

## TCED 6933 - Brain Based Teaching and Learning

Fall 2026 Syllabus, Section A01, CRN 43612,

Credit hours: 3

### Instructor

M Kathleen Cripe

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### Public Instructor Information

Instructor Title: Full Professor/Chair

Instructor Professional Qualifications: Ph.D. Curriculum & Instruction, Science Education (Akron University, 2009); M.S. Analytical Chemistry (Youngstown State University, 1996); B.S. Chemistry, Biology, Physics (Youngstown State University, 1986)

Instructor Office Location: Beehgly Hall, Room 1006

Instructor Office Phone: (330) 941 - 3517

### Course Description

6933. Brain Based Teaching and Learning . This course is a critical appraisal of learning and teaching. Each learner constructs his/her brain as learning occurs. Teachers reconsider their practices in light of the science of learning research provided by education, neuroscience and socio-psychology. Course may be offered onsite, online, or as a combination of both. Prereq.: Admission to School of Graduate Studies and Research. 3 s.h.

### Course Readings

| Group    | Title                         | Author        | ISBN |
|----------|-------------------------------|---------------|------|
| Required | The Art of Changing the Brain | Zull, James E |      |

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

### Course Calendar and Topics

| Week of | Reading(s)                                                   | Proposed Topic | Due/To Prepare for Class |
|---------|--------------------------------------------------------------|----------------|--------------------------|
| 8/24    | Module 1: Brain Basics                                       |                |                          |
| 8/31    | Module 2: Constructivism                                     |                |                          |
| 9/7     | Module 3: Multiple Intelligence Theory                       |                |                          |
| 9/14    | Module 4: Cambourne's Conditions                             |                |                          |
| 9/21    | Module 5: Universal Design for Learning & Gender Differences |                |                          |
| 9/28    | Module 6: 21st Century Learning & John Hattie's Research -   |                |                          |
| 10/5    | Module 7: Physical Activity & Music Integration              |                |                          |

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.