

Education 719: Brain Based Teaching and Learning (Mind, Brain and Education Science) Summer 2020, June 22 – July 10 Syllabus

Course Information

Instructor Information

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Professor of Education 452 CPS

Virtual Office Hours: available via email throughout course offering

pcook@uwsp.edu 715-346-3263 (office)

Course Description: Mind, Brain and Education Science is a challenging and emerging field of study. This online course begins with our learning about the organ of learning, our brains. We will learn how the brain receives, filters, consolidates and applies learning in both the long and short terms. We will explore how to apply this growing body of research into the design of our schools, classrooms and work with each individual student. Current views on Brain Based teaching and learning strategies will be debunked or supported by the text and other readings.

Credits: 3 graduate level

Expected Instructor Response Time

I will attempt to respond to student emails within 24 hours. Please send a follow up email if you do not receive a reply within 24 hours. If you have general course questions (not confidential or personal in nature), please post to the Raise Your Hand Discussion Folder found in CANVAS.

Students are encouraged to answer each other's questions in that folder.

I will attempt to grade all written work by the end of each week. Some assignments may take longer.

Textbook & Course Materials

Required Text: Whitman, G., & Kelleher, I. (2016). *Neuroteach: Brain science and the future of education*. Lanham: Rowman & Littlefield. ISBN 978-1-4758-2535-0

Please Note: This book was chosen because of its reputation as the most current text on Mind, Brain and Education Science on the market today. It is very strong in its research based assertions and conclusions drawn from cognitive psychology and neuroscience. We will begin using the text the very first day of the course. No prior knowledge in the discipline required.

Suggested website: <http://www.thecttl.org/> This website is the Center for Transformative Teaching & Learning at St. Andrew's Episcopal School. Views and beliefs are not necessarily representative of those of the Instructor nor the School of Education here at the UWSP.

Course Technology Requirements

Minimum recommended computer and internet configurations for online courses and tips for being a successful online student may be found [here](#).

You will need access to a stable internet connection and familiarity with the platform of CANVAS.

Course Structure

This course will be delivered entirely online through the course management system CANVAS. You will use your UWSP account to login to the course from the [CANVAS Login Page](#). If you have not activated your UWSP account, please visit the [Manage Your Account](#) page to do so.

Student Expectations

In this course students will be expected to:

- Communicate via email
- Complete basic internet searches
- Download and upload documents to CANVAS site
- Read documents online
- View online videos
- Participate actively and regularly in online discussion folders

Technical Assistance

If you need technical assistance at any time during the course or to report a problem with CANVAS you can:

Visit with a [Student Technology Tutor](#)

Seek assistance from the [IT Service Desk](#) (Formerly HELP Desk)

IT Service Desk Phone: 715-346-4357 (HELP)

IT Service Desk Email: techhelp@uwsp.edu

Course Learning Outcomes

This course seeks to challenge the teacher-learner to begin rewiring our brains, “to develop new neural pathways and connections informed by mind, brain and education science”...not an easy task given two factors, “First, teachers tend to teach how they were taught in school. Second, teachers tend to teach to their learning strengths” Whitman and Kelleher p. 7. Upon completion of this course learners will be able to create dynamic learning environments based on the latest scientific research on how the brain learns.

Learning Outcomes:

Students will examine and become familiar with the major structures of the human brain including: the Amygdala; Hippocampus; Prefrontal Cortex.

Students will describe the anatomy and physiology of the human brain neuron including: neural pathways; dendrites; axons; synapses.

Students will be able to recognize neuromyths are based on outdated or misinformed understandings about how the brain learns.

Students will be able identify Mind, Brain, Education Science research based strategies to explore how to apply them to their classrooms and with their learners.

Students will articulate and analyze the benefits of designing and implementing a specific strategy to a past or present learner in a field experience setting.

This course is designed to address all of the **INTASC Standards for Teaching** but especially these:

#2 Learning Differences

#3 Learning Environments

#7 Planning for Instruction

#8 Instructional Strategies

Please see the attached information about the INTASC Model Standards for Teaching:

https://ccsso.org/sites/default/files/2017-12/2013_INTASC_Learning_Progressions_for_Teachers.pdf

Topic Outline/Schedule

Please refer to the Course Schedule found in the course Homepage in CANVAS.

