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OBE

OUTCOMES-BASED EDUCATION,

the TARLAC STATE UNIVERSITY TEMPLATE

A Seminar-Writeshop

(This material is mainly based on the works of DR. Allan B. Bondoc of the University of Santo Tomas in his program with the Entrepreneurship Educators Association of the Philippines on OBE. Integrated with this nonetheless are the materials from the CHED OBE memoranda and materials from the seminar/workshop of Prof. Manuel Belino of the Mapua Institute of Technology.)

**1.0 NOTES FROM THE SEMINAR-WRITESHOP FACILITATOR**

Welcome to our 1-day **RETHINKING SESSION** on **Outcomes-Based Education.** The seminar-writeshop is intended to provide essential skills and understanding in shifting from the traditional *input-based education* (IBE) to outcomes-based education (OBE). The overall success of this curricular and instructional effort in the country depends in great measure on your degree of openness to learn the dynamics of this student-centered and constructivist teaching-learning platform.

It is our hope and prayer that after this learning engagement, we shall be able to come up with following outputs: **Program Mapping Grid (PMG), Program Renewal Sheet (PRS) and Restructured Course Plan (RCP) or Outcomes-Based Teaching Learning Plans (OBTLP).**

To facilitate our learning journey, kindly keep track of the following curricular and OBE-based jargons you might encounter in this seminar package.

THE JARGONS OF OBE

|  |  |
| --- | --- |
| **OBE** | Outcomes-Based Education |
| **OBTL** | Outcomes-Based Teaching Learning |
| **CP/OBTL** | Course Plan/ Outcomes-Based Teaching Learning Plan |
| **IILO** | Institutional Intended Learning Outcomes |
| **PILO** | Program Intended Learning Outcomes |
| **CILO** | Course Intended Learning Outcomes |
| **ILO** | Intended Learning Outcomes |
| **CA** | Constructive Alignment |
| **TLAs** | Teaching Learning Activities |
| **ATs** | Assessment Tasks |
| **CS** | Content Standards |
| **DK** | Declarative Knowledge |
| **FK** | Functional Knowledge |
| **EL** | Essential Learning |
| **PA** | Portfolio Assessment |
| **CRA** | Criterion-Referenced Assessment |
| **CD** | Cognitive Demand |
| **RC** | Real-World Context |
| **MMO** | Meaning-Making Output |

**2.0 Our Rethinking Framework**

Institution’s Vision, Mission & Goals

Institutional Outcomes

(Competencies of Ideal Graduate)

Standards & Demands

Social Environmental Context

Program outcomes

(Curriculum map)

Course outcomes

Learning Environment

Content & Methodologies

Assessment & Evaluation

Course

Design

Teaching-learning systems

**The Philippine Commission on Higher Education**

**Outcomes-Based Education (OBE) Framework**

Source: Handbook on Typology, Outcomes-Based Education, and Institutional

Sustainability Assessment, 2014 page 24

**PART 1 – Preliminaries**

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| The world economy has been in a wave of structural change and has been unstable. Globalization due to the growth of international economic interdependence, especially the growth of the international capital movement, has been the base of development for ASEAN countries since the mid-1980s. However, this led to the Asian economic crisis in 1997, and has also helped create global imbalances, the subprime loan problem and the current world economic crisis. As part of these structural changes of the world economy, ASEAN has promoted deepening and widening of regional cooperation.    The ASEAN Economic Community (AEC) is one of the three ASEAN Community Councils. It’s goal is to seek regional economic integration by 2015. These areas of cooperation include   * human resources development and capacity building * **recognition of professional qualifications** * consultation on economic and financial policies * trade financing * infrastructure and communications connectivity * electronic transactions through e-ASEAN * industrial integration to promote regional sourcing * enhancing private sector involvement for building of AEC |

**3.0 THE CONTEXT OF OUR RETHINKING SESSION**

Our Collective Concerns:

* How can our graduates have better access to gainful employment?
* Can they compete in time for ASEAN 2015?
* How can graduates be better Filipino citizens?
* Do the competencies learned in schools match those demanded by the professors or by employers.
* Do schools deliver quality education?

Executive Order No. 83. s. 2012

**BACCALAUREATE**

**THE PHL QUALIFICATIONS FRAMEWORK**

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L8

L7

L6

L5

L4

L3

L2

L1

BASIC EDUCATION

LEVEL

HIGHER EDUCATION

TECHNICAL

EDUCATION AND

SKILLS DEVELOPMENT

Purposes:

1. Adopt national **standards and levels for outcomes of education;**
2. Support the development and maintenance of pathways and equivalencies which, provide access to qualifications and assist people to move easily and readily between the different education and training sectors and between these sectors and the labor market; and,
3. Align the PQF with international qualifications framework to support the national and international mobility of workers to increased recognition of the value and comparability of Philippine qualifications.
4. Collaborate with other quality agencies inside and outside ASEAN in relation to harmonization of quality assurance frameworks and development of professionals in quality assurance.

**CMO # 46**

*Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-Based and Typology-Based QA)*

**Purposes:**

* Promote **quality reform** in higher education
* Develop **quality HEIs** with competitive advantage
* Develop a **culture of quality** among HEIs

(Have focus; Pursue excellence; **Develop internal QA systems**

**Purpose:**

* Develop, promote, implement and enhance the AUN-QA Guidelines and criteria
* Facilitate and conduct AUN quality assessment
* Serve as the authority for issuing AUN quality labels
* Develop and train quality assurance professionals and practitioners
* Provide advisory and consulting services on best quality assurance practices

**4.0 Our Collective Responses: Rethinking our Disciplinal Offerings**

***Prerequisites:***

1. Rethinking our Nomenclature: Subject, Course, Field of Study, Program

Consists of field of study

(BS/AB, MA, Ph.D.)

A combination of related courses or subjects comprising one of the standard disciplines that can be completed by a learner across school terms

Consist of learning content and experiences that can be completed by the learner within a school term and for which he usually earns credit in the form of academic units

**UNDERSTANDING OUTCOMES-BASED EDUCATION FROM STUDENTS’ LIMINALITY**

Source: Evans, CA, & Kevern, P. (2015). Liminality in preregistration mental health nurse education: A review of literature. *Nurse Education and Practice,* 15(1), 1-6. Elsevier Science Journals

* *Liminality,* as classically advanced by the French ethnographer Arnold van Gennep (original 1909; English translation 1960) and developed in the work of the anthropologist Victor Turner (1967, 1969) provides a useful category within which to consider transformational activity. Van Gennep studied rites of passage” (transitional rituals) in a range of cultures. He described such rituals as having a three-part structure: separation (preliminal phase), liminal period (from the Latin “limen”, meaning threshold), and reassimilation (postliminal phase). For him, the major role of the liminal period was to enable a transition in the individual from one status to another in society; and to supply a psychological, social and territorial “space” in which the individual may be prepared for their new role and status.
* The concept of *Liminality* was deployed in two distinct ways: (1) To describe “**threshold concepts”** as a stage in the learning process when the student is confronted with unfamiliar and possibly threatening ideas; and negotiating them develops a new level of insight. (2) To describe a stage in the **“initiation”** of a new member of the professional community; the adoption and internalization of the professional role, as essential stage to negotiate if the student is to adopt a professional identity.

