



Master of Arts in Counseling

Course Syllabus

Course Information

COUN 699A – THE NEUROBIOLOGY OF TRAUMA
Fall 2022
1 Semester Hour

Location/Date/Time

SB-0003
Wednesdays, 3:40 -5:10

INSTRUCTOR'S INFORMATION:

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Office Hours: by appointment

You think, because one and one make two, that you understand two.

But to truly comprehend the nature of two, you must first understand . . . and.

—Jalaluddin Rumi, 13th-century poet and scholar

COURSE DESCRIPTION

This course will provide a foundational understanding of the neurobiology of the human stress response and will explore neuroscience as it applies to psychosocial stress, resilience, and the cultivation of well-being. Various heuristics of the brain and central nervous system will be presented. The course will present the frame of Interpersonal Neurobiology as an integrative method of applying neurobiological principles in the field.

COURSE GOALS AND OBJECTIVES

By the end of this course, students will be able to:

1. *Describe the parts and functions of the human brain and central nervous system (CNS) most important to trauma and resilience*
2. *Describe activation patterns of the CNS relative to the sympathetic and parasympathetic branches.*
3. *Examine the dynamic interplay between the brain, mind, human relationship, and the environment.*
4. *Explore epigenetic contributions to human development.*
5. *Describe how the human brain and CNS develop from the prenatal period through adolescence.*
6. *Analyze how risk and resiliency factors influence the development of the brain and CNS.*
7. *Explain the main tenets of the neurosequential model of the brain.*
8. *Explain the main tenets of the polyvagal theory.*

9. *Describe the importance of integration and differentiation as organizing principles for well-being.*

SYLLABUS DISCLAIMER

This syllabus is not a contract. The instructor reserves the right to alter the course requirements, schedule, and/or assignments based on new materials, class discussions, or other legitimate objectives. Students will be given notice of relevant changes in class or via e-mail.

TECHNOLOGY (SEE TECHNOLOGY AGREEMENT)

The EMU MA in Counseling program, in accordance with a national professional conversation about the use of technology in counselor education, is supporting a return to engagement and paper notebooks. As we are in the profession of presence and attunement, we want to be intentional about how we address this in our classes. Therefore, we will ask that you keep your phone and your computer/iPad in your bag, unless you are required to use it in class.

REQUIRED TEXTS AND OTHER RESOURCES

Badenoch, B. (2018). *The heart of trauma: Healing the embodied brain in the context of relationships*. New York, NY: Norton.

Dahlitz, M. (2017). *The psychotherapist's essential guide to the brain*. Brisbane, Australia: Dahlitz Media.

Selected articles, videos, and simulations are assigned as found in the course schedule.

COURSE ACTIVITIES AND REQUIREMENTS

Reading, Viewing, and Responding

Read the text material as scheduled on the course calendar and view the videos indicated.

Attendance and Participation

This class will abide by program standards for attendance. Students should notify the professor if they are unable to attend a scheduled class. The student is responsible for gathering material that is missed because of an absence. Arrangements may be made with the professor prior to the class that will be missed. More than two absences per semester will result in a reduction in the overall course grade. Your participation is critical to this course, and you should be prepared each week to discuss the assignments and your reactions and responses to them.

Class Experience

The class periods provide opportunity for the integration of course content through discussion, Socratic questioning, and reflection.

Journal

Each student will keep a journal and will respond to the prompts found in the course schedule.

Capstone Paper

Each student will complete a capstone integration paper. Details regarding this assignment will be provided in class.

