# Neurodevelopment and Trauma

## I. COURSE DESCRIPTION

This course is designed as an Advanced Clinical Selective for graduate students in the Steve Hicks School of Social Work who wish to participate and eventually become certified in Phase I of the Neurosequential Model of Therapeutics (NMT). The course is grounded in a base of growing empirical evidence, which supports the identification, analysis, and assessment of neurodevelopmental trauma within specific regions of the brain. Following the NMT model, students will learn the sequence of interventions based on neurodevelopment by assessing the readiness of the brain. The course content is grounded in the NASW Standards and Indicators for Cultural Competence in Social Work Practice, and will cover the following: a) Neurosequential Model of Therapeutics; b) Selected aspects of neurodevelopment; c) Developmental trauma; d) Assessment and thinking critically about treatment planning; e) Ethical considerations with emphasis and sensitivity to working with diverse high-risk individuals and families. Students will develop a working understanding of children and adolescents from diverse backgrounds, affirming and respecting their strengths and differences.

## II. COURSE OBJECTIVES

Upon completion of this course the student will be able to do the following:

1. Demonstrate knowledge and skill in the NMT clinical assessment approach with high-risk children, adolescents, and adults from a developmentally informed and biological perspective.

2. Exhibit knowledge of major regions and normal developmental processes of the brain and the impact of developmental trauma on brain organization and core functions.

3. Demonstrate knowledge of key processes in neurodevelopment and the dimensions of neuroplasticity within the recovery process.

4. Establish knowledge of the NMT core concepts; key learning objectives;
identifying, timing, and dosing of therapeutic interventions; and use of the Metric Report to inform clinical assessment and to identify specific treatment interventions based on developmental needs of the client.

5. Deepen understanding of the value of relationship, resilience, cultural, and familial processes within the context of treatment for each individual client.

6. Apply the understanding of neurobiology of intergenerational and cultural trauma within trauma informed child and family serving systems.

7. Show evidence of knowledge of neurodevelopmental trauma and its impact across cultures, ethnic groups, socioeconomic groups, the young and elderly.

8. Apply the understanding of the impact of developmental trauma and develop the ability to identify ethical interventions and strategies to meet the needs of persons from diverse backgrounds, including race, ethnicity, culture, class, gender, sexual orientation, religion/spirituality, physical or mental ability, developmental level, age and national origin, to meet NASW Cultural Competence Standards, and CSWE Standards.

III. TEACHING METHODS
This course is designed to include a variety of teaching methodologies to achieve the expectation of student mastery in application of neurodevelopmental principles involved in working with children and families impacted by chronic adversity. The student will gain clinical assessment skills that include neurodevelopmental principles which are supported by scientific findings. Additionally, the student will have ability to use clinical assessment skills, which includes a neurobiological lens, to inform treatment planning and interventions. Readings, discussion, lecture, experiential exercise, videos, audio CDs, case examples, and presentations are designed to enhance the learning experience.

IV. COURSE MATERIALS

Required

Neurosequential Model Network Account to access Phase 1 materials.

Optional (see NMT requirement)

V. COURSE REQUIREMENTS

All assignments must be submitted prior to/or on the date and time indicated on the course syllabus. Assignments submitted after those dates may not receive comments from the instructor, but rather just a final grade with an appropriate reduction in grade at discretion of instructors. Reading & Webinar Assignments.

All assignments are listed in the “Course Schedule.” It is expected that students will come to class having studied the materials and are prepared to discuss them.
To receive a passing grade for the course, all assignments must be completed and submitted. Weighting of class assignments is as follows:

**REQUIRED READINGS NOTE:** Reading NMN materials for this course are available via login to the NMT online training site at: nmt1.neurosequential.com
Please note there will be reading and other materials available via Canvas.

**DESCRIPTION OF ASSIGNMENTS.**

- **Class participation, discussion contribution, WHTY Chapter notes submission (10% final grade)**

- **Completion of six NMT metrics total (70% final grade):**
  1. 1 “Typical” Metric #1 (as a class) 2.5%;
  2. 1 “Typical” Metric #2 (on your own) 10%;
  3. 1 Practice NMT Case-based webinar Metric (as a class) 2.5%;
  4. 1 NMT Case-based webinar Metric (group presentation to class) 20%;
     - Points addressed should include:
       i. The Core Concepts that are being addressed within the Module.
       ii. Clinical considerations regarding the 4 domains of functioning.
       iii. Clinical considerations for Part A and B for developmental history.
       iv. Clinical considerations for Part C and D for current functioning.
       v. Review the Case Abstract and biopsychosocial history with the class
       vi. Final Metric Report
       vii. Treatment plan and interventions
       viii. The night before class, the group sends a brief summary to the class and instructors
  5. 1 Practice Fidelity Metric (on your own to complete metric. We will review and score the fidelity metric in the next class) 15%;
  6. 1 Final Metric Presentation (final group presentation) 20%:
     i. Case abstract:
     ii. Metric Report:
     iii. Treatment plan and interventions:
     iv. Each group member shares responsibility to facilitate discussion on:
        - Review of Case abstract /biopsychosocial history addressed with class.
        - Core Concepts addressed within presentation.
        - Clinical considerations for Part A and B Developmental Risk and Relational Health history.
        - Clinical considerations for Part C and D Current Functioning.
        - Clinical considerations for treatment recommendations and treatment plan.
7. Diversity Group Presentation Format (20% final grade)
   The group chooses 3 articles from their assigned topic.
   • The night before the class, send a summary of the material to class and instructors.
   • Give the class major points of the material via power point, hand-out, etc.
   • Create a 5 minute or so exercise for the class (e.g., small group discussions, break-out rooms, brief role play, and so on) to consider core concepts of NMT that support important points of the material (at least 3 core concepts).
   • Promote brief discussion with class of how concepts might be integrated into material
   • Create 5 question “quizlette” for class that addresses major “take-home” points of presentation.
   • Core concepts – can be found in Multimedia Material in NMT account, and readings.