**Students’ Liminality**

**Rite of Passage**

Would-be Professional Professional

“Effective teaching is not a set of generic practices, but instead is a set

of context-driven decisions about teaching. Effective teachers do not use the same set

of practices for every lesson… Instead, what effective teachers do is constantly reflect

about their work, observe whether students are learning or not, and, then adjust

their practice accordingly.” (p. 6)

Glickman, C. (1991). Pretending not to know what we know.

*Educational Leadership,* 48(8), 4-10.

Debate

Indepen

dent Study

Interactive

Indirect

Instructional Methods

Direct

Instructional Models

Planning

Questioning

Evaluating

Presenting

Demonstrating

Direction Giving

Focused Imaging

Learning

Contacts

Cooperative Learning

Case Studies

Lecture

Simulations

Inquiry

Information

Processing

Instructional Strategies

Behavioral

Instructional Skills

Social

Interaction

Experiential

Personal

Our Instructional Framework

**Defining your Instructional Framework**

**Instructional Models**

Models represent the broadest level of instructional practices and present a philosophical orientation to instruction. Models are used to select and to structure teaching strategies, methods, skills, and student activities for a particular instructional emphasis. Joyce and Weil (1968) identify your models: behavioral (direct instruction and mastery learning), information processing (inquiry, concept attainment, intellectual development), social interaction (cooperative learning, role playing), and personal (facilitative learning, synectics).

**Instructional Strategies**

Within each model, several strategies can be used. Strategies determine the approach a teacher may take to achieve learning objectives. Strategies can be classed as **direct, indirect, experiential, or independent.**

**Instructional Strategies**

1. **Direct Instruction**

Direct instruction strategy is **highly teacher-directed** and is among the most commonly used. This strategy includes methods such as lecture, didactic questioning, explicit teaching, practice and drill, and demonstrations. The direct instruction strategy is effective for providing information or developing step-by-step skills. This strategy also works well for introducing other teaching methods, or actively involving students in knowledge construction.

Direct instruction is usually deductive. That is, the rule or generalization is presented and then illustrated with examples. While this strategy may be considered among the easier to plan and to use, it is clear that effective direct instruction is often more complex than it would first appear.

1. **Indirect Instruction**

Inquiry, induction, problem solving, decision making, and discovery are terms that are sometimes used interchangeably to describe indirect instruction**.** In contrast to the direct instruction strategy, indirect instruction is mainly student-centered, although the two strategies can complement each other. Examples of indirect instruction methods include reflective discussion, concept formation, concept attainment, close procedure, problem solving, and guide inquiry.

Indirect instruction seeks a high level of student involvement in observing, investigating, drawing inferences form data, or forming hypotheses. It takes advantage of students’ interest and curiosity, often encouraging them to generate alternatives or solve problems. It is flexible in that frees students to explore diverse possibilities and reduces the fear associated with the possibility of giving incorrect answers. Indirect instruction also fosters creativity and the development of interpersonal skills and abilities. Students often achieve a better understanding of the material and ideas under study and develop the ability to draw on these understanding.

1. **Interactive Instruction**

Interactive instruction relies heavily on discussion and sharing among participants. Seaman and Fellenz (1989) suggest that discussion and sharing provide learners with opportunities to “react to the ideas, experience, insights, and knowledge of the teacher or of peer learners and to generate alternative way of thinking and feeling” (p.199). Students can learn from peers and teachers to develop social skills and abilities, to organize their thoughts, and to develop rational arguments.

The interactive instruction strategy allows for a range of groupings and interactive methods. These may include total class discussions, small group discussions or projects, or student pairs or triads working on assignments together. It is important for the teacher to outline the topic, the amount of discussion time, the composition and size of the groups, and reporting or sharing techniques. Interactive instruction requires the refinement of observation, listening, interpersonal, and intervention skills and abilities by both teacher and students.

1. **Experiential Learning Strategies**

Experiential learning is inductive, learner centered, and activity oriented. Personalized reflection about an experience and the formulation of plans to apply [earnings to other contexts are critical factors in effective experiential learning. Experiential learning occurs when learners: (1) participate in a activity; (2) critically look back on the activity to clarify learning and feelings; (3) draw useful insights from such analysis; (4) put [earnings to work in new situations. (Pfeiffer & Jones, 1979)

Experiential learning can be viewed as a cycle consisting of five phases, all of which are necessary: (1) experiencing (an activity occurs); (2) sharing or publishing (reactions and observations are shared); (3) analyzing or processing (patterns and dynamics are determined); (4) inferring or generalizing (principles are derived); and, (5) applying (plans are made to use [earnings in new situations)

1. **Independent Study**

Refers to the range of instructional methods which are purposefully provided to foster the development of individual student initiative, self-reliance, and self-improvement. While independent study may be initiated by student or teacher, the focus here will be on planned independent study by students under the guidance or supervision of a classroom teacher. In addition, independent study can include learning partnership with another individual or as part of a small group.

**Instructional Methods**

Methods are used by teachers to create learning environment and to specify the nature of the activity in which the teacher and learner will be involved during the lesson. While particular methods are often associated with certain strategies, some methods may be found within a variety of strategies.

**Instructional Skills**

Skills are the most specific instructional behaviours. These include such techniques as questioning, discussing, direction-giving, explaining, and demonstrating. They also include such actions as planning, structuring, focusing, and managing.

**Teaching Principle: Give lecture when the information is not found in the book.**

**THE NEED FOR ACTIVE LEARNING**

(Source: Active Learning: Creating Excitement in the Classroom by Bonwell, C.C.)

* Some of the major characteristics associated with active learning strategies include:

1. Students are involved in more than passive listening
2. Students are engaged in activities (e.g., reading, discussing, writing)
3. There is less emphasis placed on information transmission and greater emphasis placed on developing student skills
4. There is greater emphasis placed on the exploration of attitudes and values
5. Student motivation is increased (especially for adult learners)
6. Students can receive immediate feedback from their instructor
7. Students are involved in higher order thinking (analysis, synthesis, evaluation)

* *In context of the college classroom, active learning involves students in doing things and thinking about the things they are doing.*
* A conceptual framework encompassing active learning might be a continuum that moves from simple tasks on one end to complex tasks on the other. This is, of course, an artificial, oversimplified construct, but it does provide both a visual and conceptual model that is useful for designing courses that maximize students’ intellectual engagement. Neither end of the continuum is considered to be “better” or more “desirable” than the other. Simple tasks are defined as short and relatively unstructured, while complex tasks are of longer duration- perhaps the whole class period or longer- and are carefully planned and structured.