SCHEDULE AND TOPICS

WEEK	Focus:	Assignment Due:
ONE 10/5	<p>Key Components of Neurobiology The Wonder of the Human Brain</p> <p><u>View:</u> Introduction to the Course and to this Module</p> <p><u>View:</u></p> <p>Neuroanatomy Made Ridiculously Simple https://youtu.be/gvX5ao5SCjE</p> <p>Dr. Octavio Choi presents Brain Basics: An Introduction to Cognitive Neuroscience https://youtu.be/SvBfAqk70LU</p> <p><u>Read:</u></p> <p><i>Luo</i> pp. 1-21, (1.1-1.12) pp. 278-280, (7.1.7.2) p. 305, (7.16) pp. 316-320, (7.24-7.31) pp. 326-354, (8.1-8.14) pp. 372-373, (8.24) pp. 415-420, (10.1-10.3) p. 434, (10-14) pp. 451-459, (10.22-10.25) pp. 514-521, (12.1-12.5)</p> <p><u>View:</u></p> <p>Robert Krulwich on Mirror Neurons 2017</p> <p>VS Ramachandran: The Neurons That Shaped Civilization https://youtu.be/180zgw07W4Y</p> <p>VS Ramachandran on Charlie Rose https://youtu.be/fGKdh-3btkQ</p>	<p><u>1) Reading and Video Response</u> Prompts:</p> <p>To begin our exploration together, we look at basic neurobiology. Describe your knowledge and experience with neuroscience up to this point in your career. Was the information new to you or do you know the basics of neuroanatomy? We will refer to this information as we go through the course; you are encouraged to refer to the shorter video often.</p> <p>Respond to what you heard in the VS Ramachandran videos – the brain is perhaps the most complex structure known to humankind. What do you make of Ramachandran’s hypotheses regarding human experience, the emergence of mirror neurons, and human evolution? How do humans differ from other mammals? To what extent are we part of the broader web of life on Earth?</p> <p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reading and Video Response Discussion</u></p> <p><u>3) Reflective Journal</u> Prompts:</p> <p>Describe the nature of your own self-experience with memory. Do you regard yourself as having a good memory or a poor one? Do you experience certain memories as joyful or difficult? Do you</p>

	<p>Memory Hackers https://tinyurl.com/y3qyq23b</p>	<p>experience some memories as a snapshot or as more diffuse? What differences and/or similarities do you notice in <i>how</i> you remember?</p>
<p>TWO 10/12</p>	<p>Angels and Ghosts from the Nursery: The Experiential Roots of Self-Experience</p> <p><u>View:</u> Introduction to this Module</p> <p><u>View:</u></p> <p>Decoding the Nonverbal Language of Babies: Beatrice Beebe https://youtu.be/0yVU2lmlMdk</p> <p>Multilevel Meaning Making and Empathy – Dr. Ed Tronick https://youtu.be/mGqgGM1AkPw</p> <p><u>Read:</u></p> <p><i>Lanius, et.al.</i> Ch. 2 Ch. 4 Ch. 5 Ch. 7 Ch. 8 Part 2 synopsis by Alicia Lieberman Ch. 9-13 Part 3 synopsis by Allan Schore</p> <p><i>From Neurons to Neighborhoods,</i> Executive Summary Ch. 1 Ch. 2</p> <p><u>View:</u></p> <p>Catch Our Children Before They Fall – Dr. Ed Tronick https://youtu.be/bwDEoWN9NM8</p> <p>The Emotional Brain and the Role of Early Experiences – Dr. Nim Tottenham https://youtu.be/TIp0AXa4G0U</p> <p><u>Read:</u></p> <p><i>Badenoch, Ch. 2</i></p>	<p><u>1) Reading and Video Response Prompts:</u></p> <p>You have likely heard that the developmental period from birth to three is critical to human development. However, now that you have read and viewed the science of this developmental period (and beyond), notice your reaction. Is it surprising to learn how important our earliest experience is in shaping our lives? What might the implications of such information be on things like schooling, work, and community?</p> <p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reading and Video Response Discussion</u></p> <p><u>3) Reflective Journal</u></p> <p>Prompts:</p> <p>Dr. Tronick emphasizes the importance of <i>repair</i> in interpersonal relationship. Reflect on your own experience of relational rupture and repair – how do you usually experience repair in your relationships?</p> <p>In addition to the above prompt, please use <u>one</u> of the reflective prompts in Badenoch (pp. 43, 46, OR 49) and write about it in your journal.</p>

