Graduate Medical Education Ethics Course Available on the Web

The Graduate Medical Education Committee (GMEC) at UAMS has supported an effort over the last three years to integrate the teaching of medical ethics into each graduate program. Part of the impetus to develop this instruction was the accreditation requirements by the Accreditation Council for Graduate Medical Education (ACGME) of a core curriculum in ethics for all residents regardless of specialty. Most recently, to meet this requirement, the College of Medicine (COM) produced seven web-based modules, with assistance by the Office of Educational Development (OED). The modules are titled:

- Confidentiality
- End of Life Issues
- Ethical Responsibilities to Society
- Informed Consent
- Organ Donation
- Research
- Resource Allocation

Dr. Robert Galbraith, instructor for the seven course modules, worked with instructional designer, Dr. Ruth Allen, and research assistant, J. D. Moore, both in OED to develop this web-based course. Throughout the development of the course Dr. Jeanne K. Heard, Associate Dean for Graduate Medical Education, and the GMEC Core Curriculum Committee, chaired by Dr. Rebecca Martin, provided support and advice.

Each of the modules consists of learning objectives, content information, selected references, a short case study, and a series of multiple-choice questions with answers and feedback provided. Additional links to other web sites focusing on the topic are included as well. Residents are able to view their records, allowing them to monitor their progress through the course, to interact with the instructor or other residents via an e-mail link, and to return quickly to the current module from which they were last active, all from the Home page.

This web-based course is not intended to replace current ethics services and teaching efforts at UAMS. Several residency-training programs already had a systematic program for ethics instruction and assessment using a variety of formats. However, this course ensures that all residents receive basic information from the ethics core curriculum. The GME Committee requires all housestaff members (resident and fellow) to take all seven modules during their first three years at UAMS. It is expected that housestaff members will approach this material from the perspective of their chosen specialty.
Learning Skills Emphasized in Prematriculation Program

The College of Nursing recently hosted a prematriculation program for incoming juniors in the College of Nursing. Program faculty included Beverly Coates and Sue Huskey of CON and Judy Garrett of OED. The nineteen students who attended received an orientation to the campus and typical coursework in such areas as health assessment and drug math.

Due to the widespread use of computers in nursing education, the prematriculation program also included many computer applications. Students used a web site http://active-learning-site.com, for some insight into whether their preferred method of learning was diagrams (visual), auditory, reading/writing, or kinesthetic. As a review for their drug math, they took a computer-based pretest (developed with Question Mark) to refresh their memory on basic arithmetic operations with decimals and fractions. They also began using a computer-based medical terminology program required of all junior students.

Students also received an orientation to study strategies for CON courses based on well-established principles of learning. One such principle is that learning is more effective when information is organized in ways that are consistent with the demands of learning tasks. The chart below illustrates one study strategy based upon this principle. Information related to the assessment of the cardiovascular system is organized accordingly. This is simply one of numerous study strategies that apply to accepted principles of learning….lifelong learning.

<table>
<thead>
<tr>
<th>System/ Components</th>
<th>History Questions</th>
<th>Landmarks</th>
<th>Technique (Inspect, Palpate, Percuss, Ausculate)</th>
<th>Normal Values</th>
<th>Disorders Related to Abnormal Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart for organizing information related to Health Assessment course

Ready to Take that Test?

Our students are faced with numerous examinations during their academic careers and particularly, to become licensed as a professional. Are there ways in which we can help the students to prepare for examinations? There are some basic strategies that may help students prepare themselves for examinations.

OED has a one-hour workshop that addresses the strategies. These relate to pre-examination preparation and what to do during the examination. Prior to the examination we talk about learning as much about the test as possible including format, length, and options available. Also, the students can study their own test-taking habits to try to modify them during testing. Finally, we address the physical and mental preparation needed. Of course, such knowledge can only be useful if the student has prepared him or herself by learning the material and completing available practice examples.

Continued on page 3
The course was evaluated in a variety of ways. **Dr. Ruth Allen** of **OED** collected survey data from the students present each Friday. The survey asked for student opinion about the topics and presenters of the previous week. In addition she conducted a focus group discussion with eight selected students and asked them about their experiences that week. These same eight students also rated each faculty teaching during the week. In addition, all students present on the last day of the course were asked to rank the course overall and to provide additional comments if they wished to do so.