   **Note:** reading this material is optional for class; material can be found in Canvas

**Assigned books:**
*What Happened to You*, required reading throughout semester. Individual chapter presentations will be assigned to chapters which addresses neurodevelopmental content for the student to identify and address.

*The Boy Who was Raised as a Dog* is highly recommended. For those wishing to complete an NMT certification, this text is a requirement for certification.

8. As part of learning the Neurosequential Model of Therapeutics, students will be given access to a “metric” tool that assesses clients’ historical and current relational environments, exposure to trauma, and neurodevelopment. Students will complete six of these metrics and submit the reports that are generated by completion of the metrics to the instructor.

9. Case abstract. Students will complete a case abstract and metric. Students will then write a brief case conceptualization applying key NMT concepts.

10. A formal treatment plan for a client/client system, with rationale of how NMT treatment planning principles have been applied. Abstract due day of in-class presentation; conceptualization, metric and treatment plan.

**VI. GRADES**

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>94.0 and Above</td>
<td>A</td>
</tr>
<tr>
<td>90.0 to 93.999</td>
<td>A-</td>
</tr>
<tr>
<td>87.0 to 89.999</td>
<td>B+</td>
</tr>
<tr>
<td>84.0 to 86.999</td>
<td>B</td>
</tr>
<tr>
<td>80.0 to 83.999</td>
<td>B-</td>
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<tr>
<td>77.0 to 79.999</td>
<td>C+</td>
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<tr>
<td>74.0 to 76.999</td>
<td>C</td>
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<tr>
<td>70.0 to 73.999</td>
<td>C-</td>
</tr>
<tr>
<td>67.0 to 69.999</td>
<td>D+</td>
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<tr>
<td>64.0 to 66.999</td>
<td>D</td>
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</tbody>
</table>
VII. CLASS POLICIES

Attendance and Participation
Attendance and participation for the full class is expected for all students. Repeated late arrivals to class may be considered as an absence. Classroom exercises, presentations, discussions, and other class exercises are essential for the students’ integration of the material in professional learning and application in work with clients. There should be no more than 2 absences due to the active learning process that will occur in the classroom. Students are to notify the professor prior to class by email if they cannot attend class due to an illness or emergency.

Time Management
Assignments are to be completed as assigned to assist the student in engaging in discussions on the clinical case-staffings, assessment, treatment planning, and integration of Core Concepts of the material. Assignments should be completed on time to engage fully in weekly class discussion.

Feedback
Students will be asked to provide feedback on their learning and the teaching strategies in informal, as well as formal ways. It is very important for the professors to know the students’ reactions to what is taking place in class, ensuring that together the professors and students can create a dynamic and effective learning community. Students are encouraged to provide ongoing feedback to the professor during class and office virtual visits.

VIII. UNIVERSITY POLICIES

COVID-19 RELATED INFORMATION. The University’s policies and practices related to the pandemic may be accessed at: https://protect.utexas.edu/

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.

DOCUMENTED DISABILITY STATEMENT. Any student who requires special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Division of Diversity and Community Engagement (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). A student should present the letter to the professor at the beginning of the semester so that needed accommodations can be discussed and followed. The student should remind the professor of any testing accommodations no later than five business days before an exam. For more information, visit: http://diversity.utexas.edu/disability/.
PROFESSIONAL CONDUCT AND CIVILITY IN THE CLASSROOM. The professor expects students to act as 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. A course brings together a group of diverse individuals with various backgrounds. Students are influenced and shaped by such factors as race, ethnicity, gender, sex, physical abilities, religious and political beliefs, national origins, and sexual orientations, among others. We expect to learn from each other in an atmosphere of positive engagement and mutual respect. This atmosphere includes working intentionally to recognize and dismantle racism, sexism, heterosexism, and ableism in the classroom. Social Work also deals with complex and controversial issues. These issues may be challenging and uncomfortable, and it would be impossible to offer a substantive classroom experience that did not include potentially difficult conversations relating to challenging issues. In this environment, we will be exposed to diverse ideas and opinions, and sometimes we will not agree with the ideas expressed by others. Nevertheless, the professor requires that students engage one another with civility, respect, and professionalism.

UNANTICIPATED DISTRESS. Students may experience unexpected and/or distressing reactions to course readings, videos, conversations, and assignments. If so, students are encouraged to inform the professor. The professor can be responsive and supportive regarding students’ participation in course assignments and activities, but students are responsible for communicating clearly what kind of support is desired. If counseling is needed, students may contact a service provider of their choosing, including the UT Counseling Center at 512-471-3515 or online at https://cmhc.utexas.edu/.

POLICY ON SOCIAL MEDIA AND PROFESSIONAL COMMUNICATION. Public social networks are not private. Even when open only to approved or invited members, users cannot be certain that privacy will exist among the general membership of sites. If social work students choose to participate in such forums, please assume that anything posted can be seen, read, and critiqued. What is said, posted, linked to, commented on, uploaded, subscribed to, etc., can be accessed and archived, posing potential harm to professional reputations and prospective careers.