<p>THREE 10/19</p>	<p>Evolved to Survive: The Human Stress Response in Social and Cultural Context</p> <p><u>View:</u> Introduction to this Module</p> <p><u>View:</u></p> <p>Babette Rothschild on the ANS https://youtu.be/FfNN_DNgfng</p> <p>The Science of Compassion: Origins, Measures, and Interventions – Stephen Porges, Ph.D. https://youtu.be/MYXa_BX2cE8</p> <p><u>Read:</u></p> <p><i>Badenoch</i> Foreward Preface Introduction Ch. 1 Ch. 3-9</p> <p><i>Lanius, et.al.</i> Ch. 14-18 Ch. 22</p> <p><u>View:</u></p> <p>Nadine Burke Harris, MD – The Deepest Well: Healing the Long-Term Effects of Childhood Adversity https://youtu.be/NqlhQlztmg</p> <p>Neuroscience and the Roots of Human Connections: The Social Synapse https://youtu.be/sCXlaOKOczk</p> <p><u>Examine:</u></p> <p>Rothschild’s ANS Diagram (on Moodle)</p>	<p><u>1) Reading and Video Response</u> Prompts:</p> <p>In the United States, substantial emphasis is placed on the individual. However, the human stress response has evolved to be soothed <i>in relationship with another</i>. What implications does this have on Dr. Burke-Harris’ ideas of how to heal childhood trauma?</p> <p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reading and Video Response Discussion</u></p> <p><u>3) Reflective Journal</u> Prompts:</p> <p>To understand more deeply the autonomic nervous system, complete the exercises in Badenoch, pp. 66-67, 68, 72-73. Share your reflections here.</p>
<p>FOUR 10/26</p>	<p>Race, Class, Gender, Sex: Privilege, Oppression, and Intergenerational Trauma</p> <p><u>View:</u> Introduction to this Module</p>	<p><u>1) Reading and Video Response</u> Prompts:</p> <p>What might the science of epigenetics have to do with oppression?</p>

	<p><u>View:</u></p> <p>Study finds PTSD effects may linger in body chemistry of next generation https://youtu.be/zV9sya4F5KQ</p> <p>Trauma's Effect on the Lifecourse: An Overview of Epigenetics https://youtu.be/PQ5JTkckJ7Y</p> <p>Generational Trauma: Healing the Past, Present, and Future https://youtu.be/KqxUJUBPK14</p> <p><u>Listen:</u></p> <p>Reesma Menakem and Robin DiAngelo on <i>On Being</i> with Krista Tippett (mp3 is on Moodle)</p> <p><u>View:</u></p> <p>Breaking Generational Cycles of Trauma https://youtu.be/YXbg6e-A9V4</p> <p>Trauma Not Transformed is Trauma Transferred https://youtu.be/b4loBphYCXI</p> <p>Resmaa Menakem Racialized Trauma https://youtu.be/OOzr7kbamwo</p> <p>Nadine Burke Harris https://youtu.be/95ovIJ3dsNk</p>	<p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reflective Journal Prompts:</u></p> <p>Pay attention to your interoception as you listen to the <i>On Being</i> podcast. What is your inner experience? What happens as you listen to the two guests? What do you make of your inner responses?</p> <p><u>3) Reading and Video Response Discussion</u></p>
FIVE 11/2	<p>The Neurosequential Model</p> <p><u>View:</u> Introduction to this Module</p> <p><u>View:</u></p> <p>Three Core Concepts in Early Development https://tinyurl.com/yanepoww</p> <p>Bruce Perry: Patterns of Stress and Resilience https://youtu.be/orwIn02h6V4</p> <p>Bruce Perry: State-Dependent Brain Functioning https://youtu.be/PZg1dlskBLA</p>	<p><u>1) Reading and Video Response Prompt:</u></p> <p>The Neurosequential Model (NM) is a model of the brain, based on the manner in which the brain develops – from bottom to top. Consider implications of this model for working with patients and/or clients. In what ways is this model useful? Write specifically about aspects of the neurosequential model you have explored.</p> <p>Consider the Perry book <i>The Boy Who Was Raised as a Dog</i>. What surprised you? What did you take away from the reading?</p>

