



BOARD OF REGENTS

SUMMARY OF ITEM FOR ACTION, INFORMATION OR DISCUSSION

TOPIC: Course Redesign Update

COMMITTEE: Effectiveness and Efficiency Committee

DATE OF COMMITTEE MEETING: February 17, 2012

SUMMARY:

After a successful pilot during 2006-9 of the principles of Course Redesign as applied to large enrollment courses, the Board of Regents approved an expansion of this initiative starting in 2010. This expansion has evolved in several directions: Course Redesign within the USM underwritten by funds related to Chancellor Kirwan's Carnegie Award; statewide application of Course Redesign principles applied to developmental and 'bottleneck' courses underwritten by the Lumina Foundation; and a statewide Course Redesign initiative focused on developmental mathematics courses underwritten by a grant from Complete College America to the Maryland Higher Education Commission based on lessons learned from USM activities.

This item will be a status report on these activities and a discussion of future possibilities. A brief video will accompany the presentation.

Three videos were developed describing Maryland's work with course redesign in cooperation with the Lumina Foundation's Productivity Agenda:

To be shown at the Board Meeting:
Maryland Engages Faculty in Course Redesign
<http://youtu.be/X43s2gwWDiM>

Other videos on this topic:

What Made Course Redesign a Success in Maryland?
http://www.youtube.com/watch?v=yT_SrCtH6p0

Impressions from the Maryland Course Redesign Strategy Lab Visit 2011
<http://youtu.be/xzdt0P6otuI>

ALTERNATIVE(S): No alternative is suggested.

FISCAL IMPACT: There is no fiscal impact

CHANCELLOR'S RECOMMENDATION:

COMMITTEE ACTION:

DATE:

BOARD ACTION:

DATE:

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University System of Maryland's Course Redesign Initiative

Background

The University System of Maryland has recognized the opportunity to improve student academic outcomes at a reduced use of resources. In particular, the USM started a System-wide effort to redesign high impact, large enrollment courses ((MCRI: Maryland Course Redesign Initiative, 2006). The initial 2006-2009 course redesign pilot funded ten courses at ten USM institutions in response to a Regents' initiative to improve academic effectiveness and efficiency. In 2010-2011, building on the success of the initial pilot, the USM, taking advantage of a national leadership award to Chancellor Kirwan from the Carnegie Corporation, funded redesign of an additional 12 courses. Additionally with a grant from the Lumina Foundation, the USM funded a cohort of 10 courses statewide. A detailed description of all courses that have been redesigned, or are in process of being redesigned, is included in the Appendix.

Based on the course redesign model created by the National Center for Academic Transformation (NCAT), Maryland's work has followed the *Five Principles* identified by NCAT. These are

- redesign the whole course,
- encourage active learning,
- provide individualized assistance,
- incorporate ongoing assessment, and
- provide prompt feedback, ensure students have enough time on task, and monitor their progress.

. Course redesign outcomes include:

- Improved student engagement in coursework
- Increased student success
- Improved faculty satisfaction in teaching large enrollment courses
- Cost savings for institutions
- Cost savings for students

As a result of the original pilot initiative, the USM started to build a coterie of course redesign faculty fellows. These fellows provide peer support for redesigns at their home institution and at other institutions across the state in their disciplines. The intent is to build a core of faculty expertise, which can sustain and expand course redesign independent of external funding. Five faculty fellows were identified in 2010-11 and have extended appointments through 2012. It is expected that as more faculty gain experience with course redesign, several additional fellows will be appointed to sustain the momentum that has been achieved.

Course redesign involves a rethinking all aspects of course design and delivery and generally takes advantage of investments institutions have typically already made in instructional technologies. The model for underwriting this process has been to fund released time necessary for a team of faculty and staff to undertake a redesign that responds to a set of course-specific identified issues. The USM Office and the faculty fellows provide coordination and hold a



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number of workshops on techniques as well as facilitating knowledge sharing among the projects.

Course Redesign is identified specifically as a strategy in the USM 2020 Strategic Plan under Theme 3: Transforming the Academic Model. The key goals include, "continue to support course transformation at USM institutions by tripling the number of courses that have been reconceived via the USM's 'Course Redesign Initiatives' and implemented" (USM Strategic Plan, 2011). In the coming cohort of projects for FY 2012-13, the coordinating team has identified 14 additional USM projects to be planned, designed, implanted, tested, and put into full operation by 2014. An additional cohort will be selected by a competitive process to start in FY 2013. The Strategic Plan target will be met as a result of these projects.

