Course Development Guideline for Template (3)
World Leading

Course Information

The recommended course information includes: title, Division, course code, degree, level of course, semester start and end date, class schedule, and course credits.

Prerequisite may be required for your course such as specific courses, knowledge, skills or experience.

The recommended instructor information includes: instructor(s) name, title, preferred contact information, office and location.

Course Objectives

A course description supports the rationale for the course and provides an outline of the subject specific capabilities and competencies, and how it will benefit the student.

The objectives of the course should be specific, measurable, and clearly state what the student will learn. An advisor at the Center for Teaching and Learning can support you in defining and writing learning objectives.

It is recommended to write a short paragraph that describes the course syllabus objectives. The Learning objectives paragraph is approximately 100-200 word description.

Backwards Design: Learning Outcomes

In defining learning outcomes refer to the list of Bloom's action verbs. It is recommended to standardize your courses on four learning outcomes that are based on capabilities associated with knowledge and understanding. Designing a course based on four learning outcomes is also intended to integrate capabilities with competencies to enable impact. Below are key word examples to begin writing learning outcomes. 1-4 also moves from lower learning outcomes to higher learning outcomes.

1. Remembering/understanding
2. Applying
3. Analyzing/Evaluating
4. Creating

The example keywords of 1-4 above moves from 'understanding' to 'application' and also represents the scaffolding of knowledge and understanding. Below are examples of science learning outcomes:

- Understand the relevance of Aquatic Chemistry; water controversies; water as a molecular liquid.
- Apply the terminologies associated with solute concentrations; water's anomalous properties; ion hydration, and salt dissolution.
- Analyze speciation of strong and weak acids/bases in water; Debye–Hckel model; gas-liquid equilibrium.
- Create a project report by applying the knowledge gathered in the course to answer a scientific question.

Instructional Methods

Instructional methods are strategies that help learners to develop capabilities and competencies from a course. Instructional methods for instructors provides ways to support the optimization of learning. This knowledge allows them to increase learners' opportunities to gain capabilities and competencies in subject specific content. The main purpose of instructional methods is to determine the most appropriate teaching approaches that may be used to improve the learner experience.

These methods require both learners and instructors to collaborate and in optimizing the learning experience that is integrated to the learning outcomes of their courses. Instructional methods may be applied in a wide range of learning activities and may include: cooperative learning, problems based learning, and the flipped classroom.

Course Schedule

Learning Outcomes (LOs) provides a way to focus and structure the course content and the associated weekly schedule. Advanced curriculum design focuses on mapping learning outcomes to the scheduled topics. This may also be supported by designing micro-modules that represent specific learning outcomes. This enables customizable curriculum design that has the potential to reconfigure courses for specific learning needs.

Week	Topic
1	
2	

Assessment

Assessment techniques are required to follow though on assessing the learning objectives and learning outcomes of the course. It is important to consider the most appropriate assessment techniques to enable learners to demonstrate their capabilities and competencies.

In the instructional design process, it is important to reflect on the most appropriate assessment strategies that is aligned with the course. It is also important for instructors to develop a portfolio of different assessment techniques that can be used for specific learning objectives

It it important to note the importance of both formative and summative assessment in supporting learning objectives and associated outcomes. It is recommended to integrate both formative and summative assessment methods in designing the assessment strategy. For more detailed descriptions of formative and summative assessment click on this link.

Advanced Modular Curriculum Design

Modular curriculum design provides a design approach enables customizable curriculum design within a course. This requires designing micro-modules that represent specific learning outcomes. This approach provides courses with the potential to reconfigure courses for specific learning needs.

Learning outcomes are used to to design micro-modules that are rooted in learners' capabilities and competencies. The expected learning outcomes are often integrated within 21st century skills that learners are expected to acquire from the courses. A modular curriculum design approach often embeds assessment criteria within learning outcomes.

Modular curriculum design also requires instructor to map learning outcomes, capabilities and competencies, and assessment criteria. Additional information is required to the mapping of learning outcomes through to assessment.

Additional Guideline

List the required texts and resources (textbooks, software, equipment). Indicate if texts, software, and equipment are available through the library or another group on campus. Also ensure you requested text books, if applicable, via the library. This is important to ensure access for all students.

Identify the commonly used technologies used for a course. For example the Learner Management System at KAUST is Blackboard Ultra. Also refer students who need immediate assistance for Blackboard Ultra to the [Center for Teaching and Learning.](#)

Additional course guidelines may be provided by instructors to give information about their learner expectations. Additional course guidelines often include inclusive classroom approaches that specify how an instructors will create an inclusive learning space that provides all learners with opportunities to optimize their learning.