Simple tasks……………………………….………………………..Complex tasks

**Figure 1** The Active Learning Continuum

* Six commonly mentioned obstacles to using active learning strategies include:

1. You cannot cover as much course content in the time available;
2. Devising active learning strategies’ takes too much pre-class preparation;
3. Large class sizes prevents implementation of active learning strategies;
4. Most instructors think of themselves as being good lecturers;
5. There is a lack of materials or equipment needed to support active learning approaches;
6. Students resist non-lecture approaches.
7. Rethinking our OBTL Alignment

“Texts brought into the classroom are not finished works of content

awaiting pedagogical transformation; they are, in and of themselves,

pedagogical invitation for learning.”

Segall. A. (2004). Revisiting pedagogical content knowledge:

The pedagogy of content/the content of pedagogy.

*Teaching and Teacher Education.20,* 489-504

**5.0 WHERE ARE WE COMING FROM? WHERE ARE WE HEADING TO?**

**Level 1:** Demonstrate familiarity with

**Level 2:** Demonstrate Knowledge of

**Level 3:** Demonstrate understanding of

**Level 4:** Demonstrate competence in

a model of education that makes

students **demonstrate** what they

“know, are able to do, or like as a

result o their education.”

(Spady, 1990)

addresses what the learners need to

**know and be able to do** in varying

and complex situations (student

and/or workplace-skills focused)

the emphasis is on the educational

process and

where we are happy to accept

whatever is the result”

(Davis, 2003)

Source: Mallan, SPT (2000). The ‘new paradigm’ of outcomes-based education in perspective*. Journal of Family Ecology and Consumer Services, 28, 22-28.*

* William Spady (1994:4), the father of OBE, concedes that the world is filled with examples of outcomes-based models, and even that outcomes-based systems go back at least 500 years to the craft guilds of the Middle Ages. **The concept of outcomes-based models and systems is therefore not new.**

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* OBE as **product-oriented curriculum design** is rooted on educational objectives movement, competency-based movement and mastery learning movement.

1. Ascertaining **prerequisite knowledge or skills** to attain goals
2. A **flexible time frame** to achieve goals
3. **Using different media and materials** to createenriched teaching/learning contexts
4. **Formative evaluation** to provide feedback for both teaching and learning improvement
5. **Criterion-referenced instruction and assessment**
6. **Explicit learning outcomes**  with respect to the required skills and concomitant proficiency (standards for assessment)
7. A **flexible time frame**  to master these skills
8. A  **variety of instructional activities**  to facilitate learning
9. **Criterion-referenced testing**  of the required outcomes
10. **Adaptable programmes** to ensure optimum learner guidance

*Source: (Van der Horst & McDonald 1997:10-11)*

1. What educational **objectives** should the school aim to achieve
2. How does one **select learning experiences** that are likely to be useful in attaining these objectives?
3. How **should learning experiences be organized** for effective instruction?
4. How would the **effectiveness of learning experiences** be evaluated?

*Source: (Tyler in Arjun 1998:24)*

Mastery Learning Movement

Educational Objectives Movement

**Roots of OBE**

Competency – Based Movement

* 1. **OUTCOMES-BASED EDUCATION AS A CURRICULUM DEISGN**

Sources:

Mallan, SPT (2000). The ‘new paradigm’ of outcomes-based education in perspective*. Journal of Family Ecology and Consumer Services, 28, 22-28.*

CHED Handbook on Typology, Outcomes-Based Education and Institutional Sustainability Assessment (2004)

* Spady (1994:1) defines OBE as a … comprehensive approach to organizing and operating an education system that is focused on and defined by the successful demonstration of learning sought from each student. Outcomes are … clear learning results that we want students to demonstrate at the end of significant learning experiences … and … are actions and performances that embody that reflect learner competence in using content, information, ideas, and tools successfully (Spady, 1994:2). Regarding the OBE paradigm, Spady (1994:8) states:…

*WHAT and WHATEVER students learn successfully is more important than WHEN and HOW they learn something.*

(Spady, 1994)

* The Philippine Commission on Higher Education (CHED) defined OBE as an approach that focuses and organizes the educational system around what is essential for all learners to know, value, and be able to achieve desired level of competence. OBE is “open to incorporating disciplined-based learning areas that currently structure HEI curricula (page 24, Handbook on Typology, Outcomes-Based Education, and Institutional Sustainability Assessment, 2014)
* OBE is a method of curriculum design and teaching that focuses on **what students can actually do** after they are taught. OBE addresses the key questions as:

1. What do you want the students to learn? (Hard Skills)
2. Why do you want them to learn it? (Soft skills)
3. How can you best help students learn it? (Teaching-Learning Activities)
4. How will you know what they have learned? (Assessment Tasks)

**8.0 FROM HARD TO SOFT SKILLS: The TALL ORDER OF OUTCOMES-BASED EDUCATION**

a) What do you want the students to learn?

b) Why do you want them to learn it?

c) How can you best help students learn it?

d) How will you know what they have learned?

**Graduate Attributes**

Creativity, Problem Solving, Critical Thinking, Decision-making, Collaboration,

Communication, ICT, Information Literacy, Citizenship, Life and Career, Personal and Personal and Social Responsibility

**The Case of Leadership in Organization**

Teaching-Learning Activities /Assessment

* Cooperative Learning
* Seatwork
* Socialized Recitation
* Case Analysis

*Unit*

* Diagnosing and addressing leadership and organizational concerns
* Managing diverse cultures

**The Case of Family Business Management**

**Graduate Attributes**

Creativity, Problem Solving, Critical Thinking, Decision-making, Collaboration,

Communication, ICT, Information Literacy, Citizenship, Life and Career, Personal and Personal and Social Responsibility

*Unit*

Achieving professionalism in family business

Deciding whether to enter the family business

Developing family members as managers and/or shareholders

Women in the family business systems

Teaching-Learning Activities

* OBE is anchored on the following **DEFINING PRINCIPLES (Biggs & Tang, 2007)**
* ***Principle # 1*: Clarity of focus** – clear outcomes and objectives

All teaching and learning activities must be systematically related to the broad and specific outcomes identified for the educational program and these must be clearly identified for students. These outcomes may be achieved in different ways.

* ***Principle # 2:* High expectations** – challenging learning opportunities, **with significant support**

This principle requires that successful and challenging learning experiences and achievement of high standards be part of learning for all students. Identification of the achievement of high standards of performance in relation to criteria established for achievement of outcomes becomes the focus of assessment in OBE.

* ***Principle # 3:* Expanded opportunity** – new and different teaching approaches and learning activities

Associated with principle 2 is the view that different learners may take different routes, and different amount of time or different numbers of attempts, to achieve the same outcome. A consistent theme in Spady’s work is that OBE “systems make WHAT and WHETHER students learn successfully more important that WHEN and HOW they learn it

* ***Principle # 4:* Designing down** – outcomes designed first

Curriculum content should flow clearly from the most general valued outcomes, related more specific outcomes, to class lesson activities. Assessment should be integrated with these outcomes in a coherent manner. In this way the program of study for a student within and across year levels would have a clear relationship to curriculum goals.