Social work students who use social media (e.g. Facebook, Twitter, Instagram) and other forms of electronic communication (e.g. blogs) must be mindful of how their communication may be perceived by clients, colleagues, faculty, and others. Social work students are expected to make every effort to minimize material which could be considered inappropriate for a professional social worker in training. Because of this, social work students are advised to manage security settings at their most private levels and avoid posting information/photos or using any language that could jeopardize their professional image.

Students are asked to consider the amount of personal information posted on these sites and are obliged to block any client access to involvement in the students’ social networks. Client material should not be referred to in any form of electronic media, including any information that might lead to the identification of a client or compromise client confidentiality in any way. Additionally, students must critically evaluate any material that is posted regarding community agencies and professional relationships, as certain material could violate the standards set by the School of Social Work, the Texas Code of Conduct for Social Workers, and/or the NASW Code of Ethics.
Social work students should consider that they will be representing professional social work practice as well as The University of Texas at Austin School of Social Work program while in the classroom, the university community, and the broader area communities.

**POLICY ON ACADEMIC INTEGRITY.** Students who violate University rules on academic 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 academic dishonesty will be strictly enforced. For further information, please visit the Student Conduct and Academic Integrity website at: [http://deanofstudents.utexas.edu/conduct](http://deanofstudents.utexas.edu/conduct).

**USE OF COURSE MATERIALS.** The materials used in this course, including, but not limited to exams, quizzes, and homework assignments, are copyright protected works. Any unauthorized duplication of the course materials is a violation of federal law and may result in disciplinary action being taken against the student. Additionally, the sharing of course materials without the specific, express approval of the professor may be a violation of the University’s Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action. This sharing includes, among other things, uploading class materials to websites for the purpose of distributing those materials to other current or future students.

**CLASSROOM CONFIDENTIALITY.** Information shared in class about agencies, clients, and personal matters is considered confidential per the NASW Code of Ethics on educational supervision and is protected by regulations of the Family Educational Rights and Privacy Act (FERPA) as well. As such, sharing this information with individuals outside of the educational context is not permitted. Violations of confidentiality could result in actions taken according to the policies and procedure for review of academic performance located in sections 3.0, 3.1, and 3.2 of the Standards for Social Work Education.

**UNIVERSITY ELECTRONIC MAIL STUDENT NOTIFICATION.** Electronic mail (email), like postal mail, is a mechanism for official University communication to students. The University will exercise the right to send email communications to all students, and the University will expect that email communications will be received and read in a timely manner. Students can find UT Austin’s policies and instructions for updating their e-mail address at [https://it.utexas.edu/policies/university-electronic-mail-student-notification-policy](https://it.utexas.edu/policies/university-electronic-mail-student-notification-policy).

**RELIGIOUS HOLY DAYS.** A student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable period after the absence. A reasonable accommodation does not include substantial modification to academic standards, or adjustments of requirements essential to any program of instruction. Students and instructors who have questions or concerns about academic accommodations for religious observance or religious beliefs may contact the [Office for Inclusion and Equity](https://it.utexas.edu/policies/university-electronic-mail-student-notification-policy). The University does not maintain a list of religious holy days.

**TITLE IX REPORTING.** In accordance with Title IX of the Education Amendments of 1972, the University of Texas at Austin is committed to maintaining a learning environment that is free from discriminatory conduct on the basis of sex [https://titleix.utexas.edu/](https://titleix.utexas.edu/). Faculty, field instructors, staff, and/or teaching assistants in their supervisory roles are mandated reporters of incidents of sex discrimination, sexual harassment, sexual violence, stalking, dating violence, or
any other forms of sexual misconduct. Students who report such incidents will be informed of University resources. Incidents will be reported to the University’s Title IX Coordinator. Further information, including student resources related to Title IX, may also be found at https://titleix.utexas.edu/.

CAMPUS CARRY POLICY. The University’s policy on campus carry may be found here: https://campuscarry.utexas.edu.

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 and COVID-19 ADVICE LINE (BCCAL). If students have concerns about their behavioral health, or if they are concerned about the behavioral health of someone else, students may use the Behavior Concerns and COVID-19 Advice Line to discuss by phone their concerns. This service is provided through a partnership between 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 https://safety.utexas.edu/behavior-concerns-advice-line. The Behavior Concerns and COVID-19 Advice Line has been expanded to support The University of Texas at Austin community during the COVID-19 pandemic. By calling 512-232-5050 - Option 2 for COVID-19, students, faculty and staff can be assisted in English and Spanish with COVID-19 support.

EMERGENCY EVACUATION POLICY. Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation:

- Familiarize yourself with all exit doors in the classroom and the building. Remember that the nearest exit door may not be the one you used when entering the building.
- If you require assistance to evacuate, inform the professor in writing during the first week of class.
- In the event of an evacuation, follow the professor’s instructions.
- Do not re-enter a building unless you are given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

IX. COURSE SCHEDULE

Note: Text readings are listed here but additional Canvas readings will be found on Canvas. Please be sure to check Canvas in your preparation for class.

The course schedule will be adjusted throughout the semester to match the rate of the learning of our topics. When changes are made to the course schedule including assignments and readings, you will be informed of those changes in class and/or on Canvas.
<table>
<thead>
<tr>
<th>Class 1</th>
<th>Orientation to Neurodevelopment and Trauma Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics addressed:</td>
<td></td>
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</tbody>
</table>
  - Neuroscience in Social Work Practice  
  - Orientation to the Neurosequential Model Network |
| Core Concepts: | Discussion on Core Concepts integration into academic work. |
| Study Group Discussion | Orientation to your online NMT Metric Account.  
  - NMT materials in your NMN account – where to locate information.  
  - Review requirements for Phase 1 NMT certification.  
  
