The Medical Student Education Committee of the Quillen College of Medicine met on Tuesday, August 18, 2015 at 3:30 pm in the Academic Affairs Conference Room of Stanton-Gerber Hall.

Voting Members Present:
Ramsey McGowen, PhD, Chair
Caroline Abercrombie, MD
Reid Blackwelder, MD
Michelle Duffourc, PhD
Howard Herrell, MD
Dave Johnson, PhD
Paul Monaco, PhD
Jerry Mullersman, MD, PhD
Kenneth Olive, MD
Omar McCarty, M2

Ex officio / Non-Voting Members & Others Present:
Jessica English M3
Theresa Lura, MD, ex officio
Rachel Walden, MLIS, ex officio
Robert Acuff, PhD, co-chair M1/M2 review subcommittee
Cindy Lybrand, MEd
Cathy Peeples, MPH
Lorena Burton, CAP

Shading denotes or references MSEC ACTION ITEMS

1. Approval of Minutes
Minutes of the July 21, 2015 meeting was approved with changes noted to pg. 3, spelling of Dr. Harrison’s name, and a change to text on page 6, with reference to course director’s efforts to utilize Bloom’s taxonomy in preparation of internal course exam questions.

“Cindy Lybrand reiterated that an important component of our program evaluation and further implementation of Exam Soft is looking at internal course exam questions and improving the degree of difficulty for higher-order level which can measure students’ critical thinking skills requiring they analyze and evaluate concepts rather than factual recall of knowledge.”

2. Meeting Time Management
Dr. McGowen wanted MSEC to note that there will be more attachments included with the meeting announcements. The meeting times have been extended, but we still have a need for extensive agendas, and a need for everyone to come prepared by reading in advance and being ready to discuss and vote as efficiently as possible on all agenda items. We want to cover all agenda items without postponing them to future meeting dates.

Dr. Mullersman presented the 2013-2014 Specialty Clerkship Comprehensive review under clerkship director, Dr. Daniel J. Wooten. The Specialty Clerkship is well liked by the students for the opportunities it gives to them.
MSEC Approved SEPTEMBER 15, 2015

This is a comprehensive review covering 2013-2014. Students were concerned about elog requirements and having to log every clinical encounter. In addition, students were concerned about the time devoted at the end of the clerkship, in the last week, to required student case presentations that shortened the available time rotating on a service.

Short Term Recommendations to MSEC – no action at this time for MSEC. The 2014-2015 review report will update MSEC on short-term recommendations made to the Specialty clerkship in the 2013-2014 review report.

Jessica Arthur commented that the elog requirement is eliminated and there are evaluations every two (2) weeks, indicating that some of the recommendations have already begun to be put in place in 2015-2016.

Long Term Recommendations to MSEC – The Program Evaluation to review the four (4) weeks total that were removed from Internal Medicine and Surgery clerkships and placed in the Specialty clerkship, and recommend if they are to-be restored to their original clerkships, making each at least eight (8) weeks each.

MSEC discussion included that the Specialty clerkship is able to offer to its’ students additional options for specialty rotation types. In the past both Internal Medicine and Surgery included specialty rotations in their options for student rotations, but there is question about whether the student was in fact receiving a full eight (8) weeks of IM or Surgery, i.e., Surgery clerkship offered Anesthesiology as a two (2) week specialty offer during the eight (8) weeks. Dr. Abercrombie noted that students continue to receive clerkship didactics even while they are on a two (2) week specialty rotation and continue to be part of the clerkship rotation activities. The Program Evaluation review will need to consider this when they review the long-term recommendation and provide their recommendation.

A motion was made by Dr. Johnson to accept the long-term recommendation for the Program Evaluation process to evaluate the structure of M3 clerkships’ best use of time. Specifically, the two (2) weeks of Internal Medicine and two (2) weeks of Surgery clerkships that were removed to create the Specialties Clerkship should be re-evaluated to permit restoring the weeks to the original clerkships, making each eight (8) weeks in length; but consideration should include that such a restructuring would effectively dismantle the Specialties Clerkship as it currently exists. Dr. Herrell seconded the motion. MSEC voted unanimously to accept the motion.