At its most basic level, OBE is where the school and community first determine what skills and knowledge students should possess at graduation, then **work backwards** from there to develop curriculum, strategies and materials to help students achieve those goals, or exit outcomes’

(WEAC, 1995 as cited by Donnely,

2007)

DESIGN BACKWARD

Institutional Outcomes

Course Outcomes

Program Outcomes

OBE as a Backward Design

Learning Outcomes

DELIVER FORWARD

**OBJECTIVES**

Statements that describe specific instructional goals containing verbs that are **observable and measurable.** Otherwise known as **ENABLING OBJECTIVES**

Broad goals that describe what the learners are supposed to **know, be able to do, or value.** Also called **TERMINAL**

**OUTCOMES**

* **OBE Typologies: Spady’s Demonstration Mountain**

Source: Donnely, K. (2007). Australia’s adoption of outcomes-based education: A critique. Issues in Educational Research, 17(2), 183-205

**Type 1: Traditional OBE**

based on a traditional approach to curriculum, one where established disciplines have priority, there is a **strong focus on content and year level organization** and the world of the classroom appears divorced from the so-called real-world. The OBE focus is defined in terms of measuring students’ mastery of the set curriculum.

*Instructional Strategy:* Direct Instruction/Explicit Teaching

*Mode of Assessment:* Summative Assessment, High-Risk Test

**Type 2: Transitional OBE**

The focus moves away from teaching subjects to cultivating what Spady terms higher order competencies, such as **critical thinking, problem-solving and communication skills.** The focus moves from the classroom of defining what the students need to be successful after graduation in terms of lifelong learning.

*Instructional Strategy:* Indirect Instruction/Explicit Teaching

*Mode of Assessment:* Formative and Summative Assessment

**Type 3: Transformational OBE**

This approach is future-oriented and focuses on what Spady terms: “the broad role performance capabilities of young people and their ability to do complex tasks in real settings, in real situations, relating more directly to life.

*Instructional Strategy:* Independent-Experiential-Interactive

*Mode of Assessment:* Portfolio-based

**10.0 THE PHASES OF DISCIPLINAL OFFERING RETHINKING**

**DISCIPLINAL OFFERING RETHINKING**

**Phase 2:**

Restructuring the current program (CILO, ILO)

**Phase 1:**

Renewing the existing program (IILO, PILO)

**Program Renewal Worksheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Existing Program Goals** | **Reformulated Program Goals** | **Program Competencies** | **Graduate Attributes (IILO)** | **Program Outcomes** | **Courses Offered** |
|  |  |  |  |  |  |

\*ATC215 stated with a group of more than 250 researchers across 60 institutions worldwide who categorized 21st-century skills internationally into four broad categories.

\*Citizenship

\*Life and career

\*Personal and Social Responsibility 

\*Information and Communication Technology (ICT)

\*Information Literacy

\*Communication

\*Collaboration 

\*Creativity \*Critical Thinking

\*Problem-Solving \*Decision-making and Learning

**Ways of Thinking**

**Ways of Working**

**Tools for Working**

**Skills for living in the world**

**THE 21st CENTURY SKILLS\***

**ACTIVITY**

**PROGRAM MAPPING GRID**

***Directions:*** As college/department, you are to prepare your ***program mapping grid*** that will identify soft skills emphasis in every course in the discipline. Said soft skills are currently labeled in your existing course syllabi as Graduate Attributes and are expressed in terms of the Value Aims of each course. In this activity, you are to prioritize the 21st Century skills that you wish to develop in your students as they progress in the course. The level of emphasis may be coded as **3**=to a large extent; **2=**to same extent; **1**=to a little extent.

**Department of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course/Subjects** | **Cre** | **PS** | **CT** | **DML** | **Com** | **Col** | **ICT** | **IL** | **Cit** | **LC** | **PSR** |
| **Entrepreneurial Behavior** |  |  |  |  |  |  |  |  |  |  |  |
| **Business Opportunity 1** |  |  |  |  |  |  |  |  |  |  |  |
| **Business Plan Preparation** |  |  |  |  |  |  |  |  |  |  |  |
| **Business Plan Implementation 1** |  |  |  |  |  |  |  |  |  |  |  |
| **Business Plan Implementation 2** |  |  |  |  |  |  |  |  |  |  |  |
| **Market Research and Consumer Behavior** |  |  |  |  |  |  |  |  |  |  |  |

**Program Mapping Grid**

**Codes:** **3**=To a large extent **2=**To same extent **1**=To a little extent

***Legend:***

**Cre** Creativity **PS** Problem Solving **CT** Critical Thinking **DML** Decision Making & Learning

**Com** Communication **Col** Collaboration **ICT** Information and Communications Technology

**IL** Information Literacy **Cit** Citizenship **LC** Life and Career

**PSR** Personal and Social Responsibility

**ACTIVITY**

**COURSE MAPPING GRID**

***Directions:*** As a department, you are to prepare your ***course mapping grid*** that will identify soft skills emphasis in every course in the discipline. In this activity, you are to prioritize the 21st Century skills that you wish to develop in your students as they progress in the course. The level of emphasis may be coded as **3**=to a large extent; **2=**to same extent; **1**=to a little extent.

**Entrepreneurship Department**

**Program Mapping Grid**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Units** | **Cre** | **PS** | **CT** | **DML** | **Com** | **Col** | **ICT** | **IL** | **Cit** | **LC** | **PSR** |
| Dynamics of Family Business ownership |  |  |  |  |  |  |  |  |  |  |  |
| Managing family and shareholder relationship |  |  |  |  |  |  |  |  |  |  |  |
| Deciding whether to enter family business |  |  |  |  |  |  |  |  |  |  |  |
| Developing family members as managers |  |  |  |  |  |  |  |  |  |  |  |
| Women in the family business system |  |  |  |  |  |  |  |  |  |  |  |

**Codes:** **3=To a large extent 2=To same extent 1=To a little extent**

***Legend:***

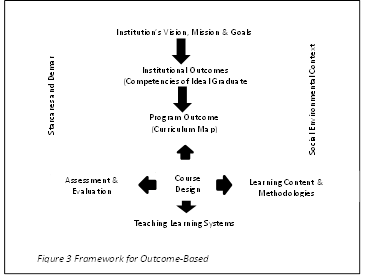
**Cre** Creativity **PS** Problem Solving **CT** Critical Thinking **DML** Decision Making & Learning

**Com** Communication **Col** Collaboration **ICT** Information and Communications Technology

**IL** Information Literacy **Cit** Citizenship **LC** Life and Career

**PSR** Personal and Social Responsibility **PSR** Personal and Social Responsibility

**PART 2- Rethinking our Disciplinal Offerings:**

**Focus on Program Renewal**

The BS Entrepreneurship program aims to develop highly motivated individuals who are not just able to scan the environment and identify business opportunities, but can mobilize the necessary resources to tap these opportunities on a continuing basis, typically through the creation of a new enterprise. The Technical Committee also affirms, however, the importance and value of entrepreneurship, and recognizes that individuals with this entrepreneurial mindset can also play an important role in the management and leadership of large (existing) organizations.

