Minnesota Office of Higher Education

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Achieve Scholarship Spending on Expanding Access to Rigorous High School Courses

Authors

The Minnesota Office of Higher Education compiled this information from the Minnesota State Colleges and Universities and the University of Minnesota.

About the Minnesota Office of Higher Education

The Minnesota Office of Higher Education is a cabinet-level state agency providing students with financial aid programs and information to help them gain access to postsecondary education. The agency serves as the state's clearinghouse for data, research and analysis on postsecondary enrollment, financial aid, finance and trends.

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Introduction

The 2007 Legislature enacted the Achieve Scholarship program, which provides a $1,200 scholarship to high school graduates who took rigorous courses in high school and met certain income and other eligibility criteria. In deliberations about this new program, concerns were expressed that certain rigorous courses like Advanced Placement, International Baccalaureate or other college-level courses may not be available to students in small schools and districts that do not have resources to provide such courses. Consequently, the Legislature appropriated an additional $400,000 each year of the 2008-2009 biennium for the University of Minnesota and the Minnesota State Colleges and Universities system to begin programs that provided courses for college credit. The legislation required the Office of Higher education to report on the outcomes of the program. The purpose of this report is to meet that requirement.

The first section of this report provides a brief explanation of the activities at the Minnesota State Colleges and Universities designed to expand access to rigorous courses for high school students. The second describes activities at the University of Minnesota. It was anticipated that the two systems would initiate efforts early in Fiscal Year 2008 to plan and begin offering students opportunities across the state. Unfortunately, the flow of resources to the two systems delayed this activity until the end of 2008 and early 2009. The program changes described at MnSCU are an expansion of an online program underway. The plans at the University of Minnesota constitute a proposal and are not yet operational. Both reflect new ways of expanding access to Postsecondary Enrollment Options courses to rural high schools through online learning.

The use of resources through the remainder of Fiscal Year 2009 may provide information that will help inform the continuation of the programs. This continues to be an evolving process as the University of Minnesota, MnSCU and the Department of Education collaborate on development issues. The programs will also be addressed in the Governor’s 2010-2011 budget recommendation.

Minnesota State Colleges and Universities

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Online College in the High Schools is a program originated in Northwest Minnesota by the Minnesota State Colleges and Universities to serve students in geographically isolated, underserved high schools that need the content diversity and rigor of online college courses. Unique features of OCHS include access to online college courses on site at the high school; coursework built into a student's daily schedule; college and high school transcription; high school online access to student progress; on-site proctors at each high school who provide a "safety net" to support student success; and a seamless, customized application and registration service.

Distributing online college courses from Minnesota State Colleges and Universities, OCHS now has the capacity to serve students statewide. Enrollment continues to grow each term, with 22 participating high schools and 153 registrations for fall 2008. Student achievement data continues to be outstanding. For example, for spring semester 2008, 92 percent of students in OCHS earned a grade of A, B, or C. OCHS course options have expanded to include science, technology, engineering and mathematics as well as technical programs. Data gathered from a statewide course needs survey, conducted in partnership with the Minnesota Department of Education, points to strong interest in OCHS throughout the state, particularly in rural, underserved areas.

Expansion Enabled by Funding

With new funding, OCHS is moving aggressively to expand opportunities to high school juniors and seniors throughout Minnesota to access college courses by supporting:

(1) The **purchase of specialized equipment** needed to make specific courses operational. Equipment will be loaned to partner high schools to support enrollment in classes with special requirements (e.g., graphing calculators, headsets, and transcribers.

(2) **Expanded access to online tutoring** through the use of Smartthinking (online tutoring) to provide a secondary "safety net" to help assure student success. Purchase of additional Smartthinking hours to accommodate the OCHS enrollments provides needed support services, especially in small high schools where content resources may be limited.

(3) The **staffing needed to manage program expansion and operations**, including responding to requests from high school and school district decision makers; supporting efforts to diversify course options for students by adding unique, non-duplicative courses from new MnSCU partners; building partnerships with business and industry leaders who can contribute to program quality and availability; and overseeing the implementation of upgraded instructional technology and student support services.

