University Senate
TRANSMITTAL FORM

Senate Document #:	12-13-06
Title:	Review of the Coursera Program
Presenter:	Wolfgang Losert, Chair, Educational Affairs Committee
Date of SEC Review:	April 8, 2013
Date of Senate Review:	April 17, 2013
Voting (highlight one):	1. On resolutions or recommendations one by one, or 2. In a single vote 3. To endorse entire report
Statement of Issue:	Coursera is a new online social entrepreneurship company with a mission to offer free online education with content from top universities. Coursera hosts massively open online courses (MOOCs) provided by institutions and free of charge to students, which attract thousands of students from around the world for each course. In July 2012, the President of the University of Maryland (UMD) announced that the University was exploring joining Coursera. By September 2012, UMD had signed a contract with Coursera to offer six courses on its platform as a pilot. The University Senate Executive Committee (SEC) charged the Educational Affairs Committee with reviewing Coursera and making recommendations on the University's involvement in massively open online courses (MOOCs).
Relevant Policy # & URL:	Not Applicable
Recommendation:	The Educational Affairs Committee recommends: − that the University continue to participate in the national discussion of MOOCs and to offer MOOCs through Coursera and/or other appropriate platforms, as a means of serving the educational mission of the University. − that MOOCs be selected strategically, considering the research strengths and educational interests of the University and its constituents. − that a MOOC committee be formed to establish procedures and guidelines for developing, delivering, and evaluating MOOCs. The Educational Affairs Committee recommends that the Provost designate a point of contact to work with the committee and to oversee the development, execution, and

	continuing evaluation of MOOCs.
	o On an ongoing basis, the MOOC committee should be responsible for organizing the review of proposals and selecting new MOOCs to be developed.
	o The MOOC committee should have broad representation:
	• It should include faculty, staff, graduate student, and undergraduate student representation, with a faculty majority.
	• It should include members with relevant expertise in instructional design, pedagogy, and technology.
	− that MOOCs be developed and viewed as non-credit courses as financial support allows.
	− that the University recognize the benefits and the risks of providing MOOCs in relation to the public brand of the University, and recommends that the University provide the appropriate resources and infrastructure for the development, execution, and continued evaluation of high-quality MOOCs. The committee recommends that these resources include appropriate support and compensation for faculty who volunteer to develop and deliver these courses.
	− that the University recognize MOOCs as a way to supplement for-credit courses and augment the educational experience of students at the University.
	− encouraging faculty and graduate students to become involved with MOOCs as a means to highlight their research and innovation, with the goal of promoting themselves and the University to a global audience.
	− that the University explore ways to use MOOCs to locate and recruit exceptionally qualified students from around the globe.
	− that the Office of the Provost regularly report to the Senate on the implementation of these recommendations.
Committee Work:	The Educational Affairs Committee began reviewing Coursera at its meeting on September 25, 2012, and devoted eight meetings to the charge. The committee researched Coursera and other MOOC platforms, met with the Dean of the College of Education who had taken a Coursera course, and met with a UMD MTECH faculty member who is teaching a Coursera course to discuss his expectations and experience with the course.
	To organize its research, the committee developed a list of key questions and formed four subcommittees to consider these questions in depth. The subcommittees researched peer institutions; whether MOOCs fit with UMD's educational goals

