

Presentation Outline

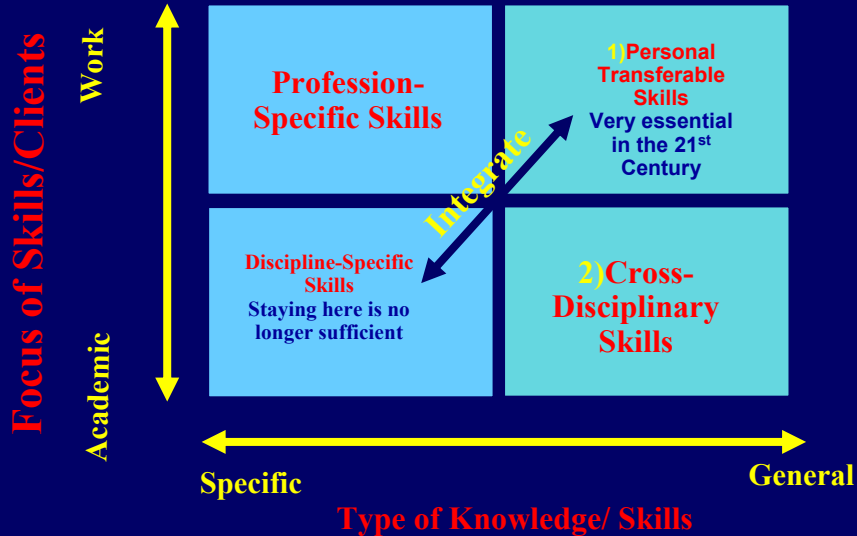
- Background.
- Curriculum Design:
 - Part One :Design At Program Level (this presentation).
 - Part Two :Design At Course Level (on-line presentation-later).
- Curriculum Representation/Communication.

**Background: To
Survive Is To Adapt**

**The need to branch out
from your discipline.**

The Modern University Curriculum

The Need for Broader Relevance



1) Integrating Workplace Skills Into Curriculum:

You must ensure that not only will College of Science's graduates display the disciplinary knowledge and skills for which they have trained but will possess broader, generic knowledge and skills.

How Do You Integrate These Characteristics Into Your Curriculum?

For each characteristic the relevant curriculum/course(s) should answer the following questions:

a) **Why is it important** for students to acquire this characteristic?

b) **What are the learning indicators** for this characteristic? **How do you know that the students actually have acquired this characteristic?**

Incorporate the answers to these questions into your course

(some guidelines will be included in the course design presentation to be available later on-line)

2) Multidisciplinary and Interdisciplinary Courses

1. In **multidisciplinary courses**, faculty present their individual perspectives one after another, leaving integration for the students to do.
2. In **interdisciplinary courses**, whether taught by teams or individuals, faculty interact in designing a course, examining underlying assumptions and modifying their perspectives in the process. They also work with the students to integrate the separate parts to provide a larger and know comprehensive understanding of the original issue.

Presentation Outline

- Background.
- Curriculum Design:
 - Part One :Design At Program Level (this presentation).
 - Part Two :Design At Course Level (on-line presentation-later).
- Curriculum Representation/Communication.

Effective Curriculum Design At The Program Level

- First-Do The Right Things.
- Second-Design Backward and In Steps
- Third-Make Your Curriculum Coherent and Connected:
 - Coherence: A curriculum with a Structure.
 - Connection: Learning beyond the discipline.

First- Do The Right Things

1) Consult your **reference** points:

University's and College's missions

External benchmarking

Stakeholders' expectations

- 2) Your program's curriculum should be designed to fulfill its **intended purposes**. For example, a program designed to lead directly to employment should be designed differently than a program designed to prepare for graduate studies

First- Do The Right Things (cont.)

