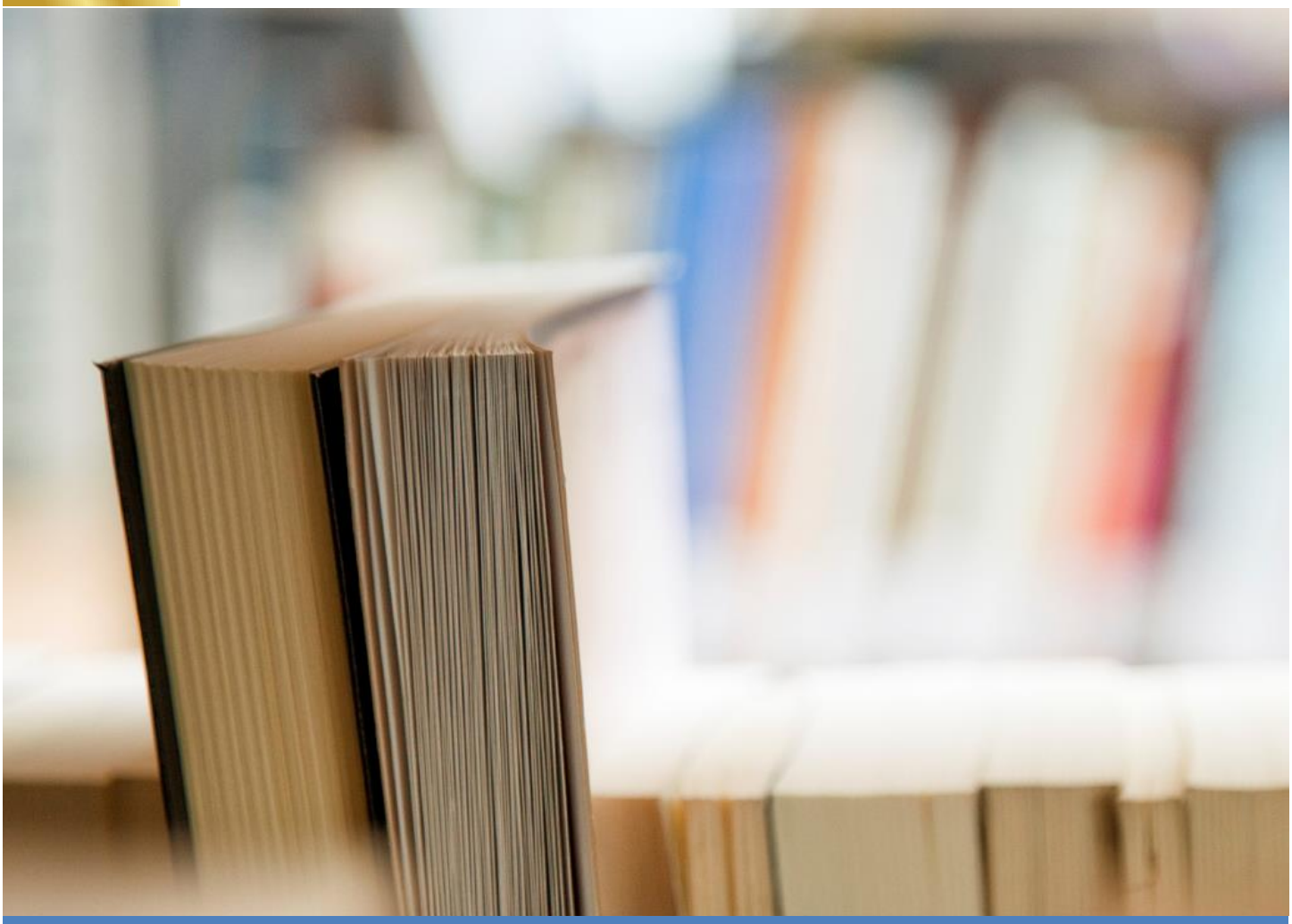


HANDBOOK FOR TEACHING AND LEARNING

Vice-Rectorate for Academic Affairs, UPM

Teaching and Learning Unit 4/9/23

Contents

PREFACE

Teaching and learning are what we do. It is at the heart of the college experience and there is no substitute for a fully resourced, accomplished teacher to encourage, guide and assess student attainment. Teaching in higher education should be a life-enhancing, enjoyable and rewarding occupation.

It's a curious contradiction to be both an expert and a learner at the same time. Many newly appointed teaching staff discover that the university environment is challenging. They must be specialists and experts in their specialization and well-versed in teaching pedagogy. Besides, dealing with students with high hopes and expectations of quality teaching and learning environments is challenging. Teaching is always a challenging and it is a noble job that you can contribute to a lot of good things to humanity. Good teachers are also good learners, they can adapt in any situation that they face. Time is the most precious and valuable treasure to the learning community. Once an academic session started, everybody seems to be busy fulfilling teaching activities. At the same time, teaching staff need to improve and enhance their teaching capability and professional development that is an on-going journey and a career long endeavor.

The University of Prince Mugrin's (UPM) handbook for Teaching and Learning is designed as a guideline to the teaching staff to understand, develop, and create a quality teaching and learning environment for students to acquire valuable learning experience in their university life. It is a revision for experienced teaching staff who wish to reflect on their teaching, learning, and assessment activities.

This handbook is comprised of five chapters. The first chapter introduces outcome-based education, the national qualification framework, and its domains. The second chapter guides the readers to prepare effective program and course learning outcomes bearing in mind the Bloom's Taxonomy levels. The third chapter discusses the quality teaching methodology where the fourth focuses on Assessment. The handbook ends with explaining the quality cycles in teaching and learning and how to close their loops.

CHAPTER 1: Introduction

1.1 Outcome-Based Education (OBE)

Definition

Outcome-based education is a model of education that focuses on what the university provides to students, in favor of making students demonstrate that they "know and are able to do" whatever the required outcomes are (Lui, & Shum, 2012). It sets a clear standard for observable, measurable outcomes.

OBE Principles

An OBE curriculum means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction, and assessment to make sure this learning ultimately happens. According to Spady (1994), the four basic principles of OBE include:

Clarity of focus

Teaching Staff should focus clearly on helping students to develop the knowledge, skills and personalities that will enable them to achieve the Students' Learning Outcomes (SLO) that have been clearly stated.

Designing down

It means that the curriculum design must start with a clear definition of the SLO that students are to achieve by the end of the program and Courses. ("Designing down It means that the curriculum design must start with a ...") Once this has been done, all instructional decisions are then made to ensure the achievement of this desired result.

High expectations

Meaning that teaching staff should have high standards of teaching performance to help and encourage students to achieve deep learning that promotes more successful graduates.

Expand opportunities.

Provide expanded opportunities to all students that have different abilities. Students can achieve high standards if they are given appropriate opportunities.

OBE Process

OBE's instructional planning process is the reverse of that associated with Traditional Education (TE) planning. The desired outcome is selected first and the curriculum, instructional materials, and assessments are created to support the intended outcome. All educational decisions are made based on how best to facilitate the desired outcomes.

Students are expected to be able to do more challenging tasks other than memorizing reproducing what was taught. "Students should be able to: write project proposals, complete projects, analyze case studies, give case presentations, show their abilities to think, question, research, and make decisions based on the findings." ("NBA : CO PO Mapping - SlideShare")

Students are also expected to be creative, able to analyze and synthesize information, able to plan and organize tasks, able to work in a team as a community or in entrepreneurial service teams to propose solutions to problems and market their solutions. The learning outcomes are set out sequentially on a gradation of increasing complexity that students are expected to master. "OBE focuses on how much and how well the students have learnt." ("Outcome Based Education (OBE) - Universiti Tunku Abdul Rahman") Weaker students may have to follow a different learning path & finish later.

1.2 National Qualification Framework (NQF)

The National Qualifications Framework is an important element in this system. It is intended to ensure consistency within the Kingdom to regulate the standards of student learning outcomes regardless of institution attended, and to make clear the equivalence of those standards with those for equivalent awards granted by higher education institutions in other parts of the world. The Framework helps to provide appropriate points of comparison in academic standards for institutions in their planning and self-review processes, for external reviewers involved in program accreditation processes and institutional reviews, and for employers, in understanding the skills and capabilities of graduates they may employ. Programs developed within this Framework should not only lead to the knowledge, generic skills and professional expertise normally associated with studies leading to comparable awards throughout the world, but they should also include particular knowledge and skills needed for professional practice in the Kingdom of Saudi Arabia and reflect educational policies and cultural norms in this country.

An educated person must be able to do much more than simply recall information. Graduates should have the ability and commitment to engage in lifelong learning, capacity for effective

communication including appropriate and competent use of information technology, and the ability to take initiative in individual and group activities. "The framework describes the expected increasing levels of knowledge and skill in these areas for each qualification." ("National Commission for Academic Accreditation & Assessment - mu.edu.sa") Developing these attributes will require use of methods of instruction that take students well beyond the acquisition of knowledge and skills and emphasize their use in practical situations on a continuing basis.

Summary of Principal Elements in the National Qualifications Framework

Levels

The levels in the framework are:

0. Entry. Completion of secondary education.
1. Level 1. Primary Education
2. Level 2. Intermediate Education
3. Level 3. Secondary Education
4. Level 4. Associate Diploma
5. Level 5. Advanced Diploma
6. Level 6. Bachelor's Degree
7. Level 7. Master's Degree
8. Level 8. Doctoral Degree

Credit Hours

A minimum of 30 credit hours is required for an associate diploma, 60 credit hours (or two years of study) for a diploma and a minimum of 120 credit hours for a bachelor's degree. ("National Commission for Academic Accreditation & Assessment - mu.edu.sa") At postgraduate levels additional studies with either 24 or 39 credit hours are required for a master's degree and 12 or 30 credit hours are required for a doctorate depending on the scale of a thesis or major project.

NOTE: *Credit hour calculations are based on a formula in which one 50-minute lecture, or two or three 50-minute laboratory or tutorial sessions over a 15-week teaching semester are regarded as one credit hour***.**

Domains of Learning Outcomes

The education which a learner needs, including the necessary knowledge, understanding, skills, and values to obtain the relevant qualifications organized according to each level specified in the Framework. These levels progress gradually in terms of scope and sequence, from the entry-level

to level 8. They are expressed in terms of the dimensions of knowledge and understanding, skills, and values, autonomy, and responsibility according to the following criteria. ("NATIONAL QUALIFICATIONS FRAMEWORK - ETEC")

1 Knowledge and Understanding

This includes the knowledge and understanding of a leaner in the areas of learning, work, or profession:

- Extensive deep knowledge and understanding of facts, concepts, principles, theories, processes, and procedures in the area of learning, work, or profession.
- Depth of knowledge which can be general or specialized.
- Breadth of knowledge which can range from a single topic to multi-disciplinary areas of knowledge.
- Kinds of knowledge that range from concrete to abstract, segmented to cumulative.
- Complexity of knowledge which refers to a combination of kinds, depth, and breadth of knowledge.

2 Skills

What a graduate can do in the field of study, work, or profession. Skills are described in terms of the kinds and complexity of skills and include:

1. **Cognitive Skills:** involving the application of knowledge and conceptual understanding of concepts, principles, and theories; and the use of critical thinking, problem-solving skills, inquiry, and creativity.
2. **Practical and Physical Skills:** involving motor skills and manual dexterity, and the use of appropriate materials, devices, and tools, along with mastering motor and manual skills.
3. **Communication and Information Technology Skills**: involving written, verbal, and non-verbal communication, numeracy skills, and the use and production of information and communication technology.

3 Values, Autonomy, and Responsibility

Terms of principles and standards that are oriented towards success in the areas of life, work, or profession. They include:

- Academic and professional values and ethics.
- Continued self-learning and autonomy.
- Teamwork and responsibility.

CHAPTER 2: STUDENT LEARNING OUTCOMES

Student learning outcomes (SLOs), being one of the most crucial components of teaching and learning, shows the direction of what type of graduates (product) UPM will produce, within the norms of the KSA culture.

Learning flows from the mission of the institution down to the units of instruction.

The Outcomes Pyramid presents a pictorial clarification of the hierarchical relationships among several different kinds of goals, objectives, and outcomes.

Figure 2.1 CLO planning pyramid

The learning outcomes approach to education means basing program and curriculum design, content, delivery, and assessment on an analysis of the integrated knowledge, skills and values needed by both students and society.

2.1 Student Learning Outcomes…

SLO can be categorized into 3 stages that is Institutional Learning Outcomes (ILO), Program Learning Outcomes (PLO) and Course Learning Outcomes (CLO).

1 SLOs describe specific behaviors that a student of a program should demonstrate after completing the program.

2 Program Learning Outcomes (PLOs) are often informed by a professional organization's outcomes statements and the institution's mission and goals.

3 PLOs provide guidance for faculty regarding content, instruction, and evaluation, and serve as the basis for ensuring program educational effectiveness.

