



Cihan University- Erbil

College of Health Technology



Department of Nutrition and Dietetics

Knowledge, Skills and Competencies

for Study Programs

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HOW TO RE-DESIGN STUDY PROGRAMS

- ➤ Why Redesign University or Institute Programs
- ➤ Knowledge
- ➤ Skills
- ➤ Competencies
- Examples of Programs..
- ➤ Entering Data
- ➤ Useful Links

WHY REDESIGN UNIVERSITY OR INSTITUTE PROGRAMS? SHIFT IN PARADIGM


- • From Input-Based Approach to Output-Based Approach
- • The principal question asked of the student/graduate will no longer be „what did you do to obtain the degree?“ but „what can you do now that you have obtained your degree?“ (Purser, Council of Europe, 2003)

Why Redesign University or Institute Programs?

- ❖ Need Assessment: How shifting job markets and professional standards require updates in academic training.
- ❖ • Technological Advancements: The impact of new technologies on educational modalities and content.
- ❖ • Student Expectations: Changing student demographics and expectations from higher education.
- ❖ The process of redesigning academic programs is dynamic and requires a commitment to ongoing evaluation and responsiveness to changes in the educational and employment landscapes. By focusing on the core aspects of knowledge, skills, and competencies, institutions can ensure that their programs remain competitive and adequately prepare students for future challenges and opportunities.

Redesign of Programs in Kurdistan Universities and Institutes

- Defining Knowledge, Skills, and Competencies
- ➤ Engagement with Accreditation Standards
- Assessment and Evaluation
- Curriculum Development & Program Structure



Knowledge

Skills

Competencies

Program Outcomes

Course Learning Outcomes

Benefits of Knowledge, Skills, and Competencies, Learning Outcome

- The development, understanding and practical use of learning outcomes is crucial to the success of:
- Curriculum Design
- Teaching and Assessment
- ECTS
- Mobility and Recognition of Credits
- Employability (Labour Market)
- Quality assurance and Accreditation



➤ Knowledge

- **Definition:** knowledge means the outcome of the understanding of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study.
- **Importance:** Foundational knowledge forms the basis for developing skills and competencies essential for success in various occupations.

Knowledge

- **Nutritional Science:** Understanding the roles and functions of macronutrients and micronutrients, their sources, and their impact on human health.
- **Human Anatomy and Physiology:** Knowledge of the human body's systems and how they are influenced by nutrition.
- **Biochemistry:** Understanding the biochemical processes related to digestion, absorption, and metabolism of nutrients.
- **Public Health Nutrition:** Insights into the nutritional needs of populations and strategies for addressing public health issues.
- **Medical Nutrition Therapy:** Knowledge of therapeutic diets and nutritional management of diseases and health conditions.