Using the results of the evaluation, future plans are currently under way for course revisions and the implementation of the course for next year.

### Week Topic Weekly Coordinator

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Weekly Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Internship Survival Skills</td>
<td>Dr. John Eidt</td>
</tr>
<tr>
<td>2</td>
<td>Prevention and Nutrition</td>
<td>Dr. Arlo Kahn</td>
</tr>
<tr>
<td>3</td>
<td>End of Life</td>
<td>Dr. Reed Thompson</td>
</tr>
<tr>
<td>4</td>
<td>Professionalism and Medical Economics</td>
<td>Dr. Linda Worley Dr. Ralph Broadwater</td>
</tr>
</tbody>
</table>

The instructors used a variety of techniques to provide the information to the students, including lecture, case studies, audience response systems to reply to questions, virtual supermarket trips, and many guest speakers from outside UAMS to provide a broader perspective in selected topics. The topics the guests focused on included guidance on filling out a death certificate, organ donation procedures, medical malpractice, making the most of your money, how to work with a resident, and the uses of herbal medicine.

In addition a course in ACLS (Advanced Cardiac Life Support) was offered to any student lacking this required credential for graduation.

One of the highlights of the course was the String of Pearls lecture series. Each noon one of the clinical departments fed the students lunch and presented its “top 10” things that the students needed to know as they begin their residencies. It was an opportunity for the students to both refresh and expand their knowledge in a given area.

To help students during the test, we focus on time management including initial planning, test sequence, and when or if to guess. We review tips for approaching different item types such as case-based items and traditional multiple-choice items. Also, we address the famous question of whether or not to change an answer.

One strategy used in the workshop is to analyze actual test items. This gives the students an opportunity to reflect on what the test developer is attempting to assess. Also, the students can analyze what types of incorrect answers tend to draw them away from the correct answer.

All of the test preparation will not make up for inadequate studying on the part of the student. However, a few guidelines may make taking a test more manageable.

---

**OED Directory**

Phone: 686-5720

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diane Heestand, Ed.D.</td>
<td>Director &amp; Ed. Development</td>
<td>Shorey G305</td>
</tr>
<tr>
<td>Ruth Allen, Ph.D.</td>
<td>Instructional Development</td>
<td>JB 332</td>
</tr>
<tr>
<td>Brad Moore, B.A.</td>
<td>Administrative Assistant</td>
<td></td>
</tr>
<tr>
<td>Judy Garrett, Ph.D.</td>
<td>Learning &amp; CB Assessment</td>
<td>Shorey G305</td>
</tr>
<tr>
<td>J.D. Moore, B.S.</td>
<td>Research Assistant</td>
<td>Shorey G305</td>
</tr>
<tr>
<td>Patricia O’Sullivan, Ed.D.</td>
<td>Educational Research</td>
<td>JBSU 2U/06</td>
</tr>
<tr>
<td>Mildred Savidge, Ph.D.</td>
<td>Ed. &amp; Program Evaluation</td>
<td>JB 330</td>
</tr>
</tbody>
</table>
Some of the Literature of Distance Learning

There is an overwhelming amount of information about distance learning at Internet sites. Below are brief descriptions and url's of some of the more recent reports that were found useful by Sharon Roushdy or Diane Heestand of OED or were recommended by Dr. Curt Bonk, a nationally known designer and teacher of distance learning courses.

The Role of the Online Instructor/Facilitator
http://jan.ucc.nau.edu/~mpc3/moderate/teach_learn.html

This article, by Zane L. Berge, Ph.D., 1995, provides a helpful list of roles and functions for the instructor involved in communicating online with students (computer conferencing). Berge identifies four conditions necessary for successful online tutoring, which have been categorized into four areas: pedagogical (intellectual; task), social, managerial (organizational; procedural; administrative), and technical. Under each category are several straight-forward recommendations for meeting these conditions in the online communication environment.

Article: 8 pages

Quality On the Line:
Benchmarks for Success in Internet-based Distance Education
http://www.ihep.com/PUB.htm

This paper, published in April 2000, reports on the results of a study conducted by the Institute for Higher Education Policy. The purpose of the study was to determine which benchmarks, from among those recommended for all kinds of distance learning, are appropriate and necessary for Internet-based education. After studying six postsecondary institutions highly experienced in Internet-based distance education, 24 benchmarks were identified as being essential to ensure quality in Internet-based distance education. The benchmarks fell under seven categories: Institutional Support, Course Development, Teaching/Learning, Course Structure, Student Support, Faculty Support, Evaluation and Assessment.

