

## **UCAP COMMITTEE ON IMPROVING UNDERGRADUATE EDUCATION**

**THEME:** Improving Undergraduate Education

### **QUESTION:**

How can we transform curriculum and instruction at UNM in ways that will improve the success of our students from the moment they walk through the door to the moment they walk into their majors?

### **RATIONALE AND CENTRAL GOALS:**

Our central goal should be to make UNM the national leader in delivering a flagship university education for the emerging American majority. That means becoming experts in delivering an undergraduate curriculum fully consistent with flagship excellence to a more diverse, more economically disadvantaged, and less well prepared student body than is found in any other flagship university. With a new funding formula that emphasizes course completion and graduates rather than enrollment, the moment is ideal for a systematic and comprehensive effort to advance this central goal.

Although we must seek to improve the quality of curriculum and instruction across multiple dimensions, there are practical reasons to focus on what has become a central metric of student success, graduation rates. Our goal should be to achieve five in five, a 5% increase in four and six year graduation rates over the next five years. A 5% increase would improve our six year graduation rates to 50% and our four year graduation rates to nearly 20%. The preliminary ideas and suggested approaches outlined below focus on reforms to the way we deliver curriculum and instruction during students' first two years at UNM that can help us achieve this goal.

### **PRELIMINARY IDEAS/SUGGESTED APPROACHES:**

We have held all of our meetings in the Bruce King room at the UNM Law School. Nearly all UNM law school students complete their academic program and pass the bar exam even though they come to the school with very different backgrounds. A central element of that success has been the sense of community that students have been able to forge through a common set of courses during their first year. We can never hope to replicate fully this sense of community and shared experience with 3000+ new undergraduates each year, but we can do many things to move in that direction by ensuring that new students spend more time together in the same set of first year classes, as often as possible in small sections.

### **Core Curriculum**

Moving in this direction demands a systematic assessment of how we deliver the core curriculum at UNM. The central goals of UNM's core curriculum are "to give all students at the University a grounding in the broad knowledge and intellectual values obtained in a liberal arts education and to assure that graduates have a shared academic experience." As presently implemented, the core does a better job of assuring breadth than in creating a shared academic experience. Although students are strongly encouraged to complete their core curriculum early in their academic careers, many

choose not to do so. Those that do complete their core courses early in their careers often do not have shared experiences. Fulfilling social and behavioral sciences core requirements by taking Sociology 101 Introduction to Sociology is likely to give students a very different experience than Economics 106, Introduction to Microeconomics because each is designed more to introduce students to their discipline than to introduce students to the shared approaches of all social and behavioral sciences. One of our central challenges is to discover how to make the core curriculum the kind of shared integrative academic experience that can help our students succeed in their first year.

### **Writing and Speaking: WAC and the Core of the Core**

Core writing is the closest thing we now have to a shared first year experience because a large majority of our students now take English 101 and/or English 102 in their first year at UNM. If we embrace a writing across communities (WAC) model for core writing at UNM, this could also provide the glue that can bind parts of the core curriculum together and help to provide the kind of integrative experience that the core now rarely provides. Because the English department has just hired five new tenure track professors with expertise in writing program administration and writing across communities, and the College of Education is collaborating with A&S to hire additional faculty in this field, we are quickly amassing the faculty strength to implement new initiatives in this area.

This integrative experience already takes place in the Freshman Learning Communities (FLCs), where topical courses from other disciplines are directly tied to companion sections of, for the most part, English 101 or English 102. A few of these FLC courses involve sections of courses that are also in the core curriculum. Next fall, six sections of English 102 will be connected to FLCs in a pilot project to develop English 102W courses that will be tied directly to subject matter outside of the discipline of English composition and led by faculty members from a variety of disciplines. In subsequent years, we should expand the FLC concept to the spring semester. The FLCs are one of the most effective mechanisms we have to create the kind of cohort effect among new students that we know advances student success and enhancing and expanding this program is one of the most important things we can do to help our students succeed. We should also tie sections of English 101 and English 102 to large lecture courses in other disciplines so that some subset of students in a large lecture would be enrolled in a connected English composition course designed to help students learn how to write in the discipline represented in the larger lecture class. This could be an effective extension of the existing concept of the Freshman Interest Groups.

### **Math Emporium and QUAC**

Math core has always been a greater barrier to student success than writing core. Eight of the ten courses on the list of courses with the highest failure rate for spring 2011 were math courses, including a two-thirds failure or withdrawal rate for Math 120, the gateway course to the courses that fulfill the core curriculum requirement. Our goal in fall 2012 is to mount a pilot project of the Math Emporium model for Math 120 that we plan to scale up in subsequent semesters. The Math Emporium model flips the traditional instructional model on its head. Rather than ask students to attend three live lecture sections per week and do their homework at home, Math Emporium delivers the content on-line and then

asks students to attend three hours of dedicated homework time in a specially designed and staffed learning center, which allows for interactive learning.

