

# **Online Learning at Duke: A Planning Guide**

**I. Planning an online program at Duke** (*for deans, chairs, program directors*)

**II. Teaching an online class at Duke** (*Faculty, TAs, etc. level*)

**III. Adding online activities to your traditional course** (*Faculty, TAs, etc. level*)

**IV. Generic Online Course Design Worksheet**

**V. Needs Analysis Worksheet**

**VI. Sample Timeline Worksheet**

## I. Planning an online program at Duke (for deans, chairs, program directors)

As you begin to contemplate creating an online program at Duke, there are many aspects that need to be taken into consideration. Just as faculty can apply an overall structured design process to their courses, program administrators need to apply a structured process to program planning, beginning with decisions about the need for and the viability of the program.

1. Is your program needed?
  - Conduct a **needs analysis** including learner analysis, costing analysis, market analysis, etc. [see [Needs Analysis Worksheet](#)]
  - What are your **program goals and objectives**?
2. Is your program viable?
  - Does online program fit into Duke University/school/college/department culture or processes?
  - Is there any overall institutional learning plan? If so, is online learning integrated into it? Or separate from it?
  - Do you have administration “buy-in” for long-term support of your online program?
  - What success metrics will you need to use, and how long will you have to become “successful”?
  - Does online program have the resources (people, time, money) to be successful for a long term? How will additional resources be gained if needed?

### Consider:

- o **Budget**
- o **Personnel:** Are the right people with the right skills already available, or will you need to hire additional personnel? E.g., program coordination staff, faculty and technical staff.
- o **Technology:** Is any hardware, software, and technology infrastructure needed?
- o **General learner support**
- Are your faculty ready? **Consider:**
  - o **Willingness and motivation** – are they willing to try? Are you willing to follow departmental program guidelines? And get enough people motivated?
  - o **Academic prerequisites** – Do they have confidence and computer competence for success?
  - o **How to prepare them** -- How will they build new skills and what help will they need? Have they seen examples of and/or participated in effective online courses?
  - o **Profile faculty who** will be more likely to succeed with Distance Learning

### 3. Program structure and curricula

- Will your online program consist of on-campus courses modified for online delivery, or newly-created courses?
- Will your program consist of self-paced courses or cohort based courses?
- What will your program timeline and schedule be like? Will you align with or be off-set from on-campus semester schedule? [*See Sample Timeline Worksheet*]
- What courses will be required of your students in order to complete your online program?
- Will you require residencies of your students? If so, how frequent and what will be their purpose?
- What type of program orientation will the program provide for students?
- *What types of technologies will be used by or available to your program/ courses?*
- How will your course goals and objectives be aligned with the program goals and objectives (to assure that program objectives are met by completion of the core courses)?
- *What standard expectations does your program have for its online instructors and online students (preparedness, participation, time commitment, communication frequency and style, etc.)?*

### 4. Instructional design and development

- Develop program standards for how design and development will be done (Set of guiding principles and best practices for design and development of online courses and programs, online course design model(s))
- What programmatic decisions can be made about the consistent course content structures and navigation, course templates, presentation standards? Set expectations for standards compliance before individual course development begins.
- *Are there consistent or baseline technology requirements for your online courses?*
- As a group, develop some agreement about course development and review processes, and a timetable for piloting the newly-developed courses before use with “real” students.
- Develop a course evaluation process and allow time in your program schedule for revising each course based on feedback received, before the course is taught again
- Provide sufficient time and resources for course development and piloting (12 months for traditional course revised for online, 18 months for new course).

### 5. Program technologies

- What are your program’s functional/pedagogical/administrative needs that could be met by technology?
- What specific technologies will be required?
- What technologies are available to your program and faculty already?

