Précis of the Initial Design Phase (Steps 1-5)
Designing Courses That Promote Significant Learning

If professors want to create courses in which students have "significant learning experiences," they need to design that quality into their courses. How can they do that? By following the five basic steps of the instructional design process, as laid out below:

**Step 1. Give careful consideration to a variety of situational factors**
- What is the special instructional challenge of this particular course?
- What is expected of the course by students? By the department, the institution, the profession, society at large?
- How does this course fit into the larger curricular context?

**Use the "Backward Design" Process**
This process starts at the "end" of the learning process and works "back" toward the beginning. Use information about the Situational Factors (Step 1, above), as you make the following key decisions:

**Step 2. Learning Goals** What do you want students to learn by the end of the course, that will still be with them several years later?
- Think expansively, beyond "understand and remember" kinds of learning.
- Suggestion: Use the taxonomy of "Significant Learning" (Figure 1) as a framework.

**Step 3. Feedback & Assessment Procedures** What will the students have to do, to demonstrate that they have achieved the learning goals (as identified in Step "A" above)?
- Think about what you can do that will help students learn, as well as give you a basis for issuing a course grade.
- Suggestion: Consider ideas of "Educative Assessment."

**Step 4. Teaching/Learning Activities** What would have to happen during the course for students to do well on the Feedback & Assessment activities?
- Think creatively for ways of involving students that will support your more expansive learning goals.
- Suggestion: Use "Active Learning" activities, especially those related to:
  - "Rich Learning Experiences" experiences in which students achieve several kinds of significant learning simultaneously
  - "In-depth Reflective Dialogue" opportunities for students to think and reflect on what they are learning, how they are learning, and the significance of what they are learning.
- Suggestion: Assemble these activities into an effective instructional strategy, i.e., an interdependent sequence of learning activities, and a coherent course structure.

**Step 5. Make sure that the Key Components are all Integrated**
- Check to ensure that the key components (Steps 1-4) are all consistent with, and support each other.
Step 1. Worksheet

SITUATIONAL FACTORS TO CONSIDER

1. **Specific Context of the Teaching/Learning Situation**
   How many students are in the class? Is the course lower division, upper division, or graduate level? How long and frequent are the class meetings? How will the course be delivered: live, online, or in a classroom or lab? What physical elements of the learning environment will affect the class?

2. **General Context of the Learning Situation**
   What learning expectations are placed on this course or curriculum by: the university, college and/or department? the profession? society?

3. **Nature of the Subject**
   Is this subject primarily theoretical, practical, or a combination? Is the subject primarily convergent or divergent? Are there important changes or controversies occurring within the field?

4. **Characteristics of the Learners**
   What is the life situation of the learners (e.g., working, family, professional goals)? What prior knowledge, experiences, and initial feelings do students usually have about this subject? What are their learning goals, expectations, and preferred learning styles?

5. **Characteristics of the Teacher**
   What beliefs and values does the teacher have about teaching and learning? What is his/her attitude toward: the subject? students? What level of knowledge or familiarity does s/he have with this subject? What are his/her strengths in teaching?
Step 2. Worksheet

Questions for Formulating Significant Learning Goals

"A year (or more) after this course is over, I want and hope that students will ________.”

Foundational Knowledge

- What key information (e.g., facts, terms, formulae, concepts, principles, relationships, etc.) is/are important for students to understand and remember in the future?
- What key ideas (or perspectives) are important for students to understand in this course?

Application Goals

- What kinds of thinking are important for students to learn?
  - Critical thinking, in which students analyze and evaluate
  - Creative thinking, in which students imagine and create
  - Practical thinking, in which students solve problems and make decisions
- What important skills do students need to gain?
- Do students need to learn how to manage complex projects?