4. M1/M2 Review Subcommittee: Three reports were presented by the subcommittee – Microbiology, Genetics, and Cell & Tissue Biology
A. Dr. Johnson presented the 2014-2015 Annual Review of Microbiology under course director Dr. Russ Hayman.

The course is going very well and the course is highly rated by the students.

Short-Term Recommendations to MSEC – none

Long Term Recommendations to MSEC - During the Program Evaluation review there should be consideration given to combining the Immunology course with the Microbiology course, allowing students to complete a shelf exam that includes material
MSEC Approved SEPTEMBER 15, 2015

for both courses. Currently there is no separate, stand-alone Immunology NBME subject exam.

In previous years, the Immunology and Microbiology courses were one course. The Program Evaluation review will need to look at the pros and cons of each option.

Discussion among MSEC noted that two of the four faculty teaching Microbiology are non-tenure track. They are valued and need to be retained. MSEC viewed this as a continued concern and sited other courses with the same type of non-tenure track faculty. The long-term stability of the curriculum is at risk by employing faculty that can be dismissed or leave on their own each academic year. Dr. Duffourc commented that she understands non-tenure-track faculty contracts cannot be extended past one-year with each renewal. Further comments identified that the review of this process may need to include Tennessee Board of Regents (TBR).

A motion was made by Dr. Abercrombie to have MSEC communicate to the Faculty Advisory Council (FAC) the concern for employment of non-tenure track faculty in core courses and the impact it can have on the stability of the curriculum. The motion was seconded by Dr. Monaco. MSEC voted unanimously to accept the motion.

A motion was made by Dr. Duffourc to accept the long-term recommendation for the Program Evaluation process to evaluate combining the Immunology and Microbiology courses into one course with one NBME subject exam given that covers all material taught. The motion was seconded by Dr. Monaco. MSEC voted unanimously to accept the motion.

A. Dr. Johnson presented the 2014-2015 Comprehensive Review of Medical Genetics under course director Dr. Paul Monaco.

**Short-Term Recommendations to MSEC –** MSEC should include in the Program Evaluation review whether sufficient time is allotted in the curriculum to the Genetics course and how best to deliver the course content.

Genetics has become a driving force in medicine and our students need to have adequate coverage of the material. The Association of Professors of Human and Medical Genetics Core Curriculum in Genetics has been recommended in the 2014 review report and now again in the 2015 review report, as a model for development of the Genetics course. Student evaluations suggest Genetics be offered in parallel with Cellular and Molecular Medicine (CMM). The present curriculum structure does not allow for a cohesive coverage of both courses. The Program Evaluation review will need to consider changes to the curriculum for coverage of both Genetics and Cellular and Molecular Medicine.

**Long Term Recommendations to MSEC –** develop a long-term plan for staffing of faculty in the course considering the stability of the curriculum when we have loss of faculty for this course and other courses.

Faculty resource availability should be considered in this course, as it was earlier in the review report for Microbiology. The teaching staff has been able to turn this course around, but it includes instructors who do not reside locally to assist in teaching and it is not known how long this will continue. The College of Medicine needs to develop a long-term plan to address staffing for this course and other courses. MSEC discussion included whether faculty search
committees are aware of the immediate need for providing stability to the curriculum. Dr. Mullersman responded that the search committee he serves on does understand this need and there is a current search for a Geneticist that would include a teaching role for the Genetics course.

Dr. Herrell recommended MSEC develop a long-term succession-planning document that would include courses where faculty are identified as nearing retirement or needed to ensure stable coverage in core courses.

A motion by Dr. Mullersman to accept the short-term recommendation for the Program Evaluation process to review the Genetics and Cellular and Molecular Medicine courses, including the amount of time devoted to genetics content, and their alignment and coverage of material with one another; to accept the long-term recommendation to including the Genetics course in MSEC’s communication to the Faculty Advisory Council (FAC) regarding concerns for employment status of instructors in core courses and effect on stability of the curriculum. The motion was seconded by Dr. Herrell. MSEC voted unanimously to accept the motion.

C. Dr. Johnson presented the 2014-2015 Annual Review of Cell & Tissue Biology under course director Dr. Paul Monaco.

Short-Term Recommendations to MSEC – none

Long Term Recommendations to MSEC – The Program Evaluation process should review concurrent delivery of Cellular and Molecular (CMM), Cell and Tissue, Genetics, and Physiology courses. These tracks would begin after the Anatomy course (Fall) and run to the end of the second semester (Spring).

