

**Example Program of Study Infection and Immunity: From Molecules to Populations (IIMP) training focus in the Translational Biomedical Science PhD Program.** The core curriculum provides students with ~34-36 credit hours of didactic training in the first two years.

Fall Year-01		Spring Year-01	Summer Yr-01	
<ul style="list-style-type: none"> <li>• <b>IND 501 (1 credit, 8 weeks)</b> Ethics and Professional Integrity in Research</li> </ul>		<ul style="list-style-type: none"> <li>• <b>IND 417 (1 credit)</b> Workshop in Scientific Communications</li> </ul>	<p style="text-align: center;"><b>Summer-in-Residence</b></p> <ul style="list-style-type: none"> <li>• Begin Dissertation Research</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• July 1-Aug 31, <b>Rotation 4</b> (optional)</li> <li>• <b>PM 403</b> - Res. Team Science Seminar (1 cr) (optional)</li> </ul> <p><b>Selection of Laboratory &amp; Population Science Research Co-Mentors</b></p> <ul style="list-style-type: none"> <li>• <b>Meeting with program directors to choose laboratory and population science research co-mentors and finalize dissertation lab assignment.</b> Student and prospective co-mentors meet with TBS Program Directors to discuss the expectations of the Mentors-Protégé pairing, the dual focus dissertation research project, funding strategies and responsibilities of mentors and protégé.</li> </ul> <p><b>Create Individual Development Plan (IDP)</b></p> <ul style="list-style-type: none"> <li>• <b>Online Ever Better Mentoring Curriculum</b> for trainees and mentors and <b>IDP oversight.</b> All TBS-IIMP students and their co-mentors are assigned to a member of the Mentor Development Working Group to craft the student's IDP and set goals, define activities to meet goals and establish benchmarks for success.</li> </ul>	
<p style="text-align: center;"><b>Choose 1</b></p> <ul style="list-style-type: none"> <li>• <b>IND 426 (2 credits)</b> - Science Communication for Diverse Audiences</li> </ul>		<ul style="list-style-type: none"> <li>• <b>IND 417 (1 credit)</b> - Workshop in Scientific Communications</li> </ul>		
<ul style="list-style-type: none"> <li>• <b>PM 415 (3 credits)</b> Principles of Epidemiology</li> </ul>	<p><b>Choose 1 Course (3 credits)</b></p> <ul style="list-style-type: none"> <li>• <b>IND 419</b> Intro to Quantitative Biology</li> <li>• <b>PM 486</b> Medical Ecology</li> </ul>			
<ul style="list-style-type: none"> <li>• First 5 weeks, <b>meet with</b> eligible research rotation mentors</li> <li>• Oct 1 - Dec 15, <b>Rotation 1</b></li> </ul>		<ul style="list-style-type: none"> <li>• Jan 2 - March 15, <b>Rotation 2</b></li> <li>• March 16 - May 31, <b>Rotation 3</b></li> </ul>		
<p><b>*Choose 1 Lab Science course</b></p> <ul style="list-style-type: none"> <li>• <b>IND 408</b> - Advanced Biochem &amp; Recitation (5 credits)</li> <li>• <b>IND 409</b> - Cell Biology (4 credits)</li> <li>• <b>MBI 473/573</b> - Immunology and Immunology Seminar (5 credits)</li> </ul>		<p><b>*Choose 1 Population Science course</b></p> <ul style="list-style-type: none"> <li>• <b>BST 465</b> - Design of Clinical Trials (3 credits; (BST 463 is prerequisite)</li> <li>• <b>PM 458</b> - Qualitative Health Care Research (3 credits)</li> <li>• <b>PM 487</b> - Fundamentals of Science, Technology &amp; Health Policy (2 credits) (<i>offered every other year</i>)</li> <li>• <b>PM 426</b> - Social &amp; Behavioral Med (3 credits)</li> </ul>		