This System-wide approach facilitates cost savings and improvements in student success across the USM.

Broader Impact

Lumina Grant: \$1,032,000; 2009-2013 (USM)

In addition to contributing to the USM Strategic plan goals, USM's Course Redesign initiative has found traction as a statewide academic transformation model. USM has been funded by the Lumina Foundation, in collaboration with our Maryland partners (MACC, MICUA, MHEC), to expand the reach of course redesign to the community colleges and the independent colleges in Maryland (\$1,032,000/2009-2013). This work directly relates to the first theme of the USM 2020 strategic plan: access, affordability and attainment—55% college completion.

Through the Lumina grant, USM has funded an additional ten courses in 2010-2011, and has just approved an additional 8 courses for redesign in the 2011-2012 cohort.

Complete College America Grant: \$1,000,000; 2011-2013 (MHEC)

Most recently, building on the success of USM and Lumina Course Redesign initiatives, and with collaboration from USM, the Maryland Higher Education Commission (MHEC) was recently awarded a \$1 million Completion Innovation Challenge Grant from Complete College America (CCA). USM will be receiving a significant sub-award to scale-up course redesign efforts by redesigning additional developmental mathematics courses throughout the state.

The rationale for this work is clear. Community colleges and HBIs make up a large portion of the grants because these institutions have a disproportionate number of students who are required to take remedial math. While statewide, 41% of first-time undergraduates in the fall 2006 cohort enrolled in a remedial math course, that figure increased to 54% and 63%, respectively, of freshmen enrolled at community colleges and HBIs. These data are particularly troubling given that students who require remediation are far less likely than others to graduate. In Maryland, the data are sobering; only 13% of community college students who required remediation earned a degree within three years and only 36% of freshmen at the HBIs who did so graduated with a bachelor's degree within eight years. Preliminary analyses of the Common Completion Metrics



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suggest that if students who require remediation graduated at the same rate as all students in the cohort, Maryland would award an additional 1,400 associate and bachelor's degrees each year.

With the sub-award from the CCA grant, USM will recruit an additional 15 faculty around the state (from 2 and 4 year, private and public institutions) and train them as course redesign faculty fellows. This new group of faculty fellows will be able to work with faculty from their campus on future redesign projects or with other faculty around the state.

Evidence of impact and success

Every course redesign project includes an evaluation study analyzing improvement in student learning (success) and relative cost savings. In addition to the clear evidence of student success and reduced costs, other indicators of academic transformation success include:

- Institution-initiated course redesigns (without funding from USM or Lumina).
- Broader curriculum transformation projects (particularly at UMCP and UMBC) that move beyond single courses to the core curriculum.
- Increased national interest in USM's Course Redesign project and additional funding from the Lumina Foundation and Complete College America to expand the reach of the Course Redesign project to more institutions both inside and outside the USM.

Results to date demonstrate that the curriculum transformation effort is enabling the participating institutions to better meet the needs of students, reduce the cost structure for large enrollment courses, maintain and enhance quality, and use faculty resources more effectively and efficiently.



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Appendix

Courses Redesigned during the 2006-9 Pilot Initiative

Institution	Course
Coppin State University	DVMT 108 and DVMT 109---Beginning Algebra and Intermediate Algebra
Frostburg State University	Psyc 150---General Psychology
Salisbury University	BIOL 101---Fundamentals of Biology
Towson University	DVMT 101 and DVMT 110---Developmental Math II and Intermediate Algebra
University of Baltimore	IDIS 300---Ideas in Writing
University of Maryland Baltimore	NURS 325—Context of Health Care Delivery I
University of Maryland Baltimore County	Psyc 100---Introductory Psychology
University of Maryland College Park	Psyc 221---Social Psychology
University of Maryland Eastern Shore	CHEM 111---Principles of Chemistry I
University of Maryland University College	BIOL 103---Introduction to Biology