A change to the curriculum that would allow the concurrent delivery of Cellular and Molecular (CMM), Cell and Tissue, Genetics, and Physiology in the first year, beginning after the Anatomy course and finishing at the end of the second semester. This would drive the curriculum towards a more integrated curriculum and better reflect how students have to think when they are treating patients. Student comments concur with this recommendation.

MSEC discussion included whether actual integration of the courses will occur, with exams given every few weeks, covering all material delivered, or will the courses run independently of each other with independent exams. Prior years’ recommendation for doing the block scheduling was to eliminate exams given every few days. Exam Soft allows integration of exam material, yet allows you to weight or key each question to specific and multiple material/course(s) if needed. Longer exams give the students a good experience of licensing exams

Dr. Johnson voiced concern with the slow bandwidth experienced within the COM teaching facilities. The students are not studying histology slide images here on campus, but rather at home, because of the time it takes load the images while here on campus. The students though do not have the benefit of having instructors at home to describe what the students are viewing in the images. Dr. Olive stated he has have spoken with representatives from ITS and they are aware of the slower bandwidth COM has experienced. They committed to a short-term goal of adding an additional 33% bandwidth with a long-term goal of continued work on bandwidth
delivery as demands/availability present. Per Dr. McGowen, MSEC’s concern has been voiced and we will continue to monitor the progress.

A motion by Dr. Herrell to accept the long-term recommendation to have the Program Evaluation process review the concurrent delivery of Cellular and Molecular (CMM), Cell and Tissue, Genetics, and Physiology courses and the reasons why previous curriculum review moved away from this model and make a recommendation after reviewing all needs. The motion was seconded by Dr. Mullersman. MSEC voted unanimously to accept the motion.

5. Outcomes Subcommittee Quarterly Report
Dr. McGowen presented the Outcomes Subcommittee’s second quarter review of our benchmarks.

In June 2015, five benchmarks had been met.

<table>
<thead>
<tr>
<th>Domain Objective</th>
<th>Indicators used by school to evaluate educational program effectiveness (Outcome Measures-Institutional)</th>
<th>2014-15 Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism</td>
<td>1. &lt;20% of students will receive professionalism incident reports in years 1 &amp; 2</td>
<td>Met the benchmark: 4 reports submitted for the 2014-15 academic year</td>
</tr>
<tr>
<td>Professionalism</td>
<td>2. &lt;10% of students will receive professionalism incident reports in years 3 &amp; 4</td>
<td>Met the benchmark: 1 report submitted for the 2014-15 academic year</td>
</tr>
<tr>
<td>Benchmark:</td>
<td>95% of matriculating students will complete the curriculum within 5 years</td>
<td>Met the benchmark: 95.6% for 2006-2010</td>
</tr>
<tr>
<td>Benchmark:</td>
<td>95% of the graduating class participating in a match program will obtain a PGY1 position with a residency program</td>
<td>Met the benchmark: 97% of Class of 2015 did secure a PGY 1 position. 2 students of 71 did not obtain a PGY 1 position (3%)</td>
</tr>
<tr>
<td>Benchmark:</td>
<td>In order to address primary care needs of the public, QCOM graduates will obtain PGY1 residency positions in Family Medicine, Internal Medicine, Pediatrics and OB/GYN above the annually reported national match rates for each specialty</td>
<td>Exceeded the benchmark for Family Med, Ped, and OB/GYN. Internal Medicine was the exception. Quillen match 48.75% of students into Primary Care Spec. compared to 45.0% nationally.</td>
</tr>
</tbody>
</table>

Dr. Herrell commented on the last benchmark for tracking of “primary care needs of the public” and asked if we could create a benchmark for primary care that includes those graduates, who in 4-5 years, actually practice in primary care specialties, specific to our own mission. Dr. McGowen acknowledged Dr. Herrell’s concern, but previous conversation led to setting the benchmark outcome measure as shown today. Dr. Olive added that we get the information from the AAMC Mission Management Tool tracks the percent of graduates in primary care practice 11-15 years post-graduation. Dr. Herrell recommends a separate/additional benchmark, evaluating graduates beyond the residency and fellowship years and is representative of actual primary care practice. Dr. McGowen stated that as the Program Evaluation Working Groups look at the curriculum there may be benchmarks that need revising, and the benchmarks are open to review.

