

## *Scientific Foundations Committee*

*November 1, 2013*

*7:30 – 9:00 am, B-646 Mayo*

***In Attendance:*** S Allen, G Filice, G Giesler, S Katz, R Kempainen, M Klimstra, A Minenko, C Niewoehner, J Nixon, J Norrander, M Ramey, M Rosenberg, D Satin, K Setterholm, P Southern, D Thompson, S van den Hoogen, K Wickman, M Woods

***Absent:*** L Anderson, R Amado, M Becker, A Blaes, J Chipman, B Clarke, E Coleman, A Edverson, D Powell, M Sanders, L Schimmenti, D Wangensteen, K Watson (AAMC), T Weinhaus

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### **Minutes**

Minutes for SFC Meeting, October 4, 2013 were approved with no changes or additions

### **Announcements**

Dr. Majka Woods introduced Dr. Suzanne van den Hoogenhof, the Undergraduate Medical Education Measurement Specialist. She oversees the larger Institutional Assessments and also the evaluation process, working with Genne Fritts. Rebecca Egbert who has served as the scheduler for the clinical year courses and the year 1 and 2 clinical experiences, has left the University. Beth Williams will be her replacement and will begin in the scheduler position on Monday, November 4, 2013. **Dr. Mark Rosenberg announced a Curriculum Summit has been scheduled for February 13, 2014** to be held in the new Recreational and Wellness Center from 10:00 a.m. to 4:00 p.m. An outside facilitator will help to focus discussion and it will be important to bring in community health system stakeholders. This is an important opportunity for Duluth and Twin Cities course directors and staff to meet to discuss curriculum. The goals are to determine what is being done really well and try to identify gaps and other areas needing improvement. It will be important for everyone to participate and Dr. Rosenberg has requested that everyone mark their calendars to save the date.

Dr. Filice asked for an update on the Strategic Plan which had been a topic of discussion during the Spring semester, and Dr. Rosenberg noted that was a faculty driven plan and is done and available on the Website. This was divided into leadership, research, clinical and education. The completed AHC strategic plan should not be confused with the new in progress University wide strategic plan.

### Annual Course Report

Dr. Katz reported there are 17 Scientific Foundation courses and if all course report every year then that would require more than one report be given for most every SFC meeting. This would not permit very much time to work on other issues and/or improvements to the curriculum. It has been proposed that for LCME purposes you have to complete the Annual Course Review (ACR) form at the end of your course each year. But there will be an option to choose to bypass the oral report every other year. Basically if the course has remained close to the same and no notable changes occurred, a course director can choose to bypass the oral report portion in that year of little alteration. It will not be possible to opt out year after year. Currently there several courses that haven't completed forms or presented a report for last year and those will require resolution. This will come up for a vote at the next SFC meeting.

### NEUROSCIENCE REPORT

Dr. Glen Giesler reported on the Neuroscience course. Students did well as shown on the histogram and all students achieved 70% or above for the course. There were an unusually large number of students who struggled on the final and 5 didn't pass the final and were required to retake the exam. They did well taking a cumulative make-up final during the summer months. A large percent of the students achieved 95% of the points available for the course. He has spoken often with clerkship directors and others who teach in field of the nervous system

and apparently the material covered is good preparation and provides strong basic knowledge for students to build on in this field. In reviewing Board Exam questions, Dr. Giesler feels comfortable that students are taught what is needed to do well on the Board Exams. Efforts are made to keep the course up-to-date and to increasingly integrate the clinical with the basic science.

