learners where they can share their work and their common goals.

Unit Objectives

After completing this unit educators will know:

- How the cognitive system of the brain affects student learning
- Differences between declarative and procedural knowledge
- Effective strategies for using organizers in classroom instruction
- Effective strategies for helping students to construct their own organizers

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Tap into the self-system of the brain and build scaffolding so that students believe that they can learn
- Give meaning to learning by using prior knowledge and building structure
- Create personal relevance by having students determine how they learn and what they need to know
- Create advance organizers, rubrics, and mind maps
- Give specific positive feedback, initiate positive self-talk, and set specific positive goals
- Divide lesson plans into declarative and procedural information

Reading: "Prevention and Intervention of Writing Difficulties for Students with Learning Disabilities"

Participants read "Prevention and Intervention of Writing Difficulties for Students with Learning Disabilities," by Steve Graham, Karen R. Harris, and Lynn Larsen (http://faculty.rcoe.appstate.edu/koppenhaverd/5710/read/readingLD/grahametal01.pdf), which offers 6 principles designed to prevent writing difficulties as well as to build writing skills for students with learning disabilities. They then respond to the reflection prompts that follow.

Unit 4: Attention Disorders

In this unit, Dr. Tileston focuses on two types of attention disorders: Attention Deficit Hyperactivity Disorder [ADHD] and Attention Deficit Disorder [ADD]. She begins by defining ADHD, suggesting that it has three components: inattention, hyperactivity, and impulsivity. She considers the causes and diagnosis of this disorder. She then discusses ADD and distinguishes it from ADHD. She examines ways in which schools and teachers contribute to students' inability to focus on instruction. Dr. Tileston considers the effects of particular styles of teaching, room arrangements, inconsistent rules, tense classroom climates, and the failure to engage students in their learning. She concludes by offering suggestions that will better focus students' attention: making learning fun and personally meaningful, setting goals and holding students accountable, using signals to curb excessive activity, setting clear expectations, breaking learning into reasonable chunks, providing choices, and using organizers.

Unit Objectives

After completing this unit, educators will know:

- The characteristics of Attention Deficit Hyperactivity Disorder [ADHD] and Attention Deficit Disorder [ADD]
- Ways in which the teacher may contribute to students' inability to attend to learning
- How to increase students' ability to stay appropriately focused on learning and the activities of the classroom

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Recognize the behaviors and characteristics of students with ADHD and ADD
- Modify conditions in the classroom so that it provides a more structured and nurturing environment
- Modify teaching strategies so that students with attention disorders will become more engaged

Unit 5 : Attention Solutions

In this unit, Dr. Tileston offers detailed strategies to help teachers address attention disorders. Her objective is to help students stay on task and to finish work at a high level by empowering students to become self-directed learners. In a sample segment, Dr. Tileston draws on the concept of multiple intelligences and different learning modalities as ways to add complexity to a unit of study. Next, she considers the distinctions between convergent and divergent thinking. She concludes by discussing practical ways to manage the classroom, setting up structures that help students increase their ability to focus and to attend to learning.

Unit Objectives

After completing this unit, educators will know:

- How to help students stay on task and finish work at a high level
- The distinctions between convergent and divergent thinking as students complete phase 3/level 3 activities
- The importance of teaching social skills as well as cognitive skills
- How to control the group through carefully planned and executed structures
- How to provide positive feedback

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Create personal relevance for students, create connections, and set goals to maximize learning
- Provide consistent structures to control behavioral disorders
- Use matrixes, rubrics, and other tools to evaluate student progress in learning social skills
- Create benchmarks to measure student progress in reaching their learning goals

Reading: "Assistive Technologies for Reading"

Participants read "Assistive Technologies for Reading," by Ted S. Hasselbring and Margaret E. Bausch (http://www.matnonline.com/olms/tmp/file/AT%20Evaluation/Session7Readings/Tech-Reading-Hasselbring.pdf), which argues that text-reader programs, word-prediction software, and other aids empower youth with learning disabilities. They then respond to the reflection prompt that follows.

Unit 6 : Emotional and Behavior Disorders

Dr. Tileston begins this unit by describing how the brain controls emotions and the importance of emotions on attention and learning. "What happens when the brain is not functioning properly and doesn't handle emotions correctly?" she asks. She explores a list of emotional disorders including the symptoms of a range of anxiety and depressive disorders.

Dr. Tileston then focuses on what can be done by classroom teachers to decrease the negative behaviors in the classroom and discusses how teachers can effectively deal with students who present any of these disorders. She describes the type of environment schools should seek to create, the types of interventions that have proven effective, the responsibilities of the school, and the importance of early intervention. Finally, she argues for involvement by everyone involved with the student—school administrators, as well as teachers and parents.

Unit Objectives

After completing this unit, educators will know:

- How emotion affects the brain and how emotion affects behavior and learning
- Symptoms of emotional disorders that affect students in the classroom, including anxiety, obsessive-compulsive disorder, eating disorders, post-traumatic stress disorder, depression, oppositional defiant disorder, and autism
- How a classroom teacher can help students gain more control over their negative behaviors by creating a positive environment, being consistent, teaching social skills, and involving the parent/caretaker

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Create a physically and emotionally safe environment where students are comfortable taking risks
- Establish early interventions when behavior disorders are first observed
- Establish high expectations for every student

Unit 7 : Autism

Dr. Tileston opens her presentation with a definition and facts about the incidence of autism and Asperger's in the United States. She states that it is currently the fastest growing developmental disability in this country. Though the causes of autism are not known at this time, Dr. Tileston reports on the current research into various possibilities: genetic, environmental, embryonic changes in the brain at days 22-24. Until research supplies more answers, early intervention and therapy currently provide the best treatment options along with some possible medications.