  Syllabus  
  - Overview of syllabus  
  - Questions  
  
  Optional Module Companion Articles available for every Module. |
| Group Presentation Materials | About the group presentations.  
  - Materials in Canvas |
<table>
<thead>
<tr>
<th>Homework:</th>
<th>Text:</th>
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<tbody>
<tr>
<td></td>
<td>• What Happened to You (WHTY): Ch’s.1 &amp; 2 – Weekly summaries for each chapter.</td>
</tr>
<tr>
<td>Class 2</td>
<td>Module 1 - Basics of Brain Organization</td>
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</tr>
<tr>
<td>Topics for Study Group:</td>
<td>In class:</td>
</tr>
<tr>
<td></td>
<td>• View: BC1 Brain Organization</td>
</tr>
<tr>
<td></td>
<td>• View: BC2 Basics of Brain Structure</td>
</tr>
<tr>
<td>Module 1 Core Concepts:</td>
<td>Module 1 Core Concepts integration in today’s presentations and discussion.</td>
</tr>
<tr>
<td></td>
<td>1. Neural networks develop and change in “use-dependent” (activity-dependent) ways.</td>
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<tr>
<td></td>
<td>2. The brain develops, processes incoming information, and “acts” on this incoming information in a sequential way – from networks lower to higher in the brain – from the bottom up. The human brain is organized such that it can react before it ‘feels’ and can feel before it ‘thinks.’</td>
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<td>3. There are multiple interactive stress-response networks; two key interactive response patterns are the 1) hyperarousal (Flock, Freeze, Flight, Fight) and 2) dissociative (Avoid, Comply, Dissociate) response continuum. These networks work together in complex ways to provide optimal responses to the specific nature and context of the challenge or threat.</td>
</tr>
<tr>
<td>NMT Study Group Discussion</td>
<td>Study Group Presentation:</td>
</tr>
<tr>
<td></td>
<td>View as a class:</td>
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<td></td>
<td>NMT Case-based study with its’ Metric:</td>
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<td></td>
<td>• Case-based Webinar: Phase 1 Core Certification Series: Session 1: NMT Overview Dissociation and Intimacy Barrier (90 minutes)</td>
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<tr>
<td></td>
<td>• Review case-based webinar as a class.</td>
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<td></td>
<td>• Class discussion to integrate the Core Concepts into the case-based study.</td>
</tr>
<tr>
<td>Diversity Group Presentation Material: <em>Culture and Parenting as Protective Factors</em></td>
<td>No presentation on this day.</td>
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</tr>
</tbody>
</table>
| **Homework:** | View from NMT account:  
    [https://www.youtube.com/watch?v=uOsgDkeH52o](https://www.youtube.com/watch?v=uOsgDkeH52o)  
    (This video is 13 min. 40 sec.)  
  - Intro to NMT Metrics: Overview (1 hr.)  
  - Read “Typical” Case Study summary in Canvas. |
<table>
<thead>
<tr>
<th>Class 3</th>
<th>Intro to NMT Metrics: Part 1 Overview</th>
</tr>
</thead>
</table>
| Topics for Study Group: | Introduction to Metrics  
- Orientation to The NMT Metric Report  
- Typical Metric Report done in class |
The NMT Coding Guide - in your NMT account under Metric Tool Resources.  
The Metric Scoring Overview - in your NMT account under Metric Tool Resources.  

*First Metric Report – Typical Metric #1* |
| Study Group Presentation Material | No study group presentations today |
All watch: View from NMT account:

- *Note - We will generate a Metric Report together next week on the case below. Be prepared to address this case in class:*

  View Case-based Webinar: Phase I Core Certification Series: Session 5: Leon 8 y.o. M: Adoption: Reconstruction of Dev HX
  (90 min., this case is located in Module 5).

<table>
<thead>
<tr>
<th>Class 4</th>
<th>Intro to NMT Metrics: Part 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics for Study Group:</td>
<td>• Practice NMT Case-based webinar Metric (as a class)</td>
</tr>
</tbody>
</table>
| Study Group Discussion | Complete Metric as a class based on this case: Phase I Core Certification Series: Session 5: Leon 8 y.o. M: Adoption: Reconstruction of Dev HX;  
  • Clinical considerations when determining how to score each section of the Metric Report:  
    Part A – Adverse experiences  
    Part B – Relational health  
    Part C – Current functioning  
    Part D – Current relational health  
  • Generate Metric Report in class and review together. |

*Second Metric Report - Practice NMT Case-based webinar Metric*
<table>
<thead>
<tr>
<th>Group Presentation Material</th>
<th>No group presentations today.</th>
</tr>
</thead>
</table>

| Homework:                  | View from NMT account:      |
|                            | • NN Stress & Trauma Series #4 (SDR 4): RRR: Sequence of Engagement (Video is 18 min. 25 secs) |
|                            | Text:                      |
|                            | • What Happened to You – Chapters 3 & 4 |

