

*Scientific Foundations Committee*

*December 7, 2012*

*7:30 – 9:00 am, B-646 Mayo*

***In Attendance:*** M Becker, A Belzowski, J Chipman, B Clarke, G Filice, G Giesler, S Katz, A Minenko, J Norrander, C Niewoehner, D Powell, M Rosenberg, D Satin, P Southern, D Thompson, D Wangenstein, T Weinhaus, M Woods

***Absent:*** S Allen, A Blaes, J Eck, R Kempainen, M Sanders, L Schimmenti, K Watson (CEC), K Wickman

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## **Scientific Foundations Committee**

### **Minutes**

Approved November 2, 2012 Minutes for Scientific Foundations Committee

### **Vice Dean Introduction**

Dr. Rosenberg spoke about the continuum of UME, GME and CME and how these 3 areas of medical education are linked together and how they will need to move forward. With the current structure of the Office of the Vice Dean of Medical Education all three areas will be the focus as the continuum of medical education. For each area there will be consideration for what can be done in one area such as CME that can have a positive impact on what takes place in UME and/or GME and the reverse

Integration of the curriculum has many facets such as horizontal and vertical application. Understanding where topics are taught, is it consistent throughout and where is integration with clinical science and basic science in clinical practice. It's important to provide a foundation for clinical practice and to teach practitioners how to handle variable and often unexpected situations. It's especially important for basic science to be included and reiterated throughout the continuum.

### **Annual Course Report**

Principles of Pathology: primary purpose of course is to teach the basic fundamental of pathology

#### **Working Well:**

Dr. Powell reported generally the students felt the course met the learning objectives and they acquired an understanding of the objectives. A total of 23 student received honors, 5 failed the course (1 failing both written exam and lab final). All were able to pass the make-up exams without any difficulty. This was the second year of independent student projects done as a team exercise to work on an unknown case and prepare handouts and give presentations. The first year there were 11 members in a each group because there were so few cases; this year there were enough cases to bring down the group size from 11 to 4, this change was in response to concerns students expressed at the end of the first year of the course, also the cases moved from just tumors to other health issues. Some students were still unhappy with the course in its 2<sup>nd</sup> year, again improvements will be made.

Areas of concern include student requests for added formative feedback opportunities in non-graded assessment. This is a valid concern voiced strongly by numerous students and it will be improved for next year. In the past, 3-question quizzes were given at the beginning of each lab to help guide students in preparation for lab, which students also earned points for correct answers. Last year communications indicated this wasn't a practice that could be used because it wasn't formative. These will again be used as non-graded formative feedback. The Robins Text and its on-line version are formatted differently and this caused confusion in how they used the tools together for reading assignments, this has been remedied by using subject headings.

Changes scheduled for the course to be taught next year include the following:

- staff issues arose in regard to the long standing course coordinator, a redesigned position has been filled
- the individual's unprofessional actions caused disruption to the point where long standing lectures quit causing time consuming efforts were required to replace them
- the lab was changed from an old format to a case based format, the lab manual had to be changed
- there will be a mid-term review exam, not for credit but for student to use as review
- A discussion is in progress regarding how points are determined; score the lab and final written exam as one or continue to score them separately. It means either requiring 70% on each separate portion; it doesn't appear that it affects the outcome of pass/no pass very much (last year it would have meant 4 students would have failed instead of 5).
- Changes to the method to determine "Honors"; a meaningful definition of honors is needed as a base and then to determine what % of the course points are required.
- Continue the Independent Student Project as a team project; require a peer evaluation of how the team functioned in dividing the different tasks of understanding a case (may tweak the format).

#### Best practices include:

Students are required to work in teams of randomly assigned students, and produce project  
Continue to add some short answer questions, and to make them more challenging

#### Questions/Input

- a) Student suggestion for scoring for participation by allowing for different levels of scoring (% of points) for the different levels of student participation. This would make this a more high stakes aspect of interactive learning.
- b) It's necessary to determine how to overcome the problem of differences in how each different lab instructor structures their point designation for participation/attendance.
- c) Failing students in a fair grading process may help to identify areas of deficiencies that can be addressed for on-going improvement in performance.
- d) Short answer questions are labor intensive to correct, continuing use and/or increasing number will probably require an exam committee.

#### Neuroscience

To measure how well the course does in teaching the objectives students are required to learn, Dr. Giesler has followed up with Neurology Clerkship directors as a means to gauge to what degree the course prepares students and for what areas improvement and/or expansion are needed. His practice is to also follow-up with students to determine how well they are performing in clinical application and on STEP exams. He has been asked to review the Board's questions for Neuroscience (next summer) and feels UMMS students are taught what the Board exams are assessing. Students did well in the course (1 failure); 21% received 95% or higher and 91% go 80% or higher.