	<p>Bruce Perry: Emotional Contagion https://youtu.be/96evhMPcY2Y</p> <p>Bruce Perry: Sequence of Engagement https://youtu.be/LNuxy7FxEVk</p> <p>Bruce Perry: Understanding Regulation https://youtu.be/L3qIYGwmHYY</p> <p>Bruce Perry: Dosing and Spacing in Education and Therapeutics https://youtu.be/5ATSI8XhF-k</p> <p>Bruce Perry: Self-Care and Organizational Care https://youtu.be/VcDTXJpCMiY</p> <p>Bruce Perry: Decision Fatigue https://youtu.be/Yc-Nv8eqfgM</p> <p><u>Read:</u></p> <p><i>Perry</i> <u>The Boy Who Was Raised as a Dog</u> <i>Badenoch</i> Ch. 10-17</p>	<p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reflective Journal</u> Prompt:</p> <p>Perry talks about self-care and organizational care. How do you currently practice self-care? To what extent does your organization practice organizational care? Choose one body-based practice in Badenoch and experiment with it as a method of self-care. What do you notice about your experience?</p> <p><u>3) Reading and Video Response Discussion</u></p>
SIX 11/9	<p>Resilience is Relational: The Science of Human Well-Being</p> <p><u>View:</u> Introduction to this Module</p> <p><u>View:</u></p> <p>How We Bounce Back: The New Science of Human Resilience https://youtu.be/XXRsQFDgnX8</p> <p>The Biology of Resilience: How Science and Faith Communities Can Work Together https://youtu.be/uPa4DbjfaBo</p> <p>Resilience film</p> <p><u>Read:</u></p> <p><i>Lanius, et.al.</i> Ch. 23 Ch. 24</p>	<p><u>1) Reading and Video Response</u> Prompt:</p> <p>In the United States, messages around resilience tend to emphasize personal achievement, “grit,” determination, and persistence, individualized notions of the concept. However, from the science, we know that human resilience is fundamentally relational. In other words, human well-being is profoundly socially-mediated. What might the social and cultural “payoffs” be of an individualized idea of resilience? Who benefits from this idea? If resilience is indeed relational, how might our various systems (medical, mental health, judicial, educational, etc.) be differently organized to recognize this fact?</p> <p><i>Please add your own thoughts, questions, and insights in relation to anything you</i></p>

	<p>Ch. 27</p> <p>InBrief: The Science of Resilience (on Moodle)</p> <p><u>Play:</u></p> <p>The Resilience Game https://tinyurl.com/y3tocowp</p>	<p><i>have read, viewed, or listened to in this module.</i></p> <p><u>2) Reflective Journal</u> Prompt:</p> <p>Describe times in your own life that you have experienced <i>resilience</i>. What was the nature of your experience? What did you notice in yourself? Were there others who helped/supported/strengthened you during this time? To what extent was your experience of resilience a dynamic of your relationship with yourself? With others? With your community?</p> <p><u>3) Reading and Video Response Discussion</u></p>
SEVEN 11/16	<p>Healing-Centered Engagement in Restorative Community: The Neurobiology of We</p> <p><u>View:</u> Introduction to this Module</p> <p><u>View:</u></p> <p>CCARE Science of Compassion 2014: The Psychophysiology of Compassion https://youtu.be/VAL-MMYptQc</p> <p>Healing-Centered Engagement with Dr. Shawn Ginwright - Podcast https://youtu.be/GKItZaF6Wb0</p> <p>The Neurobiology of Relationships and Community (starts at 32 minutes) https://youtu.be/oTJ9_KM4i4U</p> <p><u>Read:</u></p> <p>Moving from Trauma-Informed Care to Healing-Centered Engagemeent https://tinyurl.com/y6vc2nz7</p> <p>The Neurobiology of We – Patty de Llosa (on Moodle)</p> <p><i>Badenoch</i> Introduction to Part Two Ch. 18-22</p>	<p><u>1) Reading and Video Response</u> Prompt:</p> <p>Describe your understanding of <i>healing-centered engagement</i> as put forward by Dr. Ginwright. What is the relationship of this idea to the science of compassion as presented in the CCARE video?</p> <p><i>Please add your own thoughts, questions, and insights in relation to anything you have read, viewed, or listened to in this module.</i></p> <p><u>2) Reflective Journal</u> Prompt:</p> <p>Where do you experience <i>community</i> in your life? At work? At home? As part of a church? In some other way? What does it feel like to be <i>in community</i> with others?</p> <p>Take any <u>two</u> of the quizzes at https://greatergood.berkeley.edu/key</p> <p>Did the results surprise you?</p> <p><u>3) Reading and Video Response Discussion</u></p> <p><u>4) Capstone – Professional Integration Paper</u></p>

	<u>Explore:</u> The Human Connectome Project http://www.humanconnectomeproject.org/informatics/relationship-viewer/ Differentiation and linkage give rise to the dynamic process of integration. Explore the images of the human connectome project and the relationship viewer to get a sense of the integrated neural systems of the brain. You can also explore http://www.gregadunn.com/ for additional images; Dunn is a neuroscientist and an artist.	
EIGHT 11/23	No Class – Thanksgiving Break	-
NINE 11/30	Application – Case Study Discussion	-
TEN 12/7	Application – NMT Metric and Discussion	-
ELEVEN 12/14	Review and Wrap Up	Capstone

GRADING CRITERIA AND OTHER POLICIES

Grading

Class attendance and participation is required. Each unexcused class absence over 2 will lower your grade $\frac{1}{2}$ letter. Written components will be graded on a $\sqrt{-}$, $\sqrt{}$, and $\sqrt{+}$ system. A $\sqrt{-}$ is equivalent to a "C", a $\sqrt{+}$ is equivalent to an A grade.

Points

Journal	20
Participation	40
Case study	20
Capstone	20
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Total	100

Grading Scale (based on percentage)

A	90 – 100	B	80 – 89	C	70 – 79
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Writing Guidelines

Writing will be a factor in evaluation: EMU has adopted a set of writing guidelines for graduate programs that include four sets of criteria: content, structure, conventions and style (see below). It is expected that graduates will be able to write at least a “good” level with 60% writing at an “excellent” level. All written work must conform to APA writing style standards.

Academic Integrity Policy (AIP)

Good academic work must be based on honesty. The attempt of any student to present as his/her own work, that which he or she has not produced, is regarded by the faculty and administration as a serious offense. Students are considered to have cheated, for example, if they copy the work of another, or use unauthorized notes or aides during an examination or turn in their own paper or an assignment written, in whole or in part, by someone else. Students are guilty of plagiarism, intentionally or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students guilty of, or assisting others in cheating or plagiarism on any assignment, quiz, or examination may receive a grade of F for the course involved and a report of this incident will be filed in the dean's office. Repeated violations will invoke a disciplinary process.

Turnitin

Students are accountable for the integrity of the work they submit. Thus, you should be familiar with EMU's Academic Integrity Policy (see above) in order to meet the academic expectations concerning appropriate documentation of sources. In addition, EMU is using Turnitin, a learning tool and plagiarism prevention system. For more information about or to watch a demo of Turnitin, please see: http://turnitin.com/en_us/features/demos.