Executive Summary: 3 pages; Full Report: 33 pages

Advances in Pedagogy: Finding the Instructor in Post-Secondary Online Learning
http://php.indiana.edu/~cjbonk/article.html

The purpose of this paper, published in April 2000, was to lend a voice to four Indiana University instructors to describe their experiences with teaching with online materials. In each of the four case studies, the instructors discuss their unique approaches and resulting insights as they tackled pedagogical, social, managerial, and technological issues. Just a few examples of the many issues discussed include how to build an online community, provide feedback, utilize peer mentoring, incorporate problem-based learning, and use student portfolios. Finally, a list of benefits of online learning and related implications is listed, followed by a list of problems and solutions.

Article: 28 pages

Guidelines for Distance Education.
http://www.ncacihe.org/aice/guidelines/gdistance.html

This set of guidelines for distance education is provided by the North Central Association of Colleges and Schools Commission on Institutions of Higher Education (NCA). The guidelines address five areas: curriculum and instruction, evaluation and assessment, library and learning resources, student services, and facilities and finances. They are intended to help those involved in planning and evaluating distance learning courses or programs. In addition, it is suggested that institutions should address these guidelines,”...which it can anticipate will be reviewed by its regional accrediting commission.”

Guidelines: 3 pages

Teaching at an Internet Distance: the Pedagogy of Online Teaching and Learning
http://www.vpaa.uillinois.edu/tid/report/

Sixteen faculty members from the three campuses of the University of Illinois conducted a year-long seminar (1998-99) on the pedagogy of online teaching and learning in response to faculty concern about the implementation of distance learning technologies at the university. The report was published in December of 1999 and contains a wealth of information about resources addressing online pedagogy. This is a very thoughtful report that identifies practical concerns of the faculty as well as policy issues for administrators.

51 pages.

Distance Education at Postsecondary Education Institutions: 1997-98
http://nces.ed.gov/

The National Center for Education Statistics of the U.S. Department of Education published this report in December of 1999. It reports on a survey conducted in 1998-99 about the status of distance education in 1997-98. Facts reported include:
- About one-third of the nation’s 2-year and 4-year postsecondary education institutions offered distance education courses
- About 1,661,100 enrollments were counted (enrollment=one student in a course)
- About 1,363,670 enrollments were in college-level credit granting courses

Continued on page 6
The Language of Evaluation and Assessment

The words evaluation and assessment are often used interchangeably, and, in fact, their meanings are very similar. Probably the major difference, from a technical standpoint, is the type of data collected. Assessment data generally tends to be quantitative (percent grades on tests and assignments, or ratings on numerical rating scales or rubrics) whereas evaluation data can be either quantitative or qualitative. The definitions of these terms are provided below to help clarify these differences.

Evaluation: 1) The identification, clarification, and application of defensible criteria to determine an evaluation object’s value (worth or merit), quality, utility, effectiveness, or significance in relation to those criteria. 2) The systematic process of collecting and analyzing data in order to make decisions. In this sense, evaluation involves the collection of multiple types of information (some more subjective than others) to determine how closely the evaluand (the person, program, curriculum, educational material, etc. being evaluated) reflects the desired results.

Assessment: The act of assessing or appraising to determine an assigned value. The term assessment is more measurement driven, and in the field of education, generally reflects “measuring” the ability of an evaluand, either as an individual or in relation to a desired standard.

Within the field of evaluation and assessment, there are a variety of other terms that are often used in published articles, requests for proposals (RFPs), instructions to grant writers, and other documents. An explanation of some of these terms is provided below to help those unfamiliar with this jargon to better understand their use in educational research and evaluation.

Standards: Designated levels of performance (e.g. specific scores) that must be achieved for an evaluand to be deemed successful.

- Absolute standard: A specific number, proportion, or score that must be achieved for determination of success.
- Relative standard: The comparison of scores to determine success, rather than a set level (e.g. one group is better than another as demonstrated through statistical significance or effect size.)

