I. Background Information

A. Introduction

In August 2007, Vice Chancellor Susan Hannah appointed a Task Force to examine the future of Distance Learning at IPFW, with a particular focus on the role of online courses in the university's future. The Task Force was charged with developing a strategic plan for the role of distance/online education at IPFW, and with developing a set of best practices for course design, faculty development, compensation, and budgeting. The Task Force's membership, full charge, and specific goals can be found in Appendix A.

It is clear that enrollment in online courses has grown enormously in the last decade. Nationally, enrollment in online courses has grown at all types of institutions of higher education, although some institutions show more growth than others (e.g., larger public institutions and two-year institutions, Allen & Seaman, 2006, 2007). The growth in online courses is much higher than the growth rate of enrollment in higher education in general (approximately 20% per year in online as compared to approximately 1% overall). The majority of growth in online education is in undergraduate courses (rather than whole degrees), but there is also significant growth in graduate courses and in some full programs. In terms of programs, growth is especially noted in associate degrees, graduate certificates, and master's degrees (Allen & Seaman, 2005).

IPFW has shown a similar rate of growth. As can be seen by the Table below, the percentage of credit hours in online courses has grown from 2.5% of total credit hours in Fall 2003 to almost 10% of credit hours in Spring 2008. Online courses have grown particularly dramatically in summers.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>2.95%</td>
<td>3.81%</td>
<td>9.25%</td>
</tr>
<tr>
<td>2004-2005</td>
<td>3.72%</td>
<td>4.85%</td>
<td>14.25%</td>
</tr>
<tr>
<td>2005-2006</td>
<td>5.25%</td>
<td>6.83%</td>
<td>19.96%</td>
</tr>
<tr>
<td>2006-2007</td>
<td>7.26%</td>
<td>8.85%</td>
<td>23.70%</td>
</tr>
</tbody>
</table>

Nationally, older students and working adults are more likely to take online courses. Traditional-aged students, especially those at residential campuses, are less interested in taking online courses (Garrett, 2007). At IPFW, it is also the case that older students are
more likely to take online courses than other students. From 2003 to the present, the average age for students taking only face-to-face classes is 25.93; for a combination of types, 26.22; for online only, 28.31, and for other distance (usually DVD or TV), 30.06. This pattern (with students in only-distance classes being older) has been found across all Spring and Fall semesters between Fall 2003 and Spring 2008, but not in summers.

Our survey of students taking online courses can be found in Appendix B. It is very clear from their responses that the majority of IPFW students who enroll in online classes do so because they have other demands on their time (e.g., children and work), or live some distance from campus. Having online courses permits them to pursue their degrees more easily and quickly as they meet their other responsibilities. Responses to the survey clearly indicate a strong desire on the part of the majority of respondents to have access to courses online. However, we also note that about 1/3 of the students taking online classes reported that they might have preferred a face-to-face version, but that the online version was the only suitable course available when they registered (see questions 6 and 7 in Appendix B).

### B. Success Rates in Online Courses

The Task Force examined several aspects of academic performance and retention in online courses as compared to face-to-face courses. First we examined all courses taught in both face-to-face and distance modes between Fall of 2003 and Summer of 2007. The data are presented in various forms in Appendix C. Figure 1 in Appendix C demonstrates that the rates of Ds, Fs, early drops, and Ws are higher in distance classes than in face-to-face classes. Overall, taking the enrollment as of the second week of the semester, about 83% of students who begin face-to-face classes successfully complete them (defined as earning a C or better in the course), whereas that is true of only about 68% of distance learning students. However, online classes appear to have a somewhat higher success rate than other distance classes such as DVD and TV classes (about 71% versus about 66%).

To further examine the success rates (C or higher), we examined a set of 90 paired courses (note that this is only a subset of the courses referred to above). These were pairs of courses in which the same instructor taught the same course in the same semester in both formats (at least one online and another face-to-face) from Fall 2003 through Spring 2007. Statistical comparisons indicated a significantly lower overall GPA in the online courses, a significantly higher DFW rate in the online courses, more grades of A in the face-to-face classes, more Bs in the face-to-face classes, more Ds in the face-to-face classes, and more Fs, Ws, and early drops in the online classes. Considering attendance from the second week of the semester, about 78% of the face-to-face students successfully completed these courses as compared to about 70% of the online students. These can be seen presented in Figure 2 in Appendix C.