(4) Offering **low-enrollment course sections** that would not be able to serve students at the "break even" rates negotiated among partners. Previously, such sections have been canceled to keep seat costs within reach for the high schools. A "course support fund" will create greater student access.

(5) **Web/instructional technology resources**. Program growth will require dedicated time for web development and instructional technology support. By incorporating emerging technologies to support student advising, enrollment, course support and academic achievement, the quality of online courses and appropriate support services can continually be improved to better meet the needs of the 21st century learner.

(6) **Student advising, educational planning, and proctor training** to provide orientations for new course providers; expand academic advising and educational planning; incorporate emerging technologies to support program enhancements; and create a customized tool to help parents and counselors compare options and make decisions.

2009 Update

OCHS has added a second section to four courses. Due to increased outreach activity, OCHS will offer courses to four new high schools in spring 2009: Battle Lake High School, Clinton-Graceville-Beardsley, Osakis and Sauke Centre. Student registrations for spring 2009 are 181, up from 153 for the fall 2008 term.

University of Minnesota

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Currently, Postsecondary Enrollment Options courses – both online and in the classroom – are offered in multiple locations around the University of Minnesota system. Regardless of how well each individual unit is managing its PSEO offerings, the University lacks a single systemwide strategy for PSEO. High school students often lack the opportunity to take a University of Minnesota PSEO course online. The University of Minnesota plans to utilize the $200,000 General Fund appropriation from the Achieve Scholarship program to bring online PSEO offerings, wherever they originate, under the umbrella of the Digital Campus, and to develop a plan for increasing online offerings to high school students in a strategic fashion.

The University of Minnesota proposes that $106,000 from the Achieve funding go to the College of Continuing Education for course development and leadership in the area of faculty development. Evaluations and metrics would be developed by all stakeholders and the courses would be ready for launch no later than 2010.

Governor Tim Pawlenty's emphasis on online learning, coupled with the fact that a fourth year of mathematics may be required for admission to the University and not all high schools will be able to offer one, pose a challenge and an opportunity for the University of Minnesota. The University of Minnesota's Digital Campus and the launch this year of the Minnesota Learning Commons provide Web sites, resources, and processes for gathering all online offerings in a single group and strengthening support for online PSEO students to help them prepare for college-level work. The Digital Campus and the Minnesota Learning Commons can advertise, promote, and feature the online PSEO effort in partnership with MnSCU, the Minnesota Department of Education, the National Repository of Online Courses, and Distance Minnesota, a coalition of Minnesota high schools. The Digital Campus' Learning Concierge model can set the standard for effectiveness and user-friendly interactions for this effort.

The University of Minnesota's Learning Platform brings together library resources, course templates and learning objects, and institutional expertise to deliver a coherent body of high quality online Postsecondary Enrollment Options courses to students in the state, and through syndication, perhaps to a national audience. In order for this Digital Campus initiative to be sustainable, however, some policies about funding and overall governance need to be in place. Because various units are already working in this area, a University of Minnesota governing or advisory committee may be created, composed of all who have a stake in the outcome of this effort. The goal is to integrate all University of Minnesota online PSEO offerings, partnering with all interested parties already involved in online PSEO work.

University of Minnesota Morris

The focus of the work in 2009 is on online PSEO development at the University of Minnesota Morris starting with its existing Gen Ed Web. Morris will revise their existing courses as needed, making use of the new tools, Web 2.0 interactivity, and other templates that have been developed. Secondly, the University of Minnesota Morris will create a new mathematics course to meet the fourth-year requirement as well as a science course that meets the general education requirements. This science course, in addition to meeting general education requirements for online students, would also address the problem of bottleneck courses, some of which are in the beginning science curriculum. Funds will be awarded to faculty to develop or refresh content. Instructional design and development would occur in the Twin Cities, in close consultation with the University of Minnesota Morris and its faculty experts. If

this collaboration is successful, what is learned in the first year can be extended to University of Minnesota Duluth, University of Minnesota Rochester and University of Minnesota Crookston.