4 Focus on the achieved abilities, knowledge, values, and attitudes of the student after completion of the program.

5 Well-written learning outcomes help guide the choice of assessment methods.

Program Learning Outcomes are important because they:

- act as basis for program improvement (instruction, course design, curricular design)
- communicate instructional intent.
- increase awareness of learning (for students).
- encourage effective communication about student learning.
- act as common language.
- provide promotional materials.
- foster compliance with the requirements for accreditation, licensing and governmental regulation.

2.2 Characteristics of Effective PLOs

PLOs should:

- Be clear, concise statements that describe how students can demonstrate their mastery of program learning goals/objectives.
- Be measurable and/or observable.
- reflect broad conceptual knowledge and adaptive vocational and generic skills.
- reflect essential knowledge, skills, or values.
- focus on results of the learning experiences.
- reflect the desired end of the learning experience, not the means or the process.

- represent the minimum performance that must be achieved to successfully complete a course or program.

Good learning outcomes are:

- Active – it describes what students can do.
- Attractive – students want to achieve it.
- Comprehensible – students know what it means.
- Appropriate – to the student's current goals and career plans
- Attainable/Achievable – most students will mostly meet it, with due effort.
- Assessable – we can see if it has been achieved.
- Visible – in the program/course booklet and on the website

2.3 Program and Course Learning Outcomes

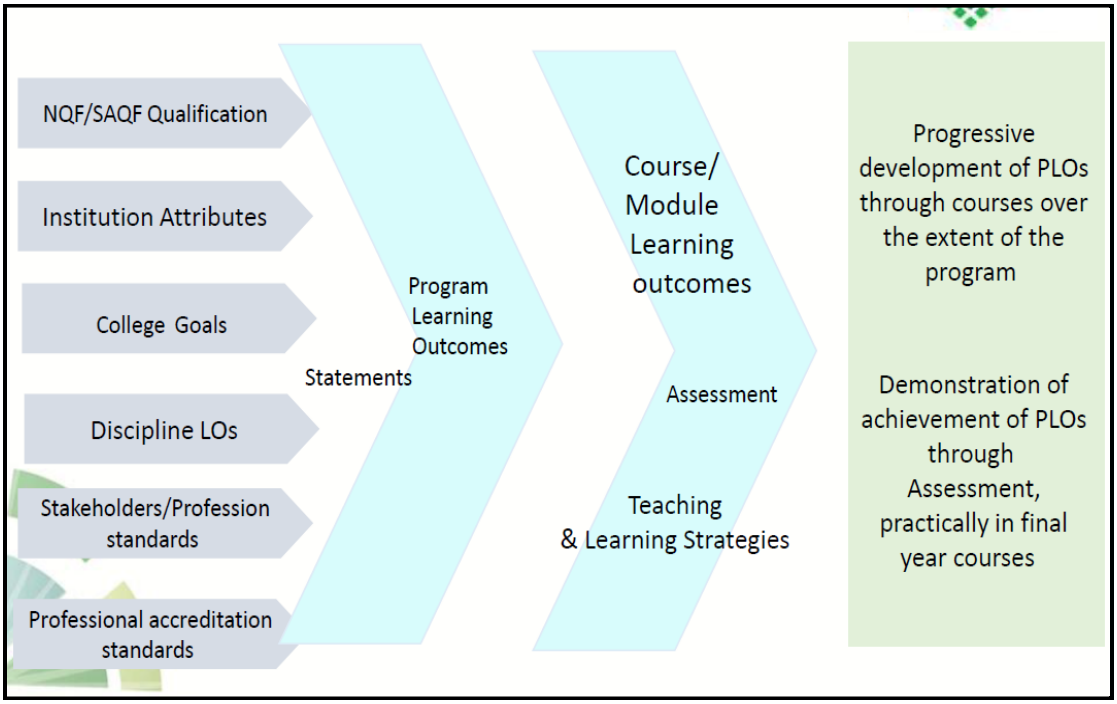
Student Learning Outcomes & NQF

PLOs must be consistent with the National Qualifications Framework, and with generally accepted standards for the field of study concerned including requirements for any professions for which students are being prepared.

To satisfy these requirements:

- PLOs should be consistent with the NQF.
- PLOs should be consistent with accepted standards.
- Program should develop learning outcomes that meet requirements for professional practice in the KSA.
- Any special student attributes specified by the institution for its graduates, should be incorporated as learning outcomes in the relevant courses.
- Programs should use appropriate program assessment mechanisms.

The figure below explains the development process in establishing program and course learning outcomes.



Program learning outcomes (PLOs) encompass what students should be able to know, think, or do across all courses within a curriculum. Course learning outcomes are more specific and describe achievement expected in a particular course.

- Course outcomes should clearly relate to topics, assignments, and exams that are covered in the course.
- Course outcomes should be clear, measurable, use active verbs and may contribute to the assessment of program learning outcomes.

2.4 PROGRAM LEARNING OUTCOMES MATRIX

Each one of the program learning outcomes should be introduced by, at least, one course. The letter (I) is placed in front of the course or courses that introduce the PLO. The PLO is then

practiced (P) in some courses and mastered (M) with advanced-level courses. So, looking vertically, each PLO, for example, K1, should start with some introductory courses (I), followed by practicing courses (P), and gradually Mastery (M) level courses end at the bottom of the matrix column. It is not common, however, to see P(s) or (M)s before the I(s).

The choice of course(s) that contribute to the three mastery levels of each program learning outcome should be chosen carefully in the curriculum plan. If seen carefully, they are often put in requisite chains across the levels and years through graduation. It is not necessary that all courses should contribute to the same PLO nor that a course should be aligned to all PLOs. While in course specifications, all CLOs should be aligned with their corresponding PLOs, in the program mapping matrix, we see the courses in their totality. Thus, a certain course may introduce a PLO in most of its content in general and it is highly possible to see an important high-stake CLO in that particular course that contributes to the given PLO.

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values, Autonomy, and Responsibility		
	K 1	K2	K 3	---	S1	S2	S3	---	V 1	V2	---
Course....	I										
Course....											
Course....											
Course....	I										
Course....											
Course....	P										
Course....	P										
Course....											
Course....	M										

Table 2.1 PLOs and CLOs mapping matrix

2.5 Writing learning outcomes

Bloom's taxonomy is frequently used for writing learning outcomes as it provides a ready-made structure and list of verbs. These verbs are the key to writing learning outcomes. The verbs are followed by the object of learning or behavior and usually complemented by a condition or the extent of depth to which the action is to be performed.

Action verb + object of learning + condition (not always).

Traditionally, there are three learning domains within educational literature. These include:

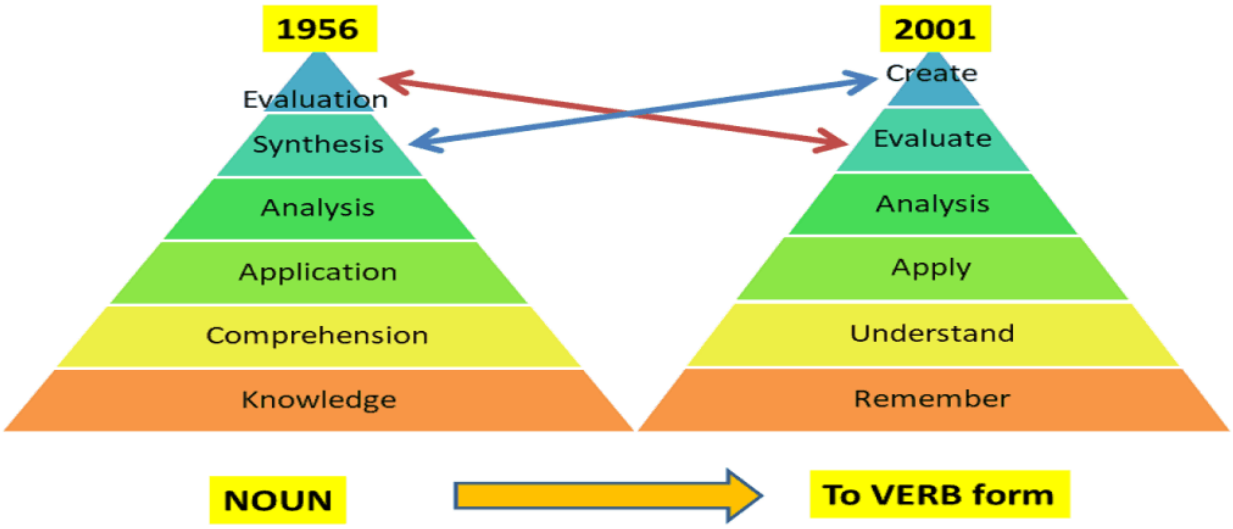
1 The cognitive domain (Knowledge-based)
2 The Affective domain (Emotion-based)
3 The psychomotor domain (Action based)

Benjamin Bloom's taxonomy focuses on the cognitive domain. Other educationalists worked on the affective and psychomotor domains.

The cognitive domain:

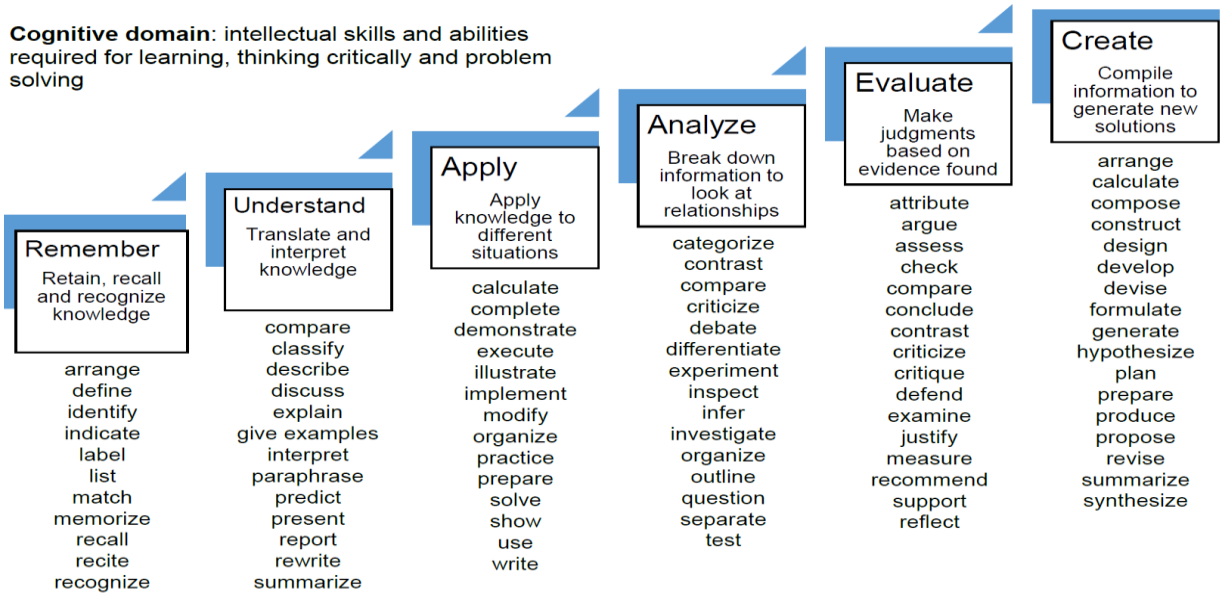
Blooms Taxonomy of the cognitive domain includes the cognitive skills related to knowledge, comprehension and problem-solving.

Bloom classified the cognitive domain into 6 levels. The cognitive domain is further divided into 6 levels. Revised edition of Bloom's taxonomy in 2001, the levels are slightly different from the original taxonomy: Remember, Understand, Apply, Analyze, Evaluate, create (rather than Synthesize).The name is changed from noun to verb form.



Bloom's original (noun-based) taxonomy vs. the revised (verb-based) edition

The following diagram shows the modified Bloom's taxonomy levels with example measurable verbs that can possibly be used to write learning outcomes at the course and program levels. Program learning outcomes, however, should be within higher levels such as analyze, evaluate, and create. Remembering can be used with beginning and introductory level courses.



How can this be aligned with the NQF domains? Obviously, a large part of knowledge and skill domains (with the exception of psychomotor skills) fall within the cognitive domain.

The following table contains examples of learning outcomes adapted from Kennedy, 2006.

