

Examples: Integrating IDEA Objectives into a Course Syllabus



Handout 3

Example #1

Experimental 3301

Course Goals and Expectations: My three objectives are for you to

- ❖ learn to analyze and critically evaluate ideas, arguments, and points of view.
 - To do this, you will be reading and critiquing scholarly articles and participating in class discussions.
- ❖ develop skill in expressing yourself in writing.
 - To do this, you will propose a written research project in APA format.
- ❖ learn how to find and use resources.
 - To do this, you will use scholarly books and articles for your research proposal.

Example #2

Mathematics 3310 – Introduction to Problem Solving

Course Objectives

1. **Learning fundamental principles including the laws and theorems arising from the concepts covered in precalculus-level mathematics.** This course is intended to solidify the knowledge gained in precalculus-level courses. Solutions to problems assigned in this course will require many of the techniques learned in Geometry, College Algebra, Trigonometry, and Analytic Geometry.
2. **Learning how to apply course material along with techniques and procedures covered in this course to solve problems.** The major goal of this course is to learn to solve problems. Techniques to be utilized are finding patterns, working backwards, arguing by induction, arguing by contradiction, using mathematical symmetry, and adopting a different point of view.
3. **Developing skills in expressing mathematics orally and in writing.** This course is intended to provide students with practice in clearly expressing mathematics. Students will be required to submit fully justified and carefully prepared written solutions to problems. Students will also be required to participate in problem presentations both as a presenter and as a classroom participant.

Course Content

1. **Introduction.** Basic overview of problem-solving processes.
2. **Maple.** Maple is a comprehensive computer algebra system, which will be utilized not only to carry out mathematically tedious manipulations, but also to gain insight into potential solution techniques.
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9. **Symmetry and Extremes.** Focuses on using the characteristics of items in a problem to aid in solving a problem.
10. **Adopting a Different Point of View.** Stresses the importance having a willingness to try different approaches to solve a problem.

Example #3

Drama 1311—Introduction to Drama

Course Description: This course is a historical survey of the development of dramatic art, and an introduction to contemporary theatre practice. You will be acquainted with the basic aims and historical background of theatre as an art form as well as the functions and duties of the major players in creating a theatrical production. You should leave with a basic understanding and appreciation—based on readings, discussions, and exercises—for the process of dramatic production and performance.

Course Objectives:

- Gaining factual knowledge (terminology, classification, methods, trends)
- Learning fundamental principles, generalizations, or theories
- Gaining a broader understanding and appreciation of intellectual/cultural activity

Example #4

Drama 2334 Stage Lighting

Course Description: The purpose of this course is to discover the art and craft of Lighting Design for the stage. Through a series of four projects we will explore theatre space and the differing types of theatrical presentations that lighting designers are called upon to support. The goal is to bring the student to a level of proficiency in the preparation of a total lighting design so that she/he will be able to function independently in the theatre. At the end of the course, there will also be a few days of information covering sound production for the theatre.

Course Objectives: To provide the theatre student with basic information on electricity, stage lighting instruments and control systems, and beginning lighting design concepts.

- Learning fundamental principles, generalizations, or theories
- Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course
- Developing creative capacities (writing, inventing, designing, performing in art, music, drama, etc.)

Example #5

COMM 2344: Graphics, Layout, & Design

Course Objectives:

- Learning fundamental principles, generalizations, or theories *concerning design*
- Learning to apply course material (to improve thinking, problem solving, and decisions) *for design clients*
- Developing creative capacities *in design*

Example #6

GEOL 150: Dynamic Earth and Global Change

IDEA Center Learning Objective	Course Learning Outcomes
Objective 1: Gaining factual knowledge (terminology, classifications, methods, trends)	Students will be able identify and interpret the significance of common minerals and rocks, and apply these to understanding the history and evolution of the Earth
	Students will be familiar with composition and structure of the Earth, and the methods by which we can study the Earth's interior
	Students will be able to interpret surface landforms and features in terms of the important processes that modify the Earth's surface (e.g., rivers, glaciers, oceans)
Objective 2: Learning fundamental principles, generalizations, or theories	Students will know the basis of plate tectonic theory, and be able to apply the theory of plate tectonics to understanding present-day phenomena and the evolution of the earth
	Students will understand the concepts of relative and absolute time, the significance of 'deep time', and the cumulative effects of incremental change
	Students will know the internal and external energy sources of the Earth, and will understand how they interact and drive earth systems and global change
	Students will understand the many forms of equilibrium and its central role in driving global change and earth evolution
Objective 3: Learning to apply course material (to improve thinking, problem solving, and decisions)	Students will be able to apply the methods, processes, and principles of earth science to understanding natural phenomena
	Students will think more critically about the earth and environment
Objective 8: Developing skill in expressing myself orally or in writing	Students will be able to present scientific results in written and oral forms
Objective 11: Learning to analyze and critically evaluate ideas, arguments, and points of view	Students will learn the elements of critical thinking and will be able to apply them to evidence and arguments about the earth and environment