Working with the College of Continuing Education

PSEO courses for the University of Minnesota Twin Cities are housed in the College of Continuing Education, which has a long history of providing postsecondary options for students and training for teachers who support those courses in the schools. Building on that expertise, CCE has the opportunity to bring together the efforts from all units, providing workshops for teachers working online, for the College of Education and Human Development to create and offer online continuing education courses focusing on the challenges of teaching online, and hybrid courses for adult learners and the particular needs of high school students taking online courses.

Because the University is offering online degrees in the health professions and because the Academic Health Center has been working with online and hybrid models for teaching, the courses that CCE develops could be repurposed for use as continuing education for health professionals educators, another niche area in which the University has recognized expertise.

Plan

Through its Digital Campus, the University will create central course development models. The Office of Distributed Education and Instructional Technology will work with departments and instructors in offering courses online and will establish a cycle of fund regeneration to develop and support a coherent and comprehensive set of Postsecondary Enrollment Options courses online for high school students.

Based on an analysis of best practices in blended and online learning course development (Judith V. Boettcher & Cynthia Digby), the University adopted the following constants as bases for comparing the costs and benefits of its proposed courses of action:

- Developing courses for online delivery requires input from at least three sources: faculty or instructors, who will teach a course and serve as subject matter experts; instructional designers, who understand learning online and can work with the faculty to plan the course; and developers, who will add content to the course management system, program Web sites and learning modules, and handle all other technical aspects of the course development.

- The University of Minnesota may utilize graduate student developers as the technical developers for most courses.

The University has identified a development model employing graduate development assistants to produce course content under the direction of a subject-matter expert faculty member and a dedicated instructional designer. PowerPoint presentation files, which can be easily translated to an online format, will be used. This model also assumes some interactive teaching strategies will be used, in addition to those already included in the Learning Platform, such as discussions, blogs, quizzes and tests. While this model assumes instructional goals will be met with the basic instructional strategies, the model allows for some interactive modules to be developed, possibly to aid students in understanding particularly complex concepts or to reinforce correct understanding of content that many students misunderstand. Some modules created will be developed with a goal of reusing the technical infrastructure of the modules in other courses. Content can change easily if an interactive module was created from the beginning with a goal of reuse later.

Course Development Components

1. Course development from faculty
2. Instructional design
3. Web development (graduate student)
4. Web development (professional programmer)

This shared responsibility model achieves the goals of freeing faculty time to concentrate on course design issues while producing high quality digital content more efficiently than would be possible under other models. It introduces interactive modules that enhance student learning, can be reused in other courses, and can be built upon in subsequent offerings of the course, eventually leading to a course that includes many interactive modules that meet the needs of students with a variety of learning styles. It also achieves the goal of providing direct design and development support to faculty members, enabling them to concentrate on developing a vision for the course and redesigning learning activities for online delivery.

Approach

Research shows students learn better when a variety of teaching methods are employed and learning styles are engaged. Some courses will be developed very simply, using available technology. Others will be developed using more interactive techniques. The addition of interactive modules increases the development timeline of the course. Faculty need to be ready to begin preparing the course well before the start of the semester it will be offered. Development of interactive modules will also need increased coordination from the instructional designer, especially to ensure programming done by a professional programmer can be fully integrated into the course developed by the graduate student developer.

Budget Draft

The University of Minnesota's Office of Distributed Education and Instructional Technology is planning to utilize the General Fund appropriation of $100,000 for Fiscal Year 2008 as follows:

- $27,000 allocated to develop a new science course, which meets general education requirements and addresses the bottleneck course problem
- $27,000 allocated to develop a new mathematics course that would meet the need for a fourth year of mathematics
- $30,000 allocated to refurbish the existing GenEdWeb (genedweb.morris.umn.edu) courses already in existence by adding more Web 2.0 and interactive technologies from the templates and materials already created.
- $10,000 allocated to project management, advertising, custom template design, and integrating online PSEO into the Learning Platform and into the Digital Campus and Learning Commons
- Total: $94,000

The University will follow up with a more detailed report to the Legislature, including a budget, at the end of Fiscal Year 2009.