Learning outcome	Level
Describe the processes used in engineering when preparing a design brief for a client.	Remember
Identify participants and goals in the development of electronic commerce.	Understand
Select and employ sophisticated techniques for analyzing the efficiencies of energy usage in complex industrial processes.	Apply
Debate the economic and environmental effects of energy conversion processes.	Analyze
Assess the importance of key participants in bringing about change in Irish history.	Evaluate
Propose solutions to complex energy management problems both verbally and in writing.	Create

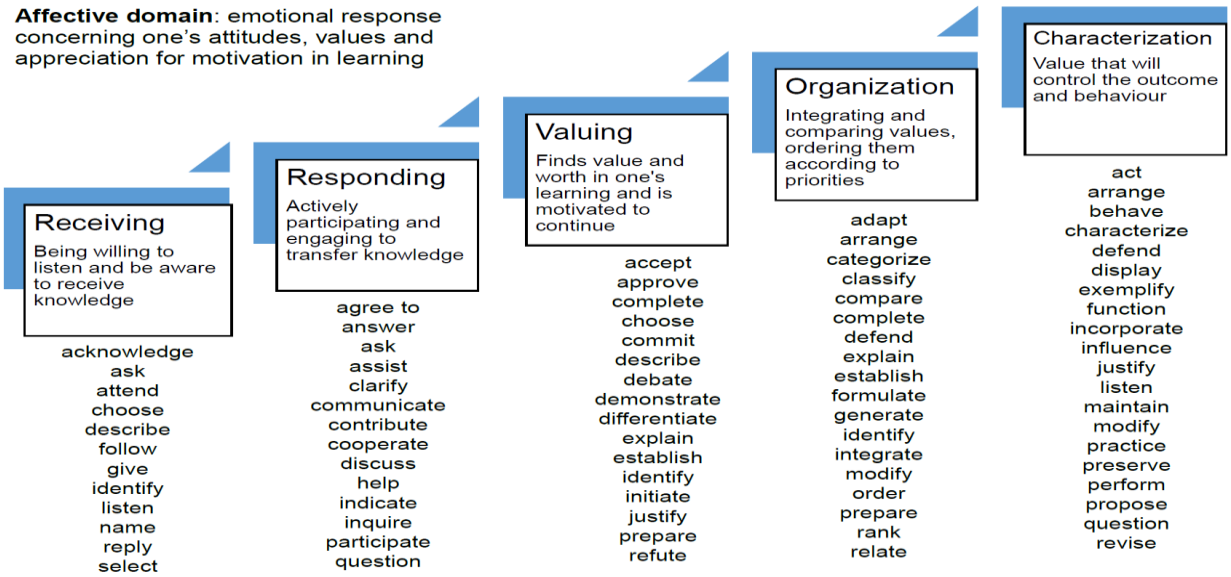
The Affective domain

Kennedy, 2006 asserts that whilst the cognitive domain is the dominant one and mostly used of Bloom's Taxonomy, Bloom and his co-workers also carried out research on the affective ("attitudes", "feelings", "values") domain (Bloom et al., 1964). This domain is concerned with issues relating to the emotional component of learning and ranges from basic willingness to receive information to the integration of beliefs, ideas and attitudes. In order to describe the way in which we deal with things emotionally, Bloom and his colleagues developed five major categories:

1. **Receiving**: This refers to a willingness to receive information, e.g., the individual accepts the need for a commitment to service, listens to others with respect, shows sensitivity to social problems, etc.
2. **Responding**: This refers to the individual actively participating in his or her own learning, e.g., shows interest in the subject, is willing to give a presentation, participates in class discussions, enjoys helping others, etc.

3. Valuing: This ranges from simple acceptance of a value to one of commitment, e.g., the individual demonstrates belief in democratic processes, appreciates the role of science in our everyday lives, shows concern for the welfare of others, shows sensitivity towards individual and cultural differences, etc.
4. **Organization**: This refers to the process that individuals go through as they bring together different values, resolve conflicts among them and start to internalize the values, e.g., recognizes the need for balance between freedom and responsibility in a democracy, accept responsibility for his or her own behavior, accepts professional ethical standards, adapts behavior to a value system, etc.
5. **Characterization**: At this level, the individual has a value system in terms of his/her beliefs, ideas and attitudes that control their behavior in a consistent and predictable manner, e.g., displays self-reliance in working independently, displays a professional commitment to ethical practice, shows good personal, social and emotional adjustment, maintains good health habits, etc.

The following figure contains verbs that can be used with the affective domain.



The psychomotor domain

The psychomotor domain mainly emphasizes physical skills involving coordination of the brain and muscular activity. From a study of the literature, it is true to say that this domain has been less well discussed in the field of education than either the cognitive or affective domain. The psychomotor domain is commonly used in areas like laboratory science subjects, health sciences, art, music, engineering, drama and physical education. Bloom and his research team did not complete detailed work on the psychomotor domain as they claimed a lack of experience in teaching these skills. However, a number of authors have suggested various versions of taxonomies to describe the development of skills and coordination.

For example, Dave (1970) proposed a hierarchy consisting of five levels:

1. Imitation: Observing the behavior of another person and copying this behavior. This is the first stage in learning a complex skill.
2. Manipulation: Ability to perform certain actions by following instructions and practicing skills.
3. Precision: At this level, the student has the ability to carry out a task with few errors and become more precise without the presence of the original source. The skill has been attained and proficiency is indicated by smooth and accurate performance.
4. Articulation: Ability to coordinate a series of actions by combining two or more skills. Patterns can be modified to fit special requirements or solve a problem.
5. Naturalization: Displays a high level of performance naturally ("without thinking"). Skills are combined, sequenced, and performed consistently with ease.

The following table includes some examples of verbs that can be used with psychomotor skills.

Adapt, adjust, administer, alter, arrange, assemble, balance, bend, build, calibrate, choreograph, combine, construct, copy, design, deliver, detect, demonstrate, differentiate (by touch), dismantle, display, dissect, drive, estimate, examine, execute, fix, grasp, grind, handle, heat, manipulate, identify, measure, mend, mime, mimic, mix, operate, organize, perform (skillfully), present, record, refine, sketch, react, use.

2.6 Teaching/Learning Strategies and assessment methods

Teaching and learning strategies should be carefully chosen on the basis of the domain and the verb that is used for the learning outcome. Thus, if the learning outcome begins with the verb 'categorize', for example, all the class activities designed to focus on this learning outcome will be the categorization of whatever is required to be categorized.

Teaching must be of high quality with appropriate strategies used for different categories of learning outcomes. The term instructional/teaching method/techniques refers to the general principles, pedagogy and management strategies used for instruction. Your choice of teaching method depends on what fits you — your educational philosophy, classroom demographic, subject area(s) and program mission statement. ("Teaching Methods | EDUCATION")

Instructional methods are strategies or learning activities used to facilitate learning in each phase of the instructional process.

What is effective teaching?

- Effective teaching involves acquiring relevant knowledge about students and using that knowledge to design the course and classroom teaching. ("Teaching & Learning Principles - Carnegie Mellon University")
- Effective teaching involves articulating explicit expectations regarding learning objectives and policies.
- "Effective teaching involves aligning the three major components of instruction: learning objectives, assessments, and instructional activities." ("Principles of effective teaching - CATL Teaching Improvement Guide | UW ...")
- Effective teaching involves prioritizing the knowledge and skills we choose to focus on.
- Effective teaching involves recognizing and overcoming our expert blind spots (overlook what students don't know or overlook teaching ineffectiveness).
- Effective teaching involves adopting appropriate teaching roles to support our learning goals.
- Effective teaching involves progressively refining our courses based on reflection and feedback.

What Is Student-Centered Learning?

- Everyone in the classroom is a learner, including the teacher: students' experience is valued, and they learn from the teacher and one another; the teacher even learns from students!
- Students seek out knowledge and understanding rather than being given (or some would say force-fed) it.
- Motivation comes from within; students are truly interested in what they're doing and opportunities for pursuing one's interests are created and cultivated.
- The students select the projects/texts.
- Each student is able to play to his or her strengths while learning from the contributions/strengths of group members as a collaborator on a shared project.
- Work is produced for an authentic, real audience and has real meaning to students.
- Work feels meaningful.

Examples of teaching strategies in the cognitive domain

	Remember	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Create**
Learning **Activities**	• Flashcards • Highlight key words. • List • Memory activities • Reading materials • Watching presentations and videos	• Case studies • Concept map • Demonstrations • Diagrams • Flowcharts • Group discussions • Mind map • Matrix activity • Play/sketches. • Summarize • Think-pair-share	• Calculate • Case studies • Concept map • Creating examples • Demonstrations • Flipped classroom. • Gallery walks. • Gamification • Group work • Lab experiments • Map • Problem- solving tasks. • Short answers • Role play	• Case studies • Compare and contrast (with charts, tables, Venn diagrams) • Concept map • Debates • Discussions • Flowchart • Graph • Group investigation • Mind map • Questionnaires • Report/survey • Think-pair- share	• Debates • Compare and contrast (with • charts, tables, Venn diagrams) • Concept map • Journal • Pros and cons list • Mind map • Review paper	• Brainstorm • Decision-making tasks • Develop and describe new solutions or plans. • Design project • Performances • Presentations • Research projects • Written assignment

Examples of teaching/ learning strategies in the affective domain:

Receiving	Responding	Valuing	Organization	Characterization
• Attend focus groups • Listen as audience to a presentation • Read articles/papers/ textbooks • Watch a video	• Active participating in classroom activities • Brainstorm ideas • Group discussions • Present in front of audience • Problem solving activities • Role-play • Written assignments (essays, reports etc.)	• Debates • Opinionated writing piece • Reflection exercises (reflection paper) • Self-report	• Analyze and contrast (with charts, tables, Venn diagrams) • Concept map (report formal and informal experiences and identify skills)	• Critical reflection • Group projects • Self-report goals (personally and academically)

Assessment Methods

Similar to teaching and learning strategies, assessment methods should be suitable to the verbs used and learning domains. If the CLO verb, for example, is “discuss”, then we expect the assessment methods to include rubrics to assess discussion. A lot of course assessments, however, give bigger weight to a limited number of assessment methods such as MCQs, True and False, and fill-in-the-blanks. This happens while verbs that require different assessment methods are used with the corresponding CLOs.

Cognitive domain assessment methods examples

	Remember	Understand	Apply	Analyze	Evaluate	Create
Assessment Methods	• Clicker questions • Fill in the blanks. • Label • Match • Multiple choice • Quizzes • True and false questions	• Concept map • Create a summary. • Essay • Diagrams • Infographics • Matrix activity • One-minute paper • Presentation • Provide examples. • Quizzes • Short answers	• Discussion board post • E-portfolio • Lab reports • One-minute paper • Presentation • Problem- solving tasks. • Short answers	• Analysis paper • Case study • Evaluation criteria • Critique hypothesis, procedures etc. • Muddiest point • One-minute paper • Research paper • Review paper	• Argumentative or persuasive essay • Debates • Discussions • Presentation • Provide alternative solutions. • Report	• Develop criteria to evaluate product or solution. • Grant proposal • Outline alternative solutions. • Research proposal

Affective Domain Assessment Methods Examples

NQF values such as teamwork, ethical values, leadership, life-long learning, fall within the affective domain.

Receiving	Responding	Valuing	Organization	Characterization
• Feedback forms • Fill-in-the-blanks • Knowledge survey • List • Match • Memory tests • One-minute paper • Qualitative interviews • Test activities (recall and verbalize reactions) • Write summary on key points of presentation	• Answer questions • Ability to follow procedures • Critical questioning • Feedback and peer evaluation • One-minute paper • Questionnaires • Willingness to participate	• Attendance • Neatness and carefulness (with minimal errors) of submitted work • Meet deadlines • Proposals of new plans • Questionnaire • Rating scale • Reflection piece • Report on extra-curricular activities • Ungraded paper	• Develop realistic aspirations • Prioritize time to meet goals • Focus groups • Questionnaires • Ability to solve new problems	• Criteria for group projects • Self-evaluation • SMART goals

CHAPTER 3: QUALITY TEACHING METHODOLOGY

3.1 Integrate Active Learning in Teaching

What is active learning?

Strategies that increase student engagement with material and are aligned with student learning outcomes.

- Theory that derives from two basic assumptions: (1) that learning is by nature an active endeavor and (2) that different people learn in different ways (Meyers and Jones, 1993).
- [it is] when students are engaged in more activities than just listening. They are involved in dialog, debate, writing, and problem-solving, as well as higher-order thinking. (Bonwell and Eison, 1991)
- Active learning is more likely to take place when students are doing something besides listening. "When learning is active, students do most of the work" [Silberman].

Active learning is broadly defined as any learning activity or approach that replaces typical lecture methods of instruction and makes students active participants in the learning process. Active learning engages students in meaningful activities and requires that they think about what they are doing and why (Bonwell and Eisen, 1991).

Active learning is often coupled with collaborative learning in which students work cooperatively on these activities. A relatively recent movement in active and collaborative learning is the flipped or inverted classroom in which most of the content delivery happens outside of class—via readings, video lectures, simulations, and other instructional material—and class time focuses on applying and understanding the material. The key question, then, for active learning lesson planning becomes what will students do in class to help them understand, apply, and master the concepts or information?