- Is your department or school willing to invest in new technology that believed is needed, even if it does not pay off immediately?
- What are the costs for new or existing technology use?
- Will your students and faculty be using a standard computer platform (identical laptops, for example)?
- What support will there be for faculty to experiment with and evaluate new technologies?
- Develop and implement best practices (link) that support technology solution standards

#### 6. Faculty development and support

- What expectations for faculty preparation will your program have? (CIT recommends that all faculty should have participated in an excellent online course prior to teaching their own course.)
- By what process will instructors be approved to teach online?
- What course development resources will your program provide for faculty (instructional designers, multimedia developers, programmers, graphic designers, web designers, audio video technicians)
- Will your program establish a mentoring program for online instructors?
- What program meetings and development opportunities will be provided? what options does Duke provide?
- Copyright clearance and resources acquisition support
- Incentive, compensation, and reward systems—should have policies regarding promotion, tenure, release time and special funding for faculty projects

#### 7. Support services for online programs at Duke

- Registration system, processes and deadlines – contact the SISS office at Duke
- Technical support: for which issues will students use local support, for which a central Help Desk (1-800 number?), phone to call, documentation
- Library resources and support, reference services, interlibrary loan, course reserves
- Book store support
- Student advising/mentoring (provided by program, school, university?)

#### 8. Advertising/recruiting students

- Establish advertising budget
- Identify target advertising and recruitment venues
- Create program website
- Plan timeline for advertising (ideally advertising would begin over a year before start date of first program offerings)

#### 9. Getting your program approved

- Who needs to approve your program? Does your program or school have a group of decision-makers about online program, or will existing groups be used (e.g. curriculum committee)?
- Create report/program proposal and submit to appropriate administrative bodies.

#### 10. Evaluating Online Programs

- Should be undertaken at all levels (module, course, program)
- Develop a plan for carrying out periodic and systematic evaluation, both during development as well as throughout the life of the program. Include in the plan mid-course evaluations to ensure quality and provide opportunities for constructive feedback and improvement. Also, include summative end-of-course evaluations to support future course planning & improvements, accountability, and accreditation.
- Use established benchmarks as criteria and review models of quality assurance for online programs.
- Additional Resources
  - o [“Measuring Success: Evaluation Strategies for Distance Education”](#) (EDUCAUSE Quarterly, 2002)
  - o [Program Evaluation Standards](#) and [Student Evaluation Standards](#) (From the Joint Committee on Standard for Educational Evaluation)

## II. Teaching an online class at Duke (Faculty, TAs, etc. level)

### 1. Preparing yourself

- understand the nature and philosophy of teaching an online course
- understand Duke and School policies and resources available for online learning
- have the basic knowledge and skills to teach online Link to a competence checklist (including tech, design to implement skills, moderate communication, establish ground rules, guide, interact actively with students and give constant feedback, etc.)
- get systematic training
  - o **Technology**—course management system, web design, etc.
  - o **Pedagogy** –adjust teaching style and philosophy
  - o **Take online coursework**--faculty should first experience online education from the student's point of view in order to teach online because it is very difficult to teach in a medium in which one has never experienced learning

### 2. Planning your course

Work with instructional designer(s) and instructional technology consultant(s) to start with an analysis, plan what instructional strategies to use to optimize learning and how to use available media to support learning.

- Analysis
  - o needs analysis --specify why you are developing the online course. List the requirements that the course must fulfill
  - o audience analysis- an analysis of the student's needs must be done in order to structure the online course to meet those needs
  - o resource analysis-- include content, graphics, media, books, reference materials etc.
- Goals and Objectives
  - o clearly state instructional goals and learning objectives
  - o what will the student be able to accomplish after completion?
  - o how will these goals and learning objectives be accomplished?
  - o keep them practical and relevant to real world situations.
  - o they should also be measurable so students can evaluate their performance.
  - o Approaches to achieve the goals
- Instructional strategies--draft instructional strategies aligning to learning objectives
- Instructional media -- Choose instructional media
- Content structure--Plan the structure and organization of content
- Content delivery--Plan the methods of content delivery