These findings are not generally consistent with national patterns. Overall, the national picture is one of some instances of better performance (measured in several ways, not
simply grades) in online versus face-to-face classes, some instances of poorer performance, but generally one of "no significant difference" (Russell, 2001).

The results of the student survey in Appendix B may shed some light on the grade pattern and completion rates. Students consistently say that online courses are more difficult and require more self-direction (see responses to Questions 10, 11, and 12). Thus, the courses may be suited to some students more than others. It might be especially wise to encourage new freshman to wait a semester or two before trying an online course.

Students also note that much depends on the organization of the course and on the instructor's clarity and responsiveness. In the research literature there is reasonably good evidence concerning features and characteristics of effective online courses (Zhao, Lei, & Yan, 2005). The more that online courses incorporate regular active learning assignments in the online environment, and clear requirements for regular (e.g., weekly) completion of such assignments, the better students fare in terms of knowledge acquisition in online courses versus face-to-face courses that consist predominantly of lecture (Maki & Maki, 2007). So it may well be possible to design online courses with higher rates of success. We will return to this point later.

The research literature also suggests some additional drawbacks to online courses. Similar to what we found at IPFW, students consistently withdraw from online courses at a higher rate (Howell, Laws, & Lindsay, 2004; Maki & Maki, 2007). Although we didn't measure this specifically here at IPFW, the research finds students to be less satisfied with their experiences in online relative to face-to-face courses, less likely to recommend the course to a friend, and less likely to say that they would take the particular course again (Bernard et al., 2004; Maki & Maki, 2007).

C. Retention in Online Courses

We also examined the extent to which students who took at least some of their coursework online were retained at the university the following year. For this comparison, Fall semester data only were considered. Because freshmen are known to persist at a significantly lower rate than other students, this comparison also included class standing. These data are presented in Figure 3 in Appendix C. As expected, freshmen returned for the following year at a notably lower rate than other students. Also, students who took their coursework via the Internet only, persisted less than other students did, regardless of class standing, however there were very few of them, so it's hard to know what to make of this finding. Those were the largest effects. There was a small, but reasonably consistent, pattern for students who enrolled in both face-to-face and online classes to persist more than students who enrolled in face-to-face classes only, suggesting the possibility of a modest role for these classes in increasing persistence. However, since students choose to take Internet classes as part of their load, we really don't know if there are pre-existing differences between these groups which would account for the pattern.
D. Department and Program Goals

In order to determine what plans departments have made for online courses and programs, a Task Force subcommittee surveyed department chairs with an online questionnaire, and interviewed a subset of them. The survey was sent to 43 chairs and program directors; 34 responded (see the survey results in Appendix D). Following the survey, members of the subcommittee interviewed 11 department chairs, selected from across the university, and from departments with differing histories of online course use (from none or very few through more than 15% of recent offerings (see the interview results in Appendix D.)

It is clear from the results of the survey and interviews, that departments have been driven largely by faculty interest, DCS incentives and encouragement, and student interest. Few departments have a plan for the use of online courses or program development.

E. The Experience of Faculty

We also collected data on the experience of faculty members who teach online. The survey results can be found in Appendix E. Faculty tended to report they were influenced to teach online by their own interest, their desire for increased flexibility, to meet student need, and that they found the availability of DECCO grants and campus support services (e.g., CELT and DCS) to be helpful. Few faculty reported being influenced by a programmatic initiative at the department level to offer more of these courses.

Faculty reported that the development of online courses was very time consuming, and that they generally believed that teaching online was more labor-intensive than teaching face-to-face (more than 50% chose “strongly agree” or “agree” to this question, whereas only 6% chose “disagree” or “strongly disagree.”)

The Task Force's pedagogy subcommittee also interviewed a group of faculty who teach online. These faculty reported that the challenges to teaching online, beyond learning and overcoming technological problems, are the students themselves. Students who struggle in online courses are frequently not adequately prepared for online courses, i.e., they do not have the necessary technological skills, their expectations about the courses tend to be inaccurate, and they do not have the self-discipline and initiative to be successful in the online environment.

II. Recommendations

A. The Role of Distance/Online Learning at IPFW

For the most part, up to this point online learning has not been strategically driven at the university, school/college, or department level. The Division of Continuing Studies
(DCS) has certainly been moving forward with this form of instruction and has been taking steps to increase it, with a particular emphasis on general education courses and the General Studies degree programs (BGS and AGS). DCS has also encouraged departments to offer some minors and certificates online. Beyond that, much of the impetus for offering online courses has been at the level of individual instructors. DECCO grants and overload pay policies have largely benefited those instructors who have chosen to develop and offer online courses. Departments also receive a modest incentive for each course offered, but none for developing strategic plans for online course or program development. If the goal is to increase online courses and programs strategically, providing incentives to departments in addition to those provided to individual faculty members (such as DECCO grants) makes sense.