**11.0 THE PHASES OF DISCIPLINAL OFFERING RETHINKING**

**DISCIPLINAL OFFERING RETHINKING**

**Phase 2:**

Restructuring the current program

**Phase 1:**

Renewing the existing program

**Program Renewal Worksheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Existing Program Goals** | **Reformulated Program Goals** | **Program Competencies** | **Graduate Attributes (IILO)** | **Program Outcomes** | **Courses Offered** |
|  |  |  |  |  |  |

**PHASE 1: RENEWING THE EXISTING PROGRAM OF STUDY**

**Major Task 1:** Review existing institutional vision-mission and core

values vis-à-vis **graduate attributes** from the

students’ perspectives, career destinations and

needed professional development

**Major Task 2:** Review the program objectives

(Program Intended Learning Outcomes or PILO) or

your College/Department Goals

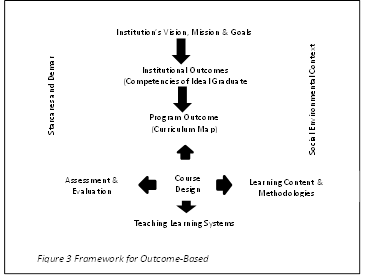
**Task 1:**

Program Intended Learning Outcomes (PILO)

**Task 1:**

Institutional Intended Learning Outcomes (IILO)

|  |  |  |
| --- | --- | --- |
| **Institutional Intended Learning Outcomes (IILO)** | **Graduate Attribute (GA)** | **Program Intended Learning Outcomes (PILO)** |
| Competence | Scholarship  **Nota bene:** PILO answer the questions:   * What is the **purpose** of this program? * What should the ideal graduate of this program be **able to know, do or value** upon completion? | Promote a culture that values academic rigor and apply theory and skills to real-world and professional settings relevant to their disciplines |
| Commitment |  |  |
| Compassion |  |  |
|  |  |  |



Let’s examine the following Goals set by College A:

|  |
| --- |
| 1. Develop students to be multilingual, environmentally and culturally sensitive, as well as technologically adapt to meet the demands of the tourism and hospitality industry |
| 1. Equip students with a broad understanding of the operational aspects and level of professionalism of the tourism industry by combining industry-driven, theory-based instruction and practical exposures. |
| 1. Inculcate the value of research to generate new knowledge in the field of tourism and other-related disciplines. |
| 1. Provide industry exposures through local and international trips, trainings and internships as well as opportunities for community involvement and religious service. |
| 1. Continue industry partnerships and collaboration with public and private entities. |
| 1. Strengthen instruction through faculty development and training. |
| 1. Provide library media and technical resources to support professional courses, curricula and lifelong learning activities of the college and the community. |
| 1. Supply appropriate equipment, facilities and human resources to support academic preparation and support services. |

Program Intended Learning Outcomes

**Courses Offered/Learning Experiences**

Basic Front Office

International Tourism

Domestic Tourism

Airline Reservation and Ticketing

Events Tourism

Japanese 1,2,3,4

Spanish 1 and 2

German 1 and 2

Eco Tourism

World Geography

Environmental Science

Practicum 1 and 2

International Practicum Program

Lecture For a with Industry

Practitioners

Thesis Writing

Symposia

Field Trips and Observation Tours

The Program Intended Learning Outcomes (PILO) should be in harmony with the course offerings of a particular discipline or field of study

**Program Renewal Worksheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Existing Program Goals** | **Reformulated Program Goals** | **Program Competencies** | **Graduate Attributes (IILO)** | **Program Outcomes** | **Courses Offered** |
|  |  |  |  |  |  |

**Program Outcomes**

**Program Competencies**

Discuss, Recall, Describe

Explain, Label, Define,

Identify, Enumerate, Prove,

Justify, Compare and

Contrast, Simplify, Convert,

Perform, Apply, Analyze,

Formulate, Estimate

\*Determine the major areas of the field.

\*Refer to **Norman Webb’s Depth of Knowledge** (DOK)

on page 40

***Level 1:*** Demonstrate familiarity with

***Level 2:*** Demonstrate knowledge of

***Level 3:*** Demonstrate understanding of

***Level 4:*** Demonstrate competence in

**Knowing the Difference between Competencies and Learning**

**Outcomes**

Discuss, Recall, Describe

Explain, Label, Define,

Identify, Enumerate, Prove,

Justify, Compare and

Contrast, Simplify, Convert,

Perform, Apply, Analyze,

Formulate, Estimate

Calculate, Plot, Integrate,

Differentiate, Correlate,

Hypothesize, Infer, Test,

Substitute, Draw

***Level 1:*** Demonstrate familiarity with

***Level 2:*** Demonstrate knowledge of

***Level 3:*** Demonstrate understanding of

***Level 4:*** Demonstrate competence in

* Outcomes state what we want the learners to know and do.
* Outcomes should be specific, measurable statements and written behavioral terms.

Example:

* **Describe** the demographic trends and epidemiological trends related to diverse populations in the United States and abroad
* **Compare and contrast** diversity and cultural competency in the public health context
* **Identify** a framework to design culturally competent public health care services for diverse populations
* Competencies define the applied skills and knowledge that enable people to successfully perform their work.
* Competencies are relevant to an individual’s job responsibilities, roles and capabilities. They are a way to verify that a learner has in fact learned what was intended in the learning outcomes.

Example:

**Demonstrate understanding** of the use of appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professionals backgrounds, and persons of all ages and lifestyle preferences.

**Example 1:** An attribute of an engineering graduate which can be written as a program outcome, is:

*Provide engineering solutions in the context of social, environmental and ethical considerations.*

Note that the verb is active and can be observed measured. Compare this with:

*Understand engineering solutions in the context of social, environmental and ethical considerations.*

The verb “understand” is difficult to observe measure.

In this example, the program outcome has the following the performance indicators further discussed in the following section:

1. To produce an Environmental Impact Assessment; and
2. To design engineering solutions according to legal requirements.

This shows that the program outcome is something bigger than its component competencies, which actually become the performance indicators of the program.