Characteristics of Active Learning

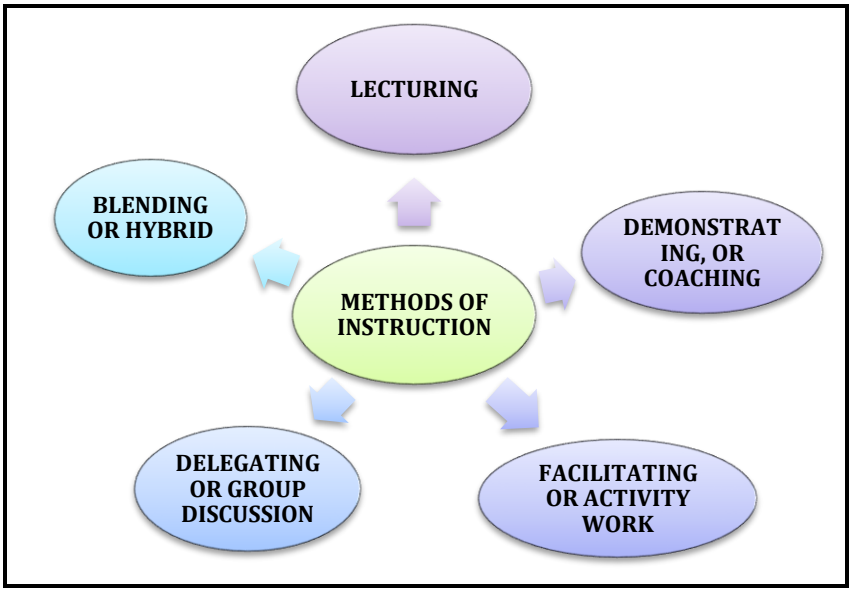
- Engages students beyond reading, listening, and note-taking.
- Promotes deep learning, not just the acquisition of facts.
- Develops higher-order thinking skills through intentionally designed activities.

- Often involves interaction among students.
- Requires students to take greater responsibility for their learning.
- Teachers help students to monitor their own learning and discover what they do and do not understand.
- Helps students build competencies (e.g., problem-solving, critical thinking, communication) as well as content knowledge.

Examples of Active Learning Strategies

Group projects	Mind-maps
Role playing	Think-Pair-Share
Research	Learning Games
Presentations and debates	Paired Reading
Case Studies	Drill and Review Pairs
Class Discussions	Turn-to-your-neighbor summaries
One minute paper	Graphic Organizers
Four-step review	Field Experiences
Matching exercises	Simulations…. more!

Common Methodology in teaching that can integrate active learning strategies.



1. Lecturing

- Acceptable for certain higher-education disciplines and auditorium settings with large groups of students. Lecturing lets professors address the most people at once, in the most general manner, while still conveying the information that he or she feels is most important, according to the lesson plan. The students play a passive role which may hinder learning.
- To facilitate large-class communication, the lecturer must make a constant and conscious effort to become aware of student problems and engage the students to give verbal feedback. It can be used to arouse interest in a subject provided the instructor has effective strategies in presentation skills.

2. **Demonstrating**

- It is also called the coaching style method. It is the process of teaching through examples or experiments. The framework mixes the instructional strategies of information imparting and showing how. A demonstration may be used to prove a fact through a combination of visual evidence and associated reasoning. This style gives teachers opportunities to incorporate a variety of formats including lectures and multimedia presentations.
- Demonstrations help to raise student interest and reinforce memory retention because they provide connections between facts and real-world applications of those facts. One of the advantages of the demonstration method involves the capability to include different formats and instruction materials to make the learning process engaging. This leads to the activation of several of the learners' senses, creating more opportunities for learning. The approach is also beneficial on the part of the teacher because it is adaptable to both group and individual teaching. It is difficult to accommodate students' individual needs in larger classrooms.

3. Facilitating

- Facilitators promote self-learning and help students develop critical thinking skills and retain knowledge that leads to self-actualization.

- Allows students to actively participate in the learning process by talking with each other and listening to others' opinions. Establishes a personal connection between students and the topic of study and it helps students think in a less personally biased way.
- Group projects and discussions are examples of this teaching method. Teachers may employ collaboration to assess students' abilities to work as a team, leadership skills, or presentation abilities.
- This style trains students to ask questions and helps develop skills to find answers and solutions through exploration; it is ideal for teaching science and similar subjects. Challenges teachers to interact with students and prompt them toward discovery rather than lecturing facts and testing knowledge through memorization.

4. **Delegating or Group Discussion**

- The delegator style is best suited for curricula that require lab activities, such as chemistry and biology, or subjects that warrant peer feedback, like debate and creative writing, collaborative method of teaching in a class is classroom discussion. It is also a democratic way of handling a class, where each student is given an equal opportunity to interact and put forth their views.
- A discussion taking place in a classroom can be either facilitated by a teacher or by a student. A discussion could also follow a presentation or a demonstration.
- Enhance student understanding, add context to academic content, broaden student perspectives, highlight opposing viewpoints, reinforce knowledge, build confidence, and support the community in learning.
- Motivations for holding planned classroom discussions, however, remain consistent. Paraphrasing the information received, using questions to develop critical thinking with questions like "Can we take this one step further?"
- Guided discovery and inquiry-based learning place the teacher in an observer role that inspires students by working in groups toward common goals, the teacher acts more as a consultant rather than the traditional authority figure.

5. Blending /Hybrid

- Hybrid, or blended style, follows an integrated approach to teaching that blends the teacher's personality and interests with students' needs and curriculum-appropriate methods.

- Enables teachers to tailor their styles to student needs and appropriate subject matter. The hybrid style runs the risk of trying to be too many things for all students, prompting teachers to spread themselves too thin and dilute learning. Need to be well-planned.

3.2 Effective Classroom Management

Effective education refers to the degree to which schools are successful in accomplishing their educational objectives.

Teaching Staff play a fundamental role in the cognitive and social-emotional development of students by giving them the opportunity to learn. Effective classroom management sets the stage for this learning. Without it, classrooms are disorganized and chaotic, and very little academic learning can happen (Elias & Schwab, 2006, p. 309).

Relevance of Classroom Management is Important to –

- Create a positive learning environment where students feel safe
- Manage class time most effectively
- Engage students in lectures thus boosting confidence
- Organized learning opportunities
- Manage classroom resources in an effective manner

Following these strategies will give an impact on an effective classroom and also on the student's life outside of the classroom**.**

1. Maintain a Positive Attitude

Be positive-minded. Teach each lesson with a positive mind frame. A negative approach towards your students can provide negative results. Be strict but be positive. However, too much control can spoil everything.

2. Use Some Signals to Get Attention

Teaching staff can use any word, signal or sound to grab student's attention during class. Popular signals include hand signals, where the teacher raises his/her hand and waits for complete silence in the classroom. Make sure not to continue with your lessons until all the students listen to you.

3. Make Changes to the Seating Arrangement

Changes in the seating chart can bring discipline to your class. It is the cheapest form of managing our class. They should be able to clearly see the board and screens as well.

4. Update your Lesson Plan

You should also learn the skills you need to successfully plan and teach motivating lessons. Updated lessons and course structure is essential to the process of teaching and learning. A new teacher must be ready to spend the necessary time in developing interesting lessons.

5. Give and Take Respect

To be respected by your students you should also respect them. A warm, personal greeting for each student at the beginning of the day and a farewell at the end would be good. Have a general talk and know what the student does at home.

6. Compliment Positive Behaviors

Instead of correcting a student's negative attention, ignore his behavior and praise the student.

7. Silence is the Right Tool

Shouting at the unruly students will be of no use, use calm and a quiet voice, which reflects your emotions and tone. By remaining silent, students will realize that their teacher values their conversation and respect them.

9. Balance Friendliness and Position

Maintain the right mix of authority and friendship in your class. Be friendly to your students and advise them in difficult situations. But remember you are the authoritative figure in the room.

10. Stick to the Decided Rules

Never compromise in the decided measures. Stay steady with your student discipline approach.

11. Punish the Right Candidate

Choose the right kids who are problematic. Punishing the class as a group only provokes further conflict.

12. Bring Hard Situations to Light

Handling problematic situations would be difficult. You can also take help from experienced colleagues.

13. Change the Possible, Leave the Rest

Your class may not be perfect when compared to others. That doesn't mean that they are not learning. Certain things may be out of your control. Don't be scared to experiment. Try to turn the negative to positive. Don't worry about the rest.

14. Try Creative Activities

Make students do creative activities. Provide them ideas. Guide them how to do.

15. Identify each Student's Strength

Create opportunities to reveal each kid's hidden talents and interests. Make sure the student is prepared to exhibit his expertise in the subject.

16. Use Simple Language

Talk to students in a very simple language so that they will clearly understand your instructions.

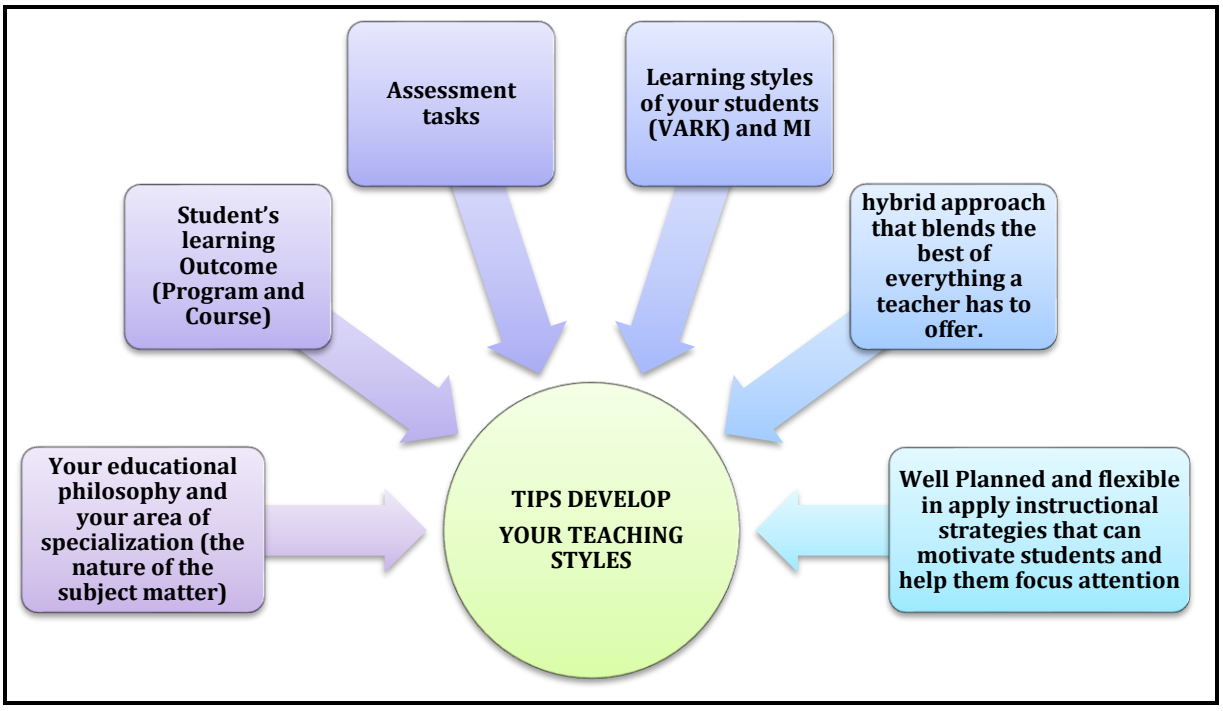
17. Provide more Visual Content

Rather than theory, it is far better to use visual aids like charts, images and graphs. Visuals will stay in their mind for a long time than just text materials.

1.6 Design Your Teaching Styles

Developing a teaching style means more than just one word. To develop a well-balanced teaching style means you must give plenty of thought to what works well for you and what will be best for the students you work with.

Below are some tips to start designing your teaching styles.



Some steps to consider as you start defining your teaching style.

- What word or words would students use to describe you now? Are you comfortable with what they would say?
- What styles of teaching staff you've observed or known would you like to emulate?
- What change in teaching style might make you enjoy doing?
- What changes in your teaching style are critical now?
- If you need help, what are possible sources of help? For example, if you're having trouble with discipline, who might help you correct that problem?
- Do you have a confidence problem? Stage fright?
- Ask students what makes a good teacher. You may find the answers at once shallow ("they're not mean") and yet perceptive.
- You can make any change gradually. A little bit at a time is fine.

Once you start the process of developing or enhancing a teaching style that will help you make your job more effective and enjoyable, you might consider some of these actions:

- Be in command, in charge, and supremely confident in the classroom. You are a PROFESSIONAL, after all.
- Never lose your temper. Be firm, perhaps, but don't ever lose control.

