Learning Goals, Objectives, & Curriculum Mapping

Linking curriculum & pedagogy to demonstrations of knowledge, skills, and abilities

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Session Goals

- Create curriculum and program maps.

- Describe the process of curriculum or program mapping.

- Apply curriculum maps to the improvement of student learning.

- Employ curriculum or program maps in the response to assessment findings.
Why Have Learning Goals, Objectives and Curriculum Maps?

“College standards are becoming diluted and there is a fuzziness about what faculty teach and what is expected from students.”

(Miller & Malandra, 2006, p. 3/Commission on the Future of Higher Education)
What are Learning Goals?

“What broad statements concerning knowledge, skills, or values that faculty expect graduating students to achieve. They describe general expectations for students, and they should be consistent with the program mission.” (Mary J. Allen, 2004 p. 29)

- Students know basic biological principles and concepts. (Knowledge)
- Students can use statistical packages to analyze sociological data and can interpret results accurately. (Skill)
- Students value and respect the scientific approach to understanding natural phenomena. (Value)
According to Robert F. Mager, the ideal learning objective has 3 parts:

1. A measurable verb.
2. The important condition (if any) under which the performance is to occur.
3. The criterion of acceptable performance.
Learning Goals

• Consistent with the goals of the curriculum
• Clearly stated
• Clearly measurable
• Realistic and doable
• Appropriate for the level of the learner
• Worthy (Important stuff)
Example Learning Goals

• By the end of this course, students will be able to categorize macroeconomic policies according to the economic theories from which they emerge. (Content)

• By the end of this course, students will be able to analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis. (Skill)

• By the end of this course, students will be able to identify their own position on the political spectrum. (Value)
1. **Communications:**
   - demonstrate empirical knowledge of the history, development, and contributions of the communication disciplines;
   - interpret communication texts, artifacts, and performances

2. **Political Science:**
   - Consider alternative perspectives regarding a political question
   - Develop a greater sense of civic duty to participate in public affairs
   - Apply a key concept, theory, or method of political science to analyze a political question.

3. **History:**
   - To explain causality in history or how and why change occurs
   - To use primary and secondary evidence in support of observations and claims.
1. Remembering
2. Understanding
3. Applying
4. Analyzing
5. Evaluating
6. Creating
Measurable Verbs
Remembering

• Define
• Memorize
• List
• Recall

• Repeat
• Relate
• Name
• Repeat
Measurable Verbs
Understanding

- Restate
- Discuss
- Describe
- Identify
- Locate
- Report
- Explain
- Express
- Recognize
- Review
Measurable Verbs
Applying

- Translate
- Interpret
- Apply
- Practice
- Illustrate
- Operate
- Demonstrate

- Dramatize
- Sketch
- Employ
- Schedule
- Use
Measurable Verbs

Analyzing

- Distinguish
- Differentiate
- Appraise
- Analyze
- Calculate
- Criticize
- Compare
- Contrast
- Examine
- Test
- Relate
- Experiment
Measurable Verbs
Evaluating

- Judge
- Appraise
- Evaluate
- Revise
- Score
- Select
- Measure

- Value
- Estimate
- Choose
- Compute
- Assess
Measurable Verbs

Creating

- Compose
- Plan
- Propose
- Design
- Assemble
- Create
- Prepare
- Formulate
- Organize
- Manage
- Construct
- Set-up
What Is it?

- Curriculum mapping is a process that helps keep track of what has actually been taught throughout an entire year.
- A Curriculum Map is an outline of the implemented curriculum.
- More specifically, it is typically a table that shows how each course aligns with the learning goals and objectives set by the department.
Outcomes of Mapping

• Review the curriculum to check for unnecessary redundancies, inconsistencies, misalignments, weaknesses, and gaps

• Document the relationships between the required components of the curriculum and the intended student learning outcomes

• Identify opportunities for integration among disciplines

• Review of assessment methods

• Identify what students have learned, allowing educators to focus on building on previous knowledge
The Seven Phases of Curriculum Mapping

1. Collect Data
2. Individual Review
3. Mixed Group Review
4. Department Review
5. Immediate Action
6. Long Term Action
7. Review and Revise
Phase 1 of Curriculum Mapping

Collect Data

- Each instructor should keep track of what they actually teach, when, and how during a course.
- The level of granularity should be dictated by the learning goals/objectives.
- They should do so in a way that makes it easy for other people to understand.
Phase 2 of Curriculum Mapping

Individual Review

- Each instructor individually reviews all the other instructors' data.
- Look for gaps or repetition.
- Look for what works.
Phase 3 of Curriculum Mapping

Mixed Group Review

• Ideally groups of people that don’t typically work closely together.

• Each instructor can share their observations from the individual review.

• Come to an agreement on present gaps or repetitions, as well as successful strategies.
Large Group Review

- All staff attend the review.
- Look for patterns.
- Transition from review mode to making decisions.
Immediate Action

- Decide what immediate steps the department is going to take to improve.

- These should be steps that can be taken without major changes or further study.

- Should be easy, i.e. change or drop a learning objective.
Phase 6 of Curriculum Mapping

Long Term Action

- Decide what long term actions the Department will pursue.
- These steps might require extensive structural changes or major course revisions.
- Might not be so easy, but can be worked on slowly.
Phase 7 of Curriculum Mapping

Review and Revise

- Curriculum Mapping should be dynamic.
- Keep maps current.
- Review the process as well as the results, continue to try to find ways to improve both.
1. Identify the opportunities where key outcomes are introduced, practiced, and reinforced as students progress through their program.

2. Delineate the course(s) or program(s) in which each program goal is addressed.

3. Encourage the integration of knowledge and skills over time through various courses and activities.
### A Good Curriculum Map

**DEFINITIONS OF TERMS**

**I** = Introduce = The level of learning expected of a novice

**R** = Reinforce = The level of instruction and learning expected with students who have been introduced to concepts or skills previously; not the final goal state

**M** = Mastery = The intended goal state of learning our program aspires to achieve

**X** = Not applicable

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<th>Content</th>
<th>Common Prerequisites</th>
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<td>Employ techniques central to analysis of biological materials</td>
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<td>Describe discipline-related career paths for which recipients of the BS in Biology are qualified</td>
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I=Introduced; R=Reinforced/Practiced; M=Mastered; A=Assessed
### A Poor Curriculum Map

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Discussion

• Is this a cohesive curriculum?

• What makes it cohesive or not?

• What recommendations, if any, would you make?

• What are the short term solutions?

• What needs to be done long term?