Outcomes Subcommittee found that the following established benchmarks were not met. These are concerns that will be closely monitored. Dr. Abercrombie voiced concern about the 86% not meeting the Medical Knowledge benchmark, but Dr. McGowen and Dr. Olive provided
examples of changes that the clerkships and pre-clerkship courses are making to monitor student progress and adequately prepare the students. Dr. McGowen reiterated that the Outcomes Subcommittee is concerned and closely monitoring, but recommends seeing how the changes put in place affect student performance. MSEC asked about receipt of current Step1 scores, and student performance. The scores, received on a weekly basis, are just beginning to be received. Students are taking precautions and stepping up their study habits.

The final part of the Outcomes report addresses discussion concerning measures not met. The Subcommittee considered factors related to student performance on the unmet measures to include: lower than average MCAT scores based on the national average for matriculating medical students; adoption of a new NBME exam use policy recently adopted for clerkship and pre-clerkship courses; curriculum changes that may be recommended during the program evaluation cycle; and CBSE examinations recently implemented.

Discussion surrounding CBSE exam results and future use as a gatekeeper exam in a couple of years. Students would need to score at or above a predetermined cut-off score before they can sit for the Step 1 exam in the future.

**Recommendation to MSEC – no changes recommended at this time.** Continue with current Medical Knowledge benchmark: “50% of students will perform at or above the national mean.” For the next two (2) years, Outcomes Subcommittee should track alternate measures of medical knowledge attainment (Step pass rates; percentage of students scoring at the 10th percentile or 15th percentile on NBME exams, etc.) and report on their utility to MSEC.

**6. Summary Grid for Institutional Educational Objectives for Courses and Clerkships**

Cindy Lybrand provided two handouts. One displayed course objectives mapped to Institutional Educational Objective. She noted that a view across all four (4) years is needed to determine degree of coverage. This information continues to be updated in the New Innovations Curriculum module. Cindy reminded MSEC that adoption of the Institutional Educational
Objectives for COM mandates curriculum review to ensure all domains are covered at some point in our curriculum, across all years, and identifies basic to advanced coverage.

Dr. Herrell suggested that Threads be included in the tagging to Institutional Educational Objectives and reflected in the grid. Dr. Olive concurred with this, as it would allow for another identifier of the domains we cover.

The second handout presented a timeline of additional actions planned related to mapping institutional educational objectives. Discussion identified that course and clerkship directors struggle with how much coverage warrants identification of coverage. Dr. Lura suggested that in a later phase of implementation we identify coverage with specific notation of basic through advanced coverage. This may help faculty with coverage decision/identification. Dr. Monaco voiced concern with over basic science courses' identification of Institutional Educational Objectives covered in a course, where the objective is not assessed. Dr. McGowen pointed out that the Phase/Step timeline handout has Faculty Development sessions on developing course level objectives and session level objectives. This may be a good place to address the uncertainty faculty are having with identification of course coverage of the objectives. Additional discussion identified developing assessment methods also needed to be covered. Dr. McGowen asked that MSEC allow ideas for development of sessions be brought back to MSEC for further discussion and decision.

7. USMLE Content Outline as Tagging Nomenclature
Dr. McGowen opened the discussion by identifying that the USMLE content outline had previously been recommended as a method for providing a uniform nomenclature for mapping our curriculum content. MSEC previously tabled a decision on the approach for tagging and now that discussion is brought back for decision and adoption of an approach. With the review of our curriculum, it is important that we adopt a recognized method/approach of tagging that will allow us to map and review/analyze our curriculum. The USMLE Content Outline provides the nomenclature for the reporting we get back on student performance on all three USMLE exams. It is also an information glossary of medical terms, organized in a systematic way. If USMLE Content Outline were adopted, a phased-in approach, beginning with Spring 2016, would be recommended to prevent overwhelming of course and clerkship directors.