Considering the data we gathered which shows continual growth in enrollment in online courses nationally and at IPFW, clear student interest in this medium of instruction, and the nature of our campus and student body, we make two general strategic recommendations about online learning. First, the university will be well served by a broad range of online general education courses and selected upper division courses. Therefore, we recommend the continued development of online course offerings. Second, in order to meet particular community and employer needs, and to bring new students to the university, we recommend that departments and programs offer some complete programs online, generally in the form of certificates rather than complete undergraduate or graduate degrees, although some of the latter may be appropriate. Each of these recommendations is expanded below:

1. First, departments and programs should increase online undergraduate and graduate course offerings to the extent that it makes for good practice in their discipline. Departments should plan their course offerings systematically, at the program level. Generally, they should not be driven predominantly by faculty interest in developing these forms of instruction and course development, but rather by programmatic considerations.

2. Second, departments and programs should offer selected whole programs online,

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1We did considered hybrid (sometimes called blended) courses in this process but chose not to make a recommendation about them at this point. Hybrid courses reduce face-to-face meeting times (sometimes modestly and sometimes very significantly), and increase the extent to which activities are presented in the online environment. Such courses often enhance student learning by capitalizing on the best of both instructional environments (e.g., Ausburn, 2004; Garrison & Kanuka, 2004; Osguthorpe & Graham, 2003). Hybrid courses may also use campus space more efficiently, if more than one course can use the same classroom during a single semester. On the other hand, students who are taking online courses for the flexibility because of other demands on their time, often do not find hybrid courses as appealing as fully online courses.
where appropriate. Our recommendation is to consider certificates which are focused on particular community and employer needs, as opposed to entire bachelor's degree programs. Few departments are interested in offering the entire undergraduate degree online, and such an initiative is not consistent with most faculty members' beliefs about the importance of face-to-face education. At the graduate level, it may be reasonable to consider some fully online programs, but again focused certificates seem to be a more reasonable alternative for IPFW departments and programs. In particular, we are recommending that departments consider programs that will bring new students to campus and enhance the role of IPFW in meeting community needs. Before planning any fully online programs, departments, in collaboration with their schools or colleges, the Office of Academic Affairs (i.e., the Associate Vice Chancellor for Academic Programs), and with DCS, should undertake an exploration of such community needs and demand on the part of potential students.

Since we are making recommendations at the department and program level, we also recommend that the DCS incentive system's emphasis be shifted from individual faculty members to departments and programs. As an example, DCS has recently funded several continuing lecturer positions. When they fund such positions, the individual faculty member's enrollments must justify the lecturer's salary. If not, the position cannot be funded any longer. We recommend that this practice be discontinued, and that DCS make its enrollment and course contractual agreements with the department or program, and not concern itself with who teaches the particular courses that meet the enrollment goals. In this way, as departments make strategic plans for their use of online (and other distance) course offerings, the incentives can support the department's overall growth and development. For many departments, the most important incentive is faculty lines. We encourage the university to develop creative funding arrangements in which departments are able to include distance learning as a strategic part of their programmatic offerings, and, in turn, they are able to receive incentives that assist them in their overall growth and development.

B. Budgetary Issues

1. The cost of online courses for students

Currently, the Division of Continuing Studies imposes a surcharge for online courses. This results in a somewhat higher cost per credit hour for in-state students, as compared to the cost for face-to-face classes. At the same time, out-of-state students pay this same cost, which is significantly lower than out-of-state fees. We recommend continuing with this practice.

2. Overload/bonus pay for online courses

We recommend that instructors of online courses continue to receive the $500 incentive for teaching in this environment, both to recognize the necessity of
continually updating their use of technology, and to recognize that faculty who choose to teach online have responded to the university’s goal of meeting this student need.

On the other hand, several members of the Task Force had concerns about the practice of paying instructors an overload rate of $75 per student when more than 30 students are enrolled. We thought that, in the absence of a departmental policy on class size based on pedagogical criteria, there could a potential for some faculty members to permit more students to enroll in their classes than they could teach effectively in the online environment (see the recommendations about class size later in this report).

