UNIVERSITY OF CALGARY
FACULTY OF SOCIAL WORK

Spring 2021

Course & Session Number	**SOWK 557.35 S01**	**Classroom**	Online
Course Name	**Neuroscience and Social Work Practice**		
Day(s) & Time	Zoom sessions on: Mondays 4:30-6:30; May 5th –June 17th		
Instructor	**Peter J. Baylis PhD RCSW**		
U of C E-mail	pbaylis@ucalgary.ca	**U of C Phone**	**Please email**

SYLLABUS STATEMENT

Examines social work practice in specific contexts.

COURSE DESCRIPTION

Information from the field of neuroscience is common rhetoric within academic and professional circles. Such conversations are frequently accompanied by speculation and assumption about the implication of new findings to particular fields of study and practice, e.g., Neuroethics, Neuropsychoanalysis, Neuroeducation, Neurologic Music Therapy, Neuro Art Therapy, Neurolaw.

This course integrates information from the field of affective and social neuroscience as it enhances social work practice across the life span. It synthesizes foundational elements of neurological development within a social work frame that encompasses a bio-psycho-social perspective. The course will examine information relevant to attachment, memory, information processing impacted by trauma, substance use, and basic considerations of gene-environment interactions (genetic & epigenetics). Throughout the course practice implications will be reviewed as it applies to social work.

New information from the field of neuroscience is constantly emerging and challenging previously held beliefs. Consequently, it is important to maintain an open yet critical perspective with regards to practical implications for social work practice.

The course will blend didactic presentations, with case examples, and problem-based learning to help students critically integrate knowledge and practice. There will be some elements of rote learning with an expectation to critically consider the implications of new learning from the field of affective and social neuroscience as it might impact social work in various domains of practice.

Online presentations will occur on Mondays beginning May 10th with the last lecture on June 14th. There is an expectation that students will post responses to questions pertaining to the readings and lecture for each week; this is a graded assignment.

All classes will be recorded.

COURSE LEARNING OUTCOMES

By the end of this course, students will demonstrate an understanding of elementary principles of brain development and functioning related to social work practice. Students will be able to identify relevant neurological considerations related to client issues, and propose interventions informed by a bio-psycho-social perspective, to facilitate changes.

Upon completion of this course, students will be able to:

1. Students will be able to identify basic brain anatomy and neuron physiology.

2. Students will be able to describe and identify the impact of trauma and substance use on basic brain anatomy and physiology.

3. Student will be able to describe the principle of neuro-plasticity and its relevance to social work practice at the community and clinical level.

4. Students will be able to identify interpersonal factors associated with positive and negative development that can inform social work practice.

5. Students will be able to formulate a written intervention plan that integrates relevant findings from the field of neuroscience as reviewed in class.

6. Students will be able to integrate research from the field of neuroscience as it informs principles of autonomy and free will in the practice of social work.

7. Social work students will incorporate information from the field of neuroscience when analyzing complex social situations in order to make professional judgments and to develop advanced knowledge and skills in practice with individuals, families, groups, and/or communities.

LEARNING RESOURCES

REQUIRED TEXTBOOKS AND/OR READINGS

There is no required textbook for this class. All reading material is available through library resources online and the web. Please see Detailed Class Schedule listed below.

LEARNING TECHNOLOGIES AND REQUIREMENTS

A D2L site is set up for this course which contains required readings and other relevant class resources and materials. A laptop, desktop or mobile device with Internet access, microphone and speaker is required for D2L and Zoom access.

RELATIONSHIP TO OTHER COURSES

This course supports learners to gain foundational knowledge related to neuroscience as it applies to the field of social work. It thus offers students another perspective to understand and to critically examine theoretical concepts and practical frameworks offered in other courses.

CLASS SCHEDULE

NOTE: The inquiry-based learning approach honors students' diverse ways of knowing, as well as their abilities to reflect on their lived experience, to generate knowledge, and to research and critically reflect on relevant information. For each seminar, rather than being passive receivers of information, students are encouraged to participate in critical dialogues on relevant topics and issues. They are encouraged to complete the readings before each seminar, and to engage online with the questions related to the topic of the week and fellow students' posts.

