NEUROBIOLOGY AND SOCIAL WORK PRACTICE

I. Course Description

This course will cover selected findings from recent neurobiological research as it elaborates understanding of relationship dynamics with individuals, couples, families, and groups. Although this research is usually found outside the usual discourse of the social and psychological sciences, a body of scientific work useful to social service providers will be reviewed. The support that recent scientific findings provide for aspects of psychological treatment theories and differential diagnosis will be reviewed. This course will focus on using multiple perspectives in the advanced application of neurobiology research to inform clinical intervention, with emphasis placed at the micro and mezzo levels of practice. The framework of the course is based on social work values and the ethical decision-making process, as illuminated by the NASW Code of Ethics. A bio-psycho-social and cultural emphasis will be applied to the various problem areas and disorders covered.

II. Course Objectives

Upon completion of this course, students will demonstrate the ability to:

a. understand how recent scientific findings guide and inform social service interventions;

b. critically compare and analyze therapeutic and social service implications of recent scientific findings related to the impact of the relationship experiences on/in the human brain;

c. evaluate, select, and design a social service intervention which takes into account both the appropriate psychological theory and the scientific research which supports the use of that particular theory
d. adapt social service intervention methods to activities/programs which are
designed to sensitively differentiate the needs of the client/client system as
influenced by age, gender, sexual orientation, race, class, ethnic/cultural
background, socioeconomic status, physical challenge, and other individual
differences.

III. Teaching Methods

This course is designed to include a variety of teaching methodologies to achieve the
expectation of student mastery of the skills involved in the examination of social work
practice theory as it is supported by selected scientific findings. Readings, discussion,
lecture, experiential exercise, videos, audio CDs, case examples, and presentations are
designed to enhance the learning experience.

IV. Required Texts and Course Materials

Norton and Company, Inc.

Norton and Company, Inc.

Many assigned articles, videos and CDs can be checked out from the Learning Resource
Center in the Social Work Building. The instructor also has copies to loan the class.

V. Course Policies

The University of Texas Honor Code

The core values of The University of Texas at Austin are learning, discovery,
freedom, leadership, individual opportunity, and responsibility. Each member
of the university is expected to uphold these values through integrity, honesty,
trust, fairness, and respect toward peers and community.

Professional Conduct in Class

The professor expects students to act like professionals in class. This means
students should arrive on time for class, be prepared to participate in the class
discussion, and show respect for one another’s opinions. We will not, nor
should we, always agree with one another. In this environment we should be
exposed to diverse ideas and opinions, and sometime we will not agree with
the ideas expressed by others. However, the professor does require that
students engage one another with respect and professionalism.

Policy on Scholastic Dishonesty

Students who violate University rules on scholastic dishonesty are subject to
disciplinary penalties, including the possibility of failure in the course and/or
dismissal from the University. Since such dishonesty harms the individual, all
students, and the integrity of the University, policies on scholastic dishonesty
will be strictly enforced. For further information, the student may refer to the Web Site (http://www.utexas.edu/depts/dos/sjs/).

Religious Holidays
By UT Austin policy, students must notify the professor of a pending absence at least fourteen days prior to the date of observance of a religious holy day. If The student must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, the professor will give the student an opportunity to complete the missed work within a reasonable time after the absence.

Use of E-Mail for Official Correspondence to Students
Email is recognized as an official mode of university correspondence; therefore, students are responsible for reading their email for university and course-related information and announcements. Students are responsible to keep the university informed about changes to their e-mail address. Students should check their e-mail regularly and frequently—daily, but at minimum twice a week—to stay current with university-related communications, some of which may be time-sensitive. Students can find UT Austin’s policies and instructions for updating their e-mail address at http://www.utexas.edu/its/policies/emailnotify.php.

Safety
As part of professional social work education, students may have assignments that involve working in agency settings and/or the community. As such, these assignments may present some risks. Sound choices and caution may lower risks inherent to the profession. It is the student's responsibility to be aware of and adhere to policies and practices related to agency and/or community safety. Students should notify the professor regarding any safety concerns.