3) Examine your **current** curriculum:

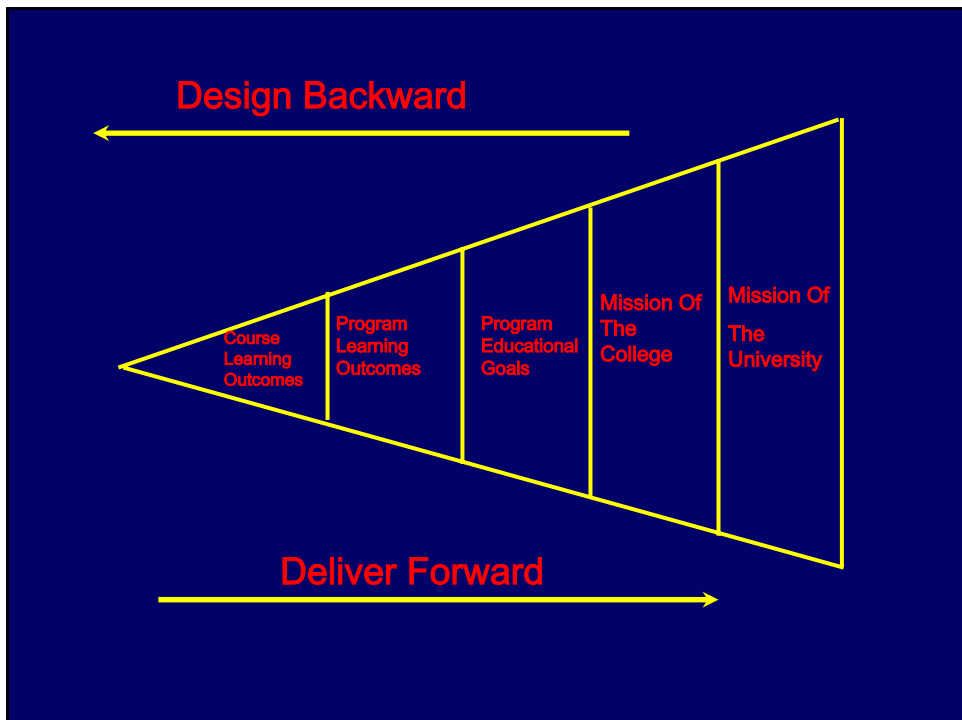
Audit current programs and curricula to identify the way in which structure of programs can be combined to increase flexibility in learning, in degree options and in job opportunities :

- a) Offer **Interdisciplinary** courses.
- b) Redesign the Curriculum to allow for **Major/Minor**.

Second-Design Backward And In Steps

1) Backward

An educationally coherent and effective curriculum should be designed retrospectively and not prospectively. Curriculum Design should begin with set of *goals* for student achievement and then develop a curricular *structure* that facilitates their attainment.



Types (Levels) of Outcomes

- The College has a **mission**.
- Each Department has one (or more) **Academic Program**.
- Each Program has a set of **Program Objectives (what)/ Outcomes (How)** and offers a set of courses.
- Each Course has a set of **Learning Objectives/ Outcomes**.
- **Collectively all Courses Learning Outcomes** should cover the set of program outcomes.
- The program objectives are a **Discipline – Based** Manifestation of College's mission.

Too Many Objectives?

- Apply the next two principles
- Impose An Order (Structure) On Your Objectives –See Later Slides.

Two Important Principles:

- 1) **Subjectivity.** Matching between program's objectives and those of individual courses depends on subjectivity. This should be understood, accepted and tolerated (within limits).
- 2) **Collectivity.** No individual course is required to cover all program learning outcomes nor it is expected to achieve them with the same level of accomplishment.

Program's Objectives Should:

- State what students should know and be able to do.
- Grow out of department-wide discussions
- Provide a document of what your faculty agrees is the curriculum.
- Be informative to audiences beyond faculty
(e.g., students, colleagues, employers).

Second-Design Backward And In Steps (cont.) 2) And In Steps

Do not make the big jump from program's objectives to individual course's objectives directly:

- a) divide all courses in the curriculum into groups or clusters (see later for examples);
- b) state learning objectives for each cluster (i.e. the integrated knowledge and skills students should gain after finishing all courses in the cluster);
Think of each cluster as one BIG course.
- c) the contribution of each individual course in a given cluster towards achieving program's goals can be thought of as consisting of two parts:
contribution towards cluster's objectives- common
+
specific contribution due to its subject matter-unique.

