

# Project Management for Online Course Development

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Transferring face-to-face courses into online Web-based courses is a trend in higher education. Whether this course transition is for distance education or for resident instruction, faculty members play a critical role in the process. Faculty members not only provide lesson content, they also provide important insights into how content has been best presented in classes semester to semester. However, faculty involvement alone does not guarantee a quality online course. It is the combination of faculty working with an instructional designer and the instructional design team that molds the content and personal teaching experience into a rich learning environment for the online students. Further, this transition process must be guided by a solid project plan that outlines major milestones for the faculty and team members, for without a solid project management plan, content may not arrive when needed and resources cannot be scheduled to assure that the course is completed in a timely manner. Delayed or unexpected lesson content will lead to project cost overruns and missed deadlines.



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## **THE PENN STATE WORLD CAMPUS**

The Pennsylvania State University has been involved in distance education since 1892 and has produced courses that have been delivered via a variety of media. While the traditional rolling enrollment courses had occasionally integrated various Internet technologies, such as listserves and gophers, it was not until the launch of Penn State's World Campus in 1997 that development of wholly online courses commenced. The launch of the World Campus, the primary delivery unit for courses offered to students at a distance,

marked a shift in design models and project management challenges. From the first online courses in Turfgrass Management and Noise Control Engineering, delivered by WebCT and FirstClass, the World Campus has grown to over 200 online courses being offered via Angel and related technologies to students around the globe. Throughout the past 7 years, the Instructional Design and Development unit of the World Campus has changed, adapted, and modified the project management strategies used in the design and development of these Web-based courses.

Responsibility for the transitioning of traditional rolling enrollment courses and face-to-face courses to online courses rests with the Instructional Design & Development (ID&D) Team of the World Campus. This team consists of a director, assistant directors, project managers, instructional designers, instructional designer specialists, graphic artists, a multimedia team, production specialists, technical typists, and a technology team (programmers) who have different responsibilities.

Authors of the Web-based courses are Penn State full-time faculty members. These faculty members work with the instructional designers to determine learning goals and objectives, generate ideas, write the lesson content and storyboard, provide test items and exercises, and suggest multimedia selections.

It is the task of the instructional designers to develop the courses within a given timeframe and within budgetary constraints. This role takes on great significance as more academic units look to technology as a means of offering hybrid courses and wholly online courses in residence and at a distance to assist with student demand and a need for greater flexibility in scheduling. It is imperative that

these ventures be done within budget and on time in order to show a return on investment for both the institution and the academic units.

## **PROJECT MANAGEMENT MODELS**

Over the years, distance education at Penn State has had a tried and true project management practice for the development of print-based independent learning courses. This model allowed for an 8- to 12-month development cycle in which faculty authors first met with the designers to review their existing face-to-face course and examine existing print-based courses. At the end of the initial meeting, the faculty left with a course design guide in hand and were tasked with the construction—in writing—of their course content. This process normally took 6 to 8 months. Once the faculty member had finished the draft of the content, he or she once again met with the instructional designer who then worked with the faculty member to tailor the course, learning activities, and assessment strategies to the distance education students. Once the faculty member and the designer had crafted the course, the final product went to the academic unit for approval and was then sent to the technical typists for final preparation in the templated study guide format. As these courses were independent rolling enrollment courses, they did not open to student registration until they were completed and copies of the course study guide were available for distribution. Therefore, if timelines were missed it had little impact on student expectations, and costs were contained as faculty were paid a flat rate for development, and designers did not begin work on the courses until all content had arrived.

As Penn State moved to begin the transition of face-to-face courses to online courses, it was perceived that a similar project management cycle would work for the online courses. Therefore, the original project management model for the design and development of online courses mirrored that of the print-based courses, with one semester allocated to the development of content by the faculty and the second semester being dedicated to the production of the course in the WebCT environment.

However, what worked well for the design and development of the print-based courses did not translate well to the development of online courses. The online courses tended to be semester-based courses and part of integrated curricula. Therefore, it was often the case that the announcement of these courses and program of study preceded actual development, and timelines for delivery were locked down due to the advanced registrations. Thus, missed deadlines led to delayed launches or courses starting when they were not complete. This added a great deal of pressure to the faculty authors, designers, and instructors.

An all-too-frequent experience in the early development of the online courses using the two-semester model was delayed content delivery. Faculty authors for the online courses were full-time faculty with great demands on their time, thus the idea of sitting down to write a full course was often overwhelming. Therefore, it was not all uncommon at the end of the first semester of development that content was not complete and both the faculty and the design staff had to cut corners and work long hours to get the course finished by the end of the second semester.

Upon examining these process failures, it was determined that a better project management model

needed to be implemented. This led to a series of benchmarking visits with the corporations involved in the development of online courses and with other institutions involved in distance education. The final result was a project management model dubbed the 2-week cycle model.