<p style="text-align: center;"><b>Choose 1</b></p> <ul style="list-style-type: none"> <li>• <b>BST 463</b> - Introduction to Biostatistics (3 credits)</li> </ul>		<ul style="list-style-type: none"> <li>• <b>BST 467</b> - Applied Biostats for Biomedical Science (Spring) (3 credits)</li> </ul>		
<ul style="list-style-type: none"> <li>• <b>IND 436</b> - Unifying Population &amp; Laboratory Based Sciences (1 credit) each semester.</li> </ul>		<ul style="list-style-type: none"> <li>• <b>IND 595</b> - PhD Research (enough hours to total 16 credits per semester)</li> </ul>		
Fall Year-02		Spring Year-02	Summer Yr-02	
<ul style="list-style-type: none"> <li>• <b>IND 492</b> – Mentoring experience gained through one required Teaching Experience</li> <li>• in 2<sup>nd</sup> or 3<sup>rd</sup> year (1 credit).</li> </ul>				
<p style="text-align: center;"><b>*Choose 1 Lab Science Course</b></p> <ul style="list-style-type: none"> <li>• <b>MBI 414/514</b> - Microbial Pathogenesis &amp; Seminar (4 credits)</li> </ul>		<ul style="list-style-type: none"> <li>• <b>MBI 421/521</b> - Microbial Genetics &amp; Seminar (4 credits)</li> <li>• <b>MBI 456</b> - General Virology (4 credits)</li> </ul>		
<p><b>*Choose 1 Population Science course</b></p> <ul style="list-style-type: none"> <li>• <b>PM 410</b> - Intro Data Management and Analysis (SAS) (3 credits) (+ summer)</li> <li>• <b>PM 412</b> - Survey Research</li> <li>• <b>PM 445</b> - Introduction to Health Services Research (3 credits)</li> <li>• <b>PM 420</b> - American Health Policy and Politics (3 credits)</li> <li>• <b>PM 419</b> - Recruitment &amp; Retention of Human Subjects in Clin Res (3 credits) (<i>offered every other year</i>)</li> <li>• <b>PM 488</b> - Experimental Therapeutics (3 credits)</li> <li>• <b>BME 431</b> - FDA &amp; Intellectual Property (2 credits)</li> </ul>		<p><b>*Choose 1 of 4 courses</b></p> <ul style="list-style-type: none"> <li>• <b>PM 438 (3 credits)</b> – Grantsmanship</li> <li>• <b>BCS 582 (3 credits)</b> – Grant Writing in Brain and Cognitive Sciences</li> <li>• <b>BME (2 credits)</b> – Writing Proposals in Biomedical Engineering</li> <li>• <b>BPH 567 (1 credit)</b> – Writing Proposals in Biophysics</li> </ul> <p><b>Write Qualifying Exam</b> proposal in style of NIH F30 or F31</p>	<p style="text-align: center;"><b>Summer-in-Residence</b></p> <ul style="list-style-type: none"> <li>• <b>Dissertation research</b></li> <li>• <b>Pass Qualifying Exam</b> by Oct 1<sup>st</sup> of 3<sup>rd</sup> year</li> <li>• <b>Optional, but encouraged</b> - Participation in URBEST and Center for Professional Development programs.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>IND 436</b> - Unifying Population &amp; Laboratory Based Sciences (1 credit) each semester.</li> </ul>		<ul style="list-style-type: none"> <li>• <b>BME 432</b> - FDA and Intellectual Property Commercialization (2 credits; Optional but recommended if take BME 431)</li> </ul>		
<ul style="list-style-type: none"> <li>• <b>PM 451</b> - (3 credits) Epidemiology of Infectious Diseases</li> </ul>		<p style="text-align: center;"><b>Summer Yr-03</b></p> <p>Immersive Cross-disciplinary Internship or Externship (e.g., CDC, Monroe County Department of Public Health, Pharma) aligned with research project (8 weeks, required)</p>		
<ul style="list-style-type: none"> <li>• <b>IND 595</b> - PhD Research (enough hours to total 16 credits per semester)</li> </ul>				
Choose from several	Required TBS IIMP Curriculum	<b>*Flexibility in didactic courses</b>		