Virology Action Plan for 2013/2014

• Incorporate more active modes of learning/new methods of pedagogy into the course (i.e. reduce % of lectures)

The faculty will eliminate the web-based Virology lab and transition to other active learning modes.

The Virology faculty (3 faculty in Microbiology and Immunology) currently do not have the person-power to organize small group sessions in groups of ~ 10 students. Consequently, two modes of active learning will be incorporated into large group sessions:

1. Three large group active learning sessions will be incorporated and correspondingly 3 lecture hours will be eliminated. This is student driven discussion and peer learning based on problems, and sessions will be held in Chilcott lab to allow students to sit in circles for peer-peer engagement.

2. Additionally, each large group lecture session will be designed to include components of active/engaged learning, averaging about 10 - 15 minutes per hour. Students will given problems, puzzles, or cases and allowed to think about and discuss the issues with their peers, followed by a decision, voting, and further discussion.

These changes for 2013/2014 will reduce lecture hours from 20 to 13, providing ~ 7 hours of active/engaged learning modes [35% active learning; 65% lecture based].

• Rewrite/create learning objectives for each session to clearly articulate expectations to students

Session learning objectives will be clearly articulated to the students by all faculty, in course material(s), and in all sessions.

• Faculty development is needed for some faculty that are not meeting expectations with regard to teaching

Student performance on Step 1 National boards is higher than average. Faculty teaching in Virology 2012/2013 was rated at 4.00, 4.21, and 4.42. These evaluations represent strong performance and the presence of an effective and committed core group of teaching faculty. Additionally, the Virology faculty routinely attend faculty develop sessions with respect to learning, ramping up and incorporating new modes of active learning.
• **Update/edit notes; ensure lecture content and notes are in agreement (specific to Virology)**

  The faculty will engineer complete ibooks (notes + slides) for all Virology material. Based on student preferences, powerpoint slides will be also provided to the students along with .pdf versions of the materials.

• **Provide an opportunity where biologic data are observed, measured and analyzed (specific to Virology)**

  The faculty decided to eliminate the Virology lab (2012/2013) because the value of this laboratory was deemed to be of low priority by the students as well as the faculty.

• **Review overlap of material with other courses**

  Potential overlap in Virology material was reviewed with year 2 and future courses. Year 1 Virology material covers basic mechanisms of virus infection, definition of disease(s), basis for prevention and treatment strategies. In essence Virology includes material covering primarily the pre-clinical basic science foundation(s). Year 2 – 4 material for Virology is clinical.

• **Identify at risk students early and provide support**

  At risk students will be identified in the Immunology section and will be followed up during the Virology section (2nd half of overall course). The course director will contact at risk students at the ~ mid-point of the course to encourage additional plans for support.

• **Revise assessment questions; verify that they link back to major course objectives**

  This course improvement objective is continuous and all faculty review assessment questions. We will incorporate new questions that integrate between multiple session objectives. No negative format questions will be used in any future Virology course [see Addendum*].
Addendum material is provided in response to the 3/15/2014 email from Sarah Johansen (representing MEC) requesting a specific explanation for the use of several “negative format” questions in 2013-2014:

“While the current review addresses your course in AY 2012-2013, it has come to our attention that there has been reversion to the use of negative format questions in AY 2013-2014. Thus the MEC is requesting that you address this concern in your current action plan.”

Response:
Virology material in the Micro111 course is assessed on Quiz 3, Quiz 4 and the final exam. The raised issue of ‘negative’ format questions pertains only to Quiz 4 in our 2013/2014 Virology course.

Here is our explanation. In our assessments we include questions from our assigned review text in Microbiology, “Levinson”. Levinson questions are assigned for each session to illustrate key learning objectives and students are well informed and reminded frequently that Levinson questions are included on course assessment exams. Due to the absence of any clearly useful alternative review material, the Levinson text is the most widely used review material for year 1 medical microbiology material, as well as preparation for Microbiology in Step 1 National Boards. We include Levinson questions on our assessments to encourage year 1 students to get in the habit of reviewing Levinson early. We believe this incentivized approach encourages timely review of Virology material in advance of our assessments as well as National Boards [early launch to review is a key positive prognostic factor for higher performance].

Unfortunately, Levinson questions while addressing key objectives for learning frequently appear as “negative” format questions [a problem that may be corrected in the next edition due this coming year]. The students do know beforehand (before the assessment) that pre-assigned Levinson questions for the material could appear on the Virology assessment. Levinson questions can be viewed as assessment “gifts” since the students can review the questions before taking the assessment. Unfortunately, yes, we did include several Levinson questions on the Quiz 4 assessment in 2013/2014. In fact, extra Levinson questions were included on Quiz 4, in part, to respond to students who had complained that they were not receiving sufficient rewards by studying Levinson and Levinson questions.

To rectify this problem with “negative” format questions, we will in the future omit all negative format questions from any future Virology assessment, Levinson-based questions or any other. We look forward to having our assessment questions reviewed by MEC prior to the commencement of the next Virology course.