



Center for Education Policy

**ENSURING QUALITY IN  
ONLINE HIGHER EDUCATION COURSES**

**REPORT SUMMARY**

Andrew Churchill

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*For additional information, contact:*

Andrew Churchill, Assistant Director

Center for Education Policy

University of Massachusetts

813 North Pleasant Street

Amherst, Massachusetts 01003-9308

Phone: 413-545-0958 Fax: 413-545-3855

Email: [achurchill@educ.umass.edu](mailto:achurchill@educ.umass.edu) Website: [www.umass.edu/education/cep](http://www.umass.edu/education/cep)

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## REPORT SUMMARY

This report summarizes the current state of the field in terms of (1) what the research literature has to offer in terms of effective practices and (2) what UMass and other higher education institutions are doing to ensure online course quality. It begins by defining online education and outlining the major characteristics and issues facing this burgeoning field. This is followed by a more explicit focus on ways of ensuring quality in online programs. An extensive bibliography is also included.

### **What is Online Education?**

Since 1995, online technologies using the World Wide Web have become widely used throughout higher education. Their use has allowed both synchronous (same-time) and asynchronous (not time-dependent) communication among students and between faculty and students, as well as multimedia and online access of research and support services. Online education includes the following key features:

1. **Computer-mediated classrooms ;**
2. **Separation in time between communications ; and**
3. **Availability of services, such as advising, registration, and library services, online .**

Online courses are basically collections of Web pages that can include the following elements: course introduction; objectives; pre-assessment quizzes; reading list; online lectures; assessments, including exams, papers, journals, and evaluations of participation in threaded discussions and chatrooms; and technical and navigational information. Online components are not relegated just to distance learning but may also be used in enhancing traditional classroom courses.

## **Size and Scope of Online Education**

As Judith Eaton of the American Council on Education puts it, “Studying distance learning is somewhat like chasing quicksilver: the pace of change in the field is so rapid—both because of changes in technology and in the organizational arrangements for delivering it—that establishing a solid base of information will be a never-ending task” (Eaton, 2002). Statistics on the size and scope of online education are necessarily dated, given the rapid growth of the field. These are some of the latest numbers available:

- The National Center for Education Statistics reported last year that enrollment in for-credit distance education (online, video, etc.) courses has grown rapidly, from 754,000 in 1994-95, to 1,344,000 in 1997-98, to 2,876,000 in 2000-01. (NCES, 2003)
- The Sloan Consortium reported last year that more than 1.6 million students took online courses in 2002; nearly 600,000 of them took all their classes in cyberspace. More than one-third of higher education institutions offer online courses, and 97 percent of public universities do. (Schwartz, 2004)
- UMass Online enrollments across all campuses grew from 11,239 in FY 2003 to 14,787 in FY2004, an increase of 32%. Revenues rose from \$9.1 million to \$12.7 million in the same period, up 39%. These increases outpaced the average of 71 colleges with distance education program surveyed by Primary Research group. That survey found an average increase of 27.64% in enrollments and 9.67% in revenues. (Wilson, 2004)
- As of March 2004, UMass Online offered 37 graduate and undergraduate programs online – including more than 300 courses – through the continuing education departments at UMass Amherst, Boston, Dartmouth, and Lowell. At Amherst, 58% of students are enrolled in graduate courses and 42% in undergraduate courses. Throughout the UMass system, the ratio is reversed, with 33% in graduate and 66% in undergraduate courses. (Wilson 2004)

The table below shows how online course offerings have grown over the past two years at the Amherst campus.

**Table 1 – Trends in Online Course Enrollment, Winter 2003-Summer 2004**

	<b>Graduate Courses</b>	<b>Undergraduate Courses</b>
<b>Winter 2003</b>	1	14
<b>Spring 2003</b>	18	32
<b>Summer 2003</b>	18	38
<b>Fall 2003</b>	30	40
<b>Winter 2004</b>	3	20
<b>Spring 2004</b>	39	48
<b>Summer 2004</b>	25	79

*Source: Registrar, Division of Continuing Education*

The table below indicates the distribution of online graduate courses by school/department, and the enrollment in each, in the current academic year.