Behavior Concerns Advice Line (BCAL)
If students are worried about someone who is acting differently, they may use the Behavior Concerns Advice Line to discuss by phone their concerns about another individual’s behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal.

Policy on attendance, participation, and due dates for assignments
Students are expected to attend class regularly and to participate in the class discussions by contributing meaningful questions and discourse with fellow students and the instructor. Readings are expected to be completed prior to class. Role will be taken; leaving class at the break will be considered an unexcused absence unless arrangements
have been made with the instructor for the absence to be the excused. Points will be deducted from the final grade for unexcused absences. The student is allowed one unexcused absence without penalty. Students will not be permitted to make up work missed during unexcused absences. Late assignments will not be accepted without penalty; some exceptions may be made by the instructor. Failure to attend class regularly and demonstrate through class discussion that one has read the assigned material will be considered in assigning the final grade. Use of a laptop computer should only pertain to class and not personal matters/interests.

Special accommodations for students with a disability

In compliance with the Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act, the instructor is available to discuss appropriate academic accommodations with the student. Students with disabilities who need special accommodations should notify the instructor at the beginning of the semester. Please present a copy of the approved accommodations for instructor’s records. To insure that the most appropriate accommodations can be provided, students should contact the Services for Students with Disabilities (SDD) Office at 471-6259 or 471-4641 TTY.
IV. Course Assignments

Worksheets

There are graded worksheets (some are take-home, some of the take-home worksheets may be collaboratively answered, and some of worksheets will be answered in class, either collaboratively or individually.)

Examination #1 (summer is take-home)

The focus of the open-note examination is two-fold:

a. the application of selected concepts, the most important of which will be discussed and reviewed during class and
b. the evaluation, selection, and design of a social service intervention which takes into account both the appropriate psychological theory and the scientific research which supports the use of that particular theory
Student generated handouts:

Texts
Each student will be required to prepare a written summary of the major points of a portion of chapters from the texts and provide copies (via email is fine) for fellow classmates and the instructor (hard copy required). Each emailed summary is due to fellow students and instructor the Sunday before the week the assignment is due and a hard copy to the instructor the day the assignment is due.

In addition to summarizing the text/articles, each student should choose 3 points they consider most important, emphasize them in some way in the summaries, and be prepared to particularly highlight those points in the class discussion.

Presentation to class
Choose two points from your text material and find film examples to illustrate it to the class.

Text summaries
Additionally, each text summary should address both in writing and in class discussion, the following as it is related to the material summarized:

a. see Appendix (pp.279-281 in Schore, text, Affect Regulation and the Repair of the Self) for principles of Regulation Theory
i. re-state a principle of Regulation Theory which most closely relates to section of text summarized and apply to example from film of student’s choosing
ii. speculate on how information in section of text summarized affects or is affected by one of the following characteristics: age, class, culture, ethnicity, country of origin, language(s), educational attainment, religious background, sexual orientation, physical or mental challenge, economic oppression, social oppression

Article summaries
Each student will summarize major points from an article provided by the instructor and provide copies of their notes to fellow classmates and the instructor the Sunday before the week the assignment is due. The notes should include:
(a.) 1 speculation regarding relevant scientific findings that (i.) supports and (ii.) calls into question the scientific basis of selected principles of the treatment theory in the article summarized. The scientific findings can be from any of the material in the text books or in classmates summaries (reference this). When the article is discussed in class, the student is expected to actively support the discussion.

Presentation to class
Choose two points from your article material and find film examples to illustrate it to the class.
Examination #2

The 10 (or so) page paper (excluding bibliography) will be informed by any material assigned. Additionally, 2 references may be from the recommended reading list found at the end of the syllabus and/or from the articles reviewed by students. The paper is due on the last class day of the term.