Recommendation to MSEC – adoption of the USMLE Content Outline as a standard, universally employed, tagging menu in the Quillen College of Medicine. It will be used as in conjunction with required LCME content, the AAMC reporting topics, and other terms not covered in the actual USMLE Content Outline that need to be tagged. It will be used for all courses and clerkships at the course and session level. The same nomenclature will be incorporated into Exam Soft so assessments can be tracked back to the same content tagging. The phase-in period will begin in Spring 2016.

Dr. Olive commented the key words that we have used in the past brought us further along in our tagging, but when trying to search on content it is difficult to know, which key word was used to identify the content. Having a uniform, nomenclature outline you would know which and where the content coverage is covered. The USMLE standard nomenclature will take time to learn and this is why a phased-in approach is recommended.

Dr. McGowen confirmed Daniel McLellan would be able to copy the USMLE Content Outline into Exam Soft for the tagging of assessment questions. We know that the NBME exam reports
reflect the USMLE Content Outline when reporting student results. USMLE has expanded its outline twice in the past five or so years and is now a comprehensive list that would allow COM to look at its curriculum and compare to national referenced data for tagging.

Dr. Duffourc voiced concern about its “fit” with a course, i.e., pharmacology that can cover material/terminology over many content areas. This could be time consuming and given the other responsibilities of the instructors for technology implementation and course support, the instructors could easily become overwhelmed. Dr. Monaco was concerned about trying to tag assessment questions with certain content outline when the question may cover more than one content area. Dr. Herrell felt both of these comments reflect an important observation that if we have to look at all courses it may force us to look at integration of courses. This is where a peer review of questions, what content they cover, how they should be tagged, etc. would be helpful.

Ms. Walden commented that clear instruction on the depth/level of content tagging would be important. She recommended that key words continue to be identified, as they could be a reference point when the content crosses multiple topics/courses.

MSEC discussed the level or depth of coverage that a course would need to tag. Dr. Olive noted that the first and second levels of coverage were identified in the CBSE content level analysis. Ms. Peeples noted that conversation with other colleges and their site visits identified tagging to whatever level of content is taught, whether it be 1st, 2nd, 3rd, 4th or more. Dr. McGowen summarized that we need to tag to whatever level is needed to make the information functional and reflective of what is being taught; keeping in mind the balance of work load with results.

A motion was made by Dr. Herrell to adopt the USMLE Content Outline, with levels of implementation yet to be defined, as a standardized tagging method within the Quillen College of Medicine. Dr. Blackwelder seconded the motion. MSEC voted to accept the motion with Dr. Duffourc opposed.

8. NBME Grade Policy Standardization

Dr. Olive presented an example of how the new policy for NBME exams was implemented after Period 1 of the 2015-16 academic year. Students are being notified by email of their NBME scores and the effect on their overall clerkship grade. To-date, since distribution of the calculated scores, there has been no negative responses from the clerkships. The Calculated NBME score allows COM a standardized means of calculating the NBME received score for the clerkships who administer an NBME subject exam, and ensures all other identified clerkship-grading components contribute to the student’s final clerkship grade.

Dr. McGowen clarified that the recently MSEC adopted pre-clerkship and clerkship NBME Grade Policies supersede all prior policies on use of NBME scaled scores in courses and/or clerkships.

9. LCME Standards 6.4 and 6.5

6.4: Inpatient - Outpatient Experiences: The faculty of a medical school ensure that the medical curriculum includes clinical experiences in both outpatient and inpatient settings.

Dr. Olive provided a sample table of estimated responses from the clerkships and the needed narrative response that will be required. Dr. Olive suggested that the Annual report form should
include a response requirement for the clerkship director to describe, “how the clerkship ensures students are spending sufficient time in the ambulatory and inpatient settings”. Ms. Peeples confirmed that a question has been added to the self-study form to collect information about the allocation of time in inpatient and outpatient settings. In addition, Dr. Olive requested that the M3M4 Review Subcommittee include an evaluation of the appropriateness of time distribution with inpatient and outpatient settings to their report for the clerkship. By instituting these two changes, we should be able to respond fully to the LCME narrative report.

6.5: Elective Opportunities: The faculty of a medical school ensure that the medical curriculum includes elective opportunities that supplement required learning experiences and that permit medical students to gain exposure to and deepen their understanding of medical specialties reflecting their career interests and to pursue their individual academic interests.