- Talk to students as if they're human beings, not predatory devils.
- Have a sense of humor. Be ready to laugh even at yourself at appropriate moments.
- Be fair to all students.
- Be a mentor or get a mentor. Find someone on the faculty you can trust.
- Be organized. Read any book on how to be organized that looks like it might help.
- Try not to take work problems home. Resolve them before you leave for the day or at least develop a plan for resolving them tomorrow.
- Be always prepared for your lesson.
- Arrive a little early and stay a little late.
- List the words you think students may be using to describe you.
- Create a character for a short story who is the best teacher you can imagine.
- Sit in on the class of a widely respected teacher. See what that teacher does.
- Sit in on the class of a teacher you think is having trouble. Find out why.

CHAPTER 4: ASSESSMENT

'There is more leverage to improve teaching through changing assessment than there is in changing anything else' **(Gibbs and Simpson, 2004**)

4.1 Assessment, Evaluation and Grading

Assessment and grading are not the same. The goal of *assessment* is to improve student learning. Moreover, assessment goes beyond grading by systematically examining patterns of student learning across courses and programs and using this information to improve educational practices. The goal of *grading* is to evaluate individual students' learning and performance that may include attendance, participation, and effort – that are not direct measures of learning.

Assessment is defined as a process of appraising something or someone, i.e., the act of gauging the quality, value or importance. Assessment is made to identify the level of performance of an individual, whereas evaluation is performed to determine the degree to which goals are attained. Assessment is process oriented.

Evaluation focuses on making a judgment about values, numbers or performance of someone or something. Evaluation is product oriented.

Comparison Chart

BASIS FOR COMPARISON	ASSESSMENT	EVALUATION
Meaning	Assessment is a process of collecting, reviewing and using data, for the purpose of improvement in the current performance.	Evaluation is described as an act of passing judgement on the basis of set of standards.
Nature	Diagnostic	Judgmental
What it does?	Provides feedback on performance and areas of improvement.	Determines the extent to which objectives are achieved.
Purpose	Formative	Summative
Orientation	Process Oriented	Product Oriented

BASIS FOR COMPARISON	ASSESSMENT	EVALUATION
Feedback	Based on observation and positive & negative points.	Based on the level of quality as per set standard.
Relationship between parties	Reflective	Prescriptive
Criteria	Set by both the parties jointly.	Set by the evaluator.
Measurement Standards	Absolute	Comparative

Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning.

4.2 Purposes of assessment

Assessment for Learning (Formative Assessment)

Assessment that fosters student learning by

- being formative and diagnostic
- steering how students approach learning
- promoting effective learning
- giving the tutor useful information to inform changes in teaching strategy.

Assessment of Learning (Summative Assessment)

Assessment leading to certification serves to

- identify and discriminate between
- different levels of achievement
- different students
- provide a license to practice in the case of professional programs.
- enable selection of students for further study and employment

Assessment supports quality assurance by

- providing evidence for relevant stakeholders (for example, external examiners, government agencies, and professional bodies)
- enabling stakeholders to judge the appropriateness of award standards on the program.

Assessment as Learning.

Assessment helps to sustain lifelong learning by enabling students to

- achieve an understanding of standards.
- learn how to make judgments.
- use criteria.
- tell when they really understand something.

4.3 Principles Of Assessment

1. Assessment must be valid

Assessment will be explicitly designed to measure student achievement of the intended learning outcomes, and all intended learning outcomes will be summative assessed.

2. Assessment must be reliable

There will be clear and consistent policies and procedures for the marking of assessed work, and for the quality assurance of the assessment process. These processes will be supported by the University's external examiner system, with all external examiners being asked to report on the reliability of the assessment.

3. Assessment must be equitable

The University recognizes that different assessment methods may be appropriate for different learning styles, and it, therefore, encourages all programs to employ (in a way that is consistent with the intended learning outcomes being assessed) a diversity of assessment methods to allow all students to demonstrate their knowledge, understanding and skills.

4. Assessment will be explicit and transparent

Students will be clearly informed of the purpose and requirements of the task and will be provided with the specific assessment criteria that will be used for marking it.

Clear information on the policies and processes relating to assessment will be informed.

5. Assessment will support the student learning process

All assessment tasks influence the way in which students approach their learning, and this will be taken into account in the design of all assessment tasks.

In every course, all students will receive timely feedback on assessed work that is aligned with the outcomes being assessed, and the criteria against which these outcomes are assessed, and therefore allows them to identify how they can improve their performance. Students will receive written feedback on all summative assessed work apart from examinations.

6. Assessment will be efficient

Assessment will be efficient for both students and staff such that learning outcomes are not overly assessed, and that knowledge and skills can be sampled.

7. Assessment outcomes will be monitored, and this monitoring used to support the enhancement of assessment policy and practice

Student performance in assessment tasks will be monitored on an annual basis by departments/schools, to ensure that assessment continues to be consistent with the principles of assessment outlined above.

4.4 Types of Assessment

Assessment that promotes learning and employability will

- Be formative, involving dialogue.
- Demand higher-order learning
- Integrate learning and assessment.
- Involve students.
- Promote thinking about the learning process.
- Make expectations clear.
- Involve active engagement of students, developing independent learning.
- Involve tasks that are authentic and offer choice.
- Align tasks with important learning outcomes.
- Be used to evaluate teaching.

Dissertations and projects combine certification and learning.

- The learning task and assessment task are fully integrated.
- Students have a level of control and choice over what they do.

- It demands higher-order skills.
- It demands independent learning.
- It involves formative feedback.

Examinations

- They often come at the end of a course.
- They are not integrated into the learning.
- The criteria are oblique.
- They rarely result in useful feedback.
- When students do badly, we tend to blame them.
- We seldom use the results to diagnose problems with our teaching.

4.5 Summative assessment

The goal of summative assessment is to *evaluate student learning* at the end of an instructional unit by comparing it against some standard or benchmark.

Summative assessments are often *high stakes*, which means that they have a high point value.

Examples of summative assessments:

- a midterm exam
- a final project
- a paper
- a senior recital

Information from summative assessments can be used formatively when students or faculty use it to guide their efforts and activities in subsequent courses.

- Is carried out at intervals when achievement has to be summarized and reported.
- Looks at past achievements.
- Adds procedures or tests to existing work.
- Involves only grading and feedback of grades to students.
- Is separated from the act of teaching.
- "Certifies" achievement.

4.6 Formative assessment

The goal of formative assessment is to *monitor student learning* to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. More specifically, formative assessments:

- help students identify their strengths and weaknesses and target areas that need work.
- help faculty recognize where students are struggling and address problems immediately.

Formative assessments are generally *low stakes*, which means that they have low or no point value. Examples of formative assessments include asking students to:

- draw a concept map in class to represent their understanding of a topic.
- submit one or two sentences identifying the main point of a lecture.
- turn in a research proposal for early feedback.

Examples of Formative Assessment

- A selective list …
- Performance
- Paper/thesis; written composition
- Project (including group projects [collaborative learning])
- Experiment
- Development of a product
- Community-based experience (service learning)
- Exhibition
- Case study / Critical incident
- Clinical evaluation
- Oral exam or presentation
- Interview
- Comprehensive exam
- Portfolio

Research shows formative assessment reveal that:

- All students can succeed with appropriate guidance.

- Learners' perceptions and beliefs about their capacity to learn affects their achievement.
- Development of self-assessment is vital need to move from "evaluation" to assessment.
- Consider separating feedback from grading.
- Focus on learning rather than just summative assessment.
- Encourage reflective assessment with peers.

4.7 Assessment Methodology

What are assessment methods?

Assessment methods are the strategies, techniques, tools and instruments for collecting information to determine the extent to which students demonstrate desired learning outcomes. Several methods should be used to assess student learning outcomes. See the Assessment Methods Table for an overview of some commonly used direct and indirect methods of assessment.

Why is it important to use multiple methods? Relying on only one method to provide information about the program will only reflect a part of students' achievement. Additionally, PLO may be difficult to assess using only one method. For each PLO, a combination of direct and indirect assessment methods should be used. For example, responses from student surveys may be informative, however, when combined with students' test results they will be more meaningful, valid, and reliable.

What are direct and indirect methods of assessment? Direct methods of assessment ask students to demonstrate their learning while indirect methods ask students to reflect on their learning. Tests, essays, presentations, etc. are generally direct methods of assessment, and indirect methods include surveys and interviews.

Can grades be used for assessment?

Even though course grades are a source of information about student achievement, they are generally insufficient in measuring the student learning outcomes of the program.

Grades may not identify whether the PLO have been achieved, may include factors not related to PLO such as class participation, and faculty members may differ in their grading policies and practices. Considering these limitations, however, grades MAY be able to be used for program

assessment IF they relate to the program's PLO and if grading methods are consistent across program faculty and courses.

What are embedded assessment methods?

Embedded assessments utilize existing student course work as both a grading instrument as well as data for assessing SLO. Embedded assessments are also referred to as "classroom-based" or "continuous" assessments. Embedded assessments can assess individual student performance, the course, or the program if the information is aggregated; they can be formative or summative, quantitative or qualitative. If embedded assessments are properly designed, students should not be able to tell whether they are being taught or assessed. For example, as part of a course, each student completes a research paper that is graded for content and style but is also assessed for advanced ability to locate and evaluate Web-based information (as part of a college-wide outcome to demonstrate information literacy).

What existing information can be used for program assessment?

There may be numerous types of of course work that can be utilized for the assessment of SLO. Some modifications may be made to the existing assignments in order to more directly assess the SLO of the program. Additionally, a rubric may be developed for instructors to use for grading and scoring the assessment.

Below are some examples of information that may already be collected by programs:

- Course exams
- Course assignments/projects
- Essays, written exams, research papers, etc.
- Second year assignments or projects, capstone

When reviewing existing course material to determine whether it can be utilized for the assessment of student learning outcomes, consider asking:

- Does assessment method/instrument answer (assessment) questions?

- Does it yield the information/data needed to understand how students learn and what can be improved?
- What revisions might be necessary?
- Are there other or additional assessment tools that are needed?
- Are there other departments that might benefit from knowing about the tools being used.

Which assessment method should be used for assessment?

Each program will select the assessment methods that will provide the most useful and relevant information for the purposes that the program and its faculty have identified.

When selecting which assessment methods to use, consider what questions need to be answered, the availability of resources, and the usefulness of the results. Programs may find it valuable to identify what information currently exists in the program that can be utilized as well as what assessment methods have been used for past assessments.

Below are several guidelines to follow when selecting assessment methods:

- Collect information that will answer the program's questions.
- Use multiple methods to assess each student learning outcome.
- Include both indirect and direct assessment methods.
- Include both qualitative and quantitative methods.
- Choose methods that allow the assessment of both strengths and weaknesses.
- Utilize capstone courses or "second year" projects/assignments to directly assess student learning outcomes.
- Use established accreditation criteria/standards when developing the assessment plan.

What is an assessment (methods) "map"/matrix?

An assessment "map"/matrix is a tool to match the student learning outcomes to assessment methods. This process ensures that all SLO will be assessed using a variety of methods. Completing such a "map"/matrix may assist programs in the developing comprehensive and effective assessment plans. (A template of an Assessment Methods
"Map"/Matrix is included.)