#### Working Well

- students thought the information was interesting and useful
- lectures are good
- well organized
- objectives are clear
- students achieve an understanding of material and organization of course is very good

#### Areas of Concern/Improvements

Grading, assessments and assignments for independent learning were identified through student evaluation of the course:

- eliminate questions using the following responses

1) all of the above, 2) none of the above, 3) more than 1 of the above, 4) a & b only:

Only Board style questions will be used.

- readings in the book were too detailed, too long:  
Will use two categories of readings (background related to lectures and readings covered on tests)
- past lecture outlines have been copyright approved(costly):  
Now there are electronic versions, which use non-copyright materials (reduced copyright fees from \$40/student to \$5 per -department covers cost). Currently lecture outlines are available electronically for student use (X500) a week in advance. Allows for electronic note taking and improved materials with colored figures.
- Cost of text book is a problem, a good replacement hasn't been found on-line; no change made at this time.
- Inconsistency in amount of material taught in labs:  
Adjusted scheduling has spread-out 2 difficult labs into 3 sessions to cover more difficult material and have collapsed 2 labs (less difficult) into 1 session (add more uniformity).
- A goal has been set to move to ExamSoft electronic exam model (once logistics are worked out); gives students the opportunity to see immediate feedback on exams, no bubblesheets, immediate feedback to course director instead of waiting for OMS (plus added expense) to process at a much later time.
- Preparing for future faculty retirement by shifting 8 lectures from older to younger lectures, which allows for transition of content and course objectives before retirements actually occur.
- Adding independent learning from a website with content related to human brains
- Adding 8-10 photographic practices for formative lab quizzes following each lab
- Switching to Black Bag
- Faculty are continuing to provide 8 lectures for the UMD course (held at Duluth campus).

#### SFC Input:

With regard to “readings” in HD-2 faculty have taken previously required readings and created companion guides and pre-reading for classroom sessions. Primer of core reading that supplements what happens in the classroom. Students have asked if the pre-readings are examinable. Students are informed that everything from both reading categories is open to being used in the Exam. Also it's critical that the assigned readings be in language that is appropriate to the level of MS-2 student.

#### Student Concerns and Input

Dane Thompson, MS-1 brought to the attention of the SFC members a course related concern generated by students attending an ECM session with guest lecturers/panelists. The attendance was very poor and the quality of the session was very important and of high value. Following the session students discussed how to improve attendance (especially for guest speakers). One suggestion is to make these and some other lectures required, they do have other courses with required lectures and the group of students who were attending feel it is important to have better attendance. Dr. Satin reported that there is a field trip that is required; students are bused to the Northwest Health Science University to help understand aspects of Chinese medicine, where attendance is tracked very carefully for points. One other example was a session with a panel of lawyers and there were additional notices sent to students to highlight the expertise available at the session, it was well attended. He gave a brief description of the ECM course segments and scheduling of students throughout Yr-1 and Yr-2. There was discussion by SFC members of options for requiring attendance and/or methods to notify students of available sessions. Dr. Chipman provided background on the level of expertise and relevance presenters can provide. He also noted the influence students can experience through this exposure; adding value for attendance at these events as “professionalism” training and tracking attendance at some of the sessions should be considered. Dr. Satin noted that he will follow-up with the other ECM course directors to determine how well specific email notices of panels and other speaker events have worked.

## **Discussion**

### **LCME**

Narrative Assessment (mid-course feedback)

Dr. Majka Woods reviewed the LCME citation which identified the requirement for UMMS courses on the TC campus to have formal mid-course feedback processes in place and functioning. Course directors for Year 1 and 2 must make a concerted effort to develop mid-course assessment opportunities. This is being accomplished in the clerkship rotations. The formative mid-course feedback format isn't a grade but is statement that is actionable and students can use to improve their performance by the end of the course. The timing must provide the opportunity to make the improvement of the remainder of the course.

Dr. Woods has reviewed the courses and pointed out as an example some courses have TA's who see students more frequently and will have more specific feedback of their performance. If the course is didactic lecture in a large classroom setting, there is very little opportunity to evaluate their progress or need for identifying deficiencies. There will be more 1:1 conversation with those course directors to determine what is possible. If courses aren't currently doing this, she will work with course directors to identify what method might be possible. CoursEval has the possibility of being used through email and a format with 3 or 4 standardized qualities students can identify and take action to improve. It can be done differently for each course. In December of 2013 when LCME make the request for report details for what each course is doing, how small groups might function, interactive model being used and if the mid-course feedback is being completed. Dr. Woods asked that course directors think about what might be possible and she will be talking with each of them individually. Her goal is to make it possible without great problems and how to make it meaningful. Where there is already an opportunity to make it happen for Spring courses it will be necessary to get it done. For Fall courses a plan will be ready and can be implemented for next Fall. Dr. Niewoehner did a pilot with her course last Spring and was not able to find a workable method. Dr. Powell recommended that further consideration needs to happen before this is fully implemented and some questions for what is the LCME requirement for Years 1 & 2. Dr. Minenko spoke about methods to use to determine student deficiencies early in their first year.

**Next SFC Meeting: January 4, 2013**