Please note important dates for Spring 2021:

- First Class: Monday May 10th
- Monday May 24th – Victoria Day – no LIVE lecture
- Last Class: Monday June 14th

Date	Topic	Readings
Class 1 **Monday May 10th 4:30pm MDT Zoom**	**Introduction to neuroscience and SW practice** • Course overview • Integrating neuroscience and social work practice • Neuron • Basic brain development • Epigenetics	Hunter, R. G., Gray, J. D., & McEwen, B. S. (2018). The neuroscience of resilience. *Journal of the Society for Social Work and Research*, 9(2), 305–339. https://doi.org/10.1086/697956 Montgomery, A. (2013). Toward the integration of neuroscience and clinical social work. *Journal of Social Work Practice: Psychotherapeutic Approaches in Health, Welfare and the Community*, 27(3), 333-339. The Nervous System (Crash Course) The Nervous System 2-Minute Neuroscience: The Neuron The Neuron McGill University: The Brain from Top to Bottom; The Neuron McGill: The Brain from Top to Bottom -review "Level of explanation"=beginner, intermediate, advanced; and Level of organization"= cellular, molecular **Optional Reading** Egan, M., Neely-Barnes, S. L., & Combs-Orme, T. (2011). Integrating neuroscience knowledge into social work

		education: A case-based approach. *Journal of Social Work Education*, 47(2), 269–282. Flanzer, J., Gorman, E. M., & Spence, R. T. (2001). Fear of neuroscience. *Journal of Social Work Practice in the Addictions*, 1(3), 103–112. https://doi.org/10.1300/j160v01n03_07 Johnson, H. C. (2001). Neuroscience in social work practice and education. *Journal of Social Work Practice in the Addictions*, *1*(3), 81–102.
Class 2 **Monday May 17th 4:30pm MDT Zoom**	**Basic brain structures, and memory** • Introduction to function of basic brain structures • Neuroscience of memory • Practice considerations	Bremner, J. D., Krystal, J. H., Southwick, S. M., & Charney, D. S. (1995). Functional neuroanatomical correlates of the effects of stress on memory. *Journal of Traumatic Stress*, 8(4), 527–553. **https://doi.org/10.1007/BF02102888** Fields, R. D., & Bukalo, O. (2020). Myelin makes memories. *Nature Neuroscience*, 23(4) 469-470. https://doi.org/10.1038/s41593-020-0606-x The Human Memory Types of Memory Review section Types of Memory Joseph LeDoux, The Amygdala and Unconscious Memories The Amygdala **Optional Reading** Nadel, L., Hupbach, A., Gomez, R., & Newman-Smith, K. (2012). Memory formation, consolidation and transformation. *Neuroscience and Biobehavioral Reviews*, 36(7), 1640-1645. LaBar, K. S., & Cabeza, R. (2006). Cognitive neuroscience of emotional memory. *Nature Reviews Neuroscience*, 7(1), 54–64. Schwabe, L., Nader, K., & Pruessner, J. C. (2014). Reconsolidation of human memory: Brain mechanisms and clinical relevance. *Biological Psychiatry*, 76(4), 274–280. San Kean, What happens when you remove the hippocampus? Ted-Ed The Hippocampus Mayfield Clinic: Anatomy of the Brain

		Anatomy of the Brain
Class 3 **Monday May 24th 4:30 pm MDT Zoom Victoria Day Recorded Content**	**Trauma and Post Traumatic Stress Disorder** • Fear response • Impact of stress on brain development, structure and functioning • Practice considerations	Schnyder, U., Ehlers, A., Elbert, T., Foa, E. B., Gersons, B. P. R., Resick, P. A., … Cloitre, M. (2015). Psychotherapies for PTSD: What do they have in common*? European Journal of Psychotraumatology*, 6. https://doi.org/10.3402/ejpt.v6.28186 van der Kolk, B. A. (2003). The neurobiology of childhood trauma and abuse. *Child and Adolescent Psychiatric Clinics of North America*, 12(2), 293-317. 2-Minute Neuroscience: HPA Axis HPA Axis Kelly McGonigal, How to make stress your friend The Value of Stress **Optional Reading** Ross, D. A., Arbuckle, M. R., Travis, M. J., Dwyer, J. B., van Schalkwyk, G. I., & Ressler, K. J. (2017). An integrated neuroscience perspective on formulation and treatment planning for posttraumatic stress disorder: An educational review. *JAMA Psychiatry*. Teicher, M. H., Andersen, S. L., Polcari, A., Anderson, C. M., & Navalta, C. P. (2002). Developmental neurobiology of childhood stress and trauma. *Psychiatric Clinics of North America*, 25(2), 397-426.
Class 4 **Monday May 31st 4:30pm MDT Zoom**	**Addiction** • Addiction • Impact of substance abuse on brain anatomy and function • Practice and policy considerations	Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: a neurocircuitry analysis. *The Lancet Psychiatry*, 3(8) 760-773. https://doi.org/10.1016/S2215-0366(16)00104-8 Littrell, J. (2010). Perspectives emerging from neuroscience on how people become addicted and what to do about it. *Journal of Social Work Practice in the Addictions*, *10*(3), 229–256. Carl Hart, Let's Quit Abusing Drug Users Let's quit abusing drug users Addiction and the Rat Park Experiments