Method	Description	Direct or Indirect Data
Alumni Survey	Surveying program alumni can provide information about program satisfaction, preparation (transfer or workforce), employment status, skills for success. Surveys can ask alumni to identify what should be changed, altered, maintained, improved, or expanded.	Indirect
Capstone Project or Course	A capstone project or course integrates knowledge, concepts, and skills that students are to have acquired during the course of their study. Capstones provide a means to assess student achievement across a discipline.	Direct
Certification or Licensure Exam	These standardized tests are developed by outside, professional organization to assess general knowledge in a discipline.	Direct
Competitions (Juried)	External reviewers score, judge the performance, work, etc. of students	Direct
Course Evaluation Survey	Course evaluations assess student experience and satisfaction with an individual course and are generally administered at or near the end of the semester. They provide the faculty, department, and institution with student perceptions of the classroom aspect of their educational experience.	Indirect
Embedded Techniques	Embedded assessment techniques utilize existing student course work as both a grading instrument as well as data in the assessment of SLO.	Direct

Employer Survey	Programs can survey employers to determine if their graduates are satisfactorily skilled. Additional information to collect can include on the job skills, field specific information, etc.	Indirect
Entrance/Exit Interviews	Interviews are conducted with students when they enter college and when they leave—either through graduation or early departure. These interviews can be designed to measure SLO, but can also be used to learn about students' perceptions, gather feedback, on various college services, activities, etc.	Direct
Exit Exam/ Comprehensive Test	A comprehensive exam given near the end of the student's academic career (usually during the final semester prior to graduation). The exam is generally given to determine a student's acquisition and application of a particular type or form of knowledge or skill, as well as the ability to integrate knowledge from various disciplines. The exam can be written, oral, or a combination.	Direct
Focus Groups	A series of structured discussions with students who are asked a series of open-ended questions designed to collect data about beliefs, attitudes, and experiences.	Indirect
Graduate Survey	An assessment of a student's overall satisfaction with his or her collegiate experience and learning	Indirect
Institutional Data	Review both program and student data that is collected at the institutional level. Data can include program enrollment, retention, student GPA, etc.	Indirect
Locally Developed Tests	A test that is developed within the institution to be used internally. The test is typically administered to a representative sample in order to develop local norms and standards	Direct

"Maps" and/or Matrices	A map/matrix is a grid of rows and columns that organizes information that can be used for assessment purposes by summarizing relationships between goals, SLO, courses, syllabus outcomes, course work, assessment methods, etc. Maps/matrices can be used to review curriculum, select assessment methods, make comparisons, etc.	Indirect
Observations	Information can be collected while observing "events" such as classes, social gatherings, activities, group work, study sessions, etc. Observation can provide information on student behaviors and attitudes	Indirect
Performance	Students can be evaluated on participation in campus and/or community events, volunteer work, presentations, clinical, internships, musical or art performances, etc. The performance of students is rated/scored using a rubric/scoring guide.	Direct
Portfolio	Students' work is collected throughout a program which is assessed by faculty using a common scoring guide/rubric. Portfolios may contain research papers, reports, tests, exams, case studies, video, personal essays, journals, self-evaluations, exercises, etc.	Direct
Pre & Post Tests	Typically, an exam is administered at the beginning and at the end of a course or program in order to determine the progress of student learning	Direct
Reflective Student Essays	Reflective essays can be used as an assessment method to determine student understanding of course content and/or issues as well as students' opinions and perceptions	Direct/ Indirect

Rubrics/ Scoring Guides	Rubrics/scoring guides outline identified criteria for successfully completing an assignment and establish levels for meeting the criteria. They can be used to score everything from essays to performances.	Direct
Standardized Tests	A test that is developed outside the institution for use by a wide group of students using national or regional norms	Direct
SWOT Analysis	A facilitated analysis of the internal strengths & weaknesses of the course, program, and department as well as the external threats & opportunities	Indirect
Syllabus Review	Reviewing a syllabus involves determining if the course is meeting the goals and outcomes that have been established	Indirect

4.8 Examples of Assessments

1. Creating Assignments

A Checklist for Designing Assignments

Here is a set of questions you can ask yourself when creating an assignment.

Have I...

- Provided a written description of the assignment (in the syllabus or in a separate document)?
- Specified the purpose of the assignment?
- Indicated the intended audience?
- Articulated the instructions in precise and unambiguous language?
- Provided information about the appropriate format and presentation (e.g., page length, typed, cover sheet, bibliography)?
- Indicated special instructions, such as a particular citation style or headings?
- Specified the due date and the consequences for missing it?
- Articulated performance criteria clearly?
- Indicated the assignment's point value or percentage of the course grade?
- Provided students (where appropriate) with models or samples?

2. Creating Examination

How can you design fair, yet challenging, exams that accurately measure student learning? Here are some general guidelines.

- **Choose appropriate item types for your objectives.**

Should you assign essay questions on your exams? Problem sets? Multiple-choice questions? It depends on your learning objectives. There is no single best type of exam question: the important thing is that the questions reflect your learning outcomes.

- **Highlight how the exam aligns with course learning outcomes.**

Identify which CLO the exam addresses. This helps students see how the components of the course align, reassures them about their ability to perform well (assuming they have done the required work), and activates relevant experiences and knowledge from earlier in the course.

- **Write instructions that are clear, explicit, and unambiguous.**

Be more explicit about your expectation. Preferably, you should articulate these expectations to students before they take the exam as well as in the exam instructions.

- **Write instructions that preview the exam.**

Instructions can prepare students for what they are about to be asked by previewing the format of the exam, including question type and point value (e.g., there will be 10 multiple-choice questions, each worth two points, and two essay questions, each worth 15 points).

- **Word questions clearly and simply.**

Avoid complex and convoluted sentence constructions, double negatives, and idiomatic language that may be difficult for students, especially international students, to understand. Also, in multiple-choice questions, avoid using absolutes such as “never” or “always,” which can lead to confusion.

- **Enlist a colleague or TA to read through your exam.**

Sometimes instructions or questions that seem perfectly clear to you are not as clear as you believe. Thus, it can be a good idea to ask a colleague or TA to read through (or even take) your exam to make sure everything is clear and unambiguous.

- **Think about how long it will take students to complete the exam.**

One way to determine how long an exam will take students to complete is to take it yourself and allow students triple the time it took you – or reduce the length or difficulty of the exam.

- **Consider the point value of different question types.**

The point value you ascribe to different questions should be in line with their difficulty, as well as the length of time they are likely to take and the importance of the skills they assess.

Ask yourself: How many sub skills are involved? Have students answered questions like this before, or will this be new to them? Are there common traps or misconceptions that students may fall into when answering this question? Needless to say, difficult and complex question types should be assigned higher point values than easier, simpler question types.

- **Think ahead to how you will score students' work.**

It is useful to think ahead to how you will score students' answers. Will you give partial credit if a student gets some elements of an answer, right? If so, you might want to break the desired answer into components and decide how many points you would give a student for correctly answering each.

3. Creating Objective Questions

Creating objective test questions – such as multiple-choice questions – can be difficult, but here are some general rules to remember that complement the strategies in the previous section.

- Write objective test questions so that there is one and only one best answer.
- Word questions clearly and simply, avoiding double negatives, idiomatic language, and absolutes such as "never" or "always."
- Test only a single idea in each item.
- Make sure wrong answers (distractors) are plausible.
- Incorporate common student errors as distractors.
- Make sure the position of the correct answer (e.g., A, B, C, D) varies randomly from item to item.
- Include from three to five options for each item.
- Make sure the length of response items is roughly the same for each question.
- Keep the length of response items short.
- Make sure there are no grammatical clues to the correct answer.
- Format the exam so that response options are indented and in column form.

- In multiple choice questions, use positive phrasing in the stem, avoiding words like "not" and "except." If this is unavoidable, highlight the negative words (e.g., "Which of the following is NOT an example of…?").
- Avoid overlapping alternatives.
- Avoid using "All of the above" and "None of the above" in responses.

4. Assessing Group Work

- **Assess process, not just product.**

If both product and process are important to you, both should be reflected in students' grades – although the weight you accord each will depend on your learning objectives for the course and for the assignment. Ideally, your grading criteria should be communicated to students in a rubric. This is especially important if you are emphasizing skills that students are not used to being evaluated on, such as the ability to cooperate or meet deadlines.

- **Ask students to assess their own contribution to the team.**

Have students evaluate their own teamwork skills and their contributions to the group's process using a self-assessment of the process skills you are emphasizing.

- **Hold individuals accountable.**

To motivate individual students and discourage the free-rider phenomenon, it is important to assess individual contributions and understanding as well as group products and processes. This can be accomplished through independent write-ups, weekly journal entries, content quizzes, or other types of individual assignments.

- **Ask students to evaluate their group's dynamics and the contributions of their teammates.**

Measure what various group members have contributed to the group (e.g., effort, participation, cooperativeness, accessibility, communication skills) by asking team members to complete an evaluation form for group processes. Feedback from external clients can address product (e.g., "Does it work?", "Is it an effective design?") or process (e.g., the group's ability to communicate effectively, respond appropriately, or meet deadlines) and can be incorporated formally or informally into the group grade.

5. Creating Rubrics

A rubric is a scoring tool that explicitly describes the instructor's performance expectations for an assignment or piece of work. A rubric identifies:

- criteria: the aspects of performance (e.g., argument, evidence, clarity) that will be assessed.
- descriptors: the characteristics associated with each dimension (e.g., argument is demonstrable and original, evidence is diverse and compelling)
- performance levels: a rating scale that identifies students' level of mastery within each criterion.
- Rubrics can be used to provide feedback to students on diverse types of assignments, from papers, projects, and oral presentations to artistic performances and group projects.

Benefitting from Rubrics

A carefully designed rubric can offer a number of benefits to instructors. Rubrics help instructors to:

- reduce the time spent grading by allowing instructors to refer to a substantive description without writing long comments.
- help instructors more clearly identify strengths and weaknesses across an entire class and adjust their instruction appropriately.
- help to ensure consistency across time and across graders.
- reduce the uncertainty which can accompany grading.
- discourage complaints about grades.

An effective rubric can also offer several important benefits to students. Rubrics help students to:

- understand instructors' expectations and standards.
- use instructor feedback to improve their performance.
- monitor and assess their progress as they work towards clearly indicated goals.
- recognize their strengths and weaknesses and direct their efforts accordingly.

Examples of Rubrics

Paper

- Example 1: Philosophy Paper This rubric was designed for student papers in a range of courses in philosophy (Carnegie Mellon).
- Example 2: Psychology Assignment Short, concept application homework assignment in cognitive psychology (Carnegie Mellon).
- Example 3: Anthropology Writing Assignments This rubric was designed for a series of short writing assignments in anthropology (Carnegie Mellon).
- Example 4: History Research Paper. This rubric was designed for essays and research papers in history (Carnegie Mellon

Projects

- Example 1: Capstone Project in Design This rubric describes the components and standards of performance from the research phase to the final presentation for a senior capstone project in design (Carnegie Mellon).
- Example 2: Engineering Design Project This rubric describes performance standards for three aspects of a team project: research and design, communication, and teamwork

Oral Presentations

- Example 1: Oral Exam This rubric describes a set of components and standards for assessing performance on an oral exam in an upper-division course in history (Carnegie Mellon).
- Example 2: Oral Communication This rubric is adapted from Huba and Freed, 2000.
- Example 3: Group Presentations This rubric describes a set of components and standards for assessing group presentations in history (Carnegie Mellon).

Class Participation/Contributions

- Example 1: Discussion Class This rubric assesses the quality of student contributions to class discussions. This is appropriate for an undergraduate-level course (Carnegie Mellon).
- Example 2: Advanced Seminar This rubric is designed for assessing discussion performance in an advanced undergraduate or graduate seminar.

See also "Examples and Tools" section of this site for more rubrics.

Chapter 5: Teaching and learning quality cycle

Teaching and learning is a process that is subject to continuous improvement over time. There are many quality cycles faculty members need to close during the process. These include planning, implementation, evaluation, and review.

5.1 PLANNING

Planning for teaching and learning includes:

1. **Preparing program specifications** including program identification, objectives, mission, and program learning outcomes. It also includes planning for suitable teaching/learning strategies, assessment methods, curriculum plan including mapping matrices between the courses and program learning outcomes, student admission and support processes, the required staff, facilities, and learning resources. The program specification also includes a description of the program's quality and evaluation.
2. **Course specification**, on the other hand, includes preparation, of course, learning outcomes, teaching/learning strategies, assessment methods, course syllabus, student assessment activities, required facilities, learning resources, and assessment of course quality. All course learning outcomes should be aligned to fulfill the program learning outcomes.
3. **Lesson plans** specify the lesson (lecture) learning outcomes, teaching strategies, learning activities to be used in class, and formative assessments.

5.2 IMPLEMENTATION

Establish procedures to ensure the achievement of student learning outcomes on the program, course, and lesson levels. There are two main criteria from the ETEC teaching and learning should be followed here:

1. ***criterion 2.2.7*** *(The program ensures a unified application of its study plan as well as the program and the course specifications offered at more than one site (sections of male and female students and different branches). **

In this respect, all UPM programs appoint a single course coordinator for both male and female sections. The course coordinator, along with the participation of course partners, prepare and distribute the course syllabus, teaching/ learning strategies, and assessment methods to all course

participants. This is done in accordance with the approved course specification. Syllabus distributions are approved by the head department to make sure that they follow the specifications and that no section or branch uses a different plan. The very success of any program is based on the fact that the student cohort entering the program is taught, trained and assessed using a common criterion throughout the sections in both male and female campuses. The Program follows a channelized communication system to share and disseminate across sections instructional materials such as teaching plan, course description, course specification and course syllabus distribution, schedule of meeting, teacher and student developmental activities.

The course coordinator, whether male or female, ensures a unified application of its study plan across both campuses. Everything related to curriculum, study plan, teaching strategies, assessment methods, etc., is unified by following the same Program and Course Specifications. Each program acts in accordance with the requirement of the Planning and Quality Administration (PQD) guidelines, adheres to the following procedures across campuses, for the sole purpose of ensuring quality teaching and learning experiences., which are essential for program success:

1. Every course follows a course specification, which clearly outlines the Course Learning Outcomes (CLOs) that, in turn, are in alignment with the Program Learning Outcomes (PLOs).
2. A course coordinator can be any faculty member, not necessarily from the main campus. Each course has only one coordinator and collaborators and course sharers in both campuses.
3. At present, as far as assessment of CLOs and PLOs is concerned, direct assessment is done by way of formative and summative assessment methods (quizzes, assignments, midterm exams, and final exams). Most of the assessments are unified or otherwise they follow the same blueprints. However, grading rubrics are unified in all cases.
4. Meetings across sections are conducted to ensure uniformity of policies and procedures across campuses.