The material will be the case of Karen. The paper should include the following:

1. Make a Multiaxial Assessment of the client. List the criteria met by Karen’s symptoms and defenses (list them) that establish your diagnosis. For each criteria met and 3 of the defenses employed by Karen, speculate on the neuroscience supporting them. Discuss briefly the attachment category most similar to the diagnosis/diagnoses with examples of how it is similar to the diagnosis and linking neuroscience. Describe both the behaviors of the attachment category and the neuroscience that accounts for the behaviors. (30 points)

2. Give an example of the client’s most stressful symptom, memory, wish, experience, and/or defensive maneuver and describe principles and/or techniques, and/or strategies of Regulation Theory (specify which Principle) could be clinically useful in addressing same and explain why so the principle would be useful. Mention 2 neurobiological findings that support the use of this principle/technique to treat Karen. (15 points).

3. Describe a treatment of an issue of Karen’s, mention 1 scientific finding that scientifically/neurobiologically supports a technique (describe technique) from one of the following theories: Self Psychology, Object Relations Theory, Intersubjective/Relational/Feminist, Control-Mastery, or Psychoanalytic Theory (5 points)

4. In the dyadic experience (between Karen and her therapist, her parents or her mother {you may use a different dyad for each example}) according to recent scientific/neurobiological findings in the following:

   a. Definition & neurobiology of projective identification (include the defenses that are involved in projective identification and their definitions &
neurobiology, as well) and Schore’s step-by-step description of projective identification (and the neurobiology of each step); how is this related to transference/counter/transference, neurobiologically? (15 points)

b. define neurobiologically and give an example of emotional dysregulation and define neurobiologically and give an example of mutual regulation (10 points)

c. give 1 example of the psychological defense of dissociation that was erected in the face of therapist intervention (describe intervention and behaviors that suggest dissociation occurred), which could include therapist error; define & describe the neurobiological underpinnings of the dissociative experience (5 points)

d. Describe an ethical conflict and quote the ethical guideline from NASW Code of Ethics that could be a result of the interface between the particulars of the client (Karen) and something about you, the student, such as ethnicity, religion, family issue, age, gender, sexual orientation, race, class, cultural background, language, socioeconomic status, physical challenge, and/or other individual differences; speculate on how the interplay you describe between you and Karen could be explained neurobiologically. Note: a clinical conflict is not necessarily an ethical conflict, though it could be (10 points)

94-100=A
93-90 = A-
89-87 = B+
86-84 = B
83-80 = B-
79-77 = C+
76-74 = C
73-70 = C-
69-67 = D+
66-64 = D
63-60 = D-
59 & below = failing
June 2(Thursday) and June 7 (Tuesday)

Introduction to course and to each other

Handouts on the following:
- the case of Karen*
- psychological defenses
- Mahler material
- attachment categories
- Cozolino material on brain
- definitions and concepts


Lecture on

Chapter 1, The experience-dependent maturation of a regulatory system in the orbital-prefrontal cortex and the origin of developmental psychopathology, 5-35 in Affect dysregulation and disorders of the self.

Chapter 3, Clinical implication of psychoneurobiological model of projective identification, 58-107, in Affect regulation and the repair of the self

Chapter 1, Interdisciplinary research as a source of clinical models, 3-32 in Affect regulation and the repair of the self

For June 7
June 9 (Thursday) & June 14 (Tuesday)
Read case of Karen


Chapter 2, The experience-dependent maturation of an evaluative system in the cortex, 36-53, in *Affect dysregulation and disorders of the self*

Pages:
36-38 Introduction
38-42 Mutual Gaze as a Dynamic Mechanism for the Coordination of Facial Appraisals and Changes in Psychobiological States
42-44 The Neurobiology of Dyadically Regulated Psychobiological States
44-46 Social Referencing Attachment Experiences and the Origin of the Appraisal of Emotionally Significant Environmental Events
46-53 The Experience-Dependent Maturation of an Evaluative System in the Frontolimbic Cortex Occurs in a Critical Period of Infancy (Instructor)

