Working Group – Follow-Up on High DFWI Courses

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*Background:* During the academic year 2010-2011, a working group of the MFS studied the problem of courses that have a high rate of awarding grades of D, F, W, or I; grades which, for many majors, result in a failure to proceed through the normal prerequisite course sequence in a timely manner. Students who receive a DFWI in an important course, especially during their freshman year, are at a high risk for dropping out of college. This previous WG identified 5 departments that have courses with both high DFWI rates and high enrollments: Math, NREM, Chemistry, Philosophy, and Psychology. The WG made several recommendations for general improvements in advising, orientation, and additional faculty and TA support that could improve student performance in these key departments. The general goal of the current WG was to identify a small number of potential initiatives that the campus administration could undertake to support student success in high DFWI courses.

*Objectives:*

- To reexamine the previously identified high DFWI courses, particularly with respect to how campus-wide initiatives could impact student success.
- To discuss and evaluate prior recommendations of the previous working group.
- To seek input from faculty and students on problems and potential solutions.
- To make recommendations to the Manoa Faculty Senate, VCAA, deans, directors, and to departments to address the problem.

*Process:*
A Manoa Faculty Senate Working Group with members from the Committee of Academic Policy and Planning (CAPP), General Education Committee (GEC), and the Manoa Assessment Committee (MAC) was formed in January 2012. Due to some early confusion about who would lead this WG, there were no meetings prior to February 2012. Three meetings were held over February and March at which recommendations of the previous WG, together with the original high DFWI data from the Manoa Institutional Research Office (MIRO), were discussed. Individual WG members then met with faculty and or department chairs from departments with high DFWI courses to follow up on reports from the previous year, and to see what initiatives have been undertaken to address the problems. A final meeting of the WG was held to assimilate and discuss these department meetings.

*General findings:*

- Departments have made great strides in addressing high DFWI courses in the following ways:
  - Chemistry has reorganized the 100-level General Chemistry sequence to include a non-science-majors course (Chem 100), a new remedial chemistry course (Chem 130), and a revived accelerated course for engineering students (Chem 171). This should significantly reduce class sizes for the primary Chem 161/162 sequence. Chemistry has also begun using online homework for most large courses, and has set up a computer tutorial room staffed with TAs that can assist students with online homework.
  - Math has initiated TA led recitations to supplement the 100-level faculty led courses. On a trial basis, Math has also instituted an online course with a once-per-week recitation. They are also participating in an on-campus tutorial room staffed with TAs.
  - Philosophy has hired new faculty to teach Phil 110 and 112 using a significantly revised syllabus.
Psychology has eliminated the large “Unit Mastery” Psych 100 course, and has replaced this with two large- and two medium-sized lecture courses. Future plans call for two or more team-taught lecture courses with TA support.

- Lecture courses that include regular graded homework generally have improved student grades. In large lecture courses this can often be provided through online homework. Faculty and/or TA support through tutorials, recitations, or regular office hours is essential to help students work through difficulties with the material.
- Advisors are not able to meet with students on a frequent enough basis, due to the relatively small number of advisors for incoming freshman and undecided students. Further, there are some incidents where advisors give students incorrect information about prerequisites for majors, suggesting that additional and more regular advisor training may be necessary.

Specific recommendations:

1. **Student Learning Centers.** These would be centrally located attractive rooms, with a range of educational technology, where faculty and/or TAs could provide assistance with homework and study. The College of Natural Sciences has piloted a “Student Learning Emporium,” a room equipped with desks, computers, whiteboards, and conferences tables, and staffed by knowledgeable TAs, where students can go to work on homework and get assistance from TAs. However, the CNS site is a small room in an out-of-the-way corner of Bilger addition; this is not an attractive place for students to spend time. The campus currently has the Learning Assistance Center and Student Success Center in Sinclair Library staffed by undergraduate tutors; however, the location is not ideal for many students and the tutors have limited knowledge of many of the more difficult STEM courses. We feel that more students can be reached in a meaningful way by a merger of the CNS Student Learning Emporium concept with the Student Success Center concept, except with multiple locations focused broadly on specific sets of disciplines. We would encourage the campus administration to establish several Student Learning Centers in highly visible, desirable locations, and staffed by both undergraduate tutors and graduate student TAs, to encourage students to work on homework and to study during their free time on campus.

2. **Faculty Academic Development Sabbaticals.** Faculty members need time away from teaching to develop unique and original solutions to our academic challenges. We would encourage the VCAA to set up a competitive program in which a small number of faculty members would receive a one semester teaching buyout in order to fully develop a new course or modify an existing course. Faculty should be required to submit a proposal that details the existing problems and a general concept for the new or redesigned course. The program should also include a small budget for educational materials or for travel to another school to study particularly innovative teaching methods.

3. **Advising.** Both the Manoa Advising Center and the Arts & Sciences Advisors are severely understaffed. Advising needs to be provided to all incoming students each semester, and this will require additional advisors for underclassmen and undecided students. Further, advisors may need additional training in how to advise students, particularly as many majors have undergone significant changes in the last few years. Advisors should have a solid understanding of the chain of prerequisite courses required for various majors, or should have this information readily available in a simple, easy-to-understand format.

4. **TA Support.** Many departments and faculty feel that their large lecture courses do not have enough TA support to allow weekly homework with recitations or tutorials. Although TA positions are generally under purview of each individual College Dean, the VCAA should work with the Deans and Department Chairs to ensure that there is enough instructional support for critical large lecture courses.

5. **Extended Drop Date.** The course drop and add dates are only 7 days after the beginning of the semester. Many courses have not presented a significant amount of material during this week. Students often do not realize that they are in a course for which they are not prepared to succeed until after the current
drop date, and these students are forced to choose between taking a W or taking a D or F. We would recommend that the VCAA examine whether the drop date could be extended to 14 days after the start of the semester to provide students with ample time to make an informed decision about whether their courses are at the appropriate level.

6. **Revisit the high DFWI issue on a regular basis.** The MFS working with the MIRO are encouraged to conduct a full analysis and evaluation of high DFWI courses every 5 years. The next re-examination should occur in the 2015-16 academic year.