	and mission; how MOOCs could impact for-credit online courses and teaching at UMD; and whether MOOCs might enhance the University's research profile.
	The committee found that there can be risks in providing MOOCs. Inadequate MOOCs could harm the public image of the University.
	The committee also assessed what possible tangible benefits may result from providing MOOCs. MOOCs can help the University fulfill and expand its educational mission, and can be used to showcase the strengths of the University to a global audience. MOOCs can enhance the prominence of research enterprises and define UMD faculty as leaders in their fields. Faculty and graduate students who develop courses may increase their visibility in the field and disseminate their research worldwide. Students may also be able to use MOOCs to learn specialized topics or hone particular skills that could augment their for-credit educational experience at UMD. The development of MOOCs may lead to reevaluation of for-credit online education, and could lead to opportunities to provide modules in specialized knowledge for government and corporate partners. Further, MOOCs may provide opportunities for alumni and others to renew and maintain connections to the University.
	Throughout its review, the committee weighed the critical issues of support and resources for MOOCs, the quality and selection criteria for courses, how to ensure successful execution of MOOCs, and ways to evaluate the success of courses, among other issues. After much review, the Educational Affairs Committee voted to approve nine recommendations on MOOCs and send them forward for consideration.
Alternatives:	The Senate could reject the recommendations and the University would lack guidance on further participation in and implementation of MOOCs.
Risks:	Providing MOOCs through Coursera or other platforms may present risks related to the public image of the University. However, not providing MOOCs may present the risk of putting UMD at a competitive disadvantage.
Financial Implications:	Financial resources would be needed to carry out some of the recommendations, in order to adequately support the successful development and execution of MOOCs.
Further Approvals Required:	Senate approval, Presidential approval.

Senate Educational Affairs Committee

Senate Document # 12-13-06

Review of the Coursera Program

April 2013

BACKGROUND

In July 2012, the President of the University of Maryland (UMD) announced that the University was exploring joining Coursera, a new online educational platform that attracts thousands of students from around the world for each online course. By September 2012, UMD had signed a contract with Coursera to offer six courses on its platform as a pilot. In September 2012, the University Senate Executive Committee (SEC) charged the Educational Affairs Committee with reviewing the Coursera program and making recommendations on the University's involvement in massively open online courses (MOOCs) beyond its initial six pilot courses.

CURRENT PRACTICE

In April 2012, Andrew Ng and Daphne Koller launched Coursera, a social entrepreneurship company with a mission to offer free online education with content from top universities. Coursera hosts massively open online courses (MOOCs) provided by institutions and free of charge to students. Courses are not for credit, and each course has a fixed start and end date with weekly assignments. Registering for courses requires only an email address. Courses generally have no requirements for textbooks or materials that are not widely available for free online and varying suggested prerequisites. Coursera courses range from four weeks to twelve weeks, and most feature video lectures presented in eight to twelve minute segments, which have quizzes or other interactive features built in. Assessments are conducted through auto-grading or peer grading, in which students use rubrics to grade the work of their peers. Each course also hosts a discussion forum, in which students can ask questions, collaborate, or discuss aspects of the course.

On September 19, 2012, UMD announced that it had formalized an agreement to join Coursera as a pilot venture. The contract with Coursera is not exclusive and the University made no financial commitment to Coursera. UMD agreed to provide six courses in 2013 as a pilot. Provost Wylie asked academic deans to identify faculty, and four faculty members were selected based on criteria involving which courses would be ready on a short timeframe, the general appeal of the topics, and other issues. Each faculty member worked with the Division of Information Technology (DivIT) to create a video description of the course, and is currently working with DivIT in the development and delivery of the course. Upon completion of each course, each student will receive a statement of accomplishment from Coursera. The University of Maryland does not offer credit for these courses.

COMMITTEE WORK

In September 2012, the Educational Affairs Committee was charged with reviewing Coursera and making recommendations on the University's involvement in MOOCs. Over the course of the 2012-2013 academic year, the committee devoted eight meetings to consideration of the charge. It researched Coursera and other MOOC platforms, met with the Dean of the College of Education who had taken a

Coursera course, and met twice with a UMD MTECH faculty member who is teaching a Coursera course to discuss his expectations and experiences with the course. Based on the charge from the SEC and this initial research the committee developed a list of key questions and formed four subcommittees to consider these questions in depth. The subcommittees reported their findings and recommendations to the full Educational Affairs Committee.