<table>
<thead>
<tr>
<th>Class 5</th>
<th>Module 2 - Sequential Organization &amp; Development of the Brain</th>
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</thead>
<tbody>
<tr>
<td>Topics for Study Group:</td>
<td>In class:</td>
</tr>
<tr>
<td></td>
<td>• View: BC3 - Sequential Development of the Brain</td>
</tr>
<tr>
<td></td>
<td>• View: BC4 - Sequential Organization of the Brain</td>
</tr>
</tbody>
</table>
| Module 2 Core Concepts | Module 2 Core Concepts integration into today’s presentations and discussion.  
1. A primary mechanism involved in ‘making sense of the world’ is the creation of associations between simultaneous activation of separate neural networks (e.g., vision & touch).  
2. The sequential creation of complex associations is a fundamental element of development.  
3. Early caregiving relationships create the primary associations that become the basis for attachment style and future relational preferences, biases and capabilities. |
|------------------------|-------------------------------------------------------------------------------------------------|
| NMT Study Group Discussion | Group 1 Presentation and Metric:  
1. Case-based Webinar: Phase I Core Certification Series: Session 2: Severe Early Abuse and Relational Templates  

*NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course.* |


| Diversity Group Presentation material: *Trauma, Attachment, and Migration* | Group 2 Presentation:  
- Trauma, Attachment, and Migration presentation  

In Canvas (Choice of Articles):  
**Homework:**

**Text:**
- What Happened to You – Chapters 5 & 6

Complete on your own:
- Typical Metric #2

*Third Metric Report – Typical Metric #2*

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<thead>
<tr>
<th>Class 6</th>
<th>Module 3 - Understanding Stress, Distress &amp; State Dependence: The Core Regulatory Networks (CRN)</th>
</tr>
</thead>
</table>
| Topics for Study Group: | In class:  
  - View: BC 9 - Development, Memory, and Roots of Rhythm  
  - View: BC 4 – State Dependent Functioning |

| Module 3 Core Concepts | Module 3 Core Concepts integration into today’s presentations and discussion.  
1. The core regulatory networks (e.g., noradrenergic, serotonergic, dopaminergic), which originate in lower areas of the brain, distribute to all other areas of the brain, and, via neuroendocrine, neuroimmune and autonomic nervous system to the whole body.  
2. These core regulatory networks (CRN) play a key role in a) development and b) our multiple stress response capabilities.  
3. All brain functioning is “state-dependent” – cognition, emotional, social, and motor functioning will shift with the internal state of the individual. |
| NMT Study Group Discussion: | Group 3 Presentation and Metric:  
- Case-based Webinar: Phase I Core Certification Series: Session 3: Dissociation and Hyperarousal

_NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course._

| Diversity Group Presentation material: **Protective Factors of Attunement** | Group 4 Presentation:  
- Protective Factors of Attunement presentation

In Canvas (Choice of articles):  
| Homework: | View from NMT account:  
|---|---|
| • Boot Camp Series 8 (BC8): Acquisition of Cognitive Content  
(Video is 16 min. 22 secs) | Readings in NMT Account:  
|---|---|
| • Perry, B.D., 2019, Understanding Dissociation NMT Ten Tip Series,  
NMN Press, Houston, TX (3 pgs.) | • Perry, B.D. (2019) Understanding hyperarousal: the “Flock, Freeze,  
Flight and Fight” continuum. The NMC Ten Tip Series, NMN Press,  
Houston, TX (3 pgs.) |
| Text: | • What Happened to You, Chapter 7 |

<table>
<thead>
<tr>
<th>Class 7</th>
<th>Module 4 - Multiple Stress Responses: Hyperarousal and Dissociation</th>
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</thead>
</table>
| Topics for Study Group: | In class:  
|---|---|
| • View: BC5 – Introduction to Hyperarousal  
• View: BC6 – Introduction to State Dependence  
• View: Seven Slide Series: Threat Response Patterns | Module 4 Core Concepts integration into today’s presentations and discussion.  
1. Stress - a strain or challenge to any system in the body - is an  
unavoidable element of human life. The body's capacity to  
'respond' to stressors allows us to survive and thrive. It is the  
pattern of stress that determines whether it is helpful or detrimental  
to the body.  
2. The body's multiple stress-response capabilities can work  
individually or in concert to create complex, dynamic and  
heterogeneous effects. These effects can impact the body all the  
way down to the genome - creating epigenetic changes that can be  
passed from generation to generation.  
3. Dissociation is a normal and pervasive mental mechanism. It can  
become pathological when the systems mediating this graded  
response capability become sensitized. Similarly, sensitization of  
the hyperarousal systems can lead to pathology. |
| NMT Study Group Discussion: | Group 5 Presentation and Metric:  
• Case-based Webinar: Phase I Core Certification Series: Session 4: Isaiah: 3 y.o. M and Mom: FAS+  

*NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course.* |
| --- | --- |
| Group Presentation Material:  
*Attachment, Relational Buffers, and Adversity* | Group 6 Presentation:  
• Attachment, Relational Buffers, and Adversity presentation  

In Canvas (Choice of articles):  


• Dobson & Perry, 2010, The role of healthy relational interactions to buffering the impact of childhood trauma.  

