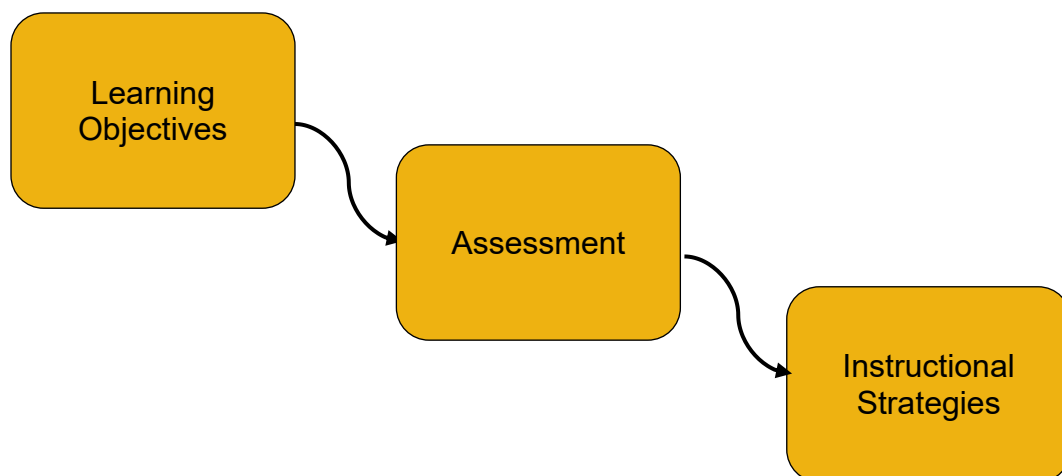
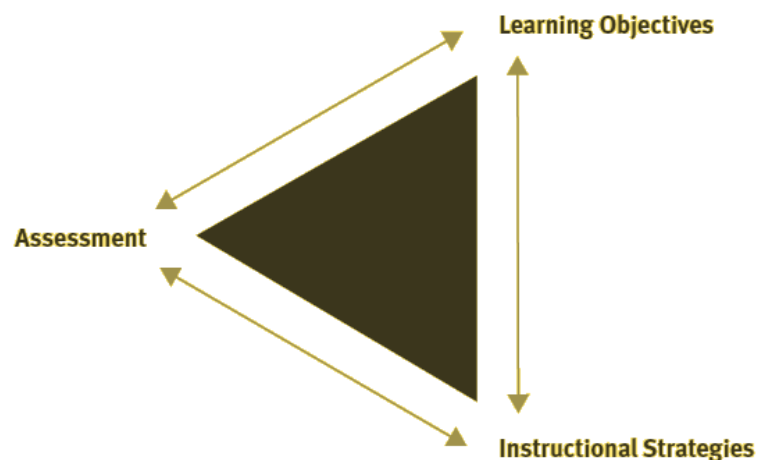


By the end of this Course Design series, you should be able to:

- Use the **backward design** process for course design;
- Formulate appropriately scoped **learning objectives** that effectively represent the depth and breadth of skills you expect your students to gain in their course;
- Intentionally integrate multiple types of **assessment** opportunities into your course;
- Leverage **instructional strategies** that both lead to long term learning, and prepare students to demonstrate their mastery of course content, when they are assessed;
- Analyze and adjust your course design in terms of the degree of **alignment** between its basic components.



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Read the set of learning objectives (for a Matrix Algebra class) below. What stands out to you as key/defining features of the learning objectives?

Upon successful completion of this course you will be able to:

- Solve problems using matrix techniques and algorithms.
- Recognize and recall major linear algebraic definitions and theorems.
- Develop short but rigorous proofs of true mathematical statements and construct counterexamples for false statements.
- Apply major linear algebraic theorems to prove other results.
- Interpret linear algebra techniques and results as geometric operations and structures in 3-dimensional space.

## Effective Learning Objectives are:

1. **Student-centered**  
i.e. focused on what your students will learn (instead of the content you/the course will cover)
2. **Action-oriented**  
i.e. focused on the skills students will gain, and what they will be able to do (instead of the things they will “know”)
3. **Measurable**  
i.e. it should be easy to identify how you would check whether a student has mastered the relevant skill
4. **Precise**  
i.e. it is clear what type of knowledge you are aiming for
  - Avoid use of vague action verbs & prompts, like “Understand X”, “Obtain a working knowledge of X”, and “Gain insight into X”.
  - To clarify an objective, ask yourself: “What will a student do if s/he really *understands* or *appreciates* the point in question

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## Work with your group to revise the learning objectives below.

In this course you will:

- gain an appreciation for how the history of western thought influences current debates in the philosophy of religion;
- learn about arguments for and against the existence of God;
- understand the role of free will in contemporary debates in science and religion;
- write papers that reflect your ability to interpret and critically analyze a variety of religious claims, and the philosophical arguments behind them.

Think about a course you might teach. For the next three minutes, brainstorm your responses to the following two questions:

- What do you want your students to know about by the end of the semester?
- What general skills do you want your students to have by the end of the semester?

Aim to think in terms of the big picture – main themes, ideas, takeaways, skillsets, etc.

Think about knowledge and skills of different types:

<b>Factual Knowledge</b> Basic elements students need to know to be acquainted with a discipline/solve problems in it.	<b>Conceptual Knowledge</b> Relationships among basic elements that enable them to function together
<b>Procedural Knowledge</b> Use of methods, skills, techniques, or algorithms.	<b>Metacognitive Knowledge</b> Knowledge of cognition in general as well as awareness of knowledge of one's own cognition.

# Learning Objectives Across the Dimensions

THE KNOWLEDGE DIMENSION	THE COGNITIVE PROCESS DIMENSION					
	REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
FACTUAL KNOWLEDGE						
CONCEPTUAL KNOWLEDGE						
PROCEDURAL KNOWLEDGE						
META-COGNITIVE KNOWLEDGE						