Course Assignments

- 1. Participate in the online text discussion folders** for this course. Every student is expected to read the entire text. Please read the entire text first, then go back and review each chapter for each of the discussion folders. Beginning with chapter 3 we will have student created PowerPoint or Google Slide summaries posted by assigned students from each chapter reading. For your slide presentation select and clarify the main ideas from the chapter content. Try to limit your summary to 7-10 slides. For example, place one main idea at the top of each slide with bulleted points for explanation and clarification. Somewhere in your summary include a quote from the textbook chapter, please cite the source. Then use your final slide to ask an important question from your chapter. You may create your own question, or if you think one of the end of chapter questions is high quality you may choose to use one of those. These questions will guide your colleagues' comments and responses in the discussion folder postings. Graphics and links to related resources make the summaries even more visual and pragmatic. (Assigned chapter slide summary Only Chapters 3-conclusion = 15 points, discussion participation, 12 x 5 = 60 points, for 75 points total) LO 1,2,3,4,5

| Student Initials | Assigned Chapter for Slide Summary Creation | Learning Outcome |
|-------------------------|--|---|
| JZ & MW | Chapter 3 | The Top Twelve Research-Informed Strategies Every Teacher Should Be Doing with Every Student LO 4 |
| JW & CW | Chapter 4 | How Much Do We Need to Know about the Brain? LO 1,2,3 |
| MVV & KT | Chapter 5 | A Mindset for the Future of Teaching and Learning LO 4,5 |
| NSt & ASH | Chapter 6 | "My Best (Research-Informed) Class Ever" LO 4,5 |
| NSa & ERou | Chapter 7 | "I Love Your Amygdala!" LO 1,4 |
| ERod & JR | Chapter 8 | Memory + Attention + Engagement = Learning LO 4,5 |
| NP & KP | Chapter 9 | Assessment 360 LO 4 |
| EM & DM | Chapter 10 | Homework, Sleep, and the Learning Brain LO 4 |
| TK & HH | Chapter 11 | Technology, and a Student's Second Brain LO 4 |
| RG, KE & JD | Chapter 12 | Teachers Are Researchers LO 5 |

2. **Read a professional book** about various aspects of Mind, Brain and Education Science (Brain Based Teaching and Learning). Summarize this book and then connect aspects of Mind, Brain and Education Science learned during this course to the ideas presented in your selected professional book. Summary writing guidelines will be provided in the course content area of CANVAS. You may choose from the variety of books on Pgs. 201 and 202 of the *Neuroteach* text, the Research Base found on the CTTL website or suggest your own. (25 points) LO 1-5 Post in Discussions Folder and Dropbox by July 3, 2020
3. **Design and create an individual project** in which you apply a strategy described in our text to your professional learning environment. Items to be created may include a series of lesson plans based applying research-based strategies from our text or outside readings. This may include an anonymous case study for a student you have worked with in the past or are currently working with. This may include reflective writing narrative about your “10 percent plan” discussed in the text conclusion. Scope and sequence outline and timeline may be created. (25 points). LO 5 Post in Discussions Folder and Dropbox by July 10, 2020
4. **Scholarly review project.** Identify one of the chapters or Appendices you find intriguing from our *Neuroteach* text. Using the list of citations at the end of the chapter and our UWSP library find three of the articles and summarize what they focused on. Include a two to three page write up for each and include a section that informs your practice. (15 points) LO 1-5 Post in Discussions Folder and Dropbox by July 10, 2020

Total Points: 140

Please note that **ALL** written work must be completed and submitted to the appropriate CANVAS DROPBOX by the end of the day - Friday, July 10, 2020.

Calendar for Discussion Forums and Text Readings:

We will use the following schedule for our online discussion forums based on chapter readings from the textbook. Check the DISCUSSION area of the CANVAS site each day and participate actively. Each discussion folder will be based on the big ideas from the chapters you read for each folder. Learners should read both the folder chapter and look over the slide presentation BEFORE participating in the online Folder discussion. Please note there is overlap between the Online Discussion Folder and the course assignments. **Given the accelerated nature of this schedule you must post your slide presentations as early as you can but no later than the day you are assigned.** Discussion folder participants may work ahead and post as soon as the assigned presenter has uploaded their presentation slides. **Please do NOT participate in the folder until that slide presentation review is uploaded.** For the first two chapters we will not follow the normal procedure of having assigned learners post a chapter summary slide presentation. However, students will be responding to discussion folder prompts for these chapters. Follow directions below and in the Discussion Folder descriptions.