Chapter 3, Attachment and the regulation of the right brain, 54-70, in *Affect dysregulation and disorders of the self*

Pages:
54-59 Introduction and Bowlby’s Original Chartings of the Attachment Landscape
59-64 Contributions from Neuroscience to Attachment Theory (Instructor)
64-66 Attachment Theory is Fundamentally a Regulatory Theory (All)
66-70 Future Directions of Attachment Research on Regulatory Processes (All)

Chapter 4. Parent-infant communications and the neurobiology of emotional development, in *Affect dysregulation and disorders of the self.*

Pages:
71-75 Introduction
75-78 Attachment Processes and Emotional Communications
78-82 The Neurobiology and Psychobiology of Attachment
82-86 Organization of a Regulatory System in the Right Brain (Instructor)
June 16 (Thursday) & June 21 (Tuesday)


**Chapter 5**, Early organization of the nonlinear right brain and the development of a predisposition to psychiatric disorders, in *Affect dysregulation and disorders of the self*

Pages:
90-92 Introduction
92-95 Functional Properties of Self-Organizing Developmental Systems
95-97 Nonlinear State Changes and the Organization of Attachment Dynamics
97-100 Central Role of Biomines in the Regulation of the Energy Metabolism of the Developing Brain *(Instructor)*
100-104 The Energy-Dependent Imprinting of Neural Circuits During Critical Periods of Infancy *(Instructor)*
104-108 The Organization of a Regulatory System in the Orbitofrontal Cortex that Manifests Chaotic Dynamics *(2 students)*
108-112 Right Brain as a Nonlinear system *(2 students)*
112-115 Critical Period Gene-Environment Interactions and the Development of a Vulnerability to Psychopathology *(2 students)*
115-121 Excessive Developmental Parcellation and the Pathomorphogensis of Frontolimbic Circuits *(2 students)*
121-126 Early-Forming Structural Pathology of the Nonlinear Right Hemisphere and the Origins of a Predisposition of Psychiatric Disorders *(2 students)*
126 Dynamic Systems Theory and Ongoing Right-Hemispheric Development *(Instructor)*

**Chapter 6**, The effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health, 128-177, in *Affect dysregulation and disorders of the self*

Pages:
128-131 Introduction
131-134 Overview of Interdisciplinary Perspective of Development
134-138 Attachment, Stress Regulation and Infant Mental Health
138-144 Affect Synchrony, Resonance, and Attachment Communications *(2 students)*
144-150 Attachment and the Interactive Regulation of the right Brain *(2 students)*
150-160 Attachment Transactions and the Hierarchical Organization of the Limbic System *(Instructor)*
161-166 The Maturation of an Orbitofrontal Regulatory System *(Instructor)*
166-169) Regulatory Functions of the Right Brain
Continued Orbitofrontal and Right Brain Development and Adaptive Mental Health (3 students)


Elson, M. (1986). The fit between Self Psychology and social work practice. (pp.2-7); and Self Psychology: A Theory of human development (pp. 8-23) in M. Elson *Self Psychology in clinical social work*. New York: W.W. Norton & company.

**Chapter 7**, The effects of relational trauma and right brain development, affect regulation, and infant mental health, 178-233, in *Affect dysregulation and disorders of the self*

Pages:
178-180 Introduction
180-184 An Overview of Traumatic Attachments and Brain Development
184-188 Negative Impact of Relational Trauma on Infant Mental Health
188-192 The Neurobiology of Infant Trauma *(2 students)*
192-199 The Neuropsychology and Neuropsychalanalysis of a Disorganized-Disoriented Attachment Pattern *(2 students)*
199-207 Critical Period Trauma and Deficient Orbitofrontal Connectivity *(2 students)*
207-212 Relational Trauma, Orbitofrontal Dysfunction, and a Predisposition to Posttraumatic Stress Disorders *(2 students)*
212-216 The Neurobiology of the Dissociative Defense *(Instructor)*
216-222 Dissociation and Body-Mind Psychopathology *(Instructor)*
222-229 Early Relational Trauma and Enduring Right Hemisphere Dysfunction *(3 students)*
229-233Implications for Models of Early Intervention

