

**Student Assessment Task Force
Final Committee Report
October 2001**

Purpose - Review and update Student Assessment Policies

Chairs - Howard Reisner, Ph.D. and Kathleen Rao, Ph.D.

Members

Howard M. Reisner, Pathology & Lab Medicine
Kathleen Rao, Pediatrics
Donna Harward, OED
Michael Caplow, Biochemistry
Alan Cross, Social Medicine
Douglas Mann, Neurology
Deborah Ingersoll, Student Affairs
John Newbold, Microbiology & Immunology
Frank Wilson, Orthopaedics
Pierre Morell, Biochemistry
Kelly Fogleman, Student
James McShane, Student
Nick Fitzsimons, Student
Matthew Atkins, Student
Chad McCall, Student
Heather Crouse, Student
Rebecca Sands, Student

Meeting Dates

1/17,22 2/14,28 3/14 4/11

Examination Format Subcommittee

Recommendations are submitted in two categories: immediate and long-term. Immediate recommendations will be submitted to the First and Second Year Committees and CMC for review/revision and approval for immediate implementation. Long-term recommendations will need to be reviewed and revised to accommodate future changes or modifications in curricular content and/or design.

Immediate

Rationale For Assessment And Evaluation

The School of Medicine's rationale for student assessment and expectations for faculty assessment of student performance are submitted as Attachment A. It is recommended that these guidelines be included in the course-directors' orientation packet and available on the Office of Medical Education web site.

Exam Production And Scoring

Guidelines for MSI and MS2 Exam Production and scoring outline the protocol for getting exams produced and administered and are submitted as Attachment B. It is recommended that these guidelines be included in the course directors' orientation packet and available on the Office of Medical Education's web site.

Resources For Developing Tests

The SOM's Office of Educational Development provides support to faculty through formal workshops, access to and support for the Assessment and Item Management System (AIMS), and one-on-one consultation. In addition, the Center for Teaching and Learning on main campus provides consultative services. It is recommended that these resources be listed on the Office of Medical Education web page, in course director orientation packets, and referenced in committee and faculty development activities.

Assessment Of Higher Levels Of Learning

It is recommended that faculty develop and administer assessment instruments that emphasize application of major principles or concepts (e.g., how information or knowledge is used by the undifferentiated physician). Items that solely assess recall should not account for more than 35% of a test.

Further, it is recommended that courses in the first and second-years of the curriculum collaborate with complementary courses to design test questions that assess students' ability to demonstrate knowledge and skills in the context of clinical scenarios that reflect frequently encountered medical problems.

Fidelity

Assessment methods should be congruent with the specified learning objectives/ outcomes and, in as much as is practical, reflect the circumstances under which a physician will use this knowledge or skill. For example, having the student elicit a history from a real or standardized patient best assesses the skill of taking a history. Fidelity may also be improved by developing test items linked to clinical scenarios. It is recommended that faculty develop test items that assess knowledge from multiple disciplines (integration) and simulate common medical practice.

Item Types And Formats

For objective items, it is recommended that faculty use item formats that are psychometrically sound and encountered by students on licensing examinations: single best answer, matching and extended matching are the recommended formats. AIMS supports these formats and provides standardized instructions.

For open-ended formats, it is recommended that faculty develop ideal responses and the scoring protocol prior to administering the test and have one person score all responses for a single item to achieve high reliability.

On-Line Testing

OED provides the AIMS as a resource to the SOM teaching faculty. OED is developing an on-line assessment component for the AIMS to complement the existing capabilities (e.g., web-based self-assessment, systems-based data base, single administration and cumulative item analyses and performance data). It is recommended that OED pilot one on-line assessment during the 2001-2002 academic year in collaboration with OIS and ETG. Based on this trial application, OED will submit a formal proposal that describes both the infrastructure and resources necessary to move beyond a pilot and make on-line assessment available to all course directors.

Long-Term

On-Line Testing

The SOM should move towards on-line assessment because it is efficient and provides students practice in the environment in which all future licensing and certification exams will be administered. Security is a significant consideration as the SOM has committed to using students' personal laptops in lieu of dedicated terminals. Other questions that must be addressed include: Who manages the dedicated server and back-up server? Who will provide on-site support for laptop replacement or technical problems? How will the honor code accommodate this process?

Integrated Assessment

As the curriculum moves towards instruction that comprises more problem-based and small group instruction, students will encounter multiple disciplines within the context of clinical cases. Assessment of student knowledge should reflect these same characteristics: clinical scenarios that include basic sciences, social sciences and clinical sciences. The use of standardized patients to present the scenarios will increase the fidelity of the assessment and provide students with the opportunity to exercise their professional skills of history taking and physical examination as well. Objective items that assess recall and discipline or science specific content will not be eliminated, but these should not account for more than 35% of an assessment instrument. Students' skill in acquiring pertinent information, collaborating with colleagues, and self-assessing one's level of knowledge and skill must be evaluated as well.