- Interaction -- Design interaction and communication strategies

### **3. Designing and developing your course**

- organize content
  - o prepare a flowchart or course map showing how the course structures
  - o present the content in small easy-to-digest modules
  - o chunk the content for easy scanning
  - o keep the language simple and friendly
  - o use plenty of subheadings and ensure that the main points are emphasized visually.
- utilize multimedia -- people learn better with combination of pictures, sounds, animations than words alone
- develop interesting, meaningful learning activities to keep students engaged
- provide overview, summary, and conclusions
- provide sufficient study guides and helpful directions-- address both the content and any common technical concerns
- link to outside resources
- give opportunity to practice (e.g. self-test)
- provide remedial feedback
- learn from each other-group work, class discussion, and peer evaluation
- design assignments and quizzes/exams aligning with learning goals and objectives

### **4. Implementing and delivering your course**

- set student expectation and requirements
- keep students oriented, informed and connected
- provide interaction: student-student, instructor-student, student-content via different communication and collaboration tools
- encourage student participation--adopt good practice to facilitate discussion and chatroom
- Promote peer learning
- provide the place for students to get help and feedback when they need
- effectively communicate with students—be responsible, give student feedback timely
- have skills to motivate online students and get them engaged
- consider online exam secure issues
- conduct usability testing
- be aware of copyright
- be aware of usability and accessibility

### **5. Preparing your students**

Having well-prepared students will make you concentrate on teaching rather than on resolving extraneous problems.

- **How** to analyze your students – diagnosis surveys and self-assessments will help students to decide whether online education is the right choice. Also according to the survey results instructors can adjust teaching strategies and provide help and advice.
- **What** --What do you need to do to get them on board and ready?
- Create your own orientation program or refer to the University or departmental orientation.
- **Access** –do your students have access to the right equipment and software?
  - o Address or refer students to the right place in response with students' accounts, ID, email address, etc.
  - o Provide a general introduction to the software platform such as Blackboard and its major features
  - o Provide instructions and links for downloading necessary software plug-ins
- **Skills** -- do they have the computer and Internet skills they need to find and use learning materials online?
  - o Suggest a computer set necessary
  - o Have students to take computer competence survey
  - o Refer students to on-campus or online workshop
- **Motivation** -- How motivated are they to learn in a new way?

## 6. Evaluating Online Courses

Identify appropriate criteria for evaluating courses in your program

Some typical criteria include:

- **Course planning & organization**
  - o Course content
    - ♣ Scope and sequence
    - ♣ Integration across courses
  - o Resources for learners
    - ♣ Technical & administrative support
    - ♣ Notes and study guides
  - o Clear communication of expectations for faculty and learners
- **Delivery**
  - o Responsiveness of faculty
  - o Effective faculty-learner interaction
  - o Effective learner-learner interaction (if using cohort or synchronous model)
  - o Appropriate and effective technology
  - o Fair and transparent assessment practices



### **III. Adding online activities to your traditional course (Faculty, TAs, etc. level)**

1. Any faculty members and TAs who teach traditional courses are encouraged to
  - add any online components to support learning and teaching
  - use available media to optimize learning
  - teach at least blended course once before offer an online course
  
2. If there are over 50% activities online in a course, it should be considered an online course. (definitions of web-based, web-enhanced, hybrid /blended courses)
  
3. Via teaching partially online course faculty can
  - gain experience for potential online courses
  - develop template for lesson
  - edit preexisting content for reuse
  - assemble the correct tools
  - build their knowledge toward DE
  
4. Creating content
  - Copyright and fair use issues (Teach Act)
  - Look for preexisting content that can be used on the web
  - Cooperative creation of content (other instructors in university in same area)
  - University/departmental policies on further use of content (after you leave)
  
5. Improving access to course materials
  - Creating electronic documents
    - o PDF's and other formats for printing, universal access
    - o formatting for special devices (PDA's) that might be used in program
  - Using e-reserves
    - o link to info on e-reserves info on access for off-campus students
  - Creating online lectures and presentations
    - o PowerPoint and Keynote
    - o options for creating narrated presentations (Captive, etc)
  
6. Improving student-faculty communication
  - Using discussion boards, blogs, wiki's
    - o Keeping a personal blog or journal for observations
    - o Choosing best technology for assignment
    - o Structuring assignments for best results
  - Using electronic file exchanges

