# Neuroscience Theme Training Plan

## UAB GRADUATE BIOMEDICAL SCIENCES

### 2017-2018 MSTP Training Plan

**Updated 11.28.2017 JS; 9.21.17 RLS, RL**

- **Students must register for 9 hours each semester; any hours over must be approved by the MSTP Director.**
- Must obtain permission of Thesis Mentor, Theme Director, and MSTP Director to register for Career Development courses (e.g., GRD and CIRTL).
- **Students must be admitted to candidacy for a minimum of 1 year before thesis defense.**
- **Qualifying Exam/Admission to Candidacy**

### Additional theme requirements
- **Publications:** Two accepted or published papers
- **Presentations:** At least one (1) presentation at a national or international scientific meeting

### Additional MSTP Requirements
- MSTP 794 (1): Translational Research Seminar Series (Fall, Spring, Summer)
- MSTP 795 (1): Continuing Clinical Education (Fall, Summer)
- MSTP 798 (1-8): Non Dissertation Hours
- MSTP 799 (1-8): Dissertation Hours (must be Admitted to Candidacy)
- Submission of F30/F31 **on or before** April of GS2 Year
- Committee Meetings every 6 months

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<table>
<thead>
<tr>
<th><strong>Fall Term</strong></th>
<th><strong>Spring Term</strong></th>
<th><strong>Summer Term</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Required Coursework:</strong></td>
<td><strong>Required Coursework (See MS2 Schedule):</strong></td>
<td><strong>Required Coursework:</strong></td>
</tr>
<tr>
<td>GRD 717: Principles of Sci Integrity (Bioethics)</td>
<td>GBS 710: Cell Signaling (1.8.18 – 2.2.18)</td>
<td>GBS 737: Student Summer Seminars</td>
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<tr>
<td>MSTP 798: Non-dissertation research</td>
<td>GBS 729: Cell Neurophys (2.5.18 – 3.2.18)</td>
<td>MSTP 798: Non-dissertation research</td>
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<td>NBL 703: Neurobiology Seminar Series</td>
<td>GBS 714: Dev Neuro (3.5.18 – 3.30.18)</td>
<td>Elective/Advanced Course(s): A total of 3 advanced courses which should be decided by mentor and thesis committee.</td>
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<tr>
<td>Biostatistics Course (See Page 2)</td>
<td>GBSC 727: Neuro Systems (4.2.18 – 4.27.18)</td>
<td>Committee formed</td>
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**GS1**
- Elective/Advanced Course(s): A total of 3 advanced courses which should be decided by mentor and thesis committee.
- **Journal Club:** Choice of JC is discretion of student/mentor
- **YEA Exam:** Oral (Aug)

**GS2**
- Elective/Advanced Course(s): A total of 3 advanced courses which should be decided by mentor and thesis committee.
- **Journal Club:** Choice of JC is discretion of student/mentor

**GS3**
- Elective/Advanced Course(s): A total of 3 advanced courses which should be decided by mentor and thesis committee.
- **Journal Club:** Choice of JC is discretion of student/mentor

**GS4**
- Elective/Advanced Course(s): A total of 3 advanced courses which should be decided by mentor and thesis committee.
- **Journal Club:** Choice of JC is discretion of student/mentor

**Required Coursework:**
- MSTP 798: Non-dissertation research
- NBL 703: Neurobiology Seminar Series
- **GBS 737:** Student Summer Seminars

**Required Coursework:**
- MSTP 799: Dissertation research
- NBL 703: Neurobiology Seminar Series
- **GBS 737:** Student Summer Seminars

**Required Coursework:**
- MSTP 799: Dissertation research
- NBL 703: Neurobiology Seminar Series
- **GBS 737:** Student Summer Seminars

**Required Coursework:**
- MSTP 799: Dissertation Research
- **GBS 737:** Student Summer Seminars

**Dissertation Defense** *(public & private)*

Graduation
**Biostatistics Courses available for MSTP Students:**

**GBSC 731: Introductory Biostatistics for Graduate Biomedical Sciences.** - This course has been specifically designed for the GBS students. Fall.

Note: often BST 611 and 612 are taken together.

**BST 611. Intermediate Statistical Analysis I.** - Students will gain a thorough understanding of basic analysis methods, elementary concepts, statistical models and applications of probability, commonly used sampling distributions, parametric and non-parametric one and two sample tests, confidence intervals, applications of analysis of two-way contingency table data, simple linear regression, and simple analysis of variance. Students are taught to conduct the relevant analysis using current software such as the Statistical Analysis System (SAS). 3 hours. Fall.

**BST 612. Intermediate Statistical Analysis II.** - This course will introduce students to the basic principle of tools of simple and multiple regression. A major goal is to establish a firm foundation in the discipline upon which the applications of statistical and epidemiologic inference will be built. Prerequisite: BST 611 or Permission of Instructor. 3 hours. Spring.

Note: often BST 621 and 622 are taken together.

**BST 621 - Statistical Methods I.** - Mathematically rigorous coverage of applications of statistical techniques designed for biostatistics majors and others with sufficient mathematical background. Statistical models and applications of probability; commonly used sampling distributions; parametric and nonparametric one and two sample tests and confidence intervals; analysis of contingency tables; simple linear regression and analysis of variance. Prerequisites: A year of calculus and linear algebra. 3 hours. Fall.

**BST 622 - Statistical Methods II.** - Continuation of concepts in BST 621, extended to multiple linear regression; analysis of variance, analysis of covariance, multiple analysis of variance; use of contrasts and multiple comparisons procedures; simple and multiple logistic regression, and an introduction to survival analysis. Prerequisites: BST 621. 3 hours. Spring.