2. ***Criterion 2.3.1*** *(The program monitors the commitment of the teaching staff to the learning and teaching strategies and assessment methods included in the program and course specifications through specific mechanisms.*)*

Keeping in mind that the preparedness of teachers is very crucial for the healthy sustenance of the program, there are in place several mechanisms to monitor the adherence to the learning and teaching

strategies and the associated assessment methods based on two models: Value Added Model and Classroom Observation Model. While the value-added model includes students' achievement on standardized tests, assignments, exams, etc., and their result analysis, Classroom Observation Model includes peer observation, demo teaching sessions, feedback, etc. The UPM programs also apply other mechanisms like conducting surveys, students – teachers meetings etc. to ensure teaching effectiveness.

The commitment of teaching staff to teaching and learning strategies and assessment methods takes place in four stages. These stages in the procedure follow the quality cycle subject to evaluation and continuous improvement.

1 As mentioned earlier, every faculty member uses the teaching/ learning strategies described in the course specifications. Each course has a coordinator and a number of course sharers from both male and female campuses. The course coordinators distribute the course description including syllabus distribution, course learning outcomes, teaching/ learning strategies, assessment methods, and other course information. This process takes place at the beginning of each semester. Course sharers are reminded to distribute the short description to their students in the first lecture, which includes basic details of the course. Later, faculty members circulate the course syllabus to their students (usually electronically) which incorporates the teaching/learning strategies and assessment methods listed in the description. Faculty members confirm the distribution of course syllabi to the course coordinator and coordinators to the HOD.
2 Commitment of faculty members to the teaching/ learning strategies and assessment methods are subject to evaluation which will be discussed in section 5.3 below.
3 By the end of each course, class teachers prepare their course reports where faculty members report the teaching/ learning strategies and assessment methods used within the semester. This ensures that they follow the same specification. If any other materials are used, they must be reported in the course reports.

5.3 EVALUATION

Evaluation includes the design of mechanisms for the evaluation of achievements and outcomes by collecting and processing data in order to make informed assessments. There are many ways in which the teaching/ learning process is evaluated:

1 Evaluation by students:

By the end of each semester, students are given a link through the academic system (student portal) to evaluate the course and teaching. There are many items that address teaching/learning strategies, and assessment methods. By the end of the semester, each faculty member accesses his/her student evaluations. Results are used in the course report and monitored through performance indicators which are subject to improvement plans from one semester to another. The survey items that evaluate the commitment of the faculty members to the course plan include, but are not limited to, the following items:

- The course outline (including the knowledge and skills the course was designed to develop) was made clear to me.
- The things I had to do to succeed in the course, including assessment tasks and criteria for assessment, were made clear to me.
- The conduct of the course and the things I was asked to do were consistent with the course outline.
- My instructor(s) were fully committed to the delivery of the course. (Eg. classes started on time, the instructor was always present, the material was well prepared, etc)
- Course materials were up-to-date and useful. (texts, handouts, references, etc.)
- The things I had to do in this course (class activities, assignments, laboratories, etc) were helpful in developing the knowledge and skills the course was intended to teach.
- The amount of work I had to do in this course was reasonable for the credit hours allocated.
- Grading of my tests and assignments in this course was fair and reasonable.

The survey item responses are calculated and reported in the course reports at the end of the semester. Improvement plans are prepared and implemented in the following semester or year.

2 Self-evaluation

The course report template has a section related to course delivery. In this section, the faculty member lists the planned teaching strategies he/she used during the semester. These should match the ones described in the course specification. Faculty members fill in the self-appraisal whether they used the strategies or not. They also list the difficulties faced and suggest some solutions for next semester. The same mechanism applies to activities and assessment methods.

3 Peer evaluation

A classroom observation is a formal or informal observation of teaching while it is taking place in a classroom or other learning environment. It is typically conducted by fellow teachers, administrators, or instructional specialists, classroom observations are often used to provide teachers with constructive critical feedback aimed at improving their classroom management and instructional techniques.

The teaching and learning unit, at UPM, encourages peer observation. Colleagues attend classes with each other. A special form can be used for the purpose. After the class, feedback is given to the host in order to improve and see suggestions from peers. The form includes an evaluation of items such as punctuality, objectives, preparedness, clarity, expertise, teaching strategies, responsiveness, and classroom management. The observations are also reported in the course report.

4 Department Evaluation

UPM mandates departments to apply a faculty evaluation system. Special templates and rubrics are prepared for the purpose. A score is given for each criterion. The criteria include, among other things, commitment to teaching/ learning strategies and assessment methods. Feedback is given to faculty members to improve their performance.

5.4 REVIEW

Develop procedures in order to achieve the targeted outcomes/objective. After processing feedback, key stakeholders conduct discussion and analysis in order to devise procedures. The review starts from the course level and then moves to the program level.

1. **Course-level review:**

The course reports include improvement plans with a number of actions that should result from the evaluations. The course coordinator and course sharers conduct meetings to discuss and develop action plans to be implemented in the following semester or the following academic year. The actions may include improvements in the teaching/ learning strategies, assessment methods, or any other aspects. The actions are then implemented. However, if the actions include major changes such as the need to change the textbooks, improve CLOs, or modify the credit hours, they are to be reported to the program level in the annual program report.

2. **Program Level Review**

The review in program level includes:

1. Important course recommendations and actions are reflected in the annual program reports.
2. APRs are discussed and approved by the department and college councils and submitted to the vice rectorate for academic affairs for revision and approval.
3. The actions resulting from the APRs are planned to be implemented in the following academic year.
4. Some of these actions, however, include major changes in the courses and the curriculum plan. These are further reported in the periodic program report (PPR) (see Appendix 1) which takes place every four or five years depending on the program graduation cycle. It lists accumulated recommendations for the past years, especially those that cannot be transferred into annual actions and resolved through the years. Usually, PPRs recommend major changes that may include program credit hours, program name, program closures and continuity, modification of the curriculum plans, etc.

5.5 Closing the Teaching and learning quality loops

The teaching and learning quality loops need to be closed and monitored. The process can be done voluntarily by the programs and faculty members. At the course level, HODs may ask for mid-semester reports for the implementation progress regarding the actions resulting from previous course reports. HODs may discuss the progress and solve any problems that might delay the implementation. However, at the program level, the vice rectorate for academic affairs monitors the implementation of the annual plans through the teaching and learning unit. The process includes the following steps:

1. The programs complete their APRs following the quality calendar.
2. APRs and send to the teaching and learning unit for review and feedback is sent to the departments.
3. APRs are approved by the department and college councils and sent to the VRAA office for further approval.
4. The department starts implementation of the improvement action steps resulting from the APR.

5. VRAA office asks for a mid-year report (see Appendix 2) by the end of the first semester. It reflects the implementation progress by the middle of the year.
6. Based on the progress, a meeting is held by the VRAA and includes the deans and HODs. The meeting discusses the action plans. The meeting focuses on the actions whose progress shows less than 50%. Solutions are suggested to improve progress in the second semester.
7. A full progress report is submitted by the end of the year. Usually the progress is reported in the beginning of the new APR.

REFERENCES

Lui, G., and Shum, C. (2012). Outcome-Based Education and Student Learning in Managerial Accounting in Hong Kong. Journal of Case Studies in Accreditation and Assessment, 2. https://eric.ed.gov/?id=EJ1057748

Kennedy, D. (2006) Writing and using learning outcomes: a practical guide, Cork: University College Cork.

Dave, R. H. (1970), *Developing and Writing Behavioral Objectives.* (R J Armstrong, ed.) Tucson, Arizona: Educational Innovators Press.

onwell, C. C., and Eison, J. A. (1991). Active Learning: Creating Excitement in the Classroom. ASHE-ERIC Higher Education Report, Washington DC: School of Education and Human Development, George Washington University.

Elias, Maurice J. and Yoni Schwab , "From Compliance to Responsibility" , in *Handbook of Classroom Management* ed. Carolyn M. Evertson and Carol S. Weinstein (Abingdon: Routledge, 25 Jan 2006), accessed 30 Apr 2023 , Routledge Handbooks Online.

Gibbs, G. and Simpson, C. (2004) Conditions under Which Assessment Supports Students' Learning. Learning and Teaching in Higher Education (LATHE), 1, 3-31. http://insight.glos.ac.uk/tli/resources/lathe/Documents/issue%201/articles/simpson.pdf

Principles of effective teaching - CATL Teaching Improvement Guide | UW ..., https://www.uwlax.edu/catl/guides/teaching-improvement-guide/principles-of-effective-teaching/.

OBE Principles and Process | CEI | Center for Education Innovation, http://cei.hkust.edu.hk/teaching-resources/outcome-based-education/institutional-resources/obe-principles-and-process.

NBA : CO PO Mapping - SlideShare, https://www.slideshare.net/SuhasDeshmukh1/nba-co-po-mapping.

National Commission for Academic Accreditation & Assessment - mu.edu.sa, https://www.mu.edu.sa/sites/default/files/National%20Qualifications%20Framework%20for%20HE%20in%20KSA.pdf.

Running Head: STUDENT LEARNING ASSESSMENT GUIDE – PART I 1, https://www.malone.edu/files/resources/2014-2015-slo-assessment-report.pdf.

APPENDICES

Appendix 1: PPR template

Periodic Program Report (PPR)

According to the UPM Manual for Development of a New Academic Program and Curriculum Review, a comprehensive program review should take place every four years after the graduation of at least one undergraduate batch to determine the effectiveness of the existing curriculum and the program performance. It is initiated periodically at the department level through the Department Curriculum Committee (DCC). This periodic review is to be implemented in accordance with UPM standards and POLICIES, and with the requirements of the ETEC in the Kingdom of Saudi Arabia. The first phase of the review starts with a periodic program review report (PPR). This template helps the departments to evaluate the performance of their programs through a given cycle. Please summarize data from the APRs for the last four years.

1. Program Information

College	
Program	
Program start date	
Number of graduated cohorts	
Has the program been accredited?	Yes ☐ No ☐
If yes, what is the accrediting organization?	
Date of accreditation	

2. Performance in relation to program mission and goals:

2.1 Program Mission Statement:

2.2 Describe how the program supports and is aligned with the College and institution's missions.

Program mission	College mission	UPM mission	Alignment remarks

2.3 Performance in relation to program goals *(last two years):*

S	Goal	KPI	Target *(end of cycle)*	Actual benchmark 2021	Actual benchmark 2022	Remarks
1						
2						
3						
4						
5						

Strengths:

1. ..
2. …
3. ..

Priorities for improvement:

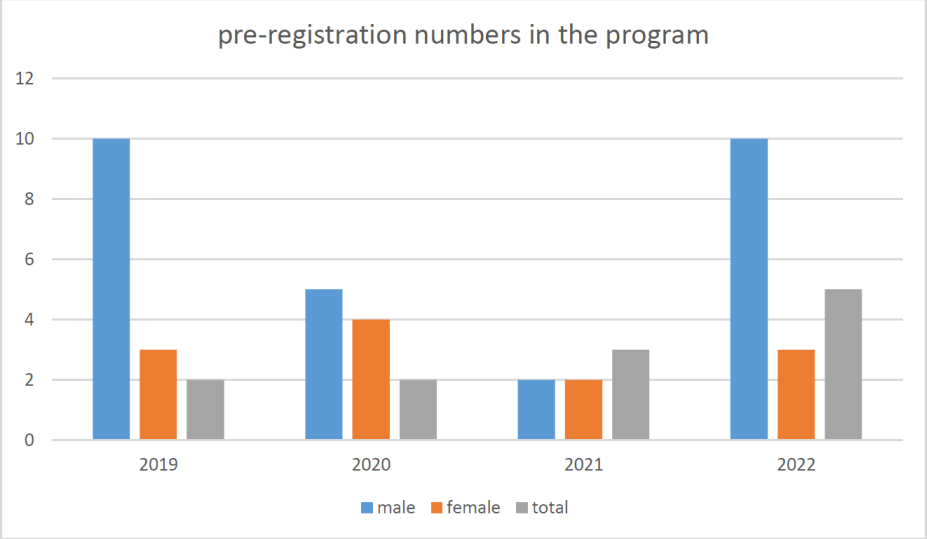
1. ..
2. …
3. …

3. Program Performance

3.1 Pre-Registration Data

Please input the number of students who have preregistered and shown interest in the program during the last four years

	2019-2020			2020-2021			2021-2022			2022-2023		
	fall	spring	total	fall	spring	total	fall	spring	total	fall	spring	total
Male												
Female												

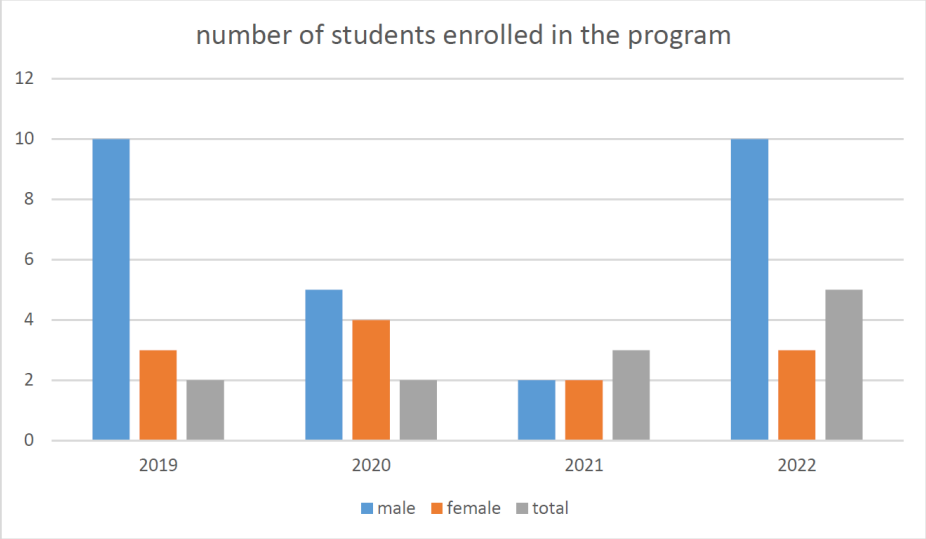


3.2 Admission (4 years)

Total number of students enrolled in the program in the last four years (based on registration deanship records)

	2019-2020			2020-2021			2021-2022			2022-2023		
	fall	spring	total	fall	spring	total	fall	spring	total	fall	spring	total
Male												
Female												

Please fill in the graph (use the totals only per each year (fall + spring) *(right click and then choose edit data)*



Comments:

.....