**Table 2: Graduate Online Courses Offered, Fall 2003 – Summer 2004**

<b>Term</b>	<b>Session</b>	<b>Subject</b>	<b>Catalog</b>	<b>Descr</b>	<b>Tot Enrl</b>
Fall03	C1	BIOST&EP	540	Intro Biostatistics	39
Fall03	C1	BIOST&EP	630	Prin Of Epidemiology	28
Fall03	C1	BIOST&EP	632	Applied Epidemiology	6
Fall03	C1	COM-HLTH	601	Princ Of Com Hlth Ed	21
Fall03	C1	COM-HLTH	620	Prin Pub Hlth Prac	30
Fall03	C1	ENTOMOL	671	Using Insct In Clsrm	4
Fall03	U1	ENTOMOL	671	Using Insct In Clsrm	2
Fall03	C1	ENV-HLTH	565	Env Hlth Practices	43
Fall03	U1	LANDARCH	592A	S-Plants In Ldsce	7
Fall03	U1	LANDARCH	592A	S-Plants In Ldsce	7
Fall03	C1	NURSING	603	Theortcl Cmp Nrs Sci	11
Fall03	C1	NURSING	630	Res Meth In Nursing	7
Fall03	C1	NURSING	634	Mth Com/Sc HI Assess	3
Fall03	U1	NURSING	603	Theortcl Cmp Nrs Sci	4
Fall03	U1	NURSING	630	Res Meth In Nursing	6
Fall03	C1	PUBHLTH	690C	Hlth Care Mgt	20
Fall03	C1	PUBHLTH	690E	Pub HI Emergeny Mgmt	13
Fall03	C1	PUBHLTH	690P	US Health Policy	18
Fall03	C1	PUBHLTH	691S	Sem-PHP Capstone Exp	5
Fall03	C1	SCH-MGMT	630	Acctg Decision Makng	50
Fall03	C1	SCH-MGMT	631	Mngrl Acctg & Contrl	48
Fall03	C1	SCH-MGMT	632	Info Mgt In New Econ	49
Fall03	C1	SCH-MGMT	640	Fin Analys&Decisions	34
Fall03	C1	SCH-MGMT	650	Bus Data Analysis	44
Fall03	C1	SCH-MGMT	670	Prod-Operations Mgt	38
Fall03	C1	SCH-MGMT	680	Organizatnl Behavior	60
Fall03	C1	SCH-MGMT	697O	ST-Personal & Corporate Values	52
Fall03	C1	SCH-MGMT	783	Business&Its Envrnmt	44
Fall03	CD1	SCH-MGMT	770	Mgt Thry&Human Res	50
Fall03	CD1	SCH-MGMT	797G	ST-Managing Chng & Cont Imprv	20

<b>Term</b>	<b>Session</b>	<b>Subject</b>	<b>Catalog</b>	<b>Descr</b>	<b>Tot Enrl</b>
Spr04	C1	BIOLOGY	697G	ST-Under the Connecticut	7
Spr04	C1	BIOST&EP	540	Intro Biostatistics	33
Spr04	C1	BIOST&EP	630	Prin Of Epidemiology	39
Spr04	C1	COM-HLTH	601	Princ Of Com Hlth Ed	44
Spr04	C1	COM-HLTH	620	Prin Pub Hlth Prac	32
Spr04	C1	COM-HLTH	624	Rsrch Meth In Pub Hl	19
Spr04	C1	COM-HLTH	628	Fin Mgt HI Institutn	20
Spr04	C1	COM-HLTH	704	Health Prog Planning	21
Spr04	C1	COMP-LIT	591M	S-Medicl Interp&Tran	21
Spr04	CH1	COMP-LIT	591M	S-Medicl Interp&Tran	0
Spr04	C1	EDUC	615N	W/E:Inv Sci Classrms	23
Spr04	C1	EDUC	615N	W/E:Inv Sci Classrms	23
Spr04	U1	EDUC	615D	W/E: Current Research Educ Tec	5
Spr04	U1	EDUC	692M	S-Use Tec Slv Prb Sc	6
Spr04	C1	ENV-HLTH	565	Env Hlth Practices	31
Spr04	C1	FOREST	597M	ST-Managerial Economics	0
Spr04	C1	FOREST	597T	ST- Timber Harvesting	5
Spr04	U1	FOREST	597T	ST- Timber Harvesting	9
Spr04	C1	NURSING	635	Commnty Hlth Nrsg I	4
Spr04	C1	NURSING	640	Comm Hlth Assessment	6
Spr04	U1	NURSING	640	Comm Hlth Assessment	6
Spr04	U1	NURSING	645	HI Care Sys&Nurs Prc	14
Spr04	C1	NUTRITN	597D	ST-Nutrn & Health in Sci Clsrm	18
Spr04	C1	PUBHLTH	691S	Sem-PHP Capstone Exp	13
Spr04	C1	SCH-MGMT	597A	St:Cntmp Iss Acctg	1
Spr04	C1	SCH-MGMT	630	Acctg Decision Makng	55
Spr04	C1	SCH-MGMT	631	Mngrl Acctg & Contrl	38
Spr04	C1	SCH-MGMT	632	Info Mgt In New Econ	48
Spr04	C1	SCH-MGMT	640	Fin Analys&Decisions	36
Spr04	C1	SCH-MGMT	650	Bus Data Analysis	51
Spr04	C1	SCH-MGMT	660	Marketing Management	48
Spr04	C1	SCH-MGMT	670	Prod-Operations Mgt	26
Spr04	C1	SCH-MGMT	680	Organizatnl Behavior	54
Spr04	C1	SCH-MGMT	689	Organ Plan&Strategy	16
Spr04	C1	SCH-MGMT	697Q	ST-Services Marketng Managemnt	30
Spr04	C1	SCH-MGMT	770	Mgt Thyry&Human Res	41
Spr04	C1	SCH-MGMT	783	Business&lts Envrnmt	51
Spr04	CD1	SCH-MGMT	697Z	ST-Creating A High-Perfmnc Org	20
Spr04	C1	W&FCNSV	597O	ST-Watershed Sc&Mgt	0