**Example 2:** Another example is the program outcome for English:

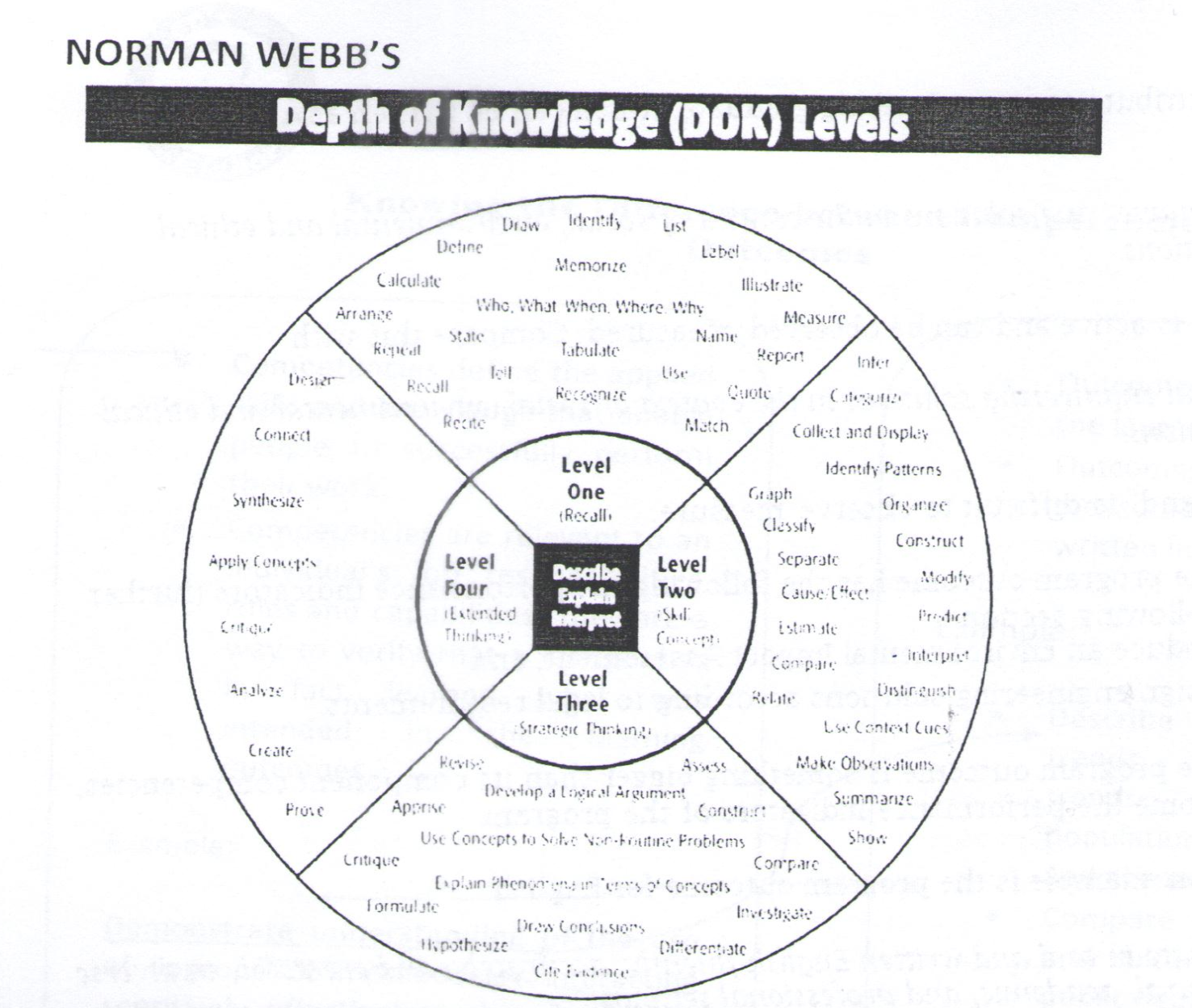
*Communicate in oral and written English fluently, accurately, and creatively in diverse social, cultural, academic, and professional settings.*

This program outcome is the combination of two competencies:

1. Speak and write fluently, accurately, and creatively in English; and
2. Assess the appropriate communication strategies in various social, cultural, academic, and professional settings.

These competencies are now the performance indicators of program outcome.

Source: Handbook on Typology, Outcomes-Based Education, and Institutional Sustainability Assessment, 2014 page 29

**NORMAN WEBB’S**

**Depth of Knowledge (DOK) Levels**

|  |  |  |  |
| --- | --- | --- | --- |
| **Level One Activities** | **Level Two Activities** | **Level Three Activities** | **Level Four Activities** |
| Recall elements and details of story structure, such as sequence of events character, plot and setting.  Conduct basic mathematical calculations.  Label locations on a map.  Represent in words or diagrams a scientific concept or relationship.  Perform routine procedures like measuring length or using punctuation marks correctly.  Describe the features of a place or people. | Identify and summarize the major events in a narrative.  Use context cues to identify the meaning of unfamiliar words.  Solve routine multiple-step problems.  Describe the cause effect of a particular event.  Identify patterns in events or behavior  Formulate a routine problem given data and conditions.  Organize, represent, and interpret data. | Support ideas with details and examples.  Use voice appropriate to the purpose and audience.  Identify research questions and design investigations for a scientific problem.  Develop a scientific model for a complex solution.  Determine the author’s purpose and describe how it affects the interpretation of a reading selection.  Apply a concept in other contexts. | Conduct a project that requires specifying a problem designing and conducting an experiment, analyzing its data, and reporting results solutions.  Apply mathematical model to illuminate a problem or solution.  Analyze and synthesize information from multiple sources.  Describe and illustrate how common themes are found across texts from different cultures.  Design a mathematical model to inform and solve a practical or abstract situation. |

**From PILOs to Program Competencies to Program Outcomes**

Program Competencies (PCs)

Program Intended Learning Outcomes (Departmental Goals)

Program Outcomes

**The case of B.A. Anthropology**

**Program Intended Learning Outcomes (PILOs)**

The goals of the faculty in Anthropology are to:

1. Provide instruction that enable students to **understand the interrelationship among the social, cultural, and biological bases of human behavior**
2. Help students achieve competence in understanding, critically assessing and using major anthropological concepts
3. Introduce students to the various theoretical perspectives of anthropology and to encourage appreciation for the historical development of the discipline as a social science
4. Equip students with knowledge of research methods appropriate to socio-cultural anthropology.
5. Encourage in students a rich understanding of and appreciation for cultural differences through knowledge of major forms of social organization from a cross-cultural perspective.

**Program Outcomes:**

Competency 1

1. Demonstrate **understanding of the interrelationship among the social, cultural, and biological bases of human behavior**

**Program Outcomes:**

Competency 1

Demonstrate **understanding of the interrelationship among the social, cultural, and biological bases of human behavior**

Outcomes

*Students should be able to demonstrate that they can:*

1. Describe critical cross-cultural differences in human behavior (in evolutionary and/or contemporary contexts) and to account for those difference in terms of the interplay among society, culture, and biology
2. Describe critical cross-cultural similarities in human behavior (in evolutionary and/or contemporary contexts) and to account for those similarities in terms of the interplay among society, culture, and biology

Competency 2

Demonstrate **competence** in understanding, critically assessing, and using major anthropological concepts

Outcomes

*Students should be able to demonstrate that they can:*

1. Define major anthropological concepts in such a way that shows a firm grasps of the concepts.
2. Apply major anthropological concepts to specific situations, showing that they are able to (i) use the concepts to organize and make sense of they find in specific situations; and (ii) use specific situations to exemplify and amplify major anthropological concepts.