Clinical Simulations And Virtual Reality

As the SOM expands its facilities to incorporate the Human Simulator and virtual reality stations, assessment of students' skills can include demonstration of procedures, application of pharmacologic principles and management of computer simulated patient encounters.

Grading Policy Subcommittee

Findings of the Task Force

A survey of Course Director attitudes and current operating procedures was performed, and the results tabulated for use by the committee. Based on this survey and the experience of the committee members, the committee concludes that there is considerable inconsistency in the way in which letter grades are interpreted by faculty and assigned to the students. Students may also be unsure of the performance expectations for achieving specific grades. This appears to be most marked for the designations of "Honors", "Condition", and "Incomplete".

Statement of Expectations by the Course Director:

Course directors must clearly state in the course syllabus, criteria to be used for establishing the grades of Honors, Condition, Pass, and Fail. The intent of this requirement is to make students aware of performance levels expected to achieve Passing or Honor grades. Absolute cutoffs may not be determined until the end of the course.

Honors:

A grade of Honors is meant to distinguish those who have achieved particular merit in a course. For norm referenced courses: Honors should be awarded to approximately the top 15% of the class. Some flexibility can be introduced in the case in which multiple students achieve the stated cutoff. In such cases it will be appropriate to exceed 15%. Criterion referenced courses: Honors should be awarded to students who have achieved a predetermined examination score. In some courses an additional project (paper or activity) will be required. This must be clearly described in the syllabus. Course directors may choose not to use the designation "Honors". This should also be stated in the course syllabus.

Grades of Condition and Fail:

CO or "Condition" should be used in cases where a student's performance in the course suggests that he or she should be able to pass a re-examination after a brief independent review of the course material. Establishment of cutoffs for Condition and Fail might rationally include consideration of the student's overall performance in the curriculum in consultation with the Associate Dean of Students. The CO grade must be cleared within 3-weeks of the final examination of the course. Failure to clear a CO within this time frame will result in an "F" for the course. A CO must be cleared by a passing performance on an evaluation instrument equivalent in scope and difficulty to the original course evaluation instrument. There is no requirement for a formal review session to be provided by the faculty for a student who receives a CO grade.

Students passing the above evaluations will have a grade of "CO/P". Students failing the reevaluation will receive "F". It should be noted that the Promotions Committee considers the number of "CO/P" grades earned by any given student in promotion decisions.

A grade of "F" should be assigned when the student's performance indicates to the course director major difficulties which can not be remediated in a relatively short course of independent study. A grade of "F" in any course will prevent the student from being promoted to the next year. An "F" grade may be remediated by formal summer review and by passing an evaluation equivalent in scope and difficulty to the original examination. A student who fails 15% or more of the year's credits, or who in the judgement of the Promotions Committee shows evidence of serious academic problems, will be required to repeat the year or may be dismissed from medical school.

Incomplete

The use of "IN" or Incomplete should be reserved for the most compelling circumstances such as family or medical emergencies. To ensure consistency in the way in which "IN" grades are used no grade of "IN" will be assigned without the approval of the Associate Dean of Student Affairs. Use of the "IN" should be expanded to include finals that are missed because of urgent circumstances. An incomplete must be converted to an honors, pass, or fail within 8-weeks. When more than 8-weeks is required to complete course work, it is recommended that a student take a leave of absence to attend to the family or medical emergency. Absent compelling reasons, use of the Incomplete grade is inappropriate and a Failing grade will be given for the course. Policy regarding missed due dates and exams will be clearly stated in the syllabus.

Guidelines for Assessment and Evaluation

The assessment of students' achievement in both knowledge and professional skills & behaviors is an important function of the curriculum. Likewise, the evaluation based on the information derived from multiple assessment strategies is an important function of the curriculum. School of Medicine guidelines should provide direction for how both functions are carried out but allow faculty to determine specific assessment methods (measurement) and standards (evaluation).

What is the purpose of a student assessment and evaluation system?

Assessment of student achievement and performance generates information that provides the following:

- feedback to individual students regarding their achievement
- information to the administration regarding the individual student's readiness for promotion, need for remediation, qualification for academic awards (such as AOA), and recommendation for residency applications
- feedback on course and curriculum effectiveness to course directors and curriculum committees regarding students' achievement on specified learning objectives and School of Medicine exit objectives

What are the School of Medicine expectations for a student assessment and evaluation system?

- assessment strategies should be congruent with learning objectives
- students should receive feedback from each assessment experience as expeditiously as possible
 - Adequate turn-around time will include time for appropriate analysis of test questions (descriptive statistics, validity issues) or checklist issues (reliability, validity); grades should not be posted until this process is completed.
 - Repeated posting of adjusted grades should be rare.
- students should receive feedback regarding areas of proficiency and deficiency
 - Posting of correct answers with a copy of the test for a reasonable period of time, use of the AIMS (provides electronic personal performance profiles), or individual review of performance with course faculty will ensure the desired quality of feedback
- faculty members are encouraged to work with the Office of Educational Development to improve the quality of their assessment instruments