## **TWO-WEEK CYCLE MODEL VERSUS THE TWO-SEMESTER MODEL**

As stated above, the two-semester project management model provided faculty with one semester to write and develop content, and then the design staff were given a second semester to develop the course. However, in several instances, content arrived late, thus pushing out the projected completion dates. In 2003, a new 2-week cycle model was adopted that adjusts expectations for the faculty in terms of content due dates, and allows the content to be mocked up and tested in a cyclical process.

The Two-Week Cycle model allows designers to develop and get each lesson or unit of a course ready for review in two weeks. During the first week of each 2-week cycle, designers work closely with faculty in order to get lesson content on time. Then, during the second week, the design staff mocks up the lesson online and prepares it for review by the faculty. Also, within the second week, faculty begin writing the next lesson or unit of content. By the end of the first week of the next 2-week period, content for another lesson is ready for the designer to develop and integrate into the Web-based course. If a Web-based course has 12 lessons, ideally, 24 weeks (6 months) later, the course should be ready for final review and editing prior to opening. One of the key benefits of the Two-Week Cycle model is designers

receive content every other week, which keeps things moving. Another benefit is constant communication with faculty, who go over design questions each week with the designer as the lesson is being developed and get a real feel for the instructional design process. Faculty and designers can anticipate areas to modify in the lessons as the course unfolds which results in a better course when development is completed. Thus, the 2-week development cycle allows faculty to get each of the lessons in on time, which is the desired goal of the designer.

While the conception of the two-week model is around a 2-week cycle, designers have adapted this to meet the schedules of certain faculty. Some have adopted a 3- or 4-week cycle with two or three lessons due at the end of each cycle. Regardless of the length of the cycle, which should be no longer than 1 month, the process helps keep the faculty authors and the design team focused on the development needs and the agreed-upon development milestones.

## **CRITICAL STAGES OF THE TWO-WEEK CYCLE MODEL**

Critical to the 2-week cycle model is the first 5 weeks of the project management model. During this 5-week period, five key things must occur. First, the faculty must deliver a completed draft of their course outline or syllabus. This initiates the first design team meeting where the team discusses, with the faculty, all aspects of the course. During this meeting the course is dissected, graphic and multimedia elements are reviewed, readings are identified, and copyrighted material is discussed. At the end of this first meeting the faculty and design team have a good conceptual idea of how the course will be developed

and what resources are required to complete the task.

Following this first meeting, the designer works with the faculty to mock up one of the lessons. This process provides further insights into design requirements and resource needs. Also, during this process all copyrighted material is identified that will need clearance. Upon completion of the mock up of the lesson the design team meets once again in the fifth week to finalize the design, budget, and timeline. A product of this meeting is the final design document for the course.

## **HOW TO WORK WITH FACULTY INVOLVED IN THE DEVELOPMENT OF A NEW WEB-BASED COURSE**

The above has outlined the conceptual aspects of the 2-week model. However, what are the tools employed that facilitate the process? Designers need to work with faculty efficiently and effectively to guide faculty through writing online lesson content and providing the necessary materials. In order to do so, designers may use the following steps:

- create a project management Gantt chart;
- create a mini Web site for the project management;
- provide a detailed course outline form with a sample;
- provide a lesson content template with examples; and
- make a regular communication plan.

## **CREATE PROJECT MANAGEMENT GANTT CHART**

It takes time to establish a long 6-month timeline using a calendar. With software, such as Microsoft

Project 2003, one can easily create a Gantt chart that contains timeline, project tasks, names of who need to complete a specific task, task starting date and ending date, and task time duration, and so forth. Gantt charts allow a convenient way to make a detailed project management plan, as well as remind all of the team members what tasks they should do and the completion deadline for each task.

### CREATE MINI WEB SITE FOR PROJECT MANAGEMENT (SEE APPENDIX A)

While the Gantt chart provides the designer and team members with a detailed look at the project management plan, it is difficult to share in a printed format due to its length. But you can easily create a mini Web site (two to three pages when printed) for project management based on the Gantt chart with team member tasks and deadline for each task highlighted. Compared with Gantt chart, the mini Web site is easier and more convenient for team members to check what they should accomplish each week and be aware of their tasks and deadlines so that they can plan their time accordingly. Also, a mini Web site provides a blueprint of the project for the whole team. Moreover, it is easy to update in order to track a project.