Monday June 22 Introduction Folder

Welcome to our Course Introduction discussion folder. Please introduce yourself to your classmates. Tell a bit about your background and why you are in the course. Feel free to share about where you live and work. Try to share at least one fun and interesting thing about you and your life. We may have several out of state students or out of Stevens Point students this semester. It helps the group dynamics, too, if you respond to your colleague's introductory comments. However, there are 26 students in our class so don't feel like you have to write a lot or respond to everyone's introductory post. (No points associated with these postings.)

Tuesday June 23

Please read Chapters One and Two and take the online Formative assessment. Please post a couple of comments on the introductory chapters and discuss what you thought about the assessment. FYI, I took the online assessment and got one incorrect the first time I tried...beginner's luck?

Wednesday June 24 – Friday July 10

Assigned Chapter slide presentations are due no later than assigned date. Please review your colleague's slide presentation review for the chapter and respond to their discussion question in that folder. Please respond in a rich manner to at least two of your colleague's postings. Please follow the Guidelines for Discussion Postings

Friday July 3

Post Assignment 2 "Read a Professional Book" to Discussions Folder and Dropbox

Friday July 10

Post Assignments 3 & 4 to Discussions Folder and Dropbox

Grading Policies

Grading Scale

Grading scale is determined on a percentage basis as follows:

| | | | |
|--------|----|-------|----|
| 100-96 | A | 85-84 | C+ |
| 95-94 | A- | 83-79 | C |
| 93-92 | B+ | 78-76 | C- |
| 91-88 | B | 75-74 | D+ |
| 87-86 | B- | 73-70 | D |

Participation

Students must post their chapter review slide presentation on or before their assigned due date. Students are expected to participate in each of the discussion folders as listed in the course calendar. Please refer to the Guidelines for Discussions Posting document and Assignment 1 descriptions above for specific points regarding postings.

Complete Assignments

All assignments will be submitted electronically through CANVAS. Assignments must be submitted by the given deadline or special permission must be requested from instructor ***before the due date***.

Late Work Policy

Late work will not be accepted for points.

Viewing Grades in CANVAS

Points earned for graded activities will be posted to the CANVAS Grade Book. Click on the Grades link to view your points. All work will be graded by Friday July 17, 2020.

Course Policies

Netiquette Guidelines

Netiquette is a set of rules for behaving properly online. Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual.

Working as a community of learners, we can build a polite and respectful course community.

The following netiquette tips will enhance the learning experience for everyone in the course:

Do not dominate any discussion.

Give other students the opportunity to join in the discussion.

Do not use offensive language. Present ideas appropriately.

Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.

Popular emoticons such as 😊 or / can be helpful to convey your tone but do not overdo or overuse them.

Avoid using vernacular and/or slang language. This could possibly lead to misinterpretation.

Never make fun of someone's ability to read or write.

Share tips with other students.

Keep an "open-mind" and be willing to express even your minority opinion. Minority opinions have to be respected.

Think and edit before you push the "Send" button.

Do not hesitate to ask for feedback.

Using humor is acceptable

Adapted from:

Mintu-Wimsatt, A., Kernek, C., & Lozada, H. R. (2010). *Netiquette: Make it part of your syllabus*. Journal of Online Learning and Teaching, 6(1). Retrieved from http://jolt.merlot.org/vol6no1/mintu-wimsatt_0310.htm

Shea, V. (1994). Netiquette. Albion.com. Retrieved from: <http://www.albion.com/netiquette/book/>.

Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](#) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if requested prior to the course completion date. All incomplete course assignments must be completed within the following semester.

Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the [Disability and Assistive Technology Center](#) and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to Disability Services and meet with a Disability Services counselor to request special accommodation *before* classes start.

The Disability and Assistive Technology Center is located in 609 Albertson Hall and can be contacted by phone at (715) 346-3365 (Voice) (715) 346-3362 (TDD only) or via email at datctr@uwsp.edu

Statement of Policy

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center in 609 ALB, or (715) 346-3365.

Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

UWSP Academic Honesty Policy & Procedures

Student Academic Disciplinary Procedures

UWSP 14.01 Statement of principles

The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

UWSP 14.03 Academic misconduct subject to disciplinary action.

(1) Academic misconduct is an act in which a student:

- (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
- (b) Uses unauthorized materials or fabricated data in any academic exercise;
- (c) Forges or falsifies academic documents or records;
- (d) Intentionally impedes or damages the academic work of others;
- (e) Engages in conduct aimed at making false representation of a student's academic performance; or
- (f) Assists other students in any of these acts.

(2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Religious Beliefs

Relief from any academic requirement due to religious beliefs will be accommodated according to UWS 22.03, with notification within the first three weeks of class.