<b>Term</b>	<b>Session</b>	<b>Subject</b>	<b>Catalog</b>	<b>Descr</b>	<b>Tot Enrl</b>
Sum04	CS1	COM-HLTH	726	Hlth Ec&Reimbursemnt	25
Sum04	CS1	COM-HLTH	780	Pub Health Law	43
Sum04	CS2	COM-HLTH	525	Ethical Iss In Pubhl	45
Sum04	CS2	COM-HLTH	780	Pub Health Law	0
Sum04	CS2	EDUC	615FF	Differentiated Instruction	6
Sum04	CD1	NURSING	597F	ST-Holistic Nrsg&Comp Alt Modl	0
Sum04	CS1	NURSING	605	Adv Hlth Assessment	0
Sum04	CS1	NURSING	610	Phc:Ch,Adlscnt,Yg Ad	0
Sum04	CS1	NURSING	616	Adv Pathphys&Pharmcl	0
Sum04	CS1	NURSING	698Q	Prac: Prim Care Chld	0
Sum04	CS1	PUBHLTH	691S	Sem-PHP Capstone Exp	4
Sum04	CD1	SCH-MGMT	630	Acctg Decision Makng	0
Sum04	CD1	SCH-MGMT	631	Mngrl Acctg & Contrl	0
Sum04	CD1	SCH-MGMT	632	Info Mgt In New Econ	0
Sum04	CD1	SCH-MGMT	640	Fin Analys&Decisions	0
Sum04	CD1	SCH-MGMT	650	Bus Data Analysis	0
Sum04	CD1	SCH-MGMT	660	Marketing Management	0
Sum04	CD1	SCH-MGMT	670	Prod-Operations Mgt	0
Sum04	CD1	SCH-MGMT	680	Organizatnl Behavior	0
Sum04	CD1	SCH-MGMT	689	Organ Plan&Strategy	0
Sum04	CD1	SCH-MGMT	697SS	ST-Sport Marketing	1
Sum04	CD1	SCH-MGMT	770	Mgt Thry&Human Res	1
Sum04	CD1	SCH-MGMT	770	Mgt Thry&Human Res	1
Sum04	CD1	SCH-MGMT	783	Business&Its Envrnmt	0
Sum04	CD1	SCH-MGMT	797J	ST-Business Forecasting	0

*Source: Registrar, Division of Continuing Education*

**Key Issues in Online Education.** A review of the literature reveals a variety of themes:

**Unbundling of faculty roles.** Universities are disaggregating faculty instructional activities and assigning them to distinct professionals. Distance education teams include instructors/facilitators, instructional designers, technologists, and administrators.

**New partners.** Degree-granting institutions are turning to corporations for technology that adapts existing instructional support operations to an online environment and creating collaborative partnerships with other colleges and universities as well as companies, to share technology and deliver courses.