❖ *Peer Institutions*

The Peer Institutions Subcommittee found that many of our peer institutions are engaged in MOOCs. The University of California at Berkeley offers courses through edX, and four peer universities offer courses through Coursera: the University of Illinois at Urbana-Champaign, University of Michigan, University of North Carolina at Chapel Hill, and University of California Irvine.

The methods for selecting courses vary. Some institutions, such as the University of Michigan, ask Deans to suggest courses, where others, like the University of Illinois and UNC, have a campus-level review committee that reviews proposals and selects courses to be delivered. UNC's task force on MOOCs is also responsible for identifying criteria by which courses will be selected as a way of guiding the course selection process, an idea that UC Irvine indicated it may explore further in the next round of course proposals.

None of UMD's peer institutions currently offer course credit for MOOCs. Some institutions deliberately determined that credit would not be offered so as not to interfere with for-credit online courses, while others have made no firm decision against future credit for MOOCs but do not offer credit at this time. Institutions consent to providing Statements of Accomplishment that do not denote any sort of credit.

The cost associated with participating in MOOC platforms is tangible and in some cases substantial, but it was unclear among peers whether benefits outweigh costs. At many institutions, it remained unclear what business model exists and what, if any, monetary benefits may come from offering MOOCs. However, each institution believes participation yields non-monetary benefits. These range from publicity of the institution and its areas of excellence, to fulfillment of a public interest in helping to bring down higher education costs, to global public service as part of an educational mission, to learning more effective ways to use technology to improve for-credit course offerings.

In analyzing its findings, the Peer Institutions Subcommittee focused on three points. It discussed establishing a MOOC committee to develop procedures and guidelines for MOOCs as well as to review and select courses. It noted that faculty involvement in courses should be voluntary and that appropriate compensation for time and resources should be awarded. It suggested that courses be developed as non-credit courses, but that discussion of whether to offer credit in the future should continue.

❖ *Educational Goals and Mission*

The Educational Goals and Mission Subcommittee found that offering MOOCs does in fact fit within the context of the educational mission of the University. The mission states that the University is responsible for educating students and advancing knowledge "in areas of importance to the State, the nation, and the world." As a land-grant institution, the University includes in its mission a responsibility to share its research and educational strengths with the State of Maryland and other constituencies outside of the University.

From its discussions with the Office of Undergraduate Studies and the Graduate School, the subcommittee found many ways in which MOOCs support the mission of the University. Perhaps most important is that MOOCs offer the University a new approach in the advancement of knowledge. MOOCs

can be an opportunity for UMD to expand the definition of its mission as a land-grant institution to a worldwide audience, and could in turn offer the University a global perspective in its teaching and learning.

In the future, a high-quality, public higher education degree that is obtainable at a competitive market value will remain an important and valued commodity and likely the strongest indication of broad intellectual ability. However, MOOCs present some powerful educational and pedagogical possibilities, and MOOCs should be thoughtfully incorporated into UMD's educational opportunities.

The subcommittee felt that that UMD should continue to participate in the national discussion of MOOCs and offer MOOCs. However, the subcommittee also noted that careful consideration would need to be given to many issues including accreditation of work completed in a MOOC and strategic approaches to selecting the courses, with the understanding that the courses will represent the University on a global scale.

❖ *Online Courses and Teaching*

The Online Courses and Teaching Subcommittee found that there could be several benefits to incorporating MOOCs into for-credit coursework. MOOCs can be seen as a potential resource to supplement course content when assigned instead of or together with a textbook. Assuming the faculty member has evaluated the MOOC and found the quality and content to be appropriate, faculty could use this resource to augment for-credit courses. This could enrich the learning and discussion taking place in for-credit courses, by providing exposure to different global perspectives. This broader impact can be gained by using an existing MOOC and its materials as a resource in a for-credit course, or by providing a portion of the for-credit course as a MOOC.