- Methods for student feedback on faculty lectures, materials (short surveys, etc)

#### 7. Improving peer communication

- Using discussion boards, blogs, wiki's
  - Choosing best technology for assignment
  - Structuring assignment for best results
- Managing groups and teams online

#### 8. Improving student learning and retention

- Using sound and video
- Interactive learning modules
- Self assessment strategies

#### 9. Improving assessment of student performance

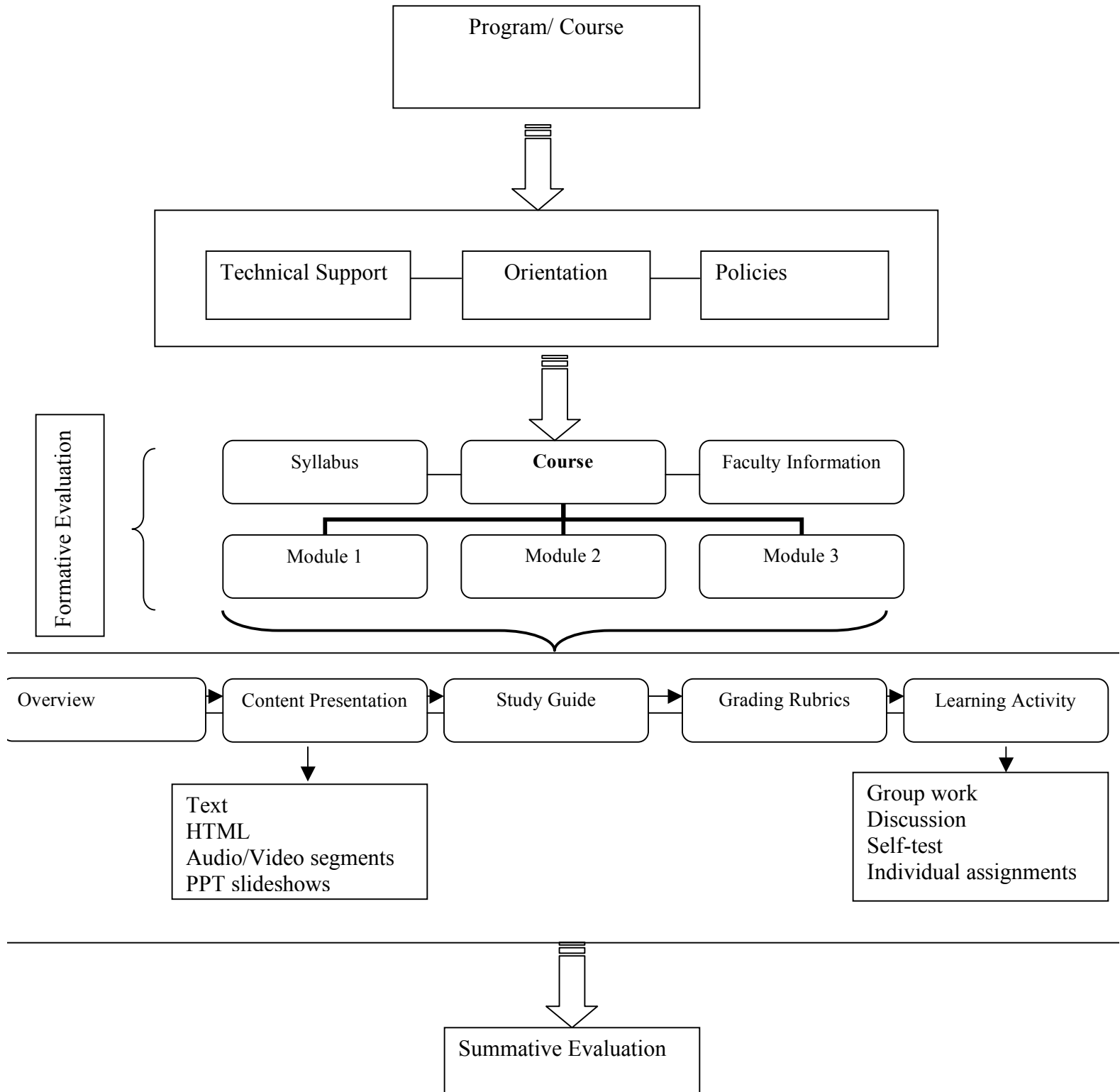
- Online tests and surveys
- Integrating multimedia into tests and surveys