**New providers of higher education “pick low-hanging fruit.”** For-profit institutions are the fastest-growing sector in education. There is some concern that for-profits “pick the low-hanging fruit” by offering the more marketable courses, e.g., business, computer science, etc., and leave the “heavy lifting” type of courses to traditional academe.

**Different types of learners.** Rather than replacing traditional higher-education institutions, distance education is allowing them to serve a new set of students who otherwise would not be able to participate. Successful distance learners tend to be self-sufficient, autonomous, and self-directed adults. On the other hand, students who are normally reserved and shy in classrooms may be likely to participate more actively in computer-mediated education .

**The importance of creating community/interaction online.** Perhaps the most important and difficult aspect of teaching online is creating a sense of belonging and community among the students taking the online course, to avoid student disengagement and higher dropout rates. Many distance educators maintain that their programs are successful because of the technologies that they use to let each student interact one-on-one with faculty members and fellow classmates.

**The importance of user support.** Faculty need help with translating their content expertise and course goals into the new medium, as well as with quickly solving any technical glitches that can interrupt course delivery. And students need an infrastructure of technology and technical support that they can rely on at all hours.

**“The 24-hour professor.”** Online courses require increased preparation time and timely responses to students who can interact any time of day or night. Some research indicates that online teaching actually takes greater frequency of work from faculty, but about the same amount of total time as conventional teaching.

**Experience affects faculty perception of value of online instruction.** Faculty who have taught online courses have a more positive view of this instructional method than those who have not.

**Student readiness for online learning.** Experienced faculty stress the importance of good advance information about rigor and time requirements. Institutions have begun asking students to complete self-assessments of their “fit” with online learning prior to registering.

**Cheating.** The lack of face-to-face contact in online education leads to concerns about academic misconduct. Proponents suggest a variety of ways of countering this, including de-emphasizing exams in favor of a portfolio of class activities.

**Questions about retention.** Studies on course retention rates are inconclusive, but anecdotal evidence and studies by individual institutions suggest that course-completion and program-retention rates are generally lower in distance-education courses.

**Blurring of distinction between “traditional” and “distance” learning.** In addition to all-online courses for distance learners, many on-campus courses include online elements.

**Greater emphasis on student achievement/learning outcomes.** Because online education makes traditional process measures of quality more difficult, it faces more pressure to show outcome measures. A consortium of regional accreditation commissions has developed guidelines in response to this issue.

**Cost, quality, and access are linked.** Despite the fact that the higher education community tends to treat quality, access, and cost as three separate and distinct issues, they are very much intertwined. Because these three issues are so inextricably linked, there may be ways to address all of them simultaneously by using information technology.

**“No significant difference” versus maximizing the potential of the medium.** Most studies that compare the achievement of learners in distance education with those in traditional classrooms find no significant difference. Proponents argue that innovative online programs can provide quality superior to traditional classrooms by linking faculty with instructional design teams, improving quality-control processes, linking course support structures to the courses themselves, and offering truly individualized learning.

**Lack of quantitative, longitudinal research.** Much more research needs to be done to establish a solid base of information on what works in online education and what does not.

### **What Frameworks Have Emerged for Enhancing/Assessing Quality in Online Education Programs?**

**An Overall Design and Evaluation Framework: “24 Benchmarks for Success in Internet-Based Higher Education.”** The Institute for Higher Education has identified a set of 24 benchmarks, clustered in seven categories, which it finds to be essential to the success of an Internet-based distance education program at any institution:

- **Institutional Support:** a documented technology plan; reliable technology; a centralized system.
- **Course Development:** standards and learning outcomes guide course design and technology; periodic review of instructional materials; courses require analysis, synthesis, and evaluation.

- **Teaching/Learning:** student interaction facilitated in a variety of ways; timely and constructive feedback; instruction in proper research methods.
- **Course Structure:** pre-program assessment of self-motivation and technology assets; clear summary of course objectives and learning outcomes; student access to library resources; mutual agreement on student assignment and faculty response times.
- **Student Support:** information on programs and support services; hands-on training and information; access to technical support; quick and accurate answers to questions.
- **Faculty Support:** technical assistance in course development; help and assessment in transitioning from classroom teaching to online instruction; continued training and assistance; written resources on student use of electronically-accessed data.
- **Evaluation and Assessment:** process uses several methods and specific standards; data on enrollment, costs, and successful practices used; learning outcomes reviewed regularly.

**Key Evaluation Areas: “Five Pillars of Quality Online Education.”** Based on its experience in the online learning field, the Sloan Consortium has identified a framework of five broad areas in which to evaluate the quality of online learning networks:

- (1) Learning Effectiveness,
- (2) Student Satisfaction,
- (3) Faculty Satisfaction,
- (4) Cost-effectiveness, and
- (5) Access.

**Specific Evaluation Measures: “Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs.”** The Council of Regional Accrediting Commissions has developed a detailed list of quality criteria for online education programs. The Evaluation and Assessment section suggests the following evaluation measures:

- Evaluations of student performance;
- Review of student work and archive of student activities;
- Results from students’ routine end-of-course and -program evaluations;
- Student surveys of overall satisfaction; surveys reflecting student cost trade-offs;
- Faculty surveys, peer reviews of programs, and discussion groups;
- Documentation concerning access provided to students not previously served, through a combination of enrollment records and student surveys;
- Usage records concerning use of library and learning resources, and instructor assignments that require such usage;
- Assessment of students’ fundamental skills in communication, comprehension, and analysis;
- Documentation of the institution’s analyses that relate costs to goals of the program.

## **How Are Other Institutions Evaluating Quality?**

Participant responses in the Sloan Consortium's Spring 2004 Online Research Workshop, including people from more than 130 institutions, provide some insights into the various ways institutions are assessing online education quality. Approximately 20% of respondents indicate that assessment is not done, left up to individual instructors, done sporadically or inconsistently, or that formal assessment programs are in research and development stages. Others mention a variety of mechanisms for ensuring and assessing quality:

**Course Development:** Instruction design standards; course shell approach or common course outline; suggested assessment portfolios; review of courses by faculty peers or instructional designers; outside curriculum consultants; new courses subjected to more formal evaluation process; course revision every three years.

**Student and Faculty Orientation:** Internet readiness survey of students; orientations for students and faculty new to online teaching; "Learning about Online Learning" message board; faculty handbooks (See Appendix for a good example, available online).

**Student Satisfaction:** Surveys/course evaluations, sometimes several times per semester; aggregate complaint logs; first-time online learner surveys; reasons for selecting online coursework; surveys of alumni and their employers.

**Faculty Satisfaction:** Surveys on academic and technology aspects; aggregate complaint logs.

**Other Effectiveness Measures:** Retention/withdrawal rates; GPA and pass/fail rates; enrollment trends; pre/post tests of student knowledge; comparison of student learning outcomes in online and conventional courses; student success in future courses; use of standardized tests or board certification to compare online vs. face-to-face quality.

**Institutional Processes:** Curriculum evaluation team/continuous improvement team; using annual evaluations of instructors to generate best-practice and faculty-support lists; individual faculty meetings with instructional designer; group faculty discussions/committees identify best practices and areas for improvement; analysis of courses/strategies yielding best student learning outcomes; institutional research studies of student/faculty perceptions; comparison to other institutions re: enrollments, cost, attrition, etc.; external evaluations; use of aggregate institution and state data for planning purposes.

Respondents also mentioned several concerns: very low course-evaluation return rates; easier to measure satisfaction than impact/outcomes; outcomes measures are difficult for all of higher education—very long-term; and how to ensure enrolled student is actually the one taking a test.

## **Quality Issues Raised in UMass Interviews.**

The author conducted interviews with 10 participants in online education at UMass. While this process was qualitative and impressionistic, the following themes and issues emerged:

**High-quality students, who would otherwise not come to UMass.** Participating faculty and staff generally felt that the students in their graduate online courses were as good as or, in many cases, better than the students in their traditional courses. Several programs are attracting physicians, nurses, and other mid-career professionals who bring both intellect and experience to their courses. They also bring high expectations for quality programs/courses. Generally, graduate level students are participating in online programs because their work and family responsibilities make them unable to leave their current employment for on-campus programs,

**Need for clearer orientation of students to the demands of online learning.** Several interviewees mentioned the need to ensure students understand what will be demanded of them. One interviewee expressed interest in self-assessments of readiness for online learning, such as that found at the University of Maryland's University College (see Appendix). Another said that some students appear to think that online coursework will not take as much time as an on-campus course; in fact, it may take more time, even though that time is more flexibly distributed.

**Student services important to maintain and improve.** Because students are taking courses from remote locations, all aspects of student services—orientation, registration, advising, library services, technical support, bill payment, grades, and other records—need to be accessible from off-campus. One interviewee spoke of an online student who was told he had to come to campus to get a campus ID in order to access the library. “But I’m in Taiwan!” he replied. Additional self-assessment and orientation materials online, as well as continuous improvement of online access to student services, were mentioned.

**It is possible to be more “academically intimate” online.** A number of interviewees spoke about knowing their students better online than in the face-to-face classroom. As one faculty member put it, “I only meet them online, but I meet all of them. In the classroom, sometimes people can fall through the cracks.” Another found the quality of conversation in online threaded discussions to be superior to classroom discussion. “They only answer when they’re prepared, they’ve done the reading, maybe they’ve drafted a response. They have more time to think about it.”

**It is also possible for the professor to “disappear” in cyberspace.** “When we see a problem, it’s when the faculty member seems to disappear,” said one interviewee. Several noted that online teaching requires a different type of attention than a traditional course: faculty must work to provide timely feedback on assignments and a regular presence via emails and threaded discussions.

**Some courses should not be delivered solely online.** Several interviewees identified courses involving laboratory experiences, hands-on human contact, or complex social interaction as being difficult or impossible to deliver effectively in a fully online format. It was suggested that some of these could be offered in “hybrid” formats, combining online and campus-based

elements. It was also suggested by two interviewees that interest in delivering fully online programs could lead to pressure for faculty to teach courses online that were likely to be less successful than their conventional counterparts. At the very least, such courses would require significant instructional design assistance.

**Unclear whether class size is an issue.** Because faculty receive additional pay for teaching more students (beyond a minimum threshold), and because of the need for timely feedback for each student in online learning, there is a potential conflict between the interests of faculty and their students regarding class size. Interviews yielded a wide variety of opinions on this topic. Some suggested capping course sizes at a certain level—25 or so—and requiring faculty to take a graduate assistant for each increment of 25 beyond that level. Others felt that with proper management, larger courses could be accommodated without sacrificing quality. This is an area where student satisfaction and retention data could be useful in settling the disagreement. There appeared to be more unanimous support for limiting the class size of first-time online instructors to approximately 20 students.

**Online “cheating” is not completely resolved as an issue.** Several interviewees admitted that they do not know for certain whether exams are completed by the person taking the course. One found the technology for giving online exams problematic and turned to emailing take-home exams to students. Others responded that cheating is a problem in traditional classrooms as well, and that grading a portfolio of work, with less emphasis on summative exams, enabled instructors to get a better sense of students’ abilities and voices, and made academic misconduct easier to spot. One interviewee noted the importance of varying assignments from year to year, to make cheating more difficult.

**More involvement, less flexibility.** Two interviewees noted that online learning involves trading off some desirable aspects of traditional teaching for others. Online teaching requires planning in advance that somewhat reduces the instructor’s ability to adapt as he or she goes along. “The online medium lets students get more involved,” noted one interviewee, “but the lack of direct interpersonal cues—body language, desperate looks—gives you less of the feedback you would normally use to calibrate your lessons. It’s not hopeless online, but you have to stay almost constantly involved in it.”

**Varied perceptions of impact on faculty workload, perhaps due to different types of courses.** Interviewees varied on whether online teaching was more work. They generally agreed that the distribution of work is different in online courses, with student questions, assignments, and discussions needing more constant attention/feedback, but some felt that the overall workload was about the same as face-to-face, while others felt that it was greater. One interviewee speculated that courses in different disciplines would require different amounts of faculty work online; more objective, mechanical material might be less work than more qualitative, discussion-focused courses.

**Exploding demand raises questions about where instructors will come from.** The rapidly growing demand for some online courses/programs, coinciding with budget-induced early retirements, has created challenges in meeting that demand with current faculty. The additional revenues from online offerings have enabled some hiring of new faculty, and additional capacity

has been generated through regular faculty teaching courses on overload and through the use of adjunct faculty.

**Use of adjunct faculty has been limited to date.** An analysis by a staffer in the Provost's office of faculty teaching the 69 graduate courses offered in Fall 2003 and Spring 2004 shows that use of adjunct faculty is fairly limited at this point: 57 regular faculty, 6 adjuncts, and 6 for whom no record of status is available (may be adjunct or faculty from other UMass campuses). Several interviewees noted that adjunct faculty have to be approved as qualified to teach at the graduate level, in terms of terminal degree, experience, and publications. However, other interviewees suggested that the percentage of adjunct faculty teaching in a program should be limited, because adjuncts have less attachment to the program, do not contribute to faculty tasks such as academic advising, and are more difficult to mentor regarding quality course delivery.

**Faculty teaching as overload versus regular load varies.** By contract, online teaching is voluntary for UMass faculty. According to interviewees, the majority of regular faculty teaching online courses at UMass Amherst do so as overload courses, for which they receive additional compensation based on enrollment. However, some courses are taught as part of a regular courseload by faculty who prefer that arrangement. Interviewee opinions varied about whether teaching online courses as an overload significantly affected other faculty roles, such as research or family life. One interviewee indicated that the Provost's office has created an incentive to teach online courses as an overload, because courses taught through Continuing Education (as all online courses are) do not count the same in a regular workload as other courses. This may be an area requiring clarification.

**Difficult to evaluate course quality with current processes.** Based on the literature review and interviews, there are several types of quality indicators that would be useful in determining the quality of UMass Amherst graduate online programs, including student course evaluations, retention data, enrollment trends, and faculty satisfaction surveys. However, interviewees indicated that there are significant problems in accessing this information. Turnover in the Continuing Education Department and the limitations of the online platform appear to have made using course evaluations somewhat problematic; several interviewees reported significant delays, as well as receiving stacks of individual evaluations rather than usefully aggregated data that includes means and variances.

Questions about the response rates on course evaluations also surfaced, though whether this is due to lack of visibility on the course delivery platform or lack of emphasis by instructors is unclear. It was also suggested that more attention should be paid to helping students assess their readiness for online learning up-front, so that retention measures will reflect course dynamics rather than ill-prepared applicants. UMass Online is planning to institute a self-assessment of this type in the fall.

One interviewee noted that, in addition to course evaluations and enrollment/retention, some department/program heads have begun gaining instructor-level access to their department/program's online courses, to assess content, threaded discussions, and the quality of interaction. They can view both current and past courses. This type of access is permitted in the

Massachusetts Society of Professors' Memorandum of Understanding on Distance Learning (2003), with the consent of the instructor.

**The technical platform for online learning delivery is a quality issue.** The platform for delivery of online courses has been a contentious issue. Some instructors have already changed platforms once—from E-College to Prometheus—and now UMass Online is in the process of choosing another platform, which will cause further disruption. However, it may be worth the disruption if a better platform is chosen.

Choice of platform matters greatly in advanced graduate courses, particularly in its ability to enable faculty to efficiently manage threaded discussions. Several interviewees said that the current platform, Prometheus, works well for perhaps 90% of online courses, but burdens faculty who are teaching advanced, discussion-based courses. If the new platform does not address this problem, a number of advanced graduate online courses will be threatened due to faculty and student dissatisfaction.

The choice between a corporate-owned platform and an in-house platform serviced by UMass Online is also seen as a quality issue, because taking a platform “in-house” effectively reduces upgrades and support capacity for that platform. As one interviewee explained, a proprietary platform receives multiple revenue streams from various clients; it has to stay current in the field, and it is also able to offer more technical support staff than an in-house UMass Online system supported by one revenue stream. Several interviewees urged the graduate school to advocate for these platform considerations, which appear to disproportionately affect graduate course quality.

**Continuing Education's instability is a quality issue.** Several interviewees identified instability/turnover and capacity issues in the Division of Continuing Education, which supports online courses on campus, as an obstacle to improving the quality of online graduate education. As one interviewee put it, “This is a \$12 million business—it's a big operation. The campus should work to ensure its continuity.”

**Lack of instructional design support for online faculty identified.** As mentioned in the issues section above, online course delivery “unbundles” the faculty role into at least three components: instructor/facilitator, instructional designer, and technologist. Technical support (getting materials onto the platform, registering students, troubleshooting technical problems, etc.) is offered through Continuing Education during regular office hours; a telephone contractor hired by UMass Online provides troubleshooting support at other times. However, several interviewees stated that we do not have instructional design support (help designing a course to be effective in the online medium) on the Amherst campus.