Teaching MOOCs will have benefits for the faculty developing and teaching the courses. Transferring course content to an online MOOC format will lead to a process of evaluation and reflection on the content and pedagogy of the course. The course delivery, content, and assessments need to be very different in MOOCs than in face-to-face for-credit courses, and so this process allows the opportunity for improvement through re-evaluation.

Success in MOOCs will require that courses have high-quality content and delivery. In looking at the criteria for selecting courses, course content, ease of delivery of instruction and materials, and peer interaction should all play a role in determining quality. As a critical point of exposure to UMD, the University needs to be sure it is making the most of the opportunity to emphasize strengths and present a positive image. The subcommittee noted that courses should take into account the internationality of the audience, and should seek to emphasize the strengths of the University. The subcommittee consulted with the Division of Information Technology, and it is clear that from a technological standpoint, the University will need to support the MOOCs appropriately and take steps to ensure that courses run smoothly.

Many variables in offering MOOCs and in using MOOC content in for-credit courses are unknown, and the subcommittee felt further discussion will be needed as the University moves forward. The subcommittee suggested that discussions should continue related to how to develop MOOC courses and how to embed content from existing MOOC courses in for-credit courses; issues of faculty and graduate assistant time, related to compensation; and how to select MOOC courses that correspond with the desired branding in content and quality.

❖ *Research and MOOCs*

The Research and MOOCs Subcommittee found that although MOOCs are generally not (yet) creating new knowledge, research at UMD might be highly affected by involvement in MOOCs. They can play a role in the dissemination of knowledge, and can be used to showcase UMD's research strengths. In this way, if done well, MOOCs would clearly be able to enhance the visibility of UMD's research enterprises and define UMD faculty as leaders in various fields.

As an example of possible impacts, faculty and graduate students who refer to their own publications in a MOOC may see increases in citations for their work. For graduate education, students may be able to use MOOCs to learn specialized topics, such as research tools or methods. In addition, a MOOC may provide an introduction to a new area of study, which may especially help with interdisciplinary research. Even if not given graduate credit, the knowledge may be important in achieving research goals.

The subcommittee noted that there are risks related to MOOCs and research. Not engaging in MOOCs can allow competitors and competing institutions to define themselves as the leaders in various fields or areas of research. However, there are risks to providing MOOCs as well; the global audience for the course and the possible indirect benefits of the course make it clear the MOOCs must be carefully planned and successfully executed. To produce a successful MOOC, researchers will need help, including script writing, videography, IT support, and assessment support.

From its discussions with the Division of Research, the subcommittee found that building relationships with government and corporate partners, many of which often ask UMD for specialized courses or training for employees, further enhances the University's research profile. As our understanding of online courses and MOOCs grows, the Division of Research may be able to use MOOC technology or methodology to provide training to select groups in areas of specialized knowledge.

As a result of its deliberations, the subcommittee suggested that UMD embrace MOOCs as a supplement to learning for current graduate students and encourage faculty and graduate students to become involved with MOOCs to highlight their research and promote themselves to a global audience. The subcommittee was also interested in exploring ways to use MOOCs to locate and recruit outstanding international students. Recognizing the benefits and risks associated with MOOCs will be critical, and the subcommittee suggested providing resources and infrastructure for the development of high quality MOOCs and involving the Division of Research in the selection of course topics and the assessment of how well courses are perceived.

❖ *Additional Considerations*

Throughout its review, the Educational Affairs Committee considered the issue of support and resources for MOOCs at UMD to be of critical importance. Since courses are currently being offered as a pilot program, the University is learning about the resources needed and many reports have indicated that more resources may be necessary than initially imagined. For example, the Division of Information Technology initially thought that a degree of support could be completed by graduate assistants, but since has found that the support required exceeded those expectations. The committee discussed other types of support as well, including instructional support and assessment support, and stressed throughout its discussions that it considered the adequate support of these courses and the faculty teaching them to be of critical importance.