According to the student evaluations the material is interesting and useful. The lecturers were well received with 6 out of 10 lecturers receiving 4 or higher; three scored below 4 but they are new lectures with young faculty and they are making changes to improve. The highest scores were for objectives made clear and acquired understanding. The lowest scores were for grade assessments and assignments of independent learning. In 2013 there were a number of changes made to the course which include elimination of foils, reading assignments in text books, inconsistency in lab material which was changed by compressing 2 labs into 1 and added 1 more background lab making the material easier to understand. Neuroscience may switch to one online exam in 2014 if they feel it is ready for use. Due to a majority of senior faculty the department has begun to transition new junior faculty to teaching responsibility for these courses, which began with the three previously mentioned lecturers. Eight lectures were moved over to new faculty as the beginning of the transition. Eight to ten practice quizzes given after labs have been implemented to respond to students concern for more graded assessments. These are available on the website after every anatomy lab with possible answers and the student commented favorably to having this immediate feedback..

For 2013 a major concern was that the lectures and labs aren't integrated which is a problem because the scheduling of labs doesn't frequently allow for labs to happen right after class. In this upcoming academic year they will try introducing much more of the anatomical material in the lectures to be covered before they see the material in the lab sessions. This will hopefully establish a bridging between the lecture and lab materials allowing more integration. Substantial changes have been made by the 3 new faculty in their lectures, none of them received lower than a 3 as scored by students.

Dr. Giesler has directed the Neuroscience course for 17 years. SFC student representatives reported that it is a hard course but the organization of the course is very highly rated by students. The notes taken in classes are the notes needed to study outside of class and students can skip the organizing step. It is chemistry, pharmacology and anatomy that makes it a tough course, but the interest seems to be high on the part of the students. There was discussion regarding students' perception of course organization practices and the student role in learning how to organize to enhance their learning experience. Course directors are required by administration to provide specific course information in a format that is organized for standardization; but there is also organizing by the learners that is of benefit to the student because that's how they learn, how they construct their knowledge and to begin to look for commonalities across topics. Dr. Minenko raised this point of view for students and course directors to consider, Dr. Southern has seen similar occurrences in his Microbiology course. He has students construct very complex algorithms in their learning processes, he could easily provide this for them but the benefit is that they construct this for themselves. He may at times provide a template but not the complete flow chart which would defeat the purpose. It is important to provide organizational structure and the guidance so students can complete it for their own educational benefit. Students reported that the annotations that Dr. Giesler does on the course slides allows them to annotate their own slides to use with their notes when studying outside of lecture. Dr. Rosenberg commended the Neuroscience Department process of succession planning to help develop new faculty before longstanding faculty near retirement. Duluth faculty and administration has been struggling with the scenario where attrition caused gaps in covering teaching needs in several areas of their curriculum.

## **DISCUSSION**

### Post Secure Exam Review procedure

There is a proposal for Post Secure Exam Review procedure, many courses are currently doing this this procedure is NOT a mandatory policy. Some classes will have to make changes to this procedure to fit their circumstances. Students have developed this proposal and are requesting support from SFC members to help to standardized practices. Student representatives spoke about the circumstances that were present during and after exams for

the first year class for summer courses. Students were unclear on how to proceed due to little standard practice. The proposal is to help avoid the breach of secure exam policy that occurred last summer, which may have partially resulted due to confusion for what took place during the secure exam review after the exam. .

Students are asking for a procedure in terms of how the review sessions are conducted. Most classes are already using this kind of the format. Students felt it was very important to have the secure exam review in a separate room to help prevent any breach. Dr. Katz reported that the students have worked across Years 1 & 2 and with him to craft this process. He did indicate that some course directors are concerned about #4 which refers to using a separate space; scheduling rooms is time consuming and often not possible to get access to at times that fit with exams. However, the course director isn't required to provide the room, this can be scheduled by the course managers in advance (a month or more out). The three hour timeframe in #2 is problematic and it was decided that should be up to the course director. Dr. Minenko talked about the purpose of the proposal and how it fits with the goal to develop professionalism. Dr. Satin added that the current year one class has a document very similar to the current proposal that they want submit for consideration. Dr. Woods reminded members that a very similar document was created and presented to SFC about 3 to 4 years ago. There are issues be raised on multiple levels. Dr. Satin reported that the students he has talked to are motivated to request this; they feel they at the end of an exam they are disoriented, leave behind belongings, can't judge how well they performed and are concerned about making a critical error in judgment (i.e., walking out of the test room with test materials). One student shared an issue they experienced in forgetting to hand in their exam and bubble sheet, this student's grade will be based upon this mistake not upon their actual performance on the exam.

