

2017-2018 MSTP Training Plan

See additional footnotes for important theme specific requirements

	Fall Term <sup>1</sup>	Spring Term <sup>1</sup>	Summer Term <sup>1</sup>
<b>GS1</b>	<p><b>Required Coursework:</b>  <b>GRD 717:</b> Principles of Sci Integrity (Bioethics)  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 798: Non-dissertation research                      Biostatistics Course (See Page 2)                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> A total of 3 advanced courses are required during training. These should be selected in consultation with the mentor and dissertation committee.</p> <p><b>Create Graduate Thesis Committee and submit to MSTP Office for processing</b></p>	<p><b>Required Coursework (See Ms2 Schedule):</b>  <i>Exceptions to the courses below require permission of the Theme Director (may have been taken during MS2 spring term):</i>  <b>GBS 760:</b> Prokaryotic Gen/Mol. Bio I (1.8.18 – 2.2.18)  <b>GBS 762:</b> Virology (2.5.18 – 3.2.18)  <b>GBS 763:</b> Microbial Pathogenesis (3.5.18 – 3.30.18)  <b>GBSC 716:</b> Structural Biology &amp; Adv Techniques (4.2.18 – 4.27.18)</p> <p>MSTP 798: Non-dissertation research                      Journal Club</p> <p>GBS 759: Dev Pres Skills in Micro Res</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.  <b>Committee Meetings:</b> Must take place every 6 months  <b>Qualifying Exam:</b> Written proposal due by April 30<sup>th</sup></p>	<p><b>Required Coursework:</b>  <b>MSTP 798:</b> Non-dissertation research</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b>                      Three required during training.</p>
<b>GS2</b>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 798: Non-dissertation research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Admission to Candidacy Committee Meeting<sup>3</sup></b></p>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 798: Non-dissertation research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Committee Meeting:</b> One meeting in addition to the Admission to Candidacy meeting is required in the Spring or Summer term.</p> <p>Submission of F30/F31 <b>on or before</b> April of GS2 Year</p>	<p><b>Required Coursework:</b>  <b>MSTP 799:</b> Dissertation Research</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b>                      Three required during training.</p> <p><b>Committee Meeting:</b> One meeting in addition to the Admission to Candidacy meeting is required in the Spring or Summer term.</p>
<b>GS3</b>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 799: Dissertation Research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Committee Meeting:</b> Two meetings per year are required</p>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 799: Dissertation research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Committee Meeting:</b> Two meetings per year are required</p>	<p><b>Required Coursework:</b>  <b>MSTP 799:</b> Dissertation Research</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b>                      Three required during training.</p> <p><b>Committee Meeting:</b> Two meetings per year are required</p>
<b>GS4</b>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 799: Dissertation Research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Committee Meeting:</b> Two meetings per year are required</p>	<p><b>Required Coursework:</b>  <b>GBS 759:</b> Dev Pres Skills in Micro Res</p> <p>MSTP 799: Dissertation Research                      Journal Club</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b> Three required during training.</p> <p><b>Committee Meeting:</b> Two meetings per year are required</p>	<p><b>Required Coursework:</b>  <b>MSTP 799:</b> Dissertation Research</p> <p><b>Elective/Advanced Course(s)<sup>2</sup>:</b>                      Three required during training.</p> <p><b>Dissertation Defense<sup>4</sup></b>                      (private and public)</p> <p><b>Graduation<sup>4</sup></b></p>

<sup>1</sup> 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).

<sup>2</sup> Elective/advanced courses

- Must be 700-level, 3 credit hours, letter grade. If in doubt, consult Theme Director.
- Must be science-based (e.g., GRD and CIRTL courses do not fill this requirement).
- May take one first year course (Jan-May modules) as an advanced course with additional work. Requires permission of instructor and Theme Director.
- May take both sections of first-year Immunology (Nov-Dec, Jan) to count as a single advanced course without additional work IF you have not previously taken either section. Requires permission of instructor and Theme Director.
- May take a single off-campus course to count for advanced credit. Requires permission of Theme Director. Consult with Theme Director for acceptable courses and requirements.

<sup>3</sup> Admission to Candidacy – See Graduate School Policies for credit hours required prior to meeting.

<sup>4</sup> Graduation – Must be admitted to candidacy for a minimum of 1 year before dissertation defense. See Graduate School Policies for credit hour requirements.

**Additional theme requirements**

**Publications:** Two accepted or published first author papers; **Presentations:** At least one (1) presentation at a national or international scientific meeting

**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.