In another innovation for the fall, we will take our first step toward Quant Across Communities (QUAC) with an FLC of Political Science 200 American Politics tied to a section of Statistics 145. We hope this will be a first step toward replicating the practice in English composition of linking core math courses to topical courses in other disciplines, through FLCs and other initiatives similar to those being pursued in writing across communities.

### **Delivering the Rest of the Core**

Since Arts and Sciences is enacting new requirements that ask that all entrants to the College complete the speaking and writing, math and foreign language components of the core curriculum before entering, our goal should be that all students who do not have to take IS courses complete these three elements of the core curriculum during their first year of study. We should find ways to push them to complete the rest of the core by the end of their second year.

For other areas of the core curriculum, we recommend systematic efforts to coordinate among departments that offer core courses in these areas to ensure that there is greater commonality in the student learning objectives being pursued in each area of study. When a student takes any of the core courses in the physical and natural sciences, or the social sciences, we hope they will come out of those courses with a similar set of understandings about the physical or social world. Our goal in the year to come would be to initiate those conversations across disciplines within each area of the core.

Across the core, we need to do more sensitive placement and tracking of students. Classes that are either too rudimentary or too advanced for students stifle student engagement and progress (especially in their first year). Since our incoming freshmen are quite heterogeneous in their academic preparation, we need to take more care at new student orientation (NSO) to place them properly. For our best students, we must embrace the shift of an already successful honors program to a full-fledged honors college. For students who must take IS courses before taking UNM courses, we must deepen ties with our partners at CNM with the gateway program and at our branch campuses so that our students can come to UNM better prepared to succeed. For students who fall into neither of these categories, ACT scores and GPA are not enough to place students in the right classes. Well conceived discipline specific “placement” tools (like the ones currently in use in Spanish and Chemistry) would help in getting students to the appropriate classes. These could be administered on-line before Orientation and then used in a more personalized advisement protocol at NSO.

We all agree that we need to provide first semester students with greater guidance in how to survive and thrive in the university environment. Some see the need for a separate class that would focus on developing skills to succeed at UNM. Some would also like to emphasize the development of basic research and critical thinking skills in this course. Others believe that this kind of guidance could be included in some subset of classes

already included in the core curriculum, perhaps as an additional one credit component tied to existing three credit classes. We also need to adopt the early warning system used by Athletics advisement to identify students who are struggling in core curriculum classes within the first month of the semester so that advisors can provide effective coaching to those who need it most.

### **Changing the Way We Teach the Core**

Implicitly, much of the discussion above calls us to change the way we teach the core. Students learn more when they are encouraged to work together in small groups on joint projects rather than simply listening to lectures and studying alone. The FLCs provide one model that could be expanded or adopted for courses not now in the FLC program. The Math Emporium suggests another way of encouraging interactive learning that could be replicated in other disciplines. An expansion of recitation sections associated with large lecture courses could provide similar small group learning experiences. Even the largest lecture classes can include small group interactive learning experiences. As we move toward more on-line education we must ensure that teachers using this tool apply the most advanced pedagogy using this tool and take full advantage of the special capabilities available in on-line instruction.

Embracing these new models of instruction calls for changes in the way we staff the core. Today most courses in the core curriculum are taught by part time instructors who are paid \$3,000 to \$4,000 per section on a semester by semester basis. We need to increase the number of tenure track faculty at UNM and insist that departments send their best tenured and tenure track faculty into core curriculum courses. We need to shift our most dedicated and talented part time instructors to more stable lecturer positions and conduct national searches to hire new lecturers with cutting edge training. We need to fund more graduate Teaching Assistant positions so that TAs can staff recitation and lab sections that will provide small group learning experiences. We also need more upper division students who can provide supplemental instruction, tutoring and peer mentoring.

### **Leadership**

To bring about these important changes, we also need to establish clearer lines of authority and responsibility for delivering the core curriculum. One of the central problems we have faced for many years is that those held accountable for the success of our first and second year students have had only limited authority over the faculty delivering the core curriculum. Some suggest we need a Dean or Director of Undergraduate Education. Others prefer to identify someone in an existing leadership position and ensure that this person has the authority and resources to provide effective leadership in transforming undergraduate education at UNM.

### **CONCLUSION:**

Implementing all of these ideas could cost millions of dollars. For the first time, however, we have a state funding formula that could reward us for doing a better job in graduating our students. Investments made today will pay off in the not too distant future and everything we learn in improving student success will help make us a national model for delivering a flagship university education for the emerging American majority.