Third-Make Your Curriculum Coherent and Connected:

An Effective Curriculum is a Curriculum that is:

Coherent

and

Connected

- 1) **Coherent:** There is an organizing principle(s) that makes all courses fit together in an integrated whole. This organizing principle should be evident to both students and faculty members.

Curriculum Organizing Principles:

Any curriculum can be organized (ordered) in different ways, none of which is universally appropriate. However, the chosen mode of imposing order or structure on a given curriculum should be the result of deliberate and collective faculty judgment.

A Working Definition: An organizing principle is any procedure that can be used to group individual courses into few clusters or groups of courses such that:

- 1) all courses in a given cluster have something in common.
- 2) there is a logical/conceptual distinction between different clusters.

Curricular Coherence :An Example

A major should have a Beginning, a Middle and an End. Each contributing in a different but specific way to the overall aim of the major. In a coherent curriculum this principle means that there is a collective understanding and clarity about the differing educational roles of Introductory, Middle and Advanced courses.

Different Ways To Look At Your Curriculum (Different Representations)

Curriculum for the major = **College requirements** + **Disciplinary Courses**

Disciplinary Courses (using three different organizing principles):

- a) principle: Progression of knowledge = **Introductory** + **Middle** + **Advanced**
- b) principle: Analytical approach = **Theoretical** + **Applied**
- c) principle: Function = **Foundation** + **Breadth** + **Depth** + **Integration**

Think of:

- 1) Key concepts/skills.
- 2) Key process/procedures.

Course cluster = courses emphasizing same set of key concepts/skills.

Examining Your Curriculum

Distribution Of Courses By Function and Level:
Does it make sense?

Function	Level				Total
	Introductory	Middle		Advanced	
	100s	200s	300s	400s	
Foundation					
Breadth					
Depth					
Integration					
Total					

Third-Make Your Curriculum Coherent and Connected (Cont.)

2) Connected:

A Connected Curriculum is:

A curriculum that extends learning
beyond the boundaries of the discipline.

The curriculum should facilitate connections with:

- a) applications to other fields.
- b) generic skills and work practices of the field.
- c) needs and lives of the students beyond
academy (ethics, international dimensions, etc).

The Connected Curriculum

Broadening the relevance of your curriculum
demands the support and cooperation of two
key groups of clients:

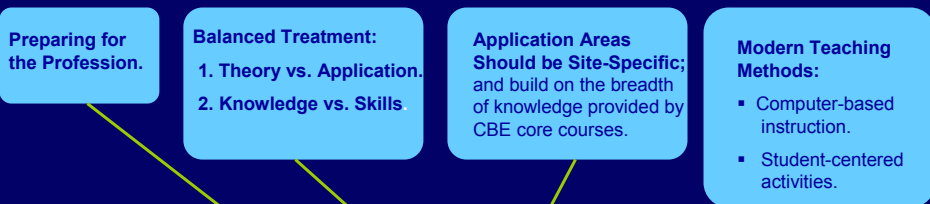
- a) Potential **employers** of your graduates.
- b) **Academicians in other disciplines** who would
consider your discipline as a general “learning
area” for their students.

The Connected Curriculum :Listening to the Clients

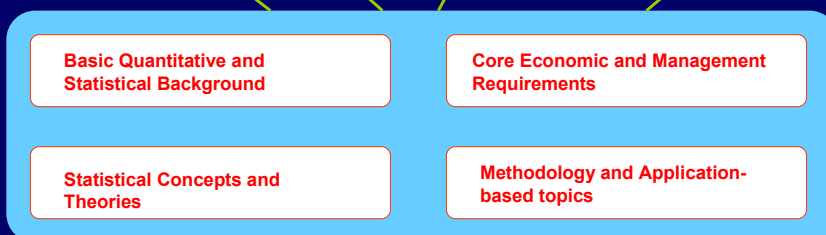
- Develop a course (or part of course) in consultation with employers.
- Develop a course for specific employers or for a given type of employment.
- Develop a course that requires placement with employers.
- Use external input from employers and/or professional employers as:
 - Co-lecturers
 - Source of data or real problems.
 - Suggestions to improve the curriculum.
- Develop a course that aims explicitly to develop the “transferable” skills in the students.

