

## **Resources and Implementation**

### **Introduction**

This document lays out our analysis of the faculty resources needed to mount the new core curriculum, including both available teaching capacity and faculty development support. It should be noted that a \$250,000 endowment has been set aside to support faculty development for new course and cluster development, and that we are at the second round for a \$360,000 Davis Foundation grant to support implementation. The primary “resource” for the new core is the existing teaching capacity devoted to the existing core (which is being replaced). Thus we analyze this existing teaching capacity, project it against what will be needed to implement the new core, and describe the expected timing for implementation. The primary challenge will be to mount roughly 110 sections of EYE and MCE courses by, respectively, 2009 and 2010-11. We are well on our way to the 60 EYE sections needed for Fall 2009, with 26 continuing faculty and expressions of interest or commitments from a total of 45 faculty.

### **Teaching Capacity in the Core**

In its analysis of the resources needed to successfully implement the USM Core, the Planning Group calculated the current and projected capacity in both number of seats and number of sections. Each analysis excludes the current C and D core courses because both will appear in the USM Core in fundamentally the same form. Similarly, because cluster courses and capstones will be drawn largely from existing major courses, we have excluded them from this analysis. The final number of cluster courses will depend on several as yet unknown factors, such as how many students will choose a minor instead of a cluster. Similarly, the number of capstones will depend not only on the average number of graduating seniors, but on how many existing capstones within majors will be converted to meet the USM Core requirement.

Therefore, the comparison between the current core and the proposed new core is between the other 8 core letter courses (E, F, G, H, I, J, J, K) and the 6 courses in the revised core prior to the clusters: EYE, the four 2<sup>nd</sup>-tier courses (Cultural Interpretation, Socio-Cultural Analysis, Creative Expression, and Science Exploration) and the Mid-career Integrative Seminar (MC). The data is explained in more detail in the attachment “Detailed Discussion of Core Curriculum Courses,” but can be summarized as follows:

#### **Analysis of Core Capacity by Enrollment and Seats:**

- In AY 2006-2007, actual total enrollment in core letter areas was 16,310.
- Analysis of student-reported data regarding reasons for taking core courses revealed that, on average, 60% of actual enrollments in core letter courses (9,786) were to satisfy core requirements exclusively (vs. for a major or minor requirement). In some departments (e.g., Psychology) the number of students taking core classes solely for core credit was closer to 40% (6524).
- The total number of seats required for the new USM Core for EYE through the Mid-career course is 6,090. This number assumes full enrollment at the proposed enrollment caps.

- Even under the stricter standard, which makes only 40% of current core seats available to the new core (only 6090 seats required in the revised core vs. 6524 required in the current one), the revised USM Core can be run within existing teaching capacity.
- In the more typical core courses, where up to 60% of core seats are available for reassignment, the teaching capacity is even greater (only 6090 seats required in the revised core vs. 9786 required in the current one).

### **Analysis of Core Capacity by Sections:**

- In AY 2006-207, the number of sections offered in the current core, exclusive of C and D courses, was 670 while the revised USM Core will require only 213 sections per year. College Writing and Quantitative Reasoning have again been excluded.
- The 213 sections consist of the following:
  - 60 EYEs
  - 100 sections of 2<sup>nd</sup>-tier courses (25 sections each of CI, SCA, CE, SE)
  - 53 MCs<sup>1</sup>
- Though still a best estimate, the different number of sections required for each category of course reflects the kind of analysis necessary for each:
  - The number of EYEs was calculated by dividing the number of students with fewer than 24 credits entering in Fall 2006 by the enrollment cap for EYEs (25).
  - The number of second-tier courses was calculated on the basis of continuing students and a target retention rate of 75% (as compared with our current rate of 69%). This target rate is similar to comparable institutions. (See page 3 of the attached spread sheet for more details.) The number of 2<sup>nd</sup>-tier sections is also lower than the number of sections required for EYE because transfer students will transfer some of these credits.
  - MCs were calculated on the basis of the number of continuing students with an increased retention rate, plus all '06-'07 transfer students entering with 2 or 3 core letter courses F through K and divided by 30 (an average of the proposed enrollment caps). This assumes they will all take MC as soon as they can, which would represent the absolute maximum number of sections that will be needed.
  - This accounts for 19 of the total 39 credits in the revised USM Core (26 if we include College Writing and Quantitative Reasoning). Because the curriculum is vertical, students will be satisfying 9-12 credit hours in the clusters and capstone primarily through already existing courses at the 300-level or above.

