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I. PURPOSE

This policy is intended to protect the integrity of each examination and to ensure that students receive constructive feedback in a timely manner. This policy provides guidance to course and clerkship directors on design and implementation of internally-developed examinations and quizzes.

II. POLICIES AND PROCEDURES FOR COURSE AND CLERKSHIP LEADERS

A. Format of internally-developed written examinations and quizzes
   1. Internally-developed written examinations and quizzes that count towards a grade are to be created and deployed online via the exam software.
   2. Rationale for online format for exams: Exam software allows for immediate scoring and feedback to students, ability to assign multiple tags to items and generate reports by those tags, and ability to develop an item bank of valid test items.

B. Planning assessments for a course or clerkship
   1. Non-clerkship courses: Prior to the start of a course, course directors should decide how many examinations and quizzes will be given, and how those assessments will be weighted and used to determine a final grade. Content of the examinations should align with the course learning objectives and instructional content.
   2. Clerkships: See Grading Policy (MSPP009).

C. Timeline for Examination/Quiz Preparation for internally-developed written examinations and quizzes
   1. Three weeks prior to an examination/quiz date, or prior to the start of a course (whichever is longer), the Office of the Medical Student Curriculum (OMSC) will provide course directors with a copy of the prior year’s assessment(s).
   2. Course directors will review the items and, based on the prior year’s item analysis report (typically provided by the OMSC), will decide which items to use for the current year’s testing. Any revisions or additions must be submitted to the designated OMSC staff at least five business days (Monday-Friday) prior to the exam/quiz date.
   3. For each item, course directors must provide: point value, correct answer (key), and tags. The four sets of tags are content keywords, Bloom’s taxonomy categories, competencies (Physician Competency Reference Set), and horizontal strands.
   4. Imaging or video must be provided in a file(s) separate from the text items. Images should be sent as jpeg or png files. Videos should be sent as Internet ready files (the Office of Online Education and/or Office of Information Technology will assist with conversions if necessary).
   5. After the OMSC-designated staff enters the examination items into the exam software, the course director will be notified and asked to review and proofread the examination.
   6. At this point, the course director can only edit items; new items cannot be added to the assessment.
   7. Staff from the OMSC will provide a final proofread of the examination.

D. Format of the Examination
   1. Each question should align with identified learning objectives and instructional content.

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2. Acceptable question formats are: multiple choice questions (MCQ), extended matching, fill-in-the-blank, and multiple response. Additionally, videos and images can be used on the examination.

3. True-False items should not be used. MCQ items that include “all of the following are true except...” are a variation of true-false items and are strongly discouraged.

4. Essay items, if used, should not represent more than 25% of the student’s total examination grade. Essay questions should be graded using a scoring rubric, and the essays blinded by student name. The course director or their designated course faculty member(s) must grade the students’ responses; the OMSC does not provide grading support for text response questions.

5. Course directors are strongly encouraged to consult NBME’s item writing manual available from the OMSC or at https://www.nbme.org/sites/default/files/2020-11/NBME_Item%20Writing%20Guide_2020.pdf

E. Communication / Reminder of Honor Code
1. Examinations and quizzes will open with the following statement:

   “By completing this examination or quiz, I acknowledge and agree to abide by the honor code. All work on this exam or quiz is solely mine, and I will not give or receive any assistance from unauthorized sources. I will do my part to maintain the honor code myself and among my peers.”

F. Proctors
1. Course directors who use an NBME subject examination must abide by the NBME’s rules for proctors.
2. The Office of Information Technology provides or oversees staff for technical support during the summative examination or quiz. These staff members are not to be viewed as proctors.
3. The OMSC has limited ability to provide proctors for examinations; course directors may arrange for course faculty to proctor examinations.

G. Student Feedback on Summative Examinations/Quizzes
1. Students will have access to their overall score (relative to items that can be graded automatically) immediately upon completion of the summative examination or quiz.
2. Immediately upon completion, 30 minutes will be allotted for students to review all items, including those they missed (as well as the correct responses) and those they answered correctly. Students are not permitted to take notes during this time period.
3. Summative examinations/ quizzes will not be returned to students, and correct responses to individual questions are not provided to students for their use after they leave the examination room.
4. In order to maintain the integrity of test items, no additional review sessions will be held for items graded automatically.
5. In lieu of providing more detailed and specific feedback on summative assessments, course directors should provide formative quizzes with more detailed feedback.
6. Summative examination and quiz scores are stored in the exam software and the learning management system and are accessible to students. Students and course directors can also see individual performance in each tagged area on the assessment (e.g., pharmacology).

H. Item Analysis
1. Course directors will receive descriptive statistics (mean, standard deviation, etc.), each student’s overall scores, and an item analysis report from the OMSC within one business day of the summative assessment end time. The item analysis report will provide information which should be considered when determining whether any items will be omitted from calculation of the final score for the exam, and which items need revision for use in future exams.
2. If any item(s) is/are to be omitted based on the item analysis results, the OMSC will recalculate scores and send these corrected scores to the section/course director.

3. Course directors should use the item analysis report to improve their examination or quiz for the next year. Guidance for improvement is available from the OMSC and the Office of Assessment and Evaluation (OAE).