Dr. Olive provided a table reflecting the required electives in each year. In our narrative response, we are able to identify that we have a significant number of electives to include non-clinical areas (medical humanities), on-line courses, away rotations, choices within the required clerkships, and optional electives in the first two years of the curriculum. It appears that we are able to respond sufficiently to the narrative report for this LCME Standard.

10. Program Evaluation Working Groups
Dr. Olive updated MSEC on the Working Groups and their charge identified for the Program Evaluation review. Dr. Abercrombie is chairing Group #1, Dr. Gilbert is chairing Group #2, and Dr. Hayman is chairing Group #3. All working groups’ committee members are in place with the exception of one vacancy for Group #1. Academic Affairs support staff are assigned to each working group. The groups either have had their first meeting or are in the process of setting their first meeting. The Working Groups are advisory committees to MSEC and have been asked to provide MSEC with a preliminary report in October 2015, followed by a final report to MSEC in February 2015.

11. Review of Old Subcommittee Reports
As promised in the May 2015 MSEC meeting, Dr. McGowen presented a document summarizing curriculum review recommendations from past Subcommittee review reports. This document is available for the Working Groups to review on the shared T drive. The document will be updated with recent Subcommittee review report information.

12. 2015 Graduation Questionnaire
Dr. Olive announced that the 2015 Graduation Questionnaire (GQ) is now available and will be sent to all MSEC members following the meeting. No surprises were evident in the information reported. QCOM ranked higher than the National average for overall student satisfaction of their medical education. Dr. Olive asked MSEC to remember as they review the report, the timeframe in which the evaluation occurred. The students completing the questionnaire are providing comments based on past years completion of courses and there have been changes to the curriculum’s structure since then.

Dr. Monaco commented on the wireless in use in most areas, but in the classrooms we have workstations and even they are slow in downloading of information from the web.
MSEC Approved SEPTEMBER 15, 2015

Adjournment
The meeting adjourned at 5:50 p.m.

MSEC Meeting Documents

LCME Standards 6.4 and 6.5 Power Point - T:\Academic Affairs\MSEC ARCHIVE\MSEC Mtg TDocs_July-Dec15\8-18-15\Item 9 - LCME Elements 6.4 & 6.5.ppt

NBME Grade Policy Standardization - T:\Academic Affairs\MSEC ARCHIVE\MSEC Mtg TDocs_July-Dec15\8-18-15\Item 8 - Example of NBME grade calculation spreadsheet.pdf

Clerkship Policy – T:\Shared\Curriculum Management System\MSEC Policy-Procedure\Policy on Clerkship Grading of NBME Exam MSEC 6_16-15.docx

Pre-Clerkship Policy - T:\Shared\Curriculum Management System\MSEC Policy-Procedure\NBME Policy for Pre Clerkship Courses MSEC 7_21_15.docx

Program Evaluation Working Groups - T:\Shared\Curriculum Management System\Review Annual-Comprehensive-Whole\Curriculum Program Evaluation\2015-16 Working Groups\2015-16 All Working Group Charge\Charge to each working group_20150804.docx

T:\Academic Affairs\MSEC ARCHIVE\MSEC Mtg TDocs_July-Dec15\8-18-15\Item 10 - Memberships for Program Evaluation Working Groups_20150818.docx

USMLE Content Outline as Tagging Nomenclature - T:\Shared\Curriculum Management System\Mapping\USMLE and MCAT Content Outline\usmlecontentoutline2015.pdf

Upcoming MSEC Meetings

Tuesday, September 15, 2015 – 3:30-6:00 PM
Tuesday, October 20, 2015 – MSEC Retreat – 11:30 AM to 5:00 PM
Tuesday, November 3, 2015 – 3:30-6:00 PM
Tuesday, December 15, 2015 – 3:30-6:00 PM
Tuesday, January 19, 2015 – MSEC Retreat – 11:30 AM to 5:00 PM
Tuesday, February 16, 2016 – 3:30-6:00 PM
Tuesday, March 15, 2016 – 3:30-6:00 PM
Tuesday, April 19, 2016 – 3:30-6:00 PM
Tuesday, May 17, 2016 – 3:30-6:00 PM
Tuesday, June 14, 2016 – MSEC Retreat & Annual Meeting – 11:30 AM – 6:00 PM