Carnegie Award Courses

Carnegie - Cohort 1 Start 2010	
Institution	Course
Bowie State University	PSYC 101 – General Psychology
Frostburg State University	CMST 102 - Introduction to Human Communications
Salisbury University	PSYC 101 – General Psychology
Salisbury University	PHEC 106 – Personalized Health and Fitness
University of Baltimore	IDIS 302 – Ethical Issues in Business and Society
University of Maryland, Baltimore County	PSYC 200 – Developmental Psychology (Early Start Program)
University of Maryland, College Park	MATH 115 – Introduction to Linear Algebra
University of Maryland Eastern Shore	CHEM 112 – Principles of Chemistry II (Early Start Program)
University of Maryland Eastern Shore	ARTS 101 – Exploration of Visual Arts
University of Maryland Eastern Shore	PSYC 200 – Introduction to Psychology
University of Maryland Eastern Shore	BIOL 111 – Principles of Biology I
University of Maryland Eastern Shore	MATH 109---College Algebra



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Carnegie Cohort 2 Start 2011	
Institution	Course
Bowie State University	CHEM 107 – General Chemistry I
Coppin State University	PSYC 201 – General Psychology
Frostburg State University	ENGL 101 – Freshman Composition
Frostburg State University	MATH 102 – College Algebra
Towson University	BIOL 213 – Human Anatomy and Physiology
Towson University	CHEM 121 – Chemistry for Allied Health
Towson University	GEOG 101 – Introduction to Physical Geography
Towson University	MATH 115 – Basic Mathematics for the Sciences
University of Maryland Baltimore	PHAR 535 – Pharmaceutics
University of Maryland Baltimore County	CHEM 351 – Organic Chemistry 1
University of Maryland Baltimore County	ENGL 100 – English Composition
University of Maryland Baltimore County	SOCY 101 – Basic Concepts in Sociology
University of Maryland College Park	CHEM 231 – Organic Chemistry 1
University of Maryland Eastern Shore	BIOL 222 - Principles of Genetics

Lumina Grant Award Projects

Lumina Cohort 1 Start 2010	
Institution	Course
Allegany Community College	Beginning Algebra
Chesapeake Community College	Pre-Algebra Arithmetic
Community College of Baltimore County	Basic Math
Frostburg State University	DVMT 100 - Intermediate Algebra
Montgomery Community College	Chemistry I
Prince George's Community College	Fundamental Arithmetic
Stevenson University	Microsoft Office Applications
St. Mary's College of Maryland	Principles of Biology I
University of Baltimore	DVMA 093 (Introductory Algebra) and DVMA 095 (Intermediate Algebra)
University of Maryland Eastern Shore	Intermediate Algebra
Wor-Wic Community College	English



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Lumina – Cohort 2 Start 2011	
Institution	Course
Carroll Community College	Transitional Reading
Community College of Baltimore County	Chemistry 107/108
Community College of Baltimore County	Biology 110
Morgan State University	Introduction to Biology I for Non-Science Majors
Notre Dame of Maryland University	Economics 211
Notre Dame of Maryland University	History 101
Notre Dame of Maryland University	Philosophy 201
Notre Dame of Maryland University	Religious Studies 201

Complete College America Start 2011

Institution	Course
Anne Arundel Community College	Intermediate Algebra
Baltimore City Community College	Elem Algebra, Intermediate Algebra
Community College of Baltimore County	Intermediate Algebra for Liberal Arts majors
Community College of Baltimore County	Dev. Intermediate Alg/Applied Algebra & Trig
Community College of Baltimore County	Basic Math, Intro Alg, Intermediate Alg
Cecil College	Intermediate Algebra
Chesapeake College	Math 031 Elementary Algebra
Coppin State University	Intermediate Algebra
College of Southern Maryland	Comp Skill, Pre Alg & Basic Geometry, Fundamentals Algebra
Garrett College	Math 90 & 98
Hagerstown CC	Math 99 (Elem Alg) & Math 100
Harford CC	Fundamentals Math, Intro Alg, Intermediate Alg
Howard CC	Basic Alg & Geometry, Elementary Algebra
Howard CC	Intermediate Algebra
Morgan State University	Math 106 (foundational math - gateway to college Alg)
Prince Georges Community College	Pre Algebra
Wor-Wic Community College	Pre, Elem & Intermediate Algebra