The committee also discussed the quality and selection of courses at length. It agreed that how content is presented and the quality of the content itself will be key in the image UMD puts forward. The committee discussed ways to ameliorate this concern, including providing support to instructors in writing scripts for

videos and in developing assessments, in addition to technological support. The committee also discussed how to train faculty to teach MOOC courses, and noted that some explanation of expectations should be created.

As a way of ensuring that MOOC courses are being selected and executed appropriately, the committee discussed having a centralized office be responsible for MOOCs. Staff in such an office could be critical to provide an institutional memory, and such an office could be a contact point for departments and create guidelines for how MOOC courses should be delivered and developed at UMD. The committee suggests that the Provost's Office may be appropriate, as the place where the educational mission, graduate education, and undergraduate education all intersect.

In addition to oversight in the University administration, the committee discussed creating a MOOC Committee, such as those created at peer institutions. Such a committee may be able to have a quality control role over the selection and execution of MOOC courses. It could provide guidance for those who want to be involved, and include information on best practices for assessments and other key points. Such a committee might also consider how the University could use MOOCs to benefit students at UMD as well.

Finally, the committee noted that MOOCs are already starting to be used by some institutions as a tool for alumni relations: some universities have encouraged alumni to get engaged in MOOCs from their alma mater either as voluntary TAs or as course takers. The committee discussed similar ways in which MOOCs might expand opportunities for alumni and others to renew and maintain connections to the University.

RECOMMENDATIONS

At its meeting on March 27th, 2013, the Educational Affairs Committee voted in favor of the following recommendations related to the University of Maryland's involvement in the Coursera program and other MOOC platforms.

1. The Educational Affairs Committee recommends that the University continue to participate in the national discussion of MOOCs and to offer MOOCs through Coursera and/or other appropriate platforms, as a means of serving the educational mission of the University.

2. The Educational Affairs Committee recommends that MOOCs be selected strategically, considering the research strengths and educational interests of the University and its constituents.

3. The Educational Affairs Committee recommends that a MOOC committee be formed to establish procedures and guidelines for developing, delivering, and evaluating MOOCs. The Educational Affairs Committee recommends that the Provost designate a point of contact to work with the committee and to oversee the development, execution, and continuing evaluation of MOOCs.
   a. On an ongoing basis, the MOOC committee should be responsible for organizing the review of proposals and selecting new MOOCs to be developed.
   b. The MOOC committee should have broad representation:
      i. It should include faculty, staff, graduate student, and undergraduate student representation, with a faculty majority.
      ii. It should include members with relevant expertise in instructional design, pedagogy, and technology.

4. The Educational Affairs Committee recommends that MOOCs be developed and viewed as non-credit courses as financial support allows.

5. The Educational Affairs Committee recommends that the University recognize the benefits and the risks of providing MOOCs in relation to the public brand of the University, and recommends that the University provide the appropriate resources and infrastructure for the development, execution, and continued evaluation of high-quality MOOCs. The committee recommends that these resources include appropriate support and compensation for faculty who volunteer to develop and deliver these courses.

6. The Educational Affairs Committee recommends that the University recognize MOOCs as a way to supplement for-credit courses and augment the educational experience of students at the University.

7. The Educational Affairs Committee recommends encouraging faculty and graduate students to become involved with MOOCs as a means to highlight their research and innovation, with the goal of promoting themselves and the University to a global audience.

8. The Educational Affairs Committee recommends that the University explore ways to use MOOCs to locate and recruit exceptionally qualified students from around the globe.

9. The Educational Affairs Committee recommends that the Office of the Provost regularly report to the Senate on the implementation of these recommendations.

<u>APPENDICES</u>

Appendix 1 - Charge from the Senate Executive Committee on the Review of the Coursera Program

University Senate
CHARGE

Date:	September 17, 2012
To:	Wolfgang Losert Chair, Educational Affairs
From:	Martha Nell Smith Chair, University Senate
Subject:	Review of the Coursera Program
Senate Document #:	12-13-06
Deadline:	February 15, 2013

The Senate Executive Committee (SEC) requests that the Educational Affairs Committee review Coursera, a social entrepreneurship company that partners with universities to offer courses online for free, and make recommendations on what the University's involvement in this program should be.

