Assessment and Revision of Tropical Medicine Core Curriculum

Department of Tropical Medicine, Medical Microbiology & Pharmacology
John A Burns School of Medicine, University of Hawai‘i at Manoa
Sandra P. Chang, Ph.D., Graduate Program Chair

Introduction
The Tropical Medicine Curriculum Committee reviewed the organization and content of the Tropical Medicine MS and PhD core curriculum, focusing on the infectious disease core course series (TRMD 604 & 605). The purpose of this review was to assess the adequacy of the core curriculum in establishing a firm knowledge base in the various areas of Tropical Medicine, thereby providing a foundation for advanced research and academic development.

MS/PhD Student Learning Outcomes

1. Demonstrate a knowledge base in the various disciplines of Tropical Medicine.
2. Demonstrate the ability to plan, execute, interpret, and evaluate experimental studies.
3. Demonstrate skills required for instruction, assessment and mentoring of undergraduate, MS and PhD students.
4. Demonstrate proficiency in written and verbal communication skills in various teaching formats and in professional presentations.
5. Demonstrate sufficient mastery and scientific maturity to assess the work of peers in related fields.
6. Demonstrate skills required for instruction, assessment and mentoring of undergraduate, MS and PhD students.
7. Demonstrate the ability to plan, execute, interpret, and evaluate experimental studies.
8. Demonstrate administrative skills to manage a research laboratory, supervise technical and professional staff, and provide leadership as a faculty member.

MS/PhD Curriculum Map

<table>
<thead>
<tr>
<th>Course or Activity</th>
<th>Tropical Medicine Knowledge Base</th>
<th>Mastery of Research Methods</th>
<th>Experimental Design &amp; Execution</th>
<th>Instructional and mentoring skills</th>
<th>Written &amp; verbal communication skills</th>
<th>Peer evaluation &amp; assessment</th>
<th>Manuscript, grant proposal &amp; course development skills</th>
<th>Research laboratory administration skills</th>
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<td>TRMD 604, 605</td>
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SLO Assessed in ’09

1. MS and PhD students will demonstrate a knowledge base in the various disciplines of Tropical Medicine

Assessment Methods

The following data relating to Student Learning Outcome #1 (Tropical Medicine Knowledge Base) were assessed:

1. Student comments from program review interviews by an external committee and in course evaluations.
2. A faculty review of student performance on qualifying examinations over the past 5 years.
3. Faculty interviews of current graduate students regarding overall fulfillment of relevant student learning outcomes by current core course content.
4. Overall demonstration of student proficiency in the various disciplines of Tropical Medicine.

Conclusions

The major point emerging from this assessment was that the core Tropical Medicine content, particularly in immunology and virology, was not adequately covered by the current two-semester Infectious Disease Microbiology course format and required revision.

Use of Results/Action Plan

Based on the analysis of the assessment data, it was concluded that the core courses required revision to (1) increase and improve coverage of the major topics in virology, an area of research emphasis in the program, and (2) to provide a background in immunology, which is more focused and relevant to infectious disease pathogenesis, immunity, and host-pathogen interactions. To this end, the core course series will be expanded to three semesters rather than the current two semesters and the course content will be reorganized in the following manner:

TRMD 604 - Infectious Disease Microbiology I
Part I: Immunology & Host-Pathogen Interactions
Part II: Parasitology
TRMD 605 - Infectious Disease Microbiology II
Part II: Paracyclophage Interactions
TRMD 608 - Infectious Disease Microbiology III: Bacteriology

These courses will be team-taught and will encompass a variety of instructional formats including traditional lectures, class discussions, problem-based cases, oral student presentations, research papers, and blog discussions. These changes were approved by the Tropical Medicine Graduate Faculty, course revision applications were submitted to Graduate Division in Fall 2009, and the revised courses will be offered starting in Fall 2010.

UHM Assessment Exhibit, WASC Accreditation Visit, December 3, 2009