Therefore, we strongly recommend that department chairs provide particular oversight of any online classes which enroll 40 students or more. In particular, they should evaluate student performance in those classes as compared to other sections of the same course. They should also take steps to make certain that a majority of the students enrolled complete course evaluations that measure the effectiveness of the course design, the ability to interact with other students (in chat rooms, discussion forums and the like), the responsiveness of the instructor or teaching assistant to student questions, and the timeliness with which assignments are graded. If any of this information suggests that students are not being well served in a class of this size, we recommend that chairs make appropriate changes.

3. The planning, scheduling, and selection of courses

Department chairs should plan online and other distance courses in much the same way as they plan any kind of delivery of courses (e.g., evening, semester rotations, etc.), and should put their own distance schedules together in collaboration with DCS. They should not concern themselves with whether a full-time faculty member teaches online as part of their load or as an overload, nor should they concern themselves with where tuition dollars go (DCS or general fund) for distance courses. These are budgetary matters that can be handled by the administration. Department scheduling should be done for programmatic reasons.

C. Course Design and Pedagogy in the Online Environment

In designing online courses some pedagogical principles are similar to those in face-to-face classes, but other considerations are unique to the online environment. The Task Force makes the following recommendations with respect to designing and teaching online courses:

1. Follow the seven principles of good undergraduate education

These were originally outlined by Chickering and Gamson (1987), and were further
developed for the online environment by Chickering and Ehrmann (1996). They can be found at the Teaching, Learning and Technology Group Website: [http://www.ftlgroup.org/programs/seven.html](http://www.ftlgroup.org/programs/seven.html).

Essentially these principles emphasize the importance of regular contact between students and faculty, reciprocity and cooperation among students, active learning, prompt feedback, an appropriate amount of time on task, high expectations for students, and respect for diverse talents which, of necessity, includes a variety of ways of assessing knowledge.

2. **Consider developing and modifying online courses using the guidelines of the Quality Matters rubric**

The Quality Matters rubric, originally developed at the University of Maryland with a FIPSE grant from the U.S. Department of Education, is a widely-used standard for developing effective online courses. It includes information about effective course design, instructional materials, measurement of student learning, and use of technology; clarity of course goals and objectives and grading policies and other standards; ways to effectively foster student-instructor and student-student interaction; availability of support for students; and accessibility of the course to students, including those with disabilities. The Quality Matters rubric can be used for instructors to evaluate their own courses, and to provide peer reviews to others. The Quality Matters Rubric can be found at: [http://www.ipfw.edu/celt/technology/distanceteaching.shtml#DesignTeachOnline](http://www.ipfw.edu/celt/technology/distanceteaching.shtml#DesignTeachOnline)

3. **In particular, we emphasize the following points**

   a. Contemporary online courses are not equivalent to independent study courses. Effective online courses create regular interaction between students and instructors, and among students.

   b. Instructors should make their expectations for the course clear early and often regarding assignments, when students can expect feedback and responses from the instructor, how often they need to be online, and similar issues.

   c. Instructors should respond to students via email, chat, phone in a timely manner (a reasonable expectation is within 24 hours during the work week).

   d. Instructors should seek out and inform their students about relevant resources (e.g., ask the department's subject librarian what services the library might provide for distance education students.)
4. The issue of class size

One particular pedagogical concern is class size. There is evidence that online courses take more faculty time: to learn the pedagogy appropriate to online teaching, to develop new courses, to master the new and continuously-changing technology, and to teach in the online environment. Teaching online – presenting content, interacting with and responding to students, and downloading assignments and grading them – takes more time relative to teaching in the face-to-face classroom. One recent study did a careful examination of the time it takes to teach a previously-developed and taught course, and concluded that it took about 20% more faculty time to teach online. The author concluded: “For the first time, research has shown that successful distance education is contingent upon smaller, not larger, class sizes – nearly half the size of its traditional ancestor. Online teaching should not be expected to generate larger revenues by means of larger class sizes at the expense of effective instructional or faculty over-subscription” (Tomei, 2004, p.44).