Dr. Tileston suggests what teachers can do to effectively manage their classrooms. She suggests giving students information in very small chunks; paying close attention to the student's preferred learning style; and adding a great deal of order, structure, and scaffolding. She suggests managing the classroom with clear and precise rules and routines and also specifying a time-out area where a student can get the space he or she may need. The purpose is to create a connection for the student and to add consistency and discipline. The intent is to create classroom conditions that will help these students to succeed.

Unit Objectives

After completing this unit, educators will know:

- The characteristics of autism
- Possible causes of autism and the ongoing research on possible treatments
- The distinctions between autism and Asperger's Syndrome
- Instructional strategies that will help students with autism and/or Asperger's succeed in their learning
- Classroom management strategies that will help students become more controlled in their behaviors

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Recognize the behaviors and characteristics of students with autism and Asperger's Syndrome
- Modify teaching strategies so that students with autism and Asperger's will become more focused on their learning and more socially engaged with other students
- Modify the environment in the classroom so that it provides a more structured and nurturing environment for learning and more controlled behavior

Reading: "Teaching Students with Autism"

Participants read "Teaching Students with Autism," by Glen Dunlap and Lise Fox (http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED435148), which provides an overview of considerations for teaching students with autism who learn well with appropriate,

systematic, and individualized teaching practices. They then respond to the reflection prompts that follow.

Unit 8 : Speech and Language Disorders

In this unit, Dr. Donna Tileston outlines in detail the normal stages of children's speech and language development from birth through adolescence. She lists the benchmarks that parents and educators should expect to see as children grow. Including a brief history of nineteenth century research on language and speech disorders, she addresses what teachers today can do to help students who present language delays, speech impairments, and other language disorders.

Unit Objectives

After completing this unit educators will know:

- The expected progression of language development
- The symptoms of specific language disorders
- Interventions that will help children with speech and language disorders

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Evaluate students' language development to measure it against expected benchmarks for their ages
- Provide appropriate intervention for any children who are presenting language deficits, delays, or other disorders

Unit 9 : Reading Disorders

Dr. Tileston begins this unit by explaining why learning to read is more difficult for children than learning to speak. The brain is not hardwired to read, and many students have difficulty translating spoken language to the written word. Many things can go wrong. Tileston explains the systematic steps that must be taught to develop phonological awareness and reading comprehension. The unit ends with practical and detailed suggestions to strengthen the classroom teacher's reading instruction: modeling and teaching positive self-talk and using reciprocal teaching, questioning, cooperative learning, and scaffolding. All of her strategies are intended to help all students who need rigor in their reading instruction.

Unit Objectives

After completing this unit, educators will know:

- How the brain is involved in the process of learning to read
- Why learning to read is so difficult
- How learning to read normally develops
- The symptoms of reading disorders
- Best practices in reading instruction: phonological awareness and reading comprehension

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Evaluate which children require intervention to correct their reading disorders
- Use strategies to provide best reading instruction, model best practices, scaffold lessons, ask good questions, and add rigor to classroom instruction

Unit 10 : Learning Disabilities in Mathematics

Instructor Donna Walker Tileston begins this unit by explaining what parts of the brain are responsible for math learning and what we know about students with problems that affect their mathematical ability. These problems are sometimes known as The Math Curse, and as Tileston explains, they occur as frequently as reading disabilities, in about 6% of the student population. She explains why the incidence of math disorders may be growing, and hypothesizes that more attention has been paid to reading disabilities because reading is used across all the disciplines. She then offers practical solutions and strategies for the classroom to help teachers and students become more successful in mathematics.

Unit Objectives

After completing this unit, educators will know:

- What the brain research says about disabilities in mathematics
- The symptoms of disorders in mathematics
- How to diagnose problems in mathematics learning
- The distinctions between quantitative and qualitative learners
- How to define levels of mastery in mathematics learning
- New classroom strategies to strengthen mathematics instruction

Student Learning Outcomes

After completing this unit, educators will apply the following skills:

- Diagnose the nature of mathematics disabilities in the classroom

- Strengthen mathematics instruction in the classroom by applying such teaching strategies as focusing on vocabulary, using manipulatives, creating patterns, identifying qualitative versus quantitative learners, and teaching to student' dominant learning modalities

Methods of Instruction

- Videos with PowerPoint presentations (presentations consisting of lecture and additional resources)
- Text (units based on required reading)
- Reflection questions (open-ended questions at intervals throughout the videos where educators are asked to reflect on the course content, their own practice, and their intentions for their practice)
- Quizzes (selected-response quizzes to assess understanding of the video presentations)

Plagiarism Policy

KDS recognizes plagiarism as a serious academic offense. Plagiarism is the passing off of someone else's work as one's own and includes failing to cite sources for others' ideas, copying material from books or the Internet (including lesson plans and rubrics), and handing in work written by someone other than the participant. Plagiarism will result in a failing grade and may have additional consequences. For more information about plagiarism and guidelines for appropriate citation, consult plagiarism.org.

Passing Requirements:

In order to complete the requirements of the course, the participant must complete all course work. We do not award partial credit.

- Quizzes 40% of total grade
- Reflection Questions 60% of total grade

KDS Self-Assessment Rubric:

	Distinguished	Proficient	Basic	Unsatisfactory
Quizzes	100% Correct	80% Correct	60% Correct	0-40% Correct

	Distinguished	Proficient	Basic	Unsatisfactory
Reflection Questions	Participant provides rich detail from the content of the course in his or her responses Participant makes his or her responses to the questions personally meaningful	Participant includes appropriate content from the course in his or her responses Participant makes thoughtful comments in direct response to the questions	Participant includes some content from the course, usually appropriate, in his or her responses Participant answers the questions directly, not always fully	Participant includes no content from the course in his or her responses Participant does not address the questions posed