		Rat Park Experiments Everything We Think We Know About Addiction Is Wrong What We Think We Know May Be Wrong 2-Minute Neuroscience: Reward System The Reward Pathway The Science of Addiction Addiction **Optional Reading** Bennett, S., & Petrash, P. (2014). The neurobiology of substance use disorders: Information for assessment and clinical treatment. *Smith College Studies in Social Work*, 84(2-3), 273–291. https://doi.org/10.1080/00377317.2014.923629 Casey, B. J., & Jones, R. M. (2010). Neurobiology of the adolescent brain and behavior: implications for substance use disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 49(12), 1189-1201. Hyman, S. E. (2005). Addiction: a disease of learning and memory. *American Journal of Psychiatry*, 162(8), 1414-1422. Ksir, C., & Hart, C. L. (2016). Cannabis and psychosis: a critical overview of the relationship. *Current Psychiatry Reports*, 18(2), 12.
Class 5 **Monday June 7th 4:30pm MDT Zoom**	**Attachment and Talk Therapy** • Introduction to attachment theory and the "Circle of Security" • Neurological underpinnings of attachment • How patterned social interaction influences brain structure and function • Factors in talk therapy that may	Chambers, J. (2017). The neurobiology of attachment: From infancy to clinical outcomes. *Psychodynamic Psychiatry*, 45(4), 542–563. https://doi.org/10.1521/pdps.2017.45.4.542 Hostinar, C. E., & Gunnar, M. R. (2013). Future directions in the study of social relationships as regulators of the HPA axis across development. *Journal of Clinical Child and Adolescent Psychology*, 42(4), 564–575. Schore, J. R., & Schore, A. N. (2008). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal*, 36(1), 9–20. **Optional Reading**

	contribute to change • Practice considerations	Baylis, P. (2006). The neurobiology of affective interventions: A cross-theoretical model. *Clinical Social Work Journal*, 34(1), 61-81. Lipton, B., & Fosha, D. (2011). Attachment as a transformative process in AEDP: Operationalizing the intersection of attachment theory and affective neuroscience. *Journal of Psychotherapy Integration*, 21(3), 253–279. Quillman, T. (2012). Neuroscience and therapist self-disclosure: Deepening right brain to right brain communication between therapist and patient. *Clinical Social Work Journal*, 40(1), 1–9. Schore, A. N. (2014). The right brain is dominant in psychotherapy. *Psychotherapy* (Chic), 51(3), 388-397. Schwabe, L., Nader, K., & Pruessner, J. C. (2014). Reconsolidation of human memory: Brain mechanisms and clinical relevance. *Biological Psychiatry*, 76(4), 274–280.
Class 6 **Monday June 14th 4:30pm MDT Zoom**	**Constructing emotions, free will & determinism** • Exploration of how we come to experience and create emotions, and how neuroscience impacts our thinking about free will and determinism in social work practice	Barrett, L. F., Mesquita, B., & Gendron, M. (2011). Context in emotion perception. *Current Directions in Psychological Science*, 20(5), 286–290. Gendron, M., & Barrett, L. F. (2018). Emotion perception as conceptual synchrony. *Emotion Review*, 10(2), 101–110. Lisa Feldman Barrett **Your Brain Creates Emotions** Michael Gazzaniga, Brains Are Automatic, But People Are Free Automatic Brains-Free People Sam Harris, Free Will Is An Illusion Free Will is an Illusion **Optional Reading** Nahmias, E. (2012). Free will and responsibility. Wiley Interdiscipline Review: *Cognitive Science*, 3(4), 439-449. Lisa Feldman Barrett The Secret History of Emotions