<table>
<thead>
<tr>
<th>Homework:</th>
<th>In Canvas:</th>
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<tbody>
<tr>
<td></td>
<td>• Read Practice Fidelity Abstract for next class.</td>
</tr>
<tr>
<td>In NMT account:</td>
<td>• <strong>Complete the Practice Fidelity Metric Report prior to next class.</strong></td>
</tr>
</tbody>
</table>

*Fourth Metric Report – Practice Fidelity Metric*
<table>
<thead>
<tr>
<th>Class 8</th>
<th>Practice Fidelity Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics for Study Group:</td>
<td>In class:</td>
</tr>
<tr>
<td></td>
<td>• Complete walk through of Practice Fidelity Metric and scoring</td>
</tr>
<tr>
<td>Study Group Discussion</td>
<td>1. Discussion/questions about the Practice Fidelity Metric will be done in class.</td>
</tr>
<tr>
<td></td>
<td>2. Scoring your practice fidelity.</td>
</tr>
<tr>
<td></td>
<td>3. Treatment planning based on recommendations.</td>
</tr>
<tr>
<td>Group Presentation Material:</td>
<td>No presentations this week.</td>
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<td></td>
<td>Class discussion and considerations:</td>
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<tr>
<td></td>
<td>• Part A – Adverse experiences</td>
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<td></td>
<td>• Part B – Relational health</td>
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<td></td>
<td>• Part C – Current functioning</td>
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<td></td>
<td>• Part D – Current relational health</td>
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<tr>
<td></td>
<td>• Scoring your practice fidelity</td>
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<tr>
<td></td>
<td>Connecting recommendations to the Treatment Plan.</td>
</tr>
<tr>
<td>Homework:</td>
<td>Text:</td>
</tr>
<tr>
<td></td>
<td>• What Happened to You Chapter 8</td>
</tr>
<tr>
<td>Class 9</td>
<td>Module 5: Patterns of Stress Responses: Sensitization and Resilience</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------</td>
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</tbody>
</table>
| Topics for Study Group: | In class:  
  - View: BC7 – Sensitization  
  - View: DTS7 – Dosing, Spacing, & Resilience |
| Module 5 Core Concepts | Module 5 Core Concepts integration into today’s presentations and discussion.  
  1. Resilience is a malleable capability; genetic, epigenetic, intrauterine, early attachment and later life experience can all influence the capacity to demonstrate resilience under duress. The capacity to demonstrate resilience can erode with chronic, unpredictable or extremes stress and can be restored with rest, relational regulation, and opportunities for moderate, predictable, controllable stress.  
  2. To intentionally alter the activity or set point (homeostasis) of any neural network, you must provide patterned, repetitive activation of that system (specificity). This is the challenge of influencing the specific ‘trauma’ induced multisystem memories involved in the symptoms and signs following trauma - one must activate them in moderate, controllable ways to alter their reactivity.  
  3. Ideally, therapeutic experience not only normalizes the ‘sensitivity’ of existing memory, but it also creates “new” associations - new memory. Ideally, these become the new default associations for everyday life. Therapeutic experience will not ‘erase’ old associations. Under duress the old default can return. |
| NMT Study Group Discussion: | Group 7 Presentation and Metric:  
  - Case-based Webinar: Phase I Core Certification Series: Session 9: Tyler 8 yo M; Chaos, neglect, and adoption.  

*NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course.*

| Diversity Group Presentation Material: Marginalized Groups and Trauma | Group 8 Presentation:  
  - Impact of Stress on Marginalized Populations presentation  

In Canvas (choice of articles):  


**Homework:**

- Read in NMT account:

- Text:
  - WHTY - Chapters 9 & 10
<table>
<thead>
<tr>
<th>Class 10</th>
<th>Module 6: Bonding and Attachment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topics for Study Group:</strong></td>
<td><strong>Module 6 Core Concepts</strong></td>
</tr>
<tr>
<td>In class:</td>
<td>Module 6 Core Concepts integration into today’s presentations and discussion.</td>
</tr>
<tr>
<td>• View: BC10 - Introduction to Relational Regulation</td>
<td>1. During infancy a set of primary foundational associations (basically a form of 'memory') are created as a function of the quality, timing, and pattern of bonding experiences. These 'associations' create the basic capacities to form and maintain connections with others. This 'attachment' capacity becomes a primary organizing element during development.</td>
</tr>
<tr>
<td>• View: BC11 - Triune Association</td>
<td>2. Regulate, relate then reason. Remember that our relational capabilities are also 'state-dependent.' Respecting the sequence of engagement is essential for successful connection and communication in all developmental, learning, and therapeutic interactions.</td>
</tr>
<tr>
<td></td>
<td>3. The neurosociology of humankind is multi-faceted; on one hand we seek connection to others – but this pull is to others judged to be part of our ‘clan’- known, familiar, safe. The brain’s tendency to activate the stress response with novelty – and more – means that we will react to people significantly different from our safe, familiar ‘clan’ with initial defensiveness, wariness or worse.</td>
</tr>
<tr>
<td><strong>NMT Study Group Discussion</strong></td>
<td><strong>Diversity Group Presentation Material:</strong></td>
</tr>
<tr>
<td>Group 2 Presentation and Metric:</td>
<td>Indigenous Populations, Stress, and Trauma</td>
</tr>
<tr>
<td>• Case-based Webinar: Phase I Core Certification Series: Session 6A: Michelle 15 yo F: Sexual abuse; failed adoption</td>
<td>In Canvas (Choice of articles):</td>
</tr>
<tr>
<td>Homework:</td>
<td><strong>In NMT account:</strong></td>
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<tr>
<td>View:</td>
<td><strong>NN Stress and Trauma Series (SDR 13) #13—The Intimacy Barrier</strong>&lt;br&gt;<a href="https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3FI-exZK29v4iF">https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3FI-exZK29v4iF</a>&lt;br&gt;(Video is 24 min. 44 secs)</td>
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<table>
<thead>
<tr>
<th>Class 11</th>
<th>Module 7: Neglect</th>
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</thead>
<tbody>
<tr>
<td><strong>Topics for Study Group:</strong></td>
<td>In class:</td>
</tr>
<tr>
<td></td>
<td>• View: Developmental Trauma Series #5: Early childhood, bonding &amp; attachment</td>
</tr>
<tr>
<td></td>
<td>• View: Developmental Trauma Series #6: Neglect and relational sensitization</td>
</tr>
<tr>
<td><strong>Module 7 Core Concepts</strong></td>
<td>Module 7 Core Concepts integration into today’s presentations and discussion.</td>
</tr>
<tr>
<td></td>
<td>1. Disrupting, diminishing, or distorting the nature, timing, and quality of experiences during key times in development may result in abnormal or undeveloped brainrelated functioning. Multiple forms of 'neglect' related dysfunction can occur.</td>
</tr>
<tr>
<td></td>
<td>2. The very same circumstances that increase an infant or child's risk for 'neglect' are often also sources of 'fear.' Unpredictability, extreme novelty, hunger, relational inconsistency, and actual threat often, but not always, co-occur with neglect.</td>
</tr>
<tr>
<td></td>
<td>3. Remember the “Rs” of optimal developmental environments: Regulated; Relational; Relevant (developmentally appropriate); Repetitive (patterned); Rewarding; Rhythmic &amp; Respectful</td>
</tr>
<tr>
<td><strong>NMT Study Group Discussion:</strong></td>
<td>Group 4 Presentation and Metric:</td>
</tr>
<tr>
<td></td>
<td>• Case-based Webinar: Phase I Core Certification Series: Session 7: Aurelia 12 yo F: Severe neglect, institutionalization (90 minutes)</td>
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<tr>
<td></td>
<td>1st Caregiver Challenge Estimator metric assessment will be done as a class.</td>
</tr>
<tr>
<td></td>
<td>NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course.</td>
</tr>
<tr>
<td><strong>Diversity Group Presentation Materials:</strong></td>
<td>Group 3 Presentation:</td>
</tr>
<tr>
<td><strong>Neglect and Community</strong></td>
<td>• Neglect and Community presentation</td>
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<td>In Canvas (Choice of articles):</td>
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<td>Homework:</td>
<td>In NMT account:</td>
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### Class 12

