

## **Infant and Child Mental Health Research Syllabus**

<b>Class Hours:</b>	<b>TBD</b>
<b>Class Location:</b>	<b>TBD</b>
<b>Course Website</b>	<b>TBD</b>
<b>Course Leader</b>	<b>Linda Lagasse, Ph.D.</b>

### **Research Course Description**

Infant and Child Mental Health Research is a two-year-long course. Students will spend four semesters in supervised research. The course takes advantage of the research expertise and projects being conducted by the faculty. These include studies of Prenatal Substance Exposure, Preterm Infant Development, Maternal Depression, Autism Spectrum Disorder, Epigenetics and Intervention. The purpose of the course is to provide students with “hands on” experience with research in the field of infant mental health. Research skills to be acquired include: identification of the hypothesis; literature search; selection of measures; collection of data; data analysis; interpretation of findings; writing a report following the format of professional journals. The student will present the completed project to the entire faculty and students at the end of the fourth semester.

### **Course Objectives**

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

- Understand the principles and basics of research in infant mental health
- Plan a research project and write a research proposal
- Conduct a research project
- Disseminate a research project to a scientific audience

### **Course Requirements and Evaluation**

The course will include: introductory lectures on the principles of research, observation of “live” research in progress, human subjects IRB training, and the opportunity to develop a research topic within an existing research program. The expectation is that the student will join an already established research team in ongoing research being conducted by individual faculty members. Students will receive a portfolio of available research projects (each with a mentor) for review and will be asked to identify a potential project in advance of starting the program. Research faculty will be available to discuss possible projects by phone and students could already have a project arranged before they arrive. The specific research project will be determined by the faculty mentor and mutually agreed upon between the mentor and the student.

Each student will have a three member research committee consisting of their faculty mentor, Dr. Lagasse, director of the course, and Dr. Lester. Students will meet weekly with their mentor and monthly with Dr. Lagasse and their mentor. Dr. Lagasse will also meet with the students as a group every other week for an hour. These meetings will include opportunities for the students to discuss their research ideas with each other. Students will write a research proposal, submit for IRB approval if necessary, and provide monthly progress reports. At the end of the second semester the completed project will be submitted for evaluation to the student’s committee. The student can choose to be evaluated using one of many academic formats including a written

manuscript in scientific journal format, poster presentation at a local or national meeting, presentation in our Center seminar series or Brown Research Day at the medical school or similar venues.

Students will be graded A, B, C/NC based on the following criteria:

1. Research proposal presentation. Early in the Fall semester, each student will present a power point discussion of their research idea to the other research students and faculty. Feedback from this presentation can be used to shape the final project submitted as the research proposal. (20% of grade)

2. Research proposal. During the Fall semester, the student will write a 5 page research proposal following the standard NIH format. The proposal is divided into the following sections:

Specific Aims  
Background and Significance  
Preliminary Studies  
Research Design and Methods

Students may not have, nor do they need, pilot data for the Preliminary Studies section. However, the faculty mentor may have pilot data on which the student's proposal is based. In addition, this section should be used to enable the student to address the feasibility of the study (the study can be done in time, resources are available etc). As part of the "Methods" section, the proposal will include a timeline with bench marks when specific tasks are to be completed (e.g. data collection, data analysis etc). The proposal will be evaluated by the students' research committee using the NIH criteria and priority score system. The criteria are:

Significance: Does this project address an important problem? If the aims are achieved, how will scientific knowledge or clinical practice potentially be advanced?

Approach: Are the conceptual or clinical framework, design, methods and analyses adequately developed, well integrated, well reasoned and appropriate to the aims of the project?

Innovation: Is the project original and innovative? Does it challenge existing paradigms or clinical practice or address innovative hypothesis? Does the project have the potential to lead to novel concepts, approaches, methods, tools or technologies?