ADDITIONAL CLASSROOM CONDUCT AND RELATED INFORMATION

EQUITY, DIVERSITY AND INCLUSION

The Faculty of Social Work acknowledges the inequities experienced by racialized people, Indigenous people, and other marginalized populations. We aim to foster an environment that recognizes and celebrates diverse perspectives. Therefore, we are committed to eradicating all forms of injustices based on race, gender, ethnicity, sexual orientation, age, socio-economic status, religion, and disability.

GUIDELINES FOR ZOOM SESSIONS IN ONLINE CLASSES

Students are expected to participate actively in all Zoom sessions. If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity for the missed session (e.g., to review a recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected, if they are able, to turn on their webcam (for group work, presentations, etc.). All students are expected to behave in a professional manner during the session.

ZOOM RECORDINGS OF ONLINE CLASSES

The instructor will record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Zoom recoding will commence when the lecture begins. These recordings will be used to support student learning only and will not be shared or used for any other purpose.

ASSESSMENT COMPONENTS

Assignment #1 30% of final grade

Weekly posts on D2L platform. Number of posts: 5 (30% of final grade)

You will post one original response to the weekly question pertaining to the topic of that week. It must be posted by midnight Sunday of that same week (i.e., lecture Monday, post by Sunday evening 11:59pm). Your final post will be in response to Class 5, completed by Sunday June 13th at 11:59pm.

Aligned Course Learning Outcome: 2, 3, 4, 5, 6, 7

Grading rubric will be posted on D2L

Assignment #2 25% of final grade

There will be 6 weekly multiple-choice quizzes associated with the reading material for the week. There will 4 questions per-week, one week will have 5 questions. They will occur online (D2L). The quiz will be accessible for 24hrs on Friday or Saturday, to be determined.

You will have 3 minutes to respond to each question.

Aligned Course Learning Outcome: 1, 2, 3, 4

Assignment #3 45% of final grade

Your final paper will be based on a case example. You will be provided four options to choose from, posted online 3 weeks before the paper is due (June 5th). You will also be provided a template to structure your paper. The paper will reflect an assessment of the content provided, a description of neurological considerations, and proposed interventions informed by the neurological considerations. Students will be expected to further describe their chosen case, providing (creating) enough content to inform neurological considerations and relevant interventions. This will be further discussed during our online sessions.

Late papers accepted but downgraded a full letter grade for each day late.

Length: No more than 6 pages Up to 1,500 words (excluding references)

Format: Essay; APA style for references, 12 font, double spaced.

Due Saturday June 26th 11:59pm

Aligned Course Learning Outcome: 1, 2, 4, 5, 7

Grading rubric will be posted on D2L

ADDITIONAL ASSESSMENT AND EVALUATION INFORMATION

The assignments are designed to facilitate your learning of the application of information from the field of neuroscience to the practice of social work. You should strive to consider how neuroscience information can inform work in the field, while mindful of its limitations. Your posts will be an opportunity to engage in critical thinking about material presented as part of the content of the class, and by your fellow students.

The quizzes will encourage rote learning of information to be integrated into social work practice.

The third assignment asks you to familiarize yourself with neuroscience information particular to a case presentation. You will be asked to explain relevant neurological information as it pertains to the case presented, its impact on disorder, and develop a social work care plan based on said information. The care plan will integrate a neuroscience rationale with more common psychosocial approaches to interventions. The paper should focus more on skills rather than values to inform the intervention. A template will be provided to organize the content of the paper.

ATTENDANCE AND PARTICIPATION EXPECTATIONS

Participation during Zoom lectures is expected. If for some reason you miss a lecture, they will be recorded and available online at a later date. Please keep in mind your participation enhances the learning environment for all students enrolled in the class.

GUIDELINES FOR SUBMITTING ASSIGNMENTS

Please submit final papers electronically, in Word format, through the respective dropbox in D2L. Assignments should have a file name as follows: "Full name and assignment number (e.g., Jane Smith Assignment 2). Assignments are due before midnight on their due date. Please note that it is the student's responsibility to keep a copy of each submitted assignment and to ensure that the proper version is submitted.

