

Rev. May 2007

**Ashland University
Dwight Schar College of Education
Department of Early Childhood
Course Syllabus**

**Graduate: Undergrad: X
Credit Hours: 3
Field/Clinical Hours: 0/0**

Course Number: EDEC 448

Course title for the catalog:

Bio-Medical Issues for Childhood Professionals

Catalog Description:

A study of biological, physiological and medical issues and conditions as they relate to the developing child from birth to age 8. The importance of understanding these issues in relation to the appropriate education and support of young children and their families is emphasized. Individual considerations that affect typical development or educational environment (e.g. attention problems, allergies, disabilities, etc.) are explored and appropriate techniques and resources for reducing the impact of these conditions on the child and learning potential examined. Education or Nursing Credit.

The prerequisite (s) for this course is (are):

EDEC 215

The enrollment restriction (s) for this course is (are):

None

Course and field/clinical experience objectives (including knowledge, skills, dispositions):

Knowledge:

The teacher education student will have knowledge of:

1. The basic biological and genetic foundations of child development.
2. The implications for child/family emotional health, social comfort and function when genetic anomalies occur.
3. The social issues related to prenatal counseling, prenatal diagnosis and severe anomalies at birth (e.g. reduced health care/insurance pressure, eugenics, etc.).

4. Basic aspects of neurology as it relates to typical and atypical learning patterns (e.g. ADD/ADHD, LD, Dyslexia, Giftedness, etc.).
5. Neuroscience as it relates to differences in learning style, global differences between different ages, genders and curriculum design.
6. Various unique conditions that may affect learning style and curriculum development (e.g. Autism, sensitivity to stimuli, etc.).
7. Common physical/environmental conditions that may affect the learning potential and general comfort of students (allergies, nutrition, stress, etc.).
8. General processing issues that hinder learning yet often remain undetected (i.e. CAPD, Visual Processing Problems, dysgraphia, dyscalculia, etc.)

Skills:

The teacher education student will have the skills to:

1. Construct, implement and evaluate educational programs for children with gifted, typical and atypical neurological processing considerations.
2. Recognize families struggling with the emotional consequences of biomedical problems in their children and direct them towards the appropriate resources for assistance.
3. Understand the impact of neurological factors on children's learning patterns and be able to construct appropriate educational programs for children with typical and atypical neurological considerations.
4. Construct and maintain environments that are comfortable and conducive to learning for all children including those with special considerations such as allergies, distractibility, processing issues, disabilities, unique gifts and talents, etc.
5. Design and implement programs and environments that accommodate children with severe neurological or physiological considerations such as children with autism, hypersensitivity, etc.
6. Accommodate, assist and collaborate with professionals providing both general and specific therapies for individual children integrated into the typical classroom.
7. Monitor child progress through various forms of non-intrusive, activity or play-based data collection.

Dispositions:

The teacher education student will:

1. Appreciate the biological basis for many behaviors and learning considerations seen in young children.
2. Understand and remain sensitive to the family stress and conflict that may arise when children with special biological/medical considerations are parented and educated.
3. Recognize the difference in educational performance achieved when appropriate education is coordinated with biological knowledge.
4. Value the educational results obtained from extra work and effort directed towards fully understanding a child's unique developmental pattern.

Suggested texts and/or references:

Bragdon, A. D. & Gamon, D. (2000). *Brains that work a little bit differently: Recent discoveries about common brain diversities*. Bass River, MA: Brain Waves Books.

ISBN-10: 0916410676 and **ISBN-13:** 978-0916410674

Sousa, D. A. *How the brain learns*. (2005). Thousand Oaks, CA: Corwin Press

ISBN-10: 1412936616 and **ISBN-13:** 978-1412936613

Sousa, D. A. *How the special needs brain learns*. (2006). Thousand Oaks, CA: Corwin Press.

ISBN-10: 1412949874 and **ISBN-13:** 978-1412949873.

Suggested instructional strategies:

Demonstration, simulation, lecture, discussion, individual and group activities, projects, case studies and instructional media.

Description of field/clinical experiences: N/A

Evaluation of students:

Tests, projects, demonstrations of techniques, case studies (written and video), discussion and portfolio development.

Faculty who frequently teach the course:

M. Sargent, D. Cochran, F. Wesolik

Licensure programs in which course is required:

Early Childhood Education, Early Childhood Intervention Specialist

If the course is offered for either undergraduate or graduate credit, identify the respective difference in expectations: (**Difference UG/G:** Graduate and undergraduate differ in the depth of understanding, level of demonstrated expertise, construction of appropriate solutions/problem-solving and general integration of research, theory and practice.)

Bibliography (Learned Societies, etc.):

Barkley, R. A. (2005). *Attention-Deficit Hyperactivity Disorder, Third Edition: A Handbook for Diagnosis and Treatment* New York: Guilford Press

Batshaw, M.L., Perret, Y.M. (1981). *Children with handicaps: A medical primer*. Baltimore: Paul H. Brookes.

Damon, W. & Lerner, R. M. (2006). *Handbook of child psychology, theoretical models of human development (Handbook of child psychology)*. New York: Wiley Publishing.

- Eides, B. & Eide, F. (2006). *The mislabeled child: How understanding your child's unique learning style can open the door to success*. New York: Hyperion.
- Gregory, G. H. & Chapman, C. (2006). *Differentiated Instructional Strategies: One Size Doesn't Fit All*. Thousand Oaks, CA: Corwin Press.
- Grinkler R. (2007). *Unstrange minds: Remapping the world of autism* New York: Basic Books.
- Hannel, G. (2006). *Dyscalculia: Action plans for successful learning in mathematics*. London: David Fulton Publishers.
- Harris J. & Holm S. (2003). *Ethics, Choice and Regulation: Issues in bio-medical ethics*. UK: Oxford University Press.
- Kotulak, Ronald (1997). *Inside the Brain: Revolutionary Discoveries of How the Mind Works*. Andrew McMeel Publishing, 4520 Main St. Kansas City, Missouri, 64111. ISBN: # 0-8362-3289-5.
- Richards, R. G. (2005). *When writing's a problem: Understanding dysgraphia and helpful hints for reluctant writers*. California: RET Center Press.
- Sicile-Kira, C. & Grandin, T. (2004). *Autism Spectrum Disorders: The Complete Guide to Understanding Autism, Asperger's Syndrome, Pervasive Developmental Disorder, and Other ASDs*. Toronto, Ontario: Perigee Trade.
- Sousa, D. A. (2002). *How the gifted brain learns*. Thousand Oaks, CA: Corwin Press.
- Sousa, D. A. (2004). *How the brain learns to read*. Thousand Oaks, CA: Corwin Press.
- Stone, R. (2003). *The light barrier: Understanding the mystery of Irlen Syndrome and light-based reading difficulties*. New York: St. Martin's Griffin
- Van der Meer, R. & Dudink, A. (1998). *The Brain Pack: An Interactive Three-Dimensional Exploration of the Mysteries of the Mind*. Produced by Van der Meer Publishing, Datchet, Berkshire, England for Singram Company, Ltd., St. Helier, Jersey. Available through Running Press - ISBN # 1-56138-746-0.