An Example Of The Big Picture: The Statistics Curriculum

1) Reference Points:



2) Course Clusters:



Presentation Outline

- Background.
- Curriculum Design:
 - Part One :Design At Program Level (this presentation).
 - Part Two :Design At Course Level (on-line presentation-later).
- Curriculum Representation/Communication.

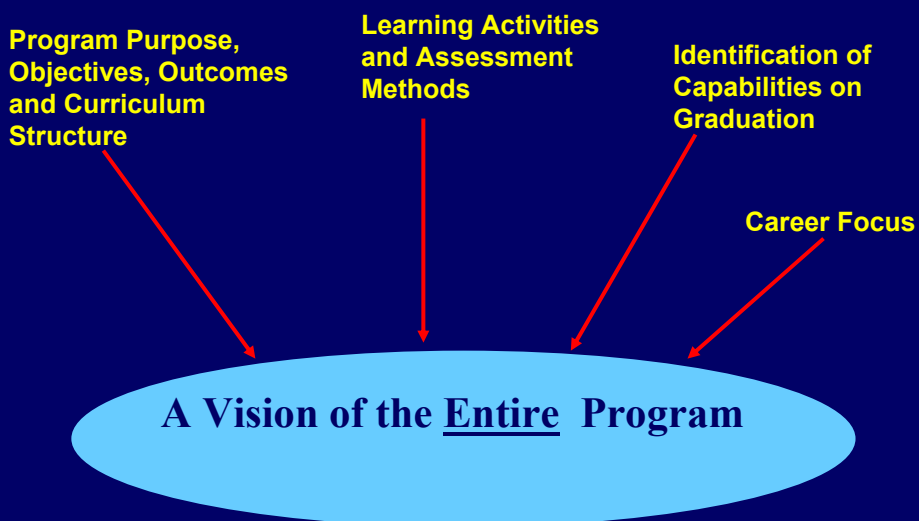
Communicating Curriculum To Stakeholders

- 1) The structure, organization and objectives of the curriculum should be made clear to students. Faculty members in the major should know and make explicit to their students how their courses relate to the organizing principles of the major as a whole.

Communicating Curriculum To Stakeholders (Cont.)

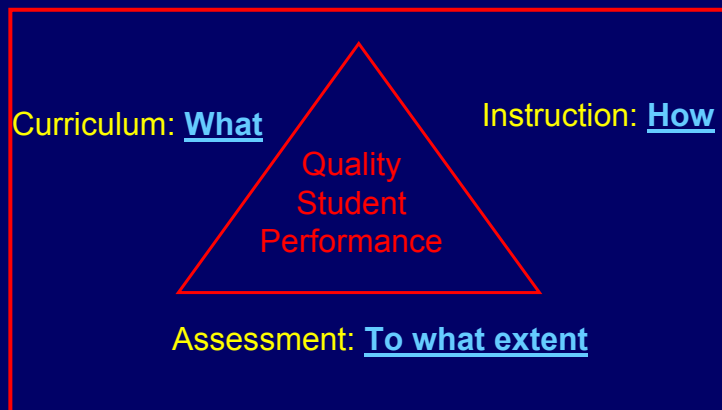
- 2) Students need to understand not only course content, but also:
 - a) why they are taking a particular course; and
 - b) how this course will contribute to their overall learning experience within the major (*very easy: just talk about the objectives of this course's cluster*) and within their entire study (the coherence and the connection dimension respectively).
- 3) Employers need information regarding the skills and other transferable abilities developed by the program.

Program Syllabus: An Effective Platform For Describing And Communicating The Curriculum



Remember:
**There Is More To Effective
Curriculum Than Goals
And Courses**

Curriculum + Instruction + Assessment



Aligning all elements: integrity of the curriculum

- Goals determined first:
 - Knowledge, skills, behaviours, etc.
- Curriculum aligned with goals
 - Content AND process encourage active learning
- Assessment methods matches goals
- Evaluation of curriculum against goals
- Student selection: new admission policy?
- Faculty development : new skills for new curriculum?