Two problems to solve include a more exact check-in/check-out process for handling exams (an actual check point) and reviewing questions to resolve confusion about exams questions and individual performance. In year-2 there are questions that come up occasionally, but the students have a year's experience with the system and the issues are fewer. In the first Fall sessions, students need safeguards in place to lessen the chance of mistakes. There is a major question in the discussion, are students given a chance with the faculty present to review the questions that are confusing.

From the students' standpoint, the primary reason for requesting that the review happen immediately after the exam is the opportunity to ask questions while the issues are fresh, as opposed to leaving the exam site without any reference material to use as follow-up (exam questions cannot be written down by students for follow-up). The opportunity to address confusion and/or questions about why their answer are wrong and learn from their mistakes is not very productive if it takes place away from the exam site and/or too much time passes before the student can compare correct answer to their perceived answer. In speaking to professionalism, student representatives pointed out that the individual, who inadvertently took the exam home, went to the course director to report their error while understanding they would lose points for the course is a measure of professionalism. Students' willingness to step up and accept the results of their mistakes is a level of professionalism all students should strive to achieve. It is important to write protocols to get consistently good outcomes for all students. These should include criteria such as students who have written all challenges after exams, students who turn in their exams and students who feel comfortable in the review process. Course director feedback indicates appreciation for the ability to know what those protocol are so when called upon by individual students they can give accurate and consistent information to all students.

- Collect exams – securely to safeguard unintended errors
- Review of actual test questions/answers
- Honor professionalism
- Protocol insures good test experience
- Minimum requirement for all course experiences
- Pharm course takes place in summer session and their process was a little different that what 1<sup>st</sup> year student had experienced
- Use faculty or TAs to check off individual names at end of exam

Dr. Katz noted how exhausted and disoriented students are when they've completed the examination process, he provides "toast" and juice for them immediately after a final in recognition of their work and the level of physical and mental output they have just experienced.

Discussion of secure electronic/computerized testing touched on the ExamSoft option, standardized physical space, technical support, and the labor to administer them securely. All of these details impact the ability to offer electronic testing. There is also some research to support improved scores on electronic examinations.

Dr. Katz has taken detailed notes from this discussion and will make some changes to the proposal, then submit it by email for review. It is possible to take a vote to endorse the protocols but faculty/course directors can make adjustments for their own courses. He supports having the document to help provide consistency and transparency. All course directors will have another opportunity to review the revised version.

#### Help, there may be a failing student in my class –continued

Dr. Katz shared grids that provide a 5-year analysis of Year 1 and Year 2 of student performance across all courses in each and year how some predictors can be used to identify academic problems earlier for intervention purposes. The comparison provides the opportunity to see patterns for how performance plays out over the two year period. This does rank the student by the number of points they earn across the year, from the top performers to those at the low end of points earned. The comparison also indicates failures across the year by year, indicating that many who fail a course in the 1<sup>st</sup> year are given guidance with areas of weakness identified, which helps to improve their performance overall.

There are some students who never fail in 1<sup>st</sup> year, but are always at the 70% mark and as year two progresses they are more likely to have failures in year two, which can extend into years 3 and 4 in the clerkship experiences. Perhaps their grasp of the basic sciences in years 1 and 2 isn't supporting what they need to advance in a consistent way throughout their entire educational experience.

Indicators for possible academic difficulties include:

- Number of years out of school before medical school
- Undergraduate low GPA
- Step I failure

For students with 1 or more of these areas of concern they should be identified early and special attention paid to close guidance throughout their medical education. Additional comparisons in the future will be provided..

## **Next Meeting, December 6, 2013**