Specifically, we ask that you:

1. Review the Coursera and other Massive Open Online Courses (MOOC) models for offering courses online. For example, how do MOOCs (Coursera, EdX, and other initiatives) fit in with UM's educational mission? Are there possibilities for expansion and deepening of our educational goals?

2. Consider various pros and cons of participating in this type of instructional platform.

3. Consider whether and how MOOCs might enhance UM's profile as a research one institution.

4. Consider whether MOOCs should be built on our existing courses (as are our pilots), be new courses developed specifically as MOOCs, or both.

5. Consider how MOOCs might fit into degree programs as for-credit courses

6. Consider the financial implications of adding these types of courses to our curricula.

7. Consider the impact of offering free online courses on our educational mission.

8. Review the involvement of our peer institutions in Coursera or other similar programs.

The committee should feel free to explore additional questions that might arise in the course of its considerations.

We ask that you submit your report and recommendations to the Senate Office no later than February 15, 2013. If you have questions or need assistance, please contact Reka Montfort in the Senate Office, extension 5-5804.

Subject: Blended and Online Education

Date: Wednesday, July 25, 2012 5:38:13 PM ET

From: President Wallace Loh and Provost Ann Wylie

July 25, 2012

Dear University of Maryland community:

Leading research universities are engaging in technology-enabled education on a larger scale and at a quickened pace. We want to update you on developments in this area at the University of Maryland.

Many of our faculty members already offer blended learning courses, online courses, and other technology-mediated courses. Today's students have grown up electronically connected all the time. Our Division of Information Technology and Center for Teaching Excellence provide outstanding support for these forms of pedagogy.

Nobody knows for sure what will be the long-term impact of new technological advances on higher education. We believe that the University of Maryland must develop an innovative, strategic, and judicious approach to these developments.

Therefore, we are forming the Provost's Commission on Blended and Online Education. Its charge begins with determining the full extent of technology deployment on campus. Then, it will recommend ways to improve and expand the technology-enabled education that we offer on campus and to the world beyond. The work of this group will enable us to make the most of what we are already doing and accelerate progress. It will host open forums in the fall for the University community.

We are pleased that Dean Jane Clark of our School of Public Health (jeclark@umd.edu) has agreed to serve as chair of this Provost's Commission. It will include faculty, deans, staff, students, and possibly external stakeholders.

In the meantime, we are exploring joining Coursera, the "social entrepreneurship" company that partners with universities to offer online courses for free. Started by two Stanford professors, it currently has 14 AAU universities and two European counterparts as members of this consortium. Coursera's technology platform supports MOOCs (massive open online courses) that attract tens of thousands of students from around the world. MOOCs can also be blended with face-to-face learning in the classroom.

To start, we would provide three to four outstanding courses from interested faculty members representing various disciplines. There is no upfront fee and no obligation to remain. We would be free to form other partnerships in this fast-changing environment. (Earlier this year, Harvard and MIT announced "edX," a joint platform to put all their courses online and for free. UC-Berkeley just joined them.) By partnering with Coursera sooner rather than later, we can learn from this educational venture as we continue to assess and develop our own pedagogical innovations.

All of us are committed to making a University of Maryland education even more excellent, accessible, and affordable. Our faculty and staff are continually engaged in improving the learning and teaching process. We invite your participation in the open forums this fall. The work of this Provost's Commission will help us thrive in a world reshaped by information technology, globalization, and a changing economy.

Sincerely,

Wallace D. Loh, President and Ann Wylie, Provost

cc: Mary Ann Rankin, Provost-Designate

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This note was authorized for distribution to
University of Maryland Community by: