THE UNIVERSITY OF TENNESSEE
COLLEGE OF SOCIAL WORK

SW 528: Neurophysiologic Development in Social Work
CRN# 81684 Section #302
1 credit hour
Summer Session 1, 2016

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Class Time: Room 234, Tuesdays 10:00am-Noon June 7th-28th. Online class Week 5.
Office Hours: Wednesdays 2:00pm-4:00pm and by appointment (Room 268)

Code of Conduct
It is the student's responsibility to have read the College of Social Work Ethical Academic and Professional Conduct Code that is in the College of Social Work MSSW Handbook (www.csw.utk.edu). Students are also expected to sign and adhere to the Social Work Field Placement Code of Conduct.

The Honor Statement
An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity (Hilltopics).

If you have any doubt about the use of others’ work, see the discussion of this topic on the “Blackboard Resources” link on Blackboard. This is a very serious matter.

University Civility Statement
Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other’s wellbeing and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus:
http://civility.utk.edu/.

Disability
If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact The University of Tennessee Office of Disability Services at 100 Dunford Hall (865-974-6087). This will ensure that you
are properly registered for services.

**Dimensions of Diversity**
The College of Social Work and the University of Tennessee welcome and honor all people. In accordance with the U.S. National Association of Social Workers (NASW) and the U.S. Council on Social Work Education (CSWE 2015 Educational Policy Statement), “the dimensions of diversity are understood as the intersectionality of multiple factors including" age, class, color, culture, mental or physical disability and ability, ethnicity, gender, gender expression, gender identity, immigration status, marital status, national origin, political ideology, race, regionality, religion and spirituality, sex, sexual orientation, and tribal sovereign status. The College values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity. “A person’s diverse life experiences may include oppression, poverty, marginalization, and alienation as well as privilege, power, and acclaim” (CSWE 2015 Educational Policy Statement). The College of Social Work promotes social justice and social change, and strives to end discrimination, oppression, poverty, and other forms of social injustice.

**Course Description**
This required Foundation course will examine neurophysiologic development. Neurophysiologic development provides a foundation for understanding the processes of human development and how these processes are influenced by culture and the environment. The course examines the effects of risk and protective factors at various ecological levels, such as attachment, poverty, and culture. This course also covers genetics and how genes express themselves as well as genetic potentials. Typical development will be covered as well as atypical developmental patterns that are consistent with neurodevelopmental disorders. Processes critical to human behavior and risk and resilience for vulnerable populations are emphasized to understand individual or family behavior.

**Course Rationale**
To practice accountably and effectively, social workers must be able to understand their clients and their presenting issues within their clients’ developmental contexts. In supportive environments, individuals flourish as they progress through developmental stages and stage-salient tasks. Other environments, because of risk factors associated with them, are less supportive of wellbeing. Even so, brain plasticity provides humans with an amazing capacity to adapt to these less supportive and sometimes frankly maladaptive environments, although sometimes at great cost to themselves. Especially for young children, the costs to the developing brain of less adaptive environments are profound because their brains actually become organized around repeated experiences within these less adaptive environments. Also, genetics play a role in terms of gene expression and potential in regards to these less adaptive environments. Neurophysiological changes and behaviors resulting from these earlier less adaptive environments are often conceptualized by clinicians as psychopathology or presenting problems of clients.

Understanding human development as a series of processes mediated by the brain within an environment-dependent context profoundly reframes not only our understanding of our
clients and their presenting problems, but also how to intervene appropriately with clients and their environments. This different understanding of human development also suggests the critical importance of effective prevention programs and social policies that promote wellbeing, as well as interventions directed at changing the larger environments of individuals. Thus, knowledge gained in this course will allow social workers not only to better understand, contextualize, and assess clients and their presenting problems, but also to develop more appropriate interventions, prevention programs, or policies for working with or for the benefit of clients and for the necessary environments to support human wellbeing.

**Course Competencies**

By the completion of this course, the students are expected (through course activities, assignments, and/or exams) to:

1. Explain the roles of neurophysiology, adaptive and maladaptive environments, and experiences, including the effects of trauma and chronic stress, on brain development and the role of genetics and epigenesis in development during the sensitive period of the first three years of life and across the life span. (EBIP 4.1, 6.1) *(Content: basic introduction to Mendelian genetics and the Human Genome Project; gene expression; effects of stress and trauma on hormones, brain development, and gene expression; effects of parenting on brain development and gene expression; explain how this research can impact practice and service delivery)*

2. Explain the interaction between nature (genetic potential of an individual) and nurture (effect of the environment on the individual) as it relates to cultural differences and disparities by race/ethnicity, class, sex, and sexual orientation. (EBIP 2.1) *(Content: traits, phenotypes, health disparities in race; kindling hypothesis; mundane extreme environmental stress; tend and befriend hypothesis; epigenesis; effects of early deprivation on brain development)*

3. Explain how neurophysiological processes may place individuals at risk or, conversely, how environments of at-risk individuals contribute to neurophysiological processes that increase their levels of vulnerability. (EBIP 7.1) *(Content: epigenesis, allostasis, attachment, stress, trauma, kindling; HPA axis; amygdala; pruning; synaptogenesis; windows of opportunity)*

**Personal notes about this class:**

- **This is an intense course that takes quite a bit of time. Expect to spend about 12-15 hours per week, including time reading, viewing videos and recorded lectures, and writing.**
- **UT CSW acknowledges students’ right to privacy. Therefore, when dealing with personal information either in class or in an assignment, share only to the level at which you are comfortable.**
**Required Textbooks**
There is no required text for this course. Journal articles will be posted on your Blackboard class website under each unit.

**Grades and Assignments**
This course provides information that is crucial to the rest of your MSSW studies. You can expect to devote about 12-15 hours per week to the class, including in-class time, readings, preparation of papers, and communication with the professor and your fellow students. There are no short-cuts; participation and readings are necessary for you to learn this material, which is not only a foundation for the rest of your studies, but also for your career as a social worker.

Your grade in this class is based on four weekly quizzes and one extra credit opportunity.

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<thead>
<tr>
<th>Assignment</th>
<th>Value</th>
<th>Related Course Competencies</th>
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<tbody>
<tr>
<td>Quiz 1</td>
<td>25%</td>
<td>1-3</td>
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<tr>
<td>Quiz 2</td>
<td>25%</td>
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<tr>
<td>Quiz 3</td>
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<tr>
<td>Quiz 4</td>
<td>25%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td></td>
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<tr>
<td>Extra Credit Opportunity</td>
<td>Maximum 3 points added to final grade</td>
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**Grading Values**
The following grading scale will be used for the final course grade.

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<thead>
<tr>
<th>Grade</th>
<th>Point range</th>
<th>Standard</th>
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<tbody>
<tr>
<td>B+</td>
<td>90-94</td>
<td>Very Good – Student consistently meets and occasionally exceeds normal expectations for the course.</td>
</tr>
<tr>
<td>B</td>
<td>85-89</td>
<td>Good – Student consistently meets normal expectations for the course.</td>
</tr>
<tr>
<td>C+</td>
<td>80-84</td>
<td>Average – There is unevenness in grasping course content. Student is inconsistent in meeting the normal expectations for the course.</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
<td>Poor - There is a lack of understanding of course content. Student does not meet course expectations.</td>
</tr>
<tr>
<td>F</td>
<td>69 or below</td>
<td>Very Poor – There is a lack of attendance or incomplete or unacceptable assignments. Course expectations are not met.</td>
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Class Participation

There is no substitute for active, ongoing participation in this course. Class exercises, videos and speakers will provide examples or illustrations of important material. In a good class, you learn as much from each other as you do from the professor, so students are required to be part of class discussions.

Late Assignment Policy

All quizzes are expected to be completed by their specific due date. Any assignment NOT submitted on the specified due date is subject to a penalty of two (2) points per day until the assignment is completed. Any assignment that is more than 5 days overdue will not be accepted and will be recorded as a zero (0).

Details of Graded Assignments

Quizzes
The format for quizzes will include multiple-choice questions covering the content of each unit’s readings and lectures. Each quiz must be completed by the posted deadline.

Critical Thinking Exercises (CTEs)
Each week, students will complete a Critical Thinking Exercise (CTE) demonstrating understanding and application of that week's readings. Please check Blackboard for specific instructions and tips for writing your CTEs.

CTEs prepared individually will be the basis for weekly in-class discussions and group presentations, however they will not be graded. Think of them as studying for your quizzes! Additionally, you will have an opportunity to submit your best CTE for 3 extra credit points at the end of the term.

Purpose of the weekly CTEs

The weekly critical thinking assignments are designed to accomplish five purposes:

1. Assure that you are able to discuss each week’s materials in an informed, critical way.

2. Demonstrate that you read and understood the readings (and therefore your answers should integrate important points from the readings). Use the important constructs found in the glossary appropriately. Don’t just use the terms; integrate them into your papers in ways that clearly demonstrate your understanding.

3. Demonstrate your critical thinking about the material (and therefore your answers should not just regurgitate what you read, but should integrate and synthesize the material
in a meaningful way and be critical, analytical, and thoughtful). Do not just summarize the articles.

4. Guide the instructor in planning class sessions to clarify, elaborate, and explain the material based on class members’ levels of understanding.

5. Enhance your abilities to write critical scholarly papers, as well as synthesize complex material in a concise manner.

As you write your paper, think of 2 overarching goals:

(1) To address the question that is asked; and

(2) To demonstrate conclusively that you read and understood the readings.

CTE Format

Each question will ask you to use and synthesize material from the readings and sometimes to apply those readings to scenarios, social work applications, or your personal life. Think of each answer as a formal paper (in terms of writing and presentation), though it is shorter. All papers are to be written in third person (no I’s, etc.).

All papers must be no more than 250 words/one page, not counting references. Do not write an abstract. There is no minimum length, but you need to fully answer the question as well as you can within 250 words. Your in-text citations (i.e. Steckel, 2015) do not count in the total.

Because you are completing this in 250 words, direct quotes should be avoided or kept to an absolute minimum. I want to hear your words.

Hint: When you finish your paper, go back through to look for unnecessary words. Wordiness just obscures your meaning. Very and the often add nothing.

I realize it is hard to say what you want to say in 250 words. You have to be clear and concise. Remember that you are not expected to provide as much information in 250 words as you could in 1000 words.

References

Your CTE should include a “References” page using APA format, including class readings used, not just read. The reference section is not included in your word limit. Do not cite textbooks, Wikipedia, or Google.
Extra Credit Opportunity (Due July 6th)
All students have the opportunity to submit their best CTE for a maximum of 3 extra credit points added to their final grade. Submissions for extra credit must include the following in APA format and be submitted by the deadline posted on Blackboard:

1. Title page;
2. 250 word (max) CTE, which incorporates the required vocabulary and concepts from that week’s unit; and
3. References page with the required number of articles from that week’s unit.

Class Schedule and Required Readings
Note: All unit material and CTEs need to be completed prior to the date of each unit.

June 7th (1st day of face to face class)
Course Introduction and Expectations
Review of syllabus, course expectations, and introductory lecture on Blackboard. Students should study the syllabus and the Blackboard website before class begins. You are responsible for all information in the syllabus. Bring any questions you have to class or post them on the discussion board in Blackboard. It is recommended you get a head start on the Unit 1 readings, as we will start the Unit 1 lecture as time permits.

June 14th
Unit 1: Genetics and Epigenetics
Quiz 1 Due June 15th

Required Reading/Viewing:
1. Genetic disorders (link on Bb page).
2. Genetics interactive tutorial (link on Bb page)
3. Required blog (link on Bb page):
4. The 5-HTT Gene (link on Bb page)


12. Documentary film(s) and other material on Blackboard.

13. *(Optional)* Dr. Terri Combs-Orme recorded lecture on Blackboard

**CTE 1:**
You are the social worker for an infant in foster care. He is a newborn and has been relinquished for adoption. Both birthparents are drug abusers who also have been incarcerated for violent crimes. The law and agency policy require you to talk about this infant’s parents’ background to potential adoptive parents, and they are concerned about adopting a child with such a background. The parents have heard that violence and drug addiction can be inherited, so they are nervous.

Using our readings and the important vocabulary for this unit, discuss the issue of the possibility/probability that a child will repeat his/her birth parents’ histories of drug abuse, crime, and violence.

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**June 21st**
Unit 2: Brain and Behavior
Quiz 2 Due June 22nd

**Required Reading/Viewing:**


7. Documentary film(s) and other material on Blackboard.

8. *(Optional)* Dr. Terri Combs-Orme recorded lecture on Blackboard.

**CTE 2:**
You are a social worker in a brain injury treatment/rehabilitation center. Your client is a 17-year-old high school senior who suffered an injury to his frontal cerebral cortex in a car crash. Your job is to talk to him and his parents. As part of this discussion they want you to explain to them the functions of the frontal PFC. The client is concerned about his ability to go to school; his parents are particularly concerned about changes in his behavior and about his future. (The parents are well-educated people, but they have not studied neuroscience.)

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**June 28th**
**Unit 3: Stress, Trauma, and Hormones**
**Quiz 3 Due June 29th**

**Required Reading/Viewing:**


8. Documentary film(s) and other material on Blackboard.

9. **(Optional)** Dr. Terri Combs-Orme recorded lecture on Blackboard

**CTE 3:**

It has been 11 years since Hurricane Katrina. Even though many New Orleans residents never returned to the city, some believe that we can see the effects of the trauma of the hurricane in the crime rates there, as well as in other some large cities with many Katrina refugees (such as Houston). More important, many worry about the babies and children who experienced not only the hurricane, but also their families’ confusion, dislocation, and chaos after the hurricane.

Discuss how we might think about the effects of the hurricane on individuals who suffered Katrina. Incorporate an understanding of what stress is physiologically and how it affects behavior, as well as the contributions of genetics and environment.

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**Online Class**  
**Unit 4: Sex, Gender and Sexual Orientation**  
**Quiz 4 Due July 6th**

**Required Reading/Viewing:**


7. Recorded lecture on Blackboard.

8. Documentary film(s) and other material on Blackboard.

**Additional recommended readings:**


**CTE 4:**
Your friends Sara and Jack have a 3-year-old boy (Tim) you have known all his life. He is a sweet, attractive child. Jack is worried because Tim loves to play dress-up in his mom’s clothes, enjoys playing with dolls, and will have nothing to do with the toy trucks he has been given.

“I am not homophobic,” Jack says, “but I am worried about Tim’s future if this doesn’t change. Other kids will make fun of him, and if he turns out gay, he will have a really tough life. I want to stop if now.” Sara and Jack ask you what Tim’s preferences mean. Will he be gay? Is this stuff in his genes, or can the environment play a role? Can they do anything to nudge Tim toward more usual pursuits?