.....

.....

3.3 Completion rates *(percentage of students who complete the program in the minimum period in the last two years)*

2021	2022

3.4 Job placements *(percentage of graduates who have been employed in the last two years)*

	2021	**2022**
Number of employed graduates		
Percentage from the total number of graduates in the same year.		

3.5 Assessment of Program Learning Outcomes

3.5.1 Assessment Results *(4 years)*

#	Program Learning Outcomes	Assessment Methods (Direct and Indirect)	Assessment Results 2020	Assessment Results 2021	Assessment Results 2022
Knowledge and understanding					
K1					
K2					
K3					
K..					
Skills					
S1					
S2					
S3					
S..					
Values, autonomy, and responsibility					
V1					
V2					
V3					
V..					

3.5.2 Analysis of findings

3.5.3 Have students met the outcome expectations? Please address the following:

3.5.3.1 Assessment methods (direct and indirect)

3.5.3.2 Grading system – brief explanation, also cross-referencing samples of tasks and student work provided.

3.5.3.3 Assessment feedback supplied to students – brief explanation, also cross-referencing samples provided.

3.5.3.4 Indirect Assessment and evaluation.

3.5.4 Where does the program need improvement to meet the student learning outcomes? Does it need addition or deletion of courses? Please specify.

3.5.5 Does the program need to update the program learning outcomes? If yes, please give the reasons. Mention which PLOs need to be changed or modified.

3.6 Financial standing of the program

	2020	2021	2022
Revenue			
Expense			

Trend chart

4. Overall evaluation:

4.1 Strengths:

1. ..
2. ...
3. ...
4. ...

4.1 Areas for improvement: *(if the numbers are decreasing, please state possible reasons)*

1. ..
2. ...
3. ...
4. ...

4.2 **Recommendations:** *(Please recommend any possible actions to solve the resulting problems include declining enrolment numbers, graduation rates, KPI targets, PLO assessment results, revenue streams. These might include freezing enrolment, changing in the program teaching mode, change in program name, campaigning for better marketing the program, adding/deleting courses, etc.)*

1. .....
2. ....
3. ....
4. ....

5. **Approval**

DEPARTMENT COUNCIL	
REF. & DATE	
COLLEGE COUNCIL	
REF. & DATE	

Appendix 2: APR improvement plan mid-year Report

Kingdom of Saudi Arabia
Ministry of Education
University of Prince Mugrin
Vice Rectorate for Academic Affairs

جامعة الأمير مقرن بن عبد العزيز
University of Prince Mugrin

المملكة العربية السعودية
وزارة التعليم
جامعة الأمير مقرن بن عبدالعزيز
وكالة الجامعة للشؤون الأكاديمية

APR Program development (improvement) plan follow-up template (mid-year)

The purpose of this template is to follow-up implementation of the improvement plans stemming from the last year's annual program reports (2021-2022). Programs are required to report their progress during the first half of the year. This helps the vice-rectorate for academic affairs office to have oversight of the program improvements and closing-up the teaching and learning quality loops.
Please fill-in your program's action plans, progress, and state any difficulties you are facing.

College: .... **Program: ....**

s	Action	Progress by mid-year	Progress percentage	What is remaining	Challenges and difficulties encountered by the program
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

المملكة العربية السعودية – المدينة المنورة – ص. ب (40202) الرمز البريدي (41499) - هاتف: (+966148318484)
فاكس: (+966148317575) العنوان: حي العاقول – شارع الملك خالد – جوار الكلية التقنية – إيميل: info@upm.edu.sa

17					
18					
19					

Report Approvals:

HOD	NAME:	SIGNATURE:
COLLEGE DEAN	NAME:	SIGNATURE
DATE:		

المملكة العربية السعودية – المدينة المنورة – ص. ب (40202) الرمز البريدي (41499) - هاتف: (+966148318484)
فاكس: (+966148317575) العنوان: حي العاقول – شارع الملك خالد – جوار الكلية التقنية – إيميل: info@upm.edu.sa

Appendix 3: PLO Assessment Plan Template

The Kingdom of Saudi Arabia
Ministry of Education
University of Prince Mugrin

المملكة العربية السعودية
وزارة التعليم
جامعة الأمير مقرن بن عبد العزيز

Program Learning Assessment Plan

Programs are required to prepare a plan for program learning outcomes assessment. Each PLO can be assess every year or once every two years based on the plan provided that the given PLO is assessed directly and indirectly, at least, twice through the cohort graduation.

The initial sections help the program to include critical data that is required for the assessment data collection.

1. Program Information:

Program Name:	
Qualification Level:	
Department:	
College:	
Institution:	**The University of Prince Mugrin**

2. Program, college, and institution missions

UPM Mission	
College Mission	
Program Mission	
Compliance Remarks	

3. Institution and program goals

	Objective	UPM objective	Remarks (similarities)
1.			
2.			
3.			
4.			
5.			
6.			

4. Graduate Attributes:

	Program Attribute	UPM Attribute	SAQF attribute (level 7)
1.			
2.			

3.			
4.			
5.			
6.			

5. Program learning outcomes aligned with institution outcomes

Program learning outcomes		Corresponding Institution outcomes
Knowledge and **understanding**		
K1		
K2		
K2		
Skills		
S1		
S2		
S3		
S4		
Values autonomy and responsibility		
V1		
V2		
V3		

6. Program learning Outcomes Mapping Matrix

Align the program learning outcomes with program courses, according to the following desired levels of performance (I = Introduced P = Practiced M = Mastered)

Course code & No.	Program Learning Outcomes										
	Knowledge				Skills				Values		
	K.1	K.2	K.3	-	S.1	S.2	S.3	S4	v.1	v.2	v.3

7. Assessment Time Plan

	PLOS	Assessment Method	Responsible	Tools	Time	ASSESSMENT Target
	(list program learning outcomes	(direct/indirect)	(e.g. Faculty, committee, etc.)	(e.g. survey, capstone course results, etc.)	(e.g. first week in the second semester, etc.)	Achievement score
K1						
K2						
K3						
S1						
S2						
S3						
S4						
V1						
V2						
V3						

8. Approval

Head Department	Name:	Signature:
Quality committee coordinator	Name:	Signature:

Appendix 4: PLO Assessment Report Template

The Kingdom of Saudi Arabia
Ministry of Education
The University of Prince Mugrin

المملكة العربية السعودية
وزارة التعليم
جـــامعـــة الأمير مقرن بن عبد العزيز

Program Learning Outcomes Assessment Report

1. **Program information**

College	
Program	
Department	
Academic Year	
Main Location	

2. Capstone courses and projects used to collect direct assessment data

#	Program Learning Outcomes	Course code	Course Title	Corresponding course learning outcome
Knowledge				
K1				1.1
K2				1.1
K3				1.1
Skills				
S1				2.1
S2				
S3				
S4				
Values				
V1				
V2				
V3				

1. Indirect assessment methods

Surveys

1. Employers Survey
2. Alumni Survey
3. PLO Survey
4. Program Evaluation Survey

#	Program Learning Outcomes	Survey	Statement number and text	Remarks (number of participants)
Knowledge & Understanding				
K1		•	•	
K2		•	•	
K3		•	•	
Skills				
S1		•	•	
S2		•	•	
S3		•	•	
S4		•	•	
Values				
V1		•	•	
V2		•	•	
V3		•	•	

2. Direct and Indirect assessment results

1. Assessment results are to be collected once a year according to the assessment plan.
2. All branches' data needs to be added

#	Program Learning Outcomes	Methods	Performance target	Average Results
Knowledge				
K1		Direct		
		Indirect		
K2		Direct		
		Indirect		
K3		Direct		
		Indirect		
Skills				
S1		Direct		
		Indirect		
S2		Direct		
		Indirect		
S3		Direct		
		Indirect		
S4		Direct		
		Indirect		
Values				
V1		Direct		
		Indirect		
V2		Direct		
		Indirect		
V3		Direct		
		Indirect		

Summary: (Describe how average of direct and indirect assessment results are calculated)

3. Assessment Results Analyses

In the following space, provide strengths, weaknesses that require improvement, and improvement priorities

Strengths
•
Areas for Improvement:
•
Priorities for Improvement:
•

4. Graduate Attributes Assessment Results:

Graduate Attribute	Method	Data Source	Target	Results
	Direct	-		
	Indirect	-		
	Direct	-		
	Indirect	-		
	Direct			
	Indirect	-		
	Direct	-		
	Indirect	-		
	Direct	-		
	Indirect	-		
	Direct	-		
	Indirect	-		

5. GA Assessment Results Analyses

In the following space, provide strengths, weaknesses that require improvement, and improvement priorities

Strengths
•
Areas for Improvement:
•
Priorities for Improvement:
•

5. Report approval (preferably to be discussed and approved by department council)

	Name	Signature
Department Head		
Quality/ teaching and learning coordinator		

Council / Committee	
Reference No.	
Date	

Appendix 5: Checklist for the ministry requirements

شروط ومتطلبات الأعتماد الخاص لأي برنامج وفقاً للائحة الجامعات الأهلية ولائحة الكليات الأهلية وقواعدها التنفيذية :			
طلب إدراج برنامج أكاديمي جديد أو تعديل أسم برنامج أكاديمي قائم والخطة الدراسية			
الرقم	المتطلب	الحالة	ملاحظة
1	رفع الخطة الدراسية The curriculum study plan	☐	
2	رفع نموذج الإعتماد الخاص Approval template	☐	
3	إرفاق خطاب التغطية من رئيس الجامعة أو عميد الكلية اللأهلية المستقلة : 1. الإشارة إلى موافقة مجلس الأمناء. BOT approval 2. أعتماد الوزارة لمحضر مجلس الأمناء. The Ministry's approval for BOT minutes. 3. ينص الخطاب على موافقة مجلس الأمناء على طلب إصدار الأعتماد الخاص لتقديم برنامج أكاديمي جديد وإضافته للترخيص النهائي. BOT's agreement to add a new program to the final license. 4. إذا كان تغيير أسم لابد أن ينص الخطاب على الاسم الجديد. If the proposal includes a change in the program name, the new name should be mentioned in the letter. 5. إذا كان الطلب تعديل الخطة دراسية فقط و لايشمل تغير الأسم ينص الخطاب على عدم تغيير أسم البرنامج ويتم رفع الخطة الدراسية فقط. If the proposal is only for approval of a curriculum plan without changing the program name, that should be mentioned in the letter and only the new plan should be sent.	☐ ☐ ☐ ☐ ☐ ☐	
4	توصيف البرنامج على أحدث نموذج **Program specification in the newest template**	☐	
5	إرفاق نموذج التحكيم Independent opinion template	☐	
6	إرفاق مختصر تنفيذي للدراسة يفيد بتوافق البرنامج مع إحتياجات سوق العمل . Executive summary that should compliance of the program with labour market needs	☐	
7	إذا كانت الخطة تشتمل على مسارات لايشار إلى المسارات في أسم البرنامج. If the plan includes tracks, there is no need to mention them in the program name.	☐	