Moodle

Moodle is the online learning platform that EMU has chosen to provide to faculty, administrators and students. Students will have access to course information within Moodle for any class they are registered for in a given term. The amount of time a student has access to information before and after the class is somewhat dependent on the access given to students by the individual faculty member. However, please note that courses are not in Moodle permanently – after two years the class is no longer accessible. Please be sure to download resources from Moodle that you wish to have ongoing access to.

Academic Support Center

If you have a physical, psychological, medical or learning disability that may impact your work in this course, it is your responsibility to contact Office of Academic Access on the third floor of the Hartzler library, 540-432-4233. They will work with you to establish eligibility and to coordinate reasonable accommodations. All information and documentation is treated confidentially. <http://emu.edu/academics/access/>

Please refer to the Student Handbook, which can be found at <http://www.emu.edu/studentlife/student-handbook/> for additional policies, information, and resources available to you.

Institutional Review Board

All research conducted by or on EMU faculty, staff or students must be reviewed by the Institutional Review Board to assure participant safety: <http://www.emu.edu/irb/>.

The IRB requires all researchers submitting proposals to complete the online researcher training provided by NIH (the website requires the establishment of a no-cost account). This training covers basic concepts, principles, and issues related to the protection of research participants. When training is successfully completed, the researcher will receive a certificate. This certificate should be saved (as an image or pdf file) and kept on file – proof of training is required when submitting an IRB proposal."

Graduate Writing Center

Please take advantage of the free individual tutoring from graduate student tutors (see <http://www.emu.edu/writing-program/> for more information). To make an appointment, please access ASC Tutoring through the myEMU portal: <https://emu.mywconline.com/index.php>. See Academic Program Coordinator for more information about available services and tutoring times.

Course Extensions and Outstanding Grades

For fall and spring semesters, all coursework is due by the end of the semester. If a student will not be able to complete a course on time, the student must submit a request one week before the end of the semester for an extension (up to 6 months), by emailing the instructor, academic advisor and the Academic Program Coordinator. If the request is granted the student will receive an "I (incomplete) for the course which will later be replaced by a final grade when the work has been turned in on the agreed upon date. If the request for an extension is denied, the student will receive a grade for the work that has been completed up until the time the course was expected to have been completed. If no work has been submitted, the final grade will be an F (or W under unusual circumstances and with permission of the Program Director). Extensions will be given only for legitimate and unusual situations. Extensions are contracted by the student with the program for up to a maximum of 6 months after the deadline for the course work.

PLEASE NOTE: If the outstanding course work is received within the first 6 weeks of the extension, no grade reduction will be imposed; after 6 weeks any outstanding coursework will be reduced by ½ letter grade. If the extension deadline is not met, the student will receive a final grade based on the work completed.

Academic Program Policies

<http://emu.edu/graduate-and-professional-studies/graduate-student-handbook.pdf>
<http://www.emu.edu/catalog/graduate/graduate-professional-policies.pdf>

Title IX

The following policy applies to any incidents that occur (on or off campus) while you are a student registered at EMU. It does not apply if you are talking about incidents that happened prior your enrollment at EMU. It is important for you to know that all faculty members are required to report known or alleged incidents of sexual violence (including sexual assault, domestic/relationship violence, stalking). That means that faculty cannot keep information about sexual violence confidential if you share that information with them. For example, if you inform a faculty member of an issue of sexual harassment, sexual assault, or discrimination he/she will keep the information as private as he/she can, but is required to bring it to the attention of the institution's Title IX Coordinator. If you would like to talk to this office directly, Irene Kniss, Title IX Coordinator, can be reached at [540-432-4302](tel:540-432-4302) or irene.kniss@emu.edu.

Additionally, you can also report incidents or complaints through our online portal at <http://emu.edu/safecampus/>. You may report, confidentially, incidents of sexual violence if you speak to Counseling Services counselors, Campus Ministries' pastors, and Health Services personnel providing clinical care. These individuals, as well as the Title IX Coordinator can provide you with information on both internal and external support resources.