#### Module 8: Pleasure and Pain – The Rewards of Regulation

#### Topics for Study Group:
- View: NN Stress and Trauma Series #10—Reward Systems & Maladaptive Regulation
  [https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fI-exZK29v_4iF](https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fI-exZK29v_4iF)
- View: NN Stress and Trauma Series #16—Historical Trauma
  [https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fI-exZK29v_4iF](https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fI-exZK29v_4iF)

#### Module 8 Core Concepts
Module 8 Core Concepts integration into today’s presentations and discussion.

1. Disrupting, diminishing, or distorting the nature, timing, and quality of experiences A fundamental principle of the mammalian brain is to reward adaptive, regulatory, and self-protective behaviors.
2. Pain and distress are signals that the organism is 'out of balance' or under some form of threat. Paying attention to, and addressing, the source of pain is adaptive and self-protective.
3. The fleeting (seconds to minutes) impact of activating the reward networks can lead to repetitive and maladaptive behaviors especially in the face of poverty of other forms of reward.

<table>
<thead>
<tr>
<th>NMT Study Group Discussion:</th>
<th>Group 6 Presentation and Metric:</th>
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</thead>
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<tr>
<td></td>
<td>• Case-based Webinar: Phase I Core Certification Series: Session 10: AJ 4 y.o. M; State dependent functioning; toxic relational environment (90 minutes)</td>
</tr>
<tr>
<td></td>
<td><em>NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diversity Group Presentation Materials: <em>Culturally Competent Practice Considerations</em></th>
<th>Group 5 Presentation:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Culturally Competent Practice Considerations presentation</td>
</tr>
<tr>
<td></td>
<td>In Canvas (Choice of articles):</td>
</tr>
</tbody>
</table>
**Homework:**

**In NMT account:**
Read:

**Class 13**

**Module 9: Transgenerational Trauma – Epigenetics to Culture**

**Topics for Study Group:**
- View: NN Stress and Trauma Series #6—Dosing and Spacing
  [https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fFlxZK29v_4iF](https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fFlxZK29v_4iF)
- View: NN Stress and Trauma Series #15—Sport, Music, & Art: the Bedrock
  [https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fFlxZK29v_4iF](https://www.youtube.com/playlist?list=PLyhWK71WKiZKVixTQ3fFlxZK29v_4iF)

**Module 9 Core Concepts**

Module 9 Core Concepts integration into today’s presentations and discussion.

1. There are multiple ways in which we pass experience to the next generation; the most powerful is to take advantage of the malleability of the human brain. Sociocultural evolution is the major manifestation of the brain's malleability.
2. If there is a neglected, traumatized child, there is often a parent with a history of chaos, threat, neglect, and abuse. It is almost impossible to address the needs of the child without understanding and helping meet the needs of the parent.
3. Family, community, and culture provide the matrix of relational interactions, common unifying principles, values, and practices that can buffer from current stress and distress and heal from past trauma.

**NMT Study Group Discussion:**

Group 8 Presentation and Metric:
- Case-based Webinar: Phase I Core Certification Series: Session 8: Cheyenne 13 yo F Dissociation, reward dysfunction; relational poverty (90 min)

2nd Caregiver Challenge Estimator as a class.