**Chapter 4** Advances in neuropsychoanalysis, attachment theory, and trauma research: Implications for Self Psychology, 108-150, *Affect regulation and the repair of the self* *(INSTRUCTOR)*

**Chapter 5**, Early super-ego development: the emergence of shame and narcissistic affect regulation in the practicing period, 151-186, in *Affect regulation and repair of the self*.

Pages:
151-154 Introduction
154-155 The Psychophysiological Function of Shame
155-158 The Ascendancy of Narcissism, Elation, and Heightened Arousal during the Practicing Period
158-163 Shame Stress and the Neurophysiology of Arousal Dysregulation During Practicing Reunion Episodes (2 students)
163-169 Maternal Response and the Regulation of Shame-Deflated Narcissistic Affect (3 students)
169-174 Shame and Affect Regulation Through the Rapprochement Crises (2 students)
174-177 Implications for the Etiology of Narcissistic Disorders
177-182 The Emergence of Ego ideal Regulation of Narcissistic Affect (2 students)
182-186 Superego function in Mood Regulation and Further Theoretical Consideration
June 30(Thursday) & July 5 (Tuesday)


Chapter 2, Minds in the making: Attachment, the self-organizing brain, and developmentally-oriented psychoanalytic psychotherapy, 33-57, in Affect regulation and the repair of the self.

Pages:
33-37 Introduction
37-41 The Neurobiology of a Secure Attachment
41-46 Maturation of an Orbitofrontal Regulatory System (2 students)
46-52 The Right Hemisphere, Attachment Theory, and the Empathic Reception of Unconscious Emotional Communications (2 students)
52-57 Implications of a Psychoneurobiological Model of Emotional Development for Clinical Practice (2 students)
July 7(Thursday) & July 12 (Tuesday)

**Chapter 8**, Dysregulation of the right brain: A fundamental mechanism of attachment and the psychopathogenesis of posttraumatic stress disorders, 234-265, in *Affect dysregulation and disorders of the self*

Pages:
234-236 Introduction & Attachment and the Development of Right Brain Stress-Coping Mechanisms
236-239 Stress and the Right Hemisphere
239-240 Right Brain Dysregulation, Dissociation, and PTSD, Pathogenesis: Introduction
240-241 Traumatic Attachment, Dysregulation, and the Pathogenesis of PTSD
241-243 Overview of the Neurobiology of a Secure Attachment
243-246 Attachment and Right Cortical Regulation of the Autonomic Nervous System (Instructor)
246-249 The Neurobiology of Infant Trauma (Instructor)
249-252 Disorganized/disoriented Attachment Neurophysiology (2 students)
252-255 Impact of Relational Trauma on Right-Brain Development
255-259 Trauma-induced Excessive Pruning of Right –Brain Circuits (Instructor)
259-262 Continuity among Infant, Childhood, and Adult PTSD (Instructor)
262-265 De-Evolution of Right Brain Limbic Circuits and PTSD Pathogenesis (Instructor)

Chapter 9 Effect of Early Relational Trauma on Affect Regulation: The Development of Borderline and Antisocial Personality Disorders and a Predisposition to Violence, 266-306, in *Affect dysregulation and disorders of the self*. 
July 14 (Thursday) & July 19 (Tuesday)


**Chapter 8**, The right brain as the neurobiological substratum of Freud’s dynamic unconscious, 250-278, in *Affect regulation and the repair of the self* (Instructor)


July 21 (Thursday) and July 26 (Tuesday)
Review for Final Paper and Catch up on presentation(s)
Recommended Reading for Neurobiology and Social Work Practice


