### 2017-2018 MSTP Training Plan

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<tr>
<th>Fall Term*</th>
<th>Spring Term*</th>
<th>Summer Term*</th>
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| **Required Coursework:**
  - GRD 717: Principles of Sci Integrity (Bioethics)
  - GBS 792: CMDB Seminar or any JHS Seminar
  - MSTP 798: Non-dissertation Research
  - Biostatistics Course (See Page 2)

**Committee formed and 1st Committee Meeting held**

**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

**Additional theme requirements**

- **Qualifying Exam/Admission to Candidacy**

| **Required Coursework:**
  - GBS 792: CMDB Seminar or any JHS Seminar
  - MSTP 798: Non-dissertation Research

**Committee Meeting**

**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 [See MS2 Schedule]:**
  - Recommend the following modules, but others are accepted:
    - GBS 710: Cell Signaling (1.8.18 – 2.2.18)
    - GBS 720: Cell Mol Aspects Dev Bio (2.5.18 – 3.2.18)
    - GBS 714: Dev Neuro (3.5.18 – 3.30.18)
    - GBS 784: Stem Cell Bio (4.2.18 – 4.27.18)

**GBS 716:** Grantsmanship & Scientific Writing

**GBS 792:** CMDB Seminar (any JHS seminar)

**MSTP 798:** Non-dissertation Research

**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:**
  - GBS 792: CMDB Seminar or any JHS Seminar
  - MSTP 799: Dissertation Research

**Committee Meeting**

**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 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 (2-8): 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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* 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.**

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**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 (2-8): 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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Updated 11.28.17 JS; 9.21.17 RLS, RL
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.