However, all classes and subject matters are not the same. The size of an online class should support the instructional objectives and teaching strategies selected by the department for this course, with input from the instructor or faculty member teaching the course. The size of the online class should not cause alterations to course design and delivery that would significantly impair teaching and/or learning. Although there are certainly others, below are some factors related to the decision about class size:

- Course goals (e.g., general education with a need for developing communication and quantitative skills as well as critical thinking)
- The type of content (e.g., facts, principles, theories, or requiring critical thinking, problem-solving, or experiential learning)
- The teaching and assessment strategies (e.g., the need for extensive feedback on writing assignments)
- Whether the course is a culminating or capstone experience
- Whether the course is required of majors, or a foundation for a subsequent course or sequence of courses
- The level of support or assistance for the instructor with course design, technical issues, responding to basic student queries, and grading
- The experience of the faculty member in the online environment, with the particular subject matter or course, and the faculty member’s technological expertise
- The faculty member's other workload
- The technological competence and maturity level of the students

In spite of the pedagogical arguments in their favor in some instances, offering smaller online classes has consequences. If qualified faculty are unable to be found to teach another section of the course, some of the student demand for classes in the online environment will not be met (although the students may enroll in a face-to-face
class instead). Even if faculty are available to teach online, there is an increased cost to two smaller classes as compared to one larger one. Therefore, departments are encouraged to consider a balance between a demonstrated need for relatively smaller classes in the online environment both for the sake of faculty workload and effective instruction, and the need to meet student demand in a fiscally responsible manner.

There are some resources which can be used to effectively manage a larger class. Faculty may wish to consider the use of graduate or undergraduate teaching assistants who can help with prompt responding to student emails, and in the grading of routine assignments. Organizing students into smaller subgroups for bulletin board postings or chat rooms is another way to effectively manage a larger online class.

Ultimately, the issue of online class size should be a departmental decision, much the same as it is for face-to-face classes.

D. Evaluation of Online Courses and Instructors

Although the Division of Continuing Studies is responsible for assisting with the delivery of online classes, the courses are housed in departments, and those departments are responsible for the quality of instruction in the same way as they are for any of their courses. We recommend to departments that they develop a system for evaluating their online courses comparable to the one they use for evaluating face-to-face classes, including some items that are particularly relevant to online courses (e.g., responsiveness of the instructor, organization of the course materials, ease of negotiating the web site, the use of chat rooms, blogs, and threaded discussions). It is also a wise idea to collect normative data in each medium of instruction. Departments that use peer review and mentoring for junior faculty or new limited-term lecturers, should include online courses in their mentoring procedures. As they do for face-to-face classes, department chairs should use information about teaching success in online classes to make decisions about annual evaluation, increment recommendations, the need for improvement, and assignment of faculty to teach particular classes or sections.

E. Faculty Development Plan

Just as individual faculty members receive support for online course development and delivery, departments, programs, and schools should receive support in the form of professional development and funding. For example, departments might create their own professional development programs and seek DECCO funding for them. Departments may wish to have their faculty attend seminars, webinars, or other training activities for which there is a fee. At the same time, chairs and other academic administrators should receive information about IPFW’s strategy and vision for online teaching and learning, about supporting online teachers, the role of online courses in program development, and other topics of interest to them as academic administrators. This information may be offered in regular briefings and in professional development activities customized to their
needs as administrators, managers, and leaders.

The DECCO grant process, as recently revised, should continue to be positioned as a curriculum and professional development opportunity that will enhance teaching and learning. Conceptualizing the grant process in this way represents evolution beyond simply subsidizing new online course development. Under the recently revised process, DECCO grant proposals will be accepted three times a year on a competitive basis, with the award being made by a committee of faculty and staff. Two semesters will be allotted for the development and testing of the course before it is offered. The Quality Matters rubric will provide a foundation for course design. Grants will be available to support the development of new courses, and to support significant revisions of existing online courses.

CELT will offer a combined online teaching orientation and course development experience two times a year to all faculty interested in participating. It will include face-to-face teaching, online workshops or sessions, and one-on-one consultations with peers and instructional design and technology staff.

Design and technology support will continue to be available to all faculty teaching online during the pre-development, development, delivery, and evaluation phases of creating or revising an online course. The evaluation phase refers to supporting the faculty member in systematically gathering data about teaching and learning outcomes in order to enhance the future iterations of the course, from both an instructional and technology perspective. Support will be provided in all phases by a coordinated team of technology, design staff, and peer faculty.

A monetary incentive will be offered to all online teachers who have their courses peer reviewed using the online course design guidelines adapted from the public domain version of the Quality Matters rubric.

Exemplary online teaching at IPFW will be showcased at an annual public event in order to provide opportunities to the faculty to document teaching effectiveness and to help build a community of practice in online teaching.

The DCS Faculty Star Award will be acknowledged at the annual Convocation and at the annual public event mentioned above.
References


Russell, T. L. (2001). *The no significant difference phenomenon.* Montgomery, AL: International Distance Education Certification Center.