# Generic online course design

## Design

- How will these goals and learning objectives be accomplished?
- Approaches to achieve the goals

## Course Map



## Generic online course design

### Content rewriting

- Consistency
- Non-threatening
- Chunk the content to small easy to-digest units
- Easy to-understanding
- Easy to scanning
- Prepare transcript for audio/video clips

### Student orientation and support

- Student computer competency checklist
- Student support /service links
- Computer system requirements:
  - Hardware requirements
  - Software requirements
  - Miscellaneous—streaming audio and video, pdf reader, PPT viewer, pop-up blocker

### Course activity design

### Course interaction/communication guide

### Assignment design

### Assessments design

## General Analysis of Instructional Design

### Analysis

#### Needs analysis

Why developing the online course:

List the requirements drawn from faculty and student needs that the course must be fulfilled:

Faculty Needs:

Student Needs:

Goals and learning objectives:

How long is it going to take to develop the online course? (see the Timeline)

#### User analysis

- The target students—
- Student characteristics—
- Software/ hardware and platform needed
- How can the student's progress be evaluated?

#### Technical analysis and Tools Selection

- What technological tools or authoring tools will be needed?

*Flash, Dreamweaver, Captivate, image/ sound/video editing software, collaboration tools—WebEx? Bb's Collaboration, Breeze,*

*Equipments—video camera, Microphone, laptop?*

*Server—Bb server, streaming media server, web server*

- How much will the development impact the instructor's workload?
- How many people will be involved?
- What are the software/hardware requirements for the student's computer?

#### Content and Media Analysis

Content

- Drawing from or parallel with the following course(s):
- Content—how much of the total content is already available in e-format?

## General Analysis of Instructional Design

The methods of content delivery:

- Didactic – interactive online modules via Blackboard
- Student-centered learning activity

Structure and Organization of Content:

Media

Text

Audio/video clips

Streaming Audio

Streaming Video

Graphics

Animations

Flash Movies

PPT with narration

Provide alternative for accessibility (i.e. printing version, html—redundancy)

### **Instructional Strategies**

Develop instructional strategies to address and reflect the above needs:

- Revise syllabus
- Refine learning objectives
- Course will be organized by modules → learning unit
- Each module's instructional content, study guides, learning activities, assignments etc. will be built into a module logically
- Content will be delivered mainly via written lecture presentation enhanced by narrated audio or streaming video or flash movies if needed;
- develop best learning sequences, but provide flexible paths to allow students jumping to certain content or activity
- Provide alternative formats fitting different learning styles
- Interactivity means—email, discussion board. Blog, wiki, virtual whiteboard, or even phone call, snail mail or f-f
- Provide self-study test to reinforce learning
- Provide group work, discussion, live collaboration

Timeline—design and develop an online course

Timeline (Month)	Phase		Notes
1-2	Analyze	Suitability of topics	Work with faculty members to analyze needs of learners, content, training and technology
		Needs	
		—Learner, content, resources and technology tools	
		Anticipate workload	
		Select tools	
3-4	Design, Re-design Curriculum	Refine learning objectives	Work with Content/subject matter experts (faculty members), instructional designer and technical supporters
		Refine existing content	
		Prepare new content	
		Structure content	
		Design learning activities	
		Pre-tests and posttests	
		Grading rubrics	
1	Establish guidelines of communication /interaction		Instructor-students students-students synchronous and asynchronous
3-5	Develop	organize and upload content online based on designed structure	Add content to Bb including multimedia components
		Create learning activities	
		Create audio/video segments and their transcripts	
		Integrate library and outside resources to the course	
1	Test and Revise		Usability tests
	Implement		Deliver content (offer the course online)
	Evaluate		Formative and summative evaluation on all phases
	Ongoing Support		