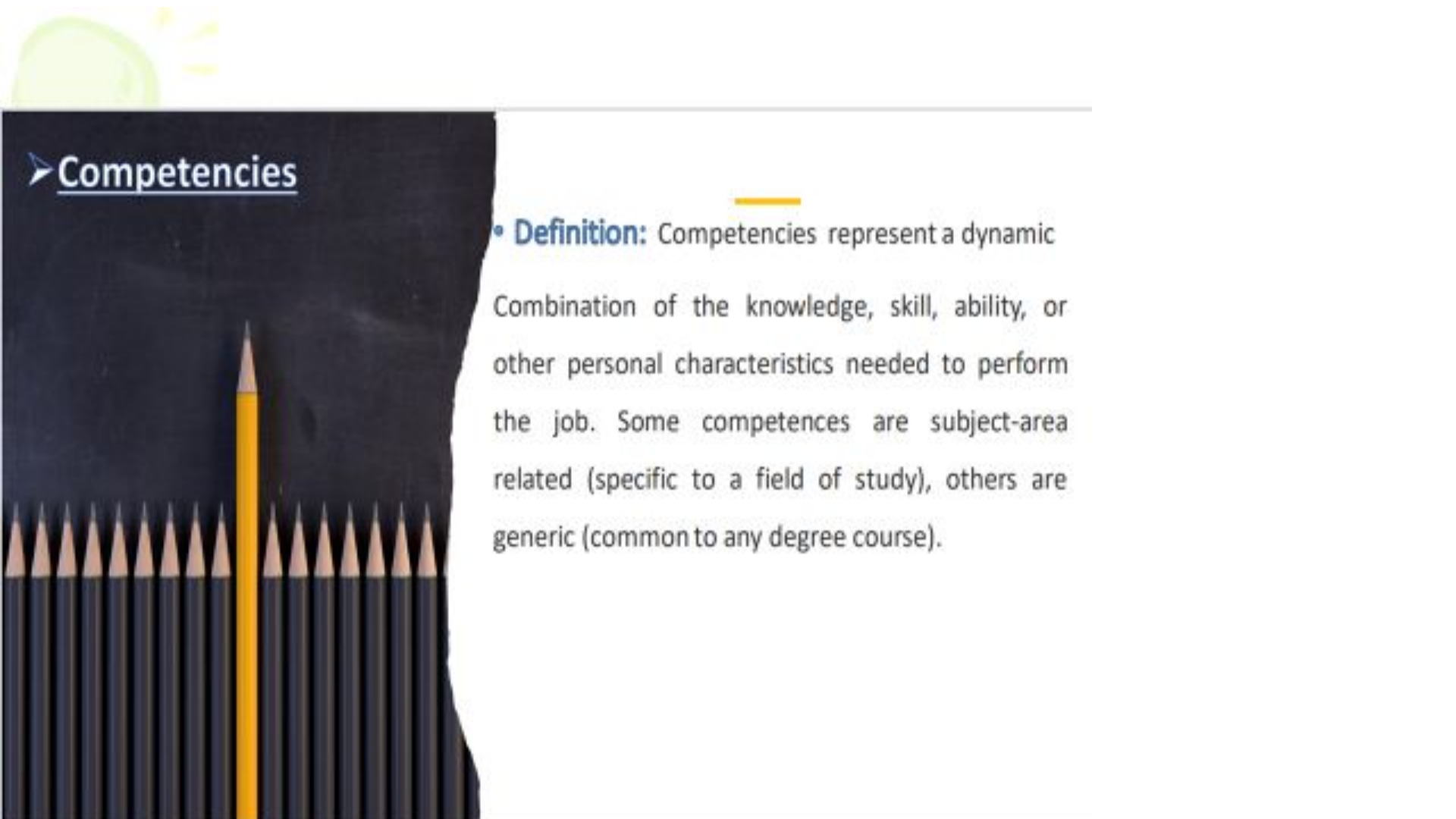
➤ Skills

- **Definition:** the ability to use one's knowledge effectively and readily in execution or performance.

- **Importance:** Skills complement knowledge and are crucial for applying theoretical concepts in real-world scenarios.

Skills

- **Nutritional Assessment:** Ability to assess individuals' and populations' nutritional status using various tools and techniques.
- **Dietary Planning and Counseling:** Skills in creating individualized dietary plans and counseling clients to achieve health goals.
- **Communication Skills:** Effective communication with clients, healthcare teams, and the public about nutritional information and health.
- **Food Service Management:** Managing food service operations, including menu planning, food safety, and budgeting.
- **Research Skills:** Conducting and interpreting nutrition research to apply evidence-based practices.



➤ Competencies

- **Definition:** Competencies represent a dynamic combination of the knowledge, skill, ability, or other personal characteristics needed to perform the job. Some competencies are subject-area related (specific to a field of study), others are generic (common to any degree course).

Competencies

- **Clinical Proficiency:** Competence in providing nutritional care in clinical settings, including hospitals and outpatient clinics.
- **Professionalism and Ethics:** Adherence to ethical standards and professional behavior in all aspects of practice.
- **Interprofessional Collaboration:** Working effectively within healthcare teams to provide comprehensive patient care.
- **Cultural Competence:** Providing culturally appropriate nutrition care and education.

Department Name	Knowledge	Skills	Competencies
Mechanical Engineering	<p>1- CAD software: The engineering elements like functionality, replicability, and costs in relation to the design and how they are applied in the completion of engineering projects.</p> <p>2- Design principles: The elements used in design such as unity, scale, proportion, balance, symmetry, space, ...and their application into practice.</p> <p>3- Design automation components: Design engineering parts, assemblies, products, or systems that contribute to the automation of industrial machines.</p> <p>4- Heating, ventilation, air conditioning systems: The modern and traditional HVAC systems such as air conditioning, ventilation, or radiant cooling, and their energy saving principles.</p> <p>5-Engineering processes: The systematic approach to the development of engineering systems.</p> <p>6-.....</p>	<p>1-Use technical drawing software: Create technical designs and technical drawings using specialized software.</p> <p>2-Approve engineering design: Give consent to the finished engineering design to go over to the actual manufacturing and assembly of the product.</p> <p>3-Assemble mechatronic units: Assemble mechatronic units using mechanical, pneumatic, hydraulic, electrical, electronic, and information technology systems and components. Manipulate and attach metals through using welding and soldering techniques, glue, screws, and rivets. Install wiring, install drive systems, sensors, actuators, and transducers. Mount switches, control devices, coverings, and protection.</p> <p>4-Determine appropriate heating and cooling system: Determine the appropriate system in relation to available energy sources.</p> <p>5-Perform data analysis: Collect data and statistics to test and evaluate to generate assertions and pattern predictions, with the aim of discovering useful information in a decision-making process.</p> <p>6-.....</p>	<p>1-Modeling ability: ability to model and simulate mechanical engineering systems and manufacturing processes.</p> <p>2-Design Capacity: Capacity to analyze , calculate and design mechanical engineering systems.</p> <p>3- Building systems: Capacity to build and inspect mechatronics systems.</p> <p>4- Analytical ability: ability to identifies, obtains, and evaluates relevant information to establish relationships or patterns, cite causes, and reach logical conclusions.</p> <p>5- Safety focus: ability to performs work in a way that minimizes risk of injury to self or others.</p> <p>6- Write routine reports: Compose regular reports by writing clear observations on the monitored processes in a respective field.</p> <p>7- Supervision: Ability to assume direct responsibility for all aspects of the performance of a work group.</p> <p>8- Teamwork: Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.</p> <p>9-.....</p>

Entering Data into the following link:

https://docs.google.com/forms/d/e/1FAIpQLSfSEdiCTg66jZSDShQraQwhcdC1_sk3ce8IAGofGjB_jQKFA/viewform?usp=pp_url

<https://esco.ec.europa.eu/en/classification>

<https://personnel.lacity.gov/jobs/job-analyses.cfm>

<https://www.unideusto.org/tuningeu/competences/generic/>