Integration Goals

- What connections (similarities and interactions) should students recognize and make...
  - Among ideas within this course?
  - Among the information, ideas, and perspectives in this course and those in other courses or areas?
  - Among material in this course and the students' own personal, social, and/or work life?
Human Dimensions Goals

- What could or should students learn about themselves?
- What could or should students learn about understanding others and/or interacting with them?

Caring Goals

- What changes/values do you hope students will adopt?
  - Feelings?
  - Interests?
  - Ideas?

"Learning-How-to-Learn" Goals

- What would you like for students to learn about:
  - how to be good students in a course like this?
  - how to learn about this particular subject?
  - how to become a self-directed learner of this subject, i.e., having a learning agenda of what they need/want to learn, and a plan for learning it?
A self-directed guide to designing courses for significant learning
Step 5. Integration In this INITIAL DESIGN PHASE, you have created strong primary components for the design of your course. In order to complete this initial phase, you need to check how well these four components are aligned. Step 5 Worksheet gives a detailed explanation of how these four components can be integrated with each other.

1. Situational Factors
   - Assuming you have done a careful, thorough job of reviewing the situational factors, how well are these factors reflected in the decisions you made about learning goals, feedback and assessment, learning activities?
   - What potential conflicts can you identify that may cause problems?
   - Are there any disconnects between your beliefs and values, the student characteristics, the specific or general context, or the nature of the subject in relation to the way you propose to run the course?

2. Learning Goals and Feedback & Assessment
   Issues to address include:
   - How well do your assessment procedures address the full range of learning goals?
   - Is the feedback giving students information about all the learning goals?
   - Do the learning goals include helping the students learn how to assess their own performance?

3. Learning Goals and Teaching/Learning Activities
   - Do the learning activities effectively support all your learning goals?
   - Are there extraneous activities that do not serve any major learning goal?

4. Teaching/Learning Activities and Feedback & Assessment
   - How well does the feedback loop work to prepare students for understanding the criteria and standards that will be used to assess their performance?
   - How well do the practice learning activities and the associated feedback opportunities prepare students for the eventual assessment activities?

A good tool for checking on integration, especially on Steps #2-4 above, is to use the Worksheet 1 on the following page. First, fill in a list of your learning goals for the course. If possible, have one for each kind of significant learning in the taxonomy. Second, for each major learning goal, identify how you would know whether students have achieved that kind of learning, i.e., what kind of feedback and assessment can you use? Third, again, for each major learning goal, identify what students will have to do to achieve that kind of learning. You will often find that the assessment and the learning activity are the same or very similar.

But working through this exercise can be very valuable by ensuring that you in fact have specific kinds of assessment and learning activities for each of your learning goals and that you don't just give "lip service" to them.

Adapted from Fink (2005) A self-directed guide to designing courses for significant learning
Final Check and Review of INITIAL DESIGN PHASE. A major benefit of this planning model is that it provides specific criteria for assessing the quality of course design. There are five primary criteria that suggest that good course design meets the following.

The basic design for this course is good if...

- It is based on a systematic review of all the major situational factors, in order to define the situational constraints and opportunities of the course.

- It includes learning goals focused on several kinds of significant learning, not just “understand-and-remember” kinds of learning.

- It includes the components of educative assessment: forward-looking assessment, opportunities for students to engage in self-assessment, clear criteria and standards, and opportunities for feedback.

- It includes learning activities that engage students in active learning by incorporating powerful forms of experiential and reflective learning, as well as ways of getting basic information and ideas.

- All the major components of the course are integrated (or aligned). That is, the situational factors, learning goals, feedback and assessment, and the teaching/learning activities all reflect and support each other.

Adapted from Fink (2005) A self-directed guide to designing courses for significant learning
### Worksheet for Designing a Course

<table>
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<tr>
<th>Learning Goals for Course:</th>
<th>Ways of Assessing This Kind of Learning:</th>
<th>Actual Teaching-Learning Activities:</th>
<th>Helpful Resources: (e.g., people, things)</th>
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# Sequence of Learning Activities

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