Competency 3

1. Demonstrate familiarity with various theoretical perspectives of anthropology and to encourage appreciation for the historical development of the discipline as a social science

Outcomes

*Students should be able to demonstrate that they can:*

1. Explain the major theoretical perspectives of anthropology.
2. Cite specific instances that describe the value of the historical development of anthropology as a discipline

Competency 4

1. Demonstrate knowledge of research methods appropriate to socio-cultural anthropology

Outcomes

*Students should be able to demonstrate that they can:*

1. Describe the various methods used in anthropological research of contemporary societies
2. Give examples of the methods used in anthropological studies relevant to contemporary societies
3. Discuss the pluses and minuses of the methods used anthropological literature

Competency 5

Demonstrate a rich understanding of and appreciation for cultural differences through knowledge of major forms of social organization from a cross-cultural perspective

Outcomes

*Students should be able to demonstrate that they can:*

1. Discuss the major forms of social organization characteristics of the cultures of at least one non-western ethnographic area
2. Describe the importance of cultural context in understanding cross-cultural differences

For example a graduate of the psychology program is expected to be able to apply psychological theories and methods to social, organizational, or clinical contexts

This is a very broad idea and needs to be broken down to specific competencies such as the ability to

1. Apply appropriate methods to identify the needs of a particular group or situation;
2. Use psychological theories and methods to analyze problems and situations and
3. Use these theories and methods to identify suitable interventions to a situation.

These competencies are developed at different levels with different scopes, in the various courses of the program such as introduction to psychology, social psychology, clinical psychology, organizational development research methods, etc.

Each of these courses spells out its learning outcomes; identify particular knowledge, skills, and attributes pertinent to the course.

For instance the Introduction to Psychology could include its learning outcomes the following adapted from the APA Undergraduate Learning Goals and Outcomes:

1. Describe the nature of psychology as a discipline
2. Discuss concepts in selected content areas of psychology- theory and research, history of psychology, relevant levels of analysis, overarching themes in psychology, and ethnical issues;
3. Apply the concepts, language and major theories of the discipline to explain psychological phenomena and
4. Explain major perspectives of psychology

For the course on Social Psychology, the learning outcomes could include:

1. Give examples of how the scientific method is used in social psychology particularly the generation of hypotheses, evaluation of the hypothesis through experimentation, or through observational, correlational and survey methods;
2. Discuss the major theoretical perspectives in social psychology and the latest advances in the field and
3. Apply concepts and methods to specific areas of interest.

Box 2. Examples of Learning Outcomes

Source: Handbook on Typology, Outcomes-Based Education, and Institutional Sustainability Assessment, 2014 page 30

Source: CHED MEMORANDUM ORDER (CMO)

No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Series of 2014

SUBJECT: REVISED POLICIES AND STANDARDS FOR BACHELOR OF SCIENCE IN

ENTREPRENEURSHIP, AMENDING CMO 17, s. 2005 ENTITLED, “MINIMUM

CURRICULUM REQUIREMENTS FOR BACHELOR OF SCIENCE IN

ENTREPRENEURSHIP”

Section 6. Program Outcomes

The minimum standards for the BS Entrepreneurship program are expressed in the following minimum set of learning outcomes.

**6.1 Common to all programs in all types of schools**

The graduates have the ability to:

1. Articulate and discuss the latest developments in the specific field of practice. (PQF level 6 descriptor)
2. Effectively communicate orally and in writing using both English and Filipino
3. Work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor)
4. Act in recognition of professional, social and ethical responsibility
5. Preserve and promote “Filipino historical and cultural heritage” (based on RA 7722)

**6.2 Common to the general field of Business and Management**

A graduate of a business or management degree should be able to:

1. Define the basic functions of management such as
2. Identify the basic concepts that underlie each of the functional areas of business (marketing, accounting, finance, human resources management, production and operations management, information technology and strategic management) and apply these concepts to business situations
3. Apply the proper decision tools to critically, analytically and creatively solve problems and drive results
4. Communicate effectively with stakeholders both orally and in writing
5. Effectively and efficiently use information and communication technology (ICT)
6. Work well with others
7. Manage people and offices
8. Lead groups and initiate activities
9. Demonstrate corporate citizenship and social responsibility, and exercise high personal moral and ethical standards

**6.3 Specific to the Entrepreneurship major**

**A graduate of BS Entrepreneurship should be able to:**

1. Conduct a self-assessment and identify personal entrepreneurial traits and competencies that might represent either areas of strength or areas for improvement
2. Scan the environment and identify business opportunities
3. Develop detailed business plans for new start-up ventures
4. Mobilize the necessary human, financial, logistical and technical resources to execute a business plan
5. Effectively operate and manage an enterprise
6. Practice good governance and demonstrates social responsibility

**6.4 Common to a horizontal type as defined in CMO 46 s 2012**

1. Graduates of professional institutions demonstrate a service orientation in one’s profession,
2. Graduates of colleges participate in various types of employment, development activities, and public discourses, particularly in response to the needs of communities one serves
3. Graduates of universities participate in the generation of new knowledge or in research and development projects

Graduates of State Universities and Colleges must, in addition, have the competencies to support “national, regional and local development plans.” (RA 7722)

A PHEI, as its option, may adopt mission-related program outcomes that are not included in the minimum set.

Section 7. Sample Performance Indicators

1. Completed self-assessment instrument, with analysis of personal traits and competencies, and evaluation of suitability for entrepreneurship

7. 2 Completed industry or sector analysis and discussion of business opportunities within the industry or sector

7. 3 Completed location analysis and site mapping

7. 4 Completed marketing plan

7. 5 Completed production and operations plan

7. 6 Completed financial plan, with capital budget, master budget, five-year projections and pro-forma income statements.

7. 7 Completed detailed business plan

7. 8 Completed and fully functional product prototype

7. 9 Successful operation of a micro-venture for at least one semester, with fully accomplished business registration and detailed business performance review

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course Title** |  | **Course Code** |  | |
| **Credit Units** |  | **Course Pre-/Co-requisites** |  | |
| **Course Description** |  | | | |
| **Course Intended Learning Outcomes (CILO)** | After completing this course, STUDENTS SHOULD BE ABLE TO | | | |
| Preliminary Period | **Unit 1:** | | |  |

**OBTL Course Plan Conversion Process**

**STEP 1**

**University of ABZ**

**College of XYZ**

Entrepreneurship Department

**GUIDELINES IN DESIGNING COURSE INTENDED LEARNING OUTCOMES (CILOs)**

1. The number of CILOs must be between 4-6
2. CILOs must be aligned with 21st Century skills

(Creativity, Problem Solving, Critical Thinking, Decision-Making and Learning,

Communication, Collaboration, Information and Communication Technology,

Information Literacy, Citizenship, Life and Career

Personal and Social Responsibility)

1. CILOs must emphasize either declarative or functioning knowledge
2. CILOs must be student-centered and invite higher order thinking skills
3. CILOs must show progression of students’ knowledge and understanding of the course

* **Avoid** the use of the following verbs: **Know, Develop, Understand,**

**Appreciate, Recognize, Appreciate, Value, Familiarize,**

**Demonstrate, Analyze, Enhance, Gain**

**From Teacher-Centered Statements to Outcome-Centered Goal**

**Statements\***

After completing this course **STUDENTS SHOULD BE ABLE TO**

* Determine the technical vocabulary that communication professionals use to talk about the types of communication phenomena they study.
* Explain the major theoretical principles that communication professional have developed to understand various kinds of communication phenomena, especially the kinds of message activity involved.
* Use the communication concepts and principles may be used to critically evaluate the routine communication phenomena that communication professional are involved with everyday.
* Apply the essential communication concepts and principles to the problem of making effective choices when producing personal and professional messages.