_NMT Case-based webinar Metric group presentation counts as the sixth metric completed for the course._
| Diversity Group Presentation Materials: *Epigenetics and Cultural Trauma* | Group 7 Presentation:  
- Epigenetics and Cultural Trauma presentation.  
In Canvas (Choice of articles):  
|---|---|  
| Homework: | In NMT account:  
View:  
- Pandemic Parenting: Building Resilience  
  (65 minutes)  
Read:  
| Class 14 | Module 10: Dosing and Spacing  
Final Group Presentations: Final Metric and Treatment Plan |
<table>
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<tbody>
<tr>
<td>Topics for Study Group:</td>
<td>Begin Final Metric Group Presentations</td>
</tr>
</tbody>
</table>
| Module 10 Core Concepts | Module 10 Core Concepts integration into today’s presentations and discussion.  
1. The key to optimal therapeutic dosing is remembering that repetitive, moderate, predictable/controllable stress will a) build resilience in a neurotypical individual and b) restore neurotypical regulation in a sensitized individual. Further, it is the availability and quality of the relational interactions throughout a day (the therapeutic web) that can provide these healing and resilience-building moments.  
2. One-size-fits-all “dosing” of challenge and opportunity will not work well; know the stage and watch the state! One person's moderate challenge can create a catastrophic meltdown in another.  
3. A primary principle of neuroplasticity is ‘specificity’ – this means that to modify (improve or change) trauma-impacted neural networks, these networks (and trauma-related associations) need to be activated. The key is “dosing” – the controllability, context, duration and presence of regulating individuals or activity when doing the ‘re-visiting.’ |
| Group Presentation Materials: | Final Metric Group Presentations to include treatment plan.  
*Fifth Metric Report – The Final Metric as a group* |
| Homework: | Catch up time. |
### Class 15

<table>
<thead>
<tr>
<th>Final Metric Group Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics for Study Group:</td>
</tr>
<tr>
<td>Last of Final Metric Group Presentations</td>
</tr>
<tr>
<td>Study Group Presentations:</td>
</tr>
<tr>
<td>Final Metric Group Presentations to include treatment plan.</td>
</tr>
<tr>
<td>The Final Metric is the fifth Metric Report</td>
</tr>
<tr>
<td>You Are Done!</td>
</tr>
</tbody>
</table>

### X. OPTIONAL COMPANION ARTICLES

#### Module 1:

Readings on Canvas:

In NMT account:
- Video Series 1.1 Challenging Our Beliefs (CTA Products)
- Video Series 1.2 The Amazing Human Brain (CTA Products)
- Video Series 1.3 How the Brain Develops (CTA Products)
View from Canvas:

Module 2:

Reading in Canvas:

Readings and Videos in NMT Account:
- Perry, B.D. (2017) The Intimacy Barrier. The NMC Ten Tip Series, CTA Press, Houston TX
- Educators Package: Series 1 Neglect (view)
- Educators Package Series 1, Trauma and the Fear Response (view)
- Series 1.4 Neglect (view)
- Series 1.5 The Fear Response (view)
- Series 3.1 Neurodevelopmental Lens (view)

Module 3:

In Canvas:

In NMT account:
- Educators Package: Series 1, Living and Working with Traumatized Children.
- Educators Package: Series 1, Violence and Childhood.
- Series 1.6 Living and Working with Maltreated and Traumatized Children. (video)
- Series 1.7 Violence and Children. (video)
• Integrating a Neurosequential Approach in the treatment of traumatized children: an interview with Eliana Gil (Sori & Schnur 2013)

Module 4:
In Canvas:

In NMT Account:
• Integrating a Neurosequential Approach in the treatment of traumatized children: an interview with Eliana Gil (Sori & Schnur 2013)

Module 5:
• Beyond the ACE Score: Examining relationships between timing of developmental adversity, relational health, an development outcomes in children.
• NMT series 3.4 Neurosociology: Relational neurobiology, 2008. (view)

Module 6:
https://doi.org/10.1093/oxfordhb/9780199739134.013.3
https://doi.org/10.1037/a0015375
Module 7:

In NMT account:
- NMT Series 3.6 NMT Principles, 2008 (view)

Module 8:

In NMT Account:
- NMT Series 3.7 Clinical Application of the NMT, 2008 (view)
- NMT Series 3.8 Questions and Answers, 2008 (view)
Module 9:
- Perry, B.D., & Welch, L. (2002). Testifying in juvenile and family court: Preparing for depositions, hearings and trials
- Perry & Jackson, 2014. Long and winding road: from neuroscience to policy, program, and practice.
- Childhood Flourishing Symposium: Notre Dame (2014) Born for Love (view)
- The Trauma Therapist Podcast (2017) Guy Macpherson – Interview with B. Perry

Module 10:
- View in NMT account:
  - Viewed: Phase 1 Certification Series: Session 8: Dissociation, Reward Dysfunction, and Relational Poverty
  - Viewed: First Impressions: Exposure to Violence and a Child’s Developing Brain California Safe from the Start

Readings in NMT account:

In NMT account:
- American Justice Summit, Multiple sessions (focus on community building and therapeutic ‘dosing’), https://youtu.be/Kao6OOp3s0E

In Canvas:
- Cozolino, L.J. & Santos, E.N. (2014). Why we need therapy—and why it works: A


XI. BIBLIOGRAPHY


Beyond the ACE Score: Examining relationships between timing of developmental adversity, relational health, and development outcomes in children (NMN materials)