LATE ASSIGNMENTS

Late assignments will be accepted only in exceptional circumstances and at the discretion or the instructor. Assignments submitted after the deadline may be penalized with a grade reduction. If you are experiencing challenges with timelines associated with any of the assignments, please contact me to discuss your circumstances.

EXPECTATIONS FOR WRITING

Please note standard of writing will be a factor in grading students' work. This will be discussed in class and students are encouraged to consider accessing support through resources available on campus. Writing skills include not only surface correctness (grammar, punctuation, sentence structure, etc.) but also general clarity and organization. Sources used in research papers must be properly documented and referenced in APA format. If you need writing support, please connect with the Student Success Centre, at: https://www.ucalgary.ca/student-services/student-success/writing-support

ACADEMIC MISCONDUCT

It is expected that all work submitted in assignments is the student's own work, written expressly by the student for this particular course. Students are reminded that academic misconduct, including plagiarism, has serious consequences, as set out in the University Calendar: http://www.ucalgary.ca/pubs/calendar/currentk.html

GRADING

A student's final grade for the course is the sum of the separate assignments. It is not necessary to pass each assignment separately in order to pass the course.

The University of Calgary **Undergraduate Grading System** and Faculty of Social Work Percentage Conversion will be used.

Grade	Grade Point	Description	Percentage Range
A+	4.0	Outstanding	95 - 100
A	4.0	Excellent – superior performance, showing comprehensive understanding of subject matter	95 – 100
A-	3.7		90 – 94
B+	3.3		85 – 89

B	3.0	Good – clearly above average performance with knowledge of subject matter generally complete	80 – 84
B-	2.7		75 – 79
C+	2.3		70 – 74
C	2.0	Satisfactory – basic understanding of subject matter	65 – 69
C-	1.7		60 – 64
D+	1.3		55 – 59
D	1.0	Minimal Pass – marginal performance	50 – 54
F	0.0	Fail – unsatisfactory performance or failure to meet course requirements	Below 50

COURSE EVALUATION

Student feedback will be sought at the end of the course through the standard University and Faculty of Social Work course evaluation forms. Students are welcome to discuss the process and content of the course at any time with the instructor.

ADDITIONAL SUGGESTED READINGS

Additional readings and resources will be provided on D2L.

UNIVERSITY OF CALGARY POLICIES AND SUPPORTS

PROFESSIONAL CONDUCT

As members of the University community, students and staff are expected to demonstrate conduct that is consistent with the University of Calgary Calendar
http://www.ucalgary.ca/pubs/calendar/current/k.html

Students and staff are also expected to demonstrate professional behaviour in class that promotes and maintains a positive and productive learning environment. Consistent with the aims of the Social Work Program and the University of Calgary, all students and staff are expected to respect, appreciate, and encourage expression of diverse world views and perspectives; to offer their fellow community members unconditional respect and constructive feedback; and to contribute to building learning communities that promote individual and collective professional and personal growth. While critical thought and debate is valued in response to concepts and opinions shared in class, feedback must always be focused on the ideas or opinions shared and not on the person who has stated them.

Students and staff are expected to model behaviour in class that is consistent with our professional values and ethics, as outlined in the Canadian Association for Social Workers, Code of Ethics (2005) and the Alberta College of Social Work Standards of Practice (2019). Both can be found online at:
https://acsw.ab.ca/site/practice-resources?nav=sidebar

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodations according to the University policies and procedures. Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS). SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/ . Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available https://ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf

RESEARCH ETHICS

"If a student is interested in undertaking an assignment that will involve collecting information from members of the public, they should speak with the course instructor and consult the CFREB Ethics Website (http://www.ucalgary.ca/research/researchers/ethics-compliance/cfreb) before beginning the assignment.

ACADEMIC MISCONDUCT

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at http://www.ucalgary.ca/pubs/calendar/current/k.html

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by professor(s) (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is

prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Material-Protected-by-Copyright-Policy.pdf) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

SEXUAL VIOLENCE POLICY

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Sexual-Violence-Policy.pdf

OTHER IMPORTANT INFORMATION

Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines for additional important information on the following:

- **Wellness and Mental Health Resources**
- **Student Success**
- **Student Ombuds Office**
- **Student Union (SU) Information**
- **Graduate Students' Association (GSA) Information**