The use of absolute and relative standards is similar to another matter that often causes confusion, that of criterion-referenced and norm-referenced grading or testing.

- Criterion-referenced testing and grading: Tests and other performance evaluations that are designed specifically to measure an evaluand’s performance against some absolute criteria.
- Norm-referenced testing and grading: Tests and other performance evaluations that are designed and used to compare the evaluand’s performance against large (usually regional or national) samples of similar students taking the same test or performance evaluation.

Criterion referenced testing and grading is often done using an absolute standard. This is done when the test limits are determined and known in advance (an A will equal 90% or above, a B will equal between 80% and 89.99%, etc.) or the level or performance required is determined and known in advance. In this case, the criterion for the achievement of a specific grade is set in advance, and explained to the student prior to any assessment activity (all students should know at the beginning of the course or clinical rotation what is expected from them to reach any specified grade level). Norm-referenced testing and grading is done using relative standards, which are determined after the evaluation event has taken place. This is often done by looking at the distribution of scores and using the statistical concept of the “normal curve” to assign grades. In large scale testing situations (i.e. certification or licensure exams), students’ scores are reported on the basis of the percentile level of performance (a student in the 80th percentile performed better than 80% of students taking the exam).

Performance Assessment: A formal mechanism for observing and rating the actual behavior or performance of a specified task or series of tasks. The OSCE (Objective Structured Clinical Exam) is a type of performance assessment.

Authentic Assessment: The design of assessment tasks that are representative of real world expectations for performance. The move to authentic assessment was a reaction against tests that were not reflective of what students would be expected to know and/or do after completing an educational program. Exams using standardized patients and measuring interactions with other health care professionals or expected professional tasks are considered to be forms of authentic assessment.

Outcomes: Program or educational outcomes refer to the end results of interventions. Outcomes are generally expected to be measurable in some way. Educational outcomes can include tests scores and other measures of student performance, but often include other indicators of success such as employer satisfaction with graduates’ performance, patient satisfaction, patient treatment results, and other longer term results. Although difficult to measure, there is a current

Continued on page 6
distance courses were most likely to be in business and management, the health professions, education, and engineering.

- About 75% of institutions that offered distance education courses charged the same tuition for these courses as for comparable on-campus courses.

Executive Summary is 5 pages.

What’s the Difference?
A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education
http://www.ihep.com/

This report prepared for the American Federation of Teachers, the National Education Association and the Institute for Higher Education

Barriers to Distance Education as Perceived by Managers and Administrators: Results of a Survey
http://www.gl.umbc.edu/~berge/man_admin.html

Zane Berge and Lin Muilenburg collected approximately 2500 surveys between December of 1999 and January. The report compares the rankings of the barriers perceived by 815 managers and administrators with the rankings of 1,689 teachers, staff support, researchers, and students. Both groups rank increased time commitment as the #1 barrier and lack of money as the #2 barrier. Differences between the two groups appear in the other rankings with the greatest difference in the ranking of faculty compensation/incentives. The administrator/manager group rank this as the 9th strongest barrier and the faculty/staff, et al. rank it as the 4th strongest barrier. Both groups agree that organizational resistance to change is among the top five barriers. 6 pages.

Evaluation and Assessment
Continued from page 5

demand for more evaluation of program outcomes. It should be remembered that outcomes can be both expected and unintended, and that measurement of both types of outcomes is advisable for program evaluation.

Types of evaluation: Often an RFP, program description, or article about evaluation will refer to a specific type of evaluation. Several common evaluation types are listed below.

- **Formative evaluation:** Evaluation work done for the purpose of providing program staff with information useful in program improvement. This type of evaluation is usually done during program development and while a program is being implemented.

- **Summative evaluation:** Evaluation work done to provide program decision makers and consumers with judgements about the worth or merit of a program, used for making determinations about program adoption, continuation, expansion, or termination.

- **Confirmative evaluation:** Evaluation work done after a program has been in operation for a significant period of time, to determine how well the program has maintained its effectiveness over time.

- **Responsive evaluation:** Evaluation work that is designed to address emerging concerns, issues, and information needs of stakeholders (individuals who have a stake in or may be affected by the program or the evaluation’s results) during the evaluation.

If you have questions about these terms, or other educational or evaluation issues, please contact Dr. Millie Savidge in the Office of Educational Development at 686-5720.