Continuing education currently has two people handling the technical needs of the entire campus. It was suggested that this capacity could be increased, to enable them to move beyond “putting out fires” and help with instructional design. A variety of other instructional design support strategies were proposed, including mentoring by experienced online instructors, brown-bag discussions of what works, and structured workshops. The Center for Teaching, Continuing

Education, and UMass Online were mentioned as potential organizers of this support, in addition to informal mentoring and discussion networks that have begun in some schools/departments.

Other UMass campuses provide instructional design support through various models: the Medical School uses an experienced online instructor as a mentor, to help with instructional and web design for new courses; Lowell has faculty take an online course in instructional design before they teach an online course; and Dartmouth explicitly starts with instructional design, encouraging instructors to look at each component of a course, identify and test the best way of teaching that component on line, and then assemble the course.

**Opinions vary on need for additional layer of approval for online courses.** The current process for approving online courses (see Appendix) is exactly the same as that for approving other courses: new courses would proceed through the usual school/department, Faculty Senate, and Graduate Council Subcommittee on Academic Standards processes for experimental and regular courses. However, the Graduate Council has never approved a “new” online course—all of the current online courses were adapted from already-approved traditional courses, and the move online has been treated as being similar to a change in delivery format from a lecture to a seminar.

Opinions varied on this policy. Several interviewees felt that the campus should have an additional layer of approval for teaching a course online, due to the importance of creating a learning community online and the different tools and skills that requires from faculty. It was suggested that a review committee of experienced instructors with high student satisfaction ratings could guide this additional review process. It was also suggested that a checklist based on the “24 Benchmarks” described earlier in this report could be used by this review committee, to ensure adequate attention to design and syllabus issues and mechanisms for class interaction and student assessment.

Others felt that the standard review process was probably sufficient, as long as course evaluations and retention rates are monitored for quality problems. One interviewee wondered who exactly would be on an online review committee, and thought that the differences in personalities and approaches between different disciplines might make such a review process unnecessarily difficult. Another suggested that a campus online learning committee could provide instructional development support without serving as a formal approval committee. Others suggested that current, informal methods of sharing best practices, including mentoring relationships and monthly meetings about online teaching, were largely handling the transition of courses from traditional formats.

**Research project suggested, to compare quality of online and traditional courses.** One of the UMass interviewees noted the potential for UMass to contribute to the research base by comparing several classes of the same School of Management course that is offered in three different formats—classroom, online, and a hybrid using both modalities.

## **Potential Areas for Future Work**

Based upon the issues and resources identified in this paper, UMass Amherst may wish to consider the following areas of potential future work.

- **Create a campus-wide committee on online learning, consisting primarily of faculty and staff with experience in online teaching.** The growth of the demand and the significance of the issues raised are significant enough for sustained attention. This committee could have a number of different potential charges, including evaluating future technology choices, organizing instructional design assistance for new online instructors, overseeing how-to materials, improving course and program evaluation processes, developing research projects on online education, and recommending policy changes to the Graduate Council and Faculty Senate.
- **Institutionalize data collection for evaluation purposes.** At a minimum, course evaluations, retention data, enrollment trends, and faculty satisfaction surveys should be utilized. To do this just for online courses might seem discriminatory to instructors teaching primarily online; these quality measures could be applied equally to all classes.
- **Address the platform issue.** This appears to have a major impact on the quality of graduate education, and the Graduate School may want to weigh in, if it hasn't already. A one-size-fits-all solution that works for the majority of UMass courses may still unacceptably compromise the needs of qualitative, discussion-oriented graduate courses.
- **Build Continuing Education's capacity to support the growth and quality of online learning.** The success of online education depends on Continuing Education's ability to adequately support it.
- **Address the lack of instructional design support.** The Center for Teaching conducted some early workshops in this area—perhaps it would be a logical location for this. Continuing Education capacity could also be built in this area.
- **Consider adding another layer of review for online courses.** This could be presented either in a regulatory manner, as part of the formal course review process, or in a more technical-assistance sense, through the additional instructional design support mentioned above.
- **Develop a research project to compare online, hybrid, and classroom versions of the same course.** As suggested by an interviewee, the same School of Management course is offered in three different formats—classroom, online, and a hybrid using both modalities. It is likely that a funder could be interested in an in-depth research project to compare curriculum, interaction, and outcomes of these three classes.