In other words, whether calculated in terms of number of required seats or number of required sections, the revised USM Core can be taught using existing teaching capacity and resources.

### **Implementation of USM Core**

The implementation timetable for the revised USM Core (attached) calls for all entering students with fewer than 24 hours to take an EYE beginning in Fall 2009. This will require having 60

---

<sup>1</sup>An additional analysis of capacity by sections is currently underway, and will be made available to the Senate and to others by Nov. 2, 2007. This analysis focuses on confirming our section estimates through calculations based on FTE's rather than a straight head-count of students, which does not take into consideration that full-time and part-time students progress through any curriculum at different paces.

EYE sections in place by that time. Currently 26 sections have been piloted and will continue, and approximately 45 EYE courses total have been proposed or are in development for Fall 2009.

2<sup>nd</sup>-tier courses (AI, SCA, CE, and SE) will be offered beginning in Spring 2010, with all 2<sup>nd</sup>-tier courses (100 sections across two semesters) in place for AY 2011-2012. The timetable estimates the number of courses needed at this level in each year of the transition between 2010 and 2012 (e.g. 40 in 2009-2010, 80 in 2010-2011, and 100 in 2011-2012). While the approval of new courses in the curriculum will be the responsibility of the USM Core Curriculum Committee (see description in the full proposal), we expect some existing core courses to continue to be offered in these 2<sup>nd</sup>-tier classes for this three-year transition period, during which time the department or faculty member offering the course will either develop new USM 2XX courses, adapt the existing course to the criteria and outcomes for the new USM 2XX courses, or demonstrate how an existing course already satisfies those criteria and outcomes. By Fall 2012, all 2<sup>nd</sup>-tier courses will have a USM 2XX number.

The Mid-career Integrative Seminar will also be required of all entering transfer students with 24 or more credits beginning in Fall 2010. The total number of sections noted on the timetable for MCs (53) assumes that all incoming transfers will take the MC their first year, which is very unlikely. Nevertheless, the primary challenge of implementation will be mounting the 60 EYEs in Fall 2009 and the full count of 53 MCs if not entirely by Fall 2010, then by 2011.

### **Resources for Faculty Development**

As this analysis suggests, there is already existing teaching capacity sufficient to sustain the proposed revisions to the USM Core. Indeed, we have more than is needed to go forward. While we already have enough seats and sections to run the curriculum, substantial faculty development will still be required to develop and maintain some of the courses, particularly the EYEs and MCs, both of which are team-designed and, in the case of the EYE, interdisciplinary. Support for this faculty development during the transition phase is being provided now by money from a \$250,000 endowment targeted specifically for this purpose (see Implementation Budget). In addition, the Associate Provost for Undergraduate Education has applied for a Davis Foundation Grant for \$360,000 specifically for faculty development during the transition phase and for program assessment. A site visit from the Davis Foundation takes place this week, which represents at least one hurdle already surmounted in the approval process.

#### Attachments:

- Detailed Discussion of Core Curriculum Courses
- Implementation Timeline
- Implementation Budget

**Detailed Discussion of Core Curriculum Courses:**  
**Maximum and actual enrollments, 2006-2007 and Estimates of capacities for new USM Core**

One of the central questions posed about the new curriculum is whether it can be offered within existing resources as is required, both by the faculty senate approved Guidelines and Criteria, and by current fiscal realities.

One way to begin to answer this question is to estimate the capacity within the existing curriculum which can be dedicated to the new curriculum. Specifically, what proportion of old core courses is “available” for transformation into new USM Core courses? The analysis described here provides a partial answer to this question, based on estimates of available seats.