The proposal is scored using the NIH five point scale (1 is best, 5 is worst) with the score given to one decimal (e.g. 1.0, 1.5, 2.0 etc). The scores of the research committee will be averaged and a 3.0 or better (lower) is required for the proposal to be acceptable. (20% of grade)

3. Monthly progress reports. The student will submit a written three-page, monthly progress report that details progress on the study including adherence to the timeline, problems encountered and any proposed changes or modifications of the proposed study. The reports will be reviewed by the research committee and corrective action taken as deemed necessary by the committee. (20% of grade)

4. Interim report. At the end of the Fall semester, the student will present a power point discussion to the other students and faculty on progress to date. (20% of grade)

5. Final report. At the end of the Spring semester, the student will demonstrate research competence by preparing a written final report. The final report should be approximately 10 pages and follow the format for a standard scientific journal that includes literature review, statement of the problem, methods, data analysis results and discussion. This report will be scored on the 1-5 NIH scale described above. The average of the research committee score less than 3.0 is required for a pass. (20% of grade)

6. Academic venue. The student can choose from a variety of academic venues for dissemination of their work. The specific venue may depend on the nature of the project and the discipline of the student. The venue will be agreed upon by the research committee and the student and may include: submission of an article to a journal, presentation at a national or regional scientific meeting, presentation at hospital or Brown research events, research seminars in the Department of Pediatrics, bi-weekly seminars at the Brown Center, or grand rounds in child psychiatry or pediatrics.

The student will evaluate their research supervisor using the following form:

**EVALUATION OF SUPERVISOR/MENTOR**

**Clinical** \_\_\_\_\_ **Research** \_\_\_\_\_

Supervisor/Mentor: \_\_\_\_\_ Area of Training: \_\_\_\_\_

Evaluation Period: Mid \_\_\_\_\_ End \_\_\_\_\_ Inclusive Dates: \_\_\_\_\_

**Qualities:** The supervisor/mentor was:

1 – POOR 2 – FAIR 3 – SATISFACTORY 4 – GOOD 5 – EXCELLENT

Reliable (e.g., had regular supervision meetings, arrived in a timely manner)	1	2	3	4	5	N/A
Available for supervision when needed	1	2	3	4	5	N/A
Able to appropriately challenge the student to advance his/her understanding and skills	1	2	3	4	5	N/A
Able to convey an understanding of and sensitivity to individual & cultural diversity issues that could influence professional interactions with others		1	2	3	4	5
Able to intervene, when needed, to assist in problems that arose between student and other professional staff		1	2	3	4	5
Helpful in acquainting student to the Brown system	1	2	3	4	5	N/A
Helpful in setting realistic training goals	1	2	3	4	5	N/A
Helpful in advancing clinical/research skills	1	2	3	4	5	N/A

Helpful in professional writing	1	2	3	4	5	N/A
Helpful in professional development	1	2	3	4	5	N/A
Helpful in providing didactic material	1	2	3	4	5	N/A

**Relationship:** The supervisor/mentor:

1 – POOR 2 – FAIR 3 – SATISFACTORY 4 – GOOD 5 – EXCELLENT

Accepts disagreements well	1	2	3	4	5
Tries to address student's needs	1	2	3	4	5
Is objective in evaluating student's performance	1	2	3	4	5
Gives feedback frequently	1	2	3	4	5
Gives criticism constructively	1	2	3	4	5
Is aware of student's objectives	1	2	3	4	5
Is supportive of student	1	2	3	4	5
Is respectful of student's strengths, skills, and experiences	1	2	3	4	5
Is open to discussion of the student-supervisor relationship	1	2	3	4	5

What are the supervisor's/mentor's primary strengths/assets?

What changes could the supervisor/mentor make to improve the training experience (e.g., changes in availability or style of supervision, types of training experiences offered, or office/technical supports available)?

**Overall:** Overall quality of supervision:

Extremely low      1      2      3      4      5      Extremely high

**Additional comments or other remarks:**

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Supervisor/Mentor Signature      Date

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Student Signature      Date