### PROVIDE DETAILED COURSE OUTLINE FORM WITH A SAMPLE

Once a faculty member has a project timeline in hand, and understands what to do overall, it is time for him or her to review how lesson content has been written for other distance education courses. The first thing the faculty member should draft is a detailed course outline. This provides faculty with a clear idea of what the final course will include. It can also serve as the

basis for the syllabus for the course. Below is a typical course outline that shows what might be included:

- *Course description.* In this section, faculty may answer the following questions. What will be covered in the course? Will this course be an independent learning course, or will there be other students pacing through the course at the same time (as they would in a face-to-face class)? Will you expect students to interact with fellow classmates? Will you expect students to stick to a prescribed pace of study or can they work through the course at their own pace?
- *Course goals/objectives.* List four or five broad statements describing what faculty hope students will know, or be able to do, or have experienced as a result of taking the course.
- *Course prerequisites.* Let students know if there are course prerequisites for this course.
- *Outline of overall course structure.* The following questions will be answered in this section: How many lessons will be included in the course? How much time will students spend to complete the course? How much time will students have to work through a single lesson? How much time do faculty expect students to devote to the course each week?
- *Required course materials.* List any textbooks, articles, workbooks, videos, software, or other special materials students will need access to in order to complete the course. For each item, provide as much identifying detail as possible (such as ISBN number for a textbook or ordering information for a brochure).
- *Course requirements.* List the graded assignments for the course (papers, projects, quizzes, exams, class participation grades, etc.) with directions that students

can follow to complete assignments, as well as the percentage of the course grade that each assignment will be worth.

- *Each lesson-specific objectives.* Objectives for each lesson are listed here.
- *Proposed schedule.* Lesson titles, scheduled timeframe, related readings, and assignments will be listed.
- *Grading scale.* Let students know the grading policy, such as how many points are required for an "A" grade, and so on.

It is good practice to provide faculty a sample course outline from a real course to help them understand how to draft their own course outlines for online courses.

### PROVIDE A LESSON CONTENT TEMPLATE WITH EXAMPLES

With the course blueprint—detailed course outline in mind—faculty can start to work on lesson content. After many years working with faculty, we have found that it is easier and really helpful if we provide faculty a lesson content template. A lesson content template with examples lets faculty know what they should write without taking too much time to determine how to get started. A lesson content template might include.

- Introduction;
- Lesson objectives;
- Reading assignment;
- Reading tips/summary;
- Lesson content/commentary/class notes;
- Lesson activities; and
- Lesson summary.

### MAKE A REGULAR COMMUNICATION PLAN

A regular communication plan will allow the designer to work closely with the faculty—for exam-

ple, weekly phone calls can save time in terms of tracking the project or solving problems.


## CONCLUSION

In summary, designers need to work with faculty closely to meet tight project deadlines. When the designers spend time creating sam-

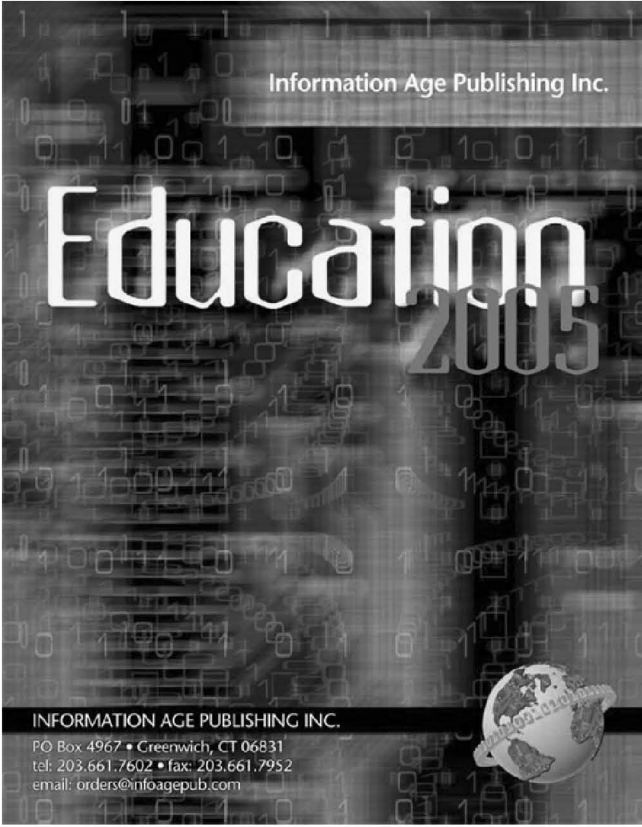
ples, template, and detailed guidelines for faculty, this will save time and avoid the need to revisit many details in later discussions between designers and faculty during the course development process. With the above method to manage a project, the 2-week cycle model, and the above documents to guide faculty to write lesson content, the

Web-based course project will be effectively and efficiently designed, developed, and will, it is hoped, meet the project deadline on time and within budget. We hope that these ideas are helpful for you when you work with faculty to transfer a face-to-face course into online Web-based course.

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