IT Information Reporting prepared data on **2006-2007 core courses** (both Fall and Spring terms), listing CRN, Course name, Section, Credit Hours, College, Department, Maximum enrollment, Actual Enrollment and Term (Fall vs. Spring).

We eliminated from our analysis all C and D courses, because College Writing and Quantitative Reasoning remain requirements in the new USM Core.

The analysis then calculates totals of **maximum** enrollments and **actual** enrollments for all 2006-7 Core courses by area, and provides an overall total. We then estimate seats available by calculating **60% and 40% of actual enrollments** by area, and of the total 2006-7 actual enrollments. We selected 60% and 40% for these calculations based on two factors. First, a Survey of Core Courses in Fall 2006 indicated that, of those courses responding, 60% of students enrolled stated that they were taking the course in question to fulfill a Core requirement (as opposed to a major, minor, or other requirement). Second, we received estimates from individual departments (e.g., Psychology) showing that their own “available” seats (that is, those seats taken by students filling a Core requirement, rather than a major, minor or other requirement) were closer to 40% than 60%.

Core Area	Maximum Enrollments	Actual Enrollments	% Full	60% Actual Enrollments	40% Actual Enrollments
E	2203	1695	76.94	1017	678
F	2444	2010	82.4	1206	804
G	2045	1569	76.72	941	628
H	1880	1528	81.28	917	611
I	3720	2697	72.5	1618	1079
J	6671	4974	74.56	2984	1990
K	2355	1837	78	1102	734
TOTAL	21,318	16,310	77%	9,786	6524

**Total seats needed in new core:** calculated by multiplying the estimated number of necessary sections for each course (EYE, 4 courses in the second tier, and Mid Career Integrative Seminar) by the maximum enrollment recommended for each course: **6,090**.

This figure does not include seats in clusters and capstone courses<sup>2</sup>. By a straight calculation of seats needed, these components of USM Core can be run at 40% of the actual seats occupied in a given year in the current curriculum (6090 vs. 6524). This assumes all USM Core courses would run every year (which is a very strict assumption) and that they would all run at the recommended enrollment maximums (another very strict assumption).

This data provides a rough estimate of the “seats available,” defined as seats not dedicated to students taking a course as a major or minor requirement. The data show that we do not in fact need additional capacity, as defined by head count or seats, to deliver the new curriculum. By this estimate, we could deliver the new curriculum on 40% of the seats currently occupied in any given year by students in old core courses.

This analysis is based on head count/seat count. It does not reveal the number of faculty needed to teach the students in those seats. If a course that is both a major requirement and a Core requirement currently enrolls 60 students, and 60% of those seats, or 36, are “available” for conversion to the new core this could still mean that two sections and two faculty are needed to teach the original course as a major requirement and a new course as a USM Core requirement.

**The next stage of analysis must consider the same issue of capacity in relation to the numbers of instructors rather than seats.** Total number of Core sections (E-K) offered 2006-2007: **674**. (Total number of sections in Fall 07 is 340.) We estimate from this that the total number of faculty teaching a core course per year is roughly 674 (this is an estimate, as some faculty teach more than one section of the same course). So, this is an estimate of the available capacity for teaching in the new curriculum, as defined by numbers of instructors/sections. The total number of sections needed in EYE, second tier, and Mid-career components of the new USM Core is 213 (60 EYE’s, 53 MC, approximately 100 second tier sections per year). As indicated in footnote one above, an additional analysis of capacity by sections is currently underway, and will be made available to the Senate and to others by Nov. 2, 2007. This additional analysis focuses on confirming our section estimates through calculations based on FTE’s rather than a straight head-count of students, which does not take into consideration that full-time and part-time students progress through any curriculum at different paces.

The major challenge which our analyses of capacity do not directly address is the on-going one of faculty development. Demonstrating capacity in terms of available seats, numbers of sections and available instructors must still take into account that available faculty must be prepared to teach new courses. This is not a new problem, however, and ways to address it are built into both our implementation plans and our budget.

---

<sup>2</sup> This calculation is not included because estimations require information on current unknowns (e.g., enrollments in and frequency and rotation of offerings of Cluster Courses by individual departments, same for capstones)