The **PURPOSE OF THIS COURSE** is to

* **Introduce** the technical vocabulary that communication professionals use to talk about the types of communication phenomena they study.
* **Survey** the explanatory principles that communication professional have developed to understand various kinds of communication phenomena, especially the kinds of message activity involved
* **Illustrate** how communication concepts and principles may be used to critically evaluate the routine communication phenomena that communication professionals are involved with everyday.
* **Promote** creative, theory-based problem-solving that applies the essential communication concepts and principles to making effective choices when producing personal and professional messages

\*Taken from John H. Powers, Hong Kong Baptist University (February 20, 2008)

**ACTIVITY**

**ANALYZING COURSE OBJECTIVES**

***Directions:*** At this juncture, you are to identify whether the statements given below conform to the guidelines in formulating our Course Intended Learning Outcomes. Should you find the statements unacceptable, try reformulating them by finding the appropriate outcomes-based verbs.

**Business Statistics**

After completing this course, the students should be able to:

1. Understand the definition, uses and importance of Statistics and its branches.
2. Demonstrate knowledge and skills in collecting, presenting and analyzing qualitative and qualitative data.
3. Use the different statistical tools in interpreting qualitative and qualitative data.
4. Use different data methods in gathering and presenting data.

**College Algebra**

1. Explain the typologies of sets and algebraic properties of real numbers and equality.
2. Perform fundamental operations on algebraic expressions and various functions.
3. Simplify polynomial, rational and radical expressions.
4. Apply algebraic laws and processes in solving linear, quadratic and radical equations and inequalities.
5. Solve application problems involving various types of equations and inequalities.
6. Communicate mathematical ideas by reading, speaking and writing using both the English language and mathematical symbolism.

**Calculus**

1. Differentiate between relations and functions; find their domain and range; and explain others terms such as variables, constants, independent and dependent variables.
2. Explain the different kinds of functions and demonstrate skills in drawing or sketching the graphs of both polynomial and logarithm functions using the rectangular coordinate system.
3. Manifest skills in evaluating functions applying the different rules, techniques or procedures.
4. Demonstrate understanding of limits by applying different properties and theorems in finding the limit of a function.
5. Distinguish between continuous and discontinuous functions and determine the value/s where the function is continuous or discontinuous.
6. Demonstrate skills in performing operations and manipulating mathematical expressions involving differentiation processes.
7. Describe and illustrate the different steps and formulas used in finding the derivative of a function.
8. Manifest the ability to derive and apply the rules for differentiation to solve problems involving.

**Let’s convert the Course Objectives of the following course to**

**Course Intended Learning Outcomes (CILOs)**

**Mathematics of Investment**

1. **Course Intended Learning Outcomes (CILOs)**

At the end of the course, the students should be able to:

**B. Course Objectives**

At the end of the course, the students should be able to:

1. Demonstrate understanding of the basic concepts in mathematics of investment by performing operations involving finance problems;
2. Use time diagrams in arriving at the correct analysis and solution to the problems;
3. Apply formula in solving interest problems;
4. Derive annuity formula for different types of problems;
5. Manifest skills in applying time diagrams in solving equation of value problems;
6. Demonstrate skills in the construction of amortization and sinking fund schedules; and
7. Demonstrate skills in solving depreciation problems.

**COURSE PLAN in COLLEGE ALGEBRA**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | |  |
|  |  | ***Essential Learning*** | |  |  |  |
| **Week** | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1  **STEP 2** | Demonstrate understanding of the | Demonstrate familiarity with  Demonstrate knowledge of  Demonstrate understanding of  Demonstrate competence in |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Content Standards** describe what students should know and be able to do. These are the desired results for students in the program

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | | |  |
| **Enduring Understanding** | | | | **Essential Questions** | | | |
|  |  | ***Essential Learning*** | | |  |  |  |
| **Week** | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1 | Demonstrate understanding of the real number system and various properties of real numbers equality and absolute values. | Classification of numbers  Properties of real number and equality  Absolute value | *Differentiating* real and imaginary numbers  *Identifying* subsets of the set of real numbers  *Citing examples* of rational and irrational numbers  *Classifying* numbers  *Describing* properties of real numbers  *Validating* steps of a mathematical solution through identification of properties    *Calculating* the distance between two points  *Explaining* the connection of the absolute value and distance  *Discussing* how to get the absolute value of numerical expressions | |  |  |  |

**STEP 3 and 4**

**ACTIVITY 11**

**Defining your Course Content Standards**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | | |  |
| **Enduring Understanding** | | | | **Essential Questions** | | | |
|  |  | ***Essential Learning*** | | |  |  |  |
| **Week**  Demonstrate familiarity with  Demonstrate knowledge of  Demonstrate understanding of  Demonstrate competence in | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1  **STEP 2** | Demonstrate understanding of the |  |  | |  |  |  |

**Case Exercise**

**Functional Knowledge**

**Declarative Knowledge**

* Achieving professionalism in the family business
* Deciding whether to enter the family business
* Developing family members as managers and/or shareholders

Content Standard:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | | |  |
| **Enduring Understanding** | | | | **Essential Questions** | | | |
|  |  | ***Essential Learning*** | | |  |  |  |
| **Week**  Demonstrate familiarity with  Demonstrate knowledge of  Demonstrate understanding of  Demonstrate competence in | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1  **STEP 2** | Demonstrate understanding of the |  |  | |  |  |  |

**Chapter 10:**

The Coordinate System

1. Order axioms for the real numbers
2. 1-dimensional coordinate system
3. 2-dimensional coordinate system
4. The distance formula
5. Definition and formula for the slope.

**Chapter 3:**

Sequences of Functions

1. Pointwise convergence sequences and functions
2. Uniform convergence and continuity
3. Uniform convergence of infinite series of functions
4. Uniform convergence and Riemann-Stieltjes integration
5. Uniform convergence and differentiation
6. Power series

**Chapter 4:**

Derivatives

1. Derivatives and Continuity
2. The Chain Rule
3. One-sided derivatives
4. Rolle’s Theorem
5. The mean-value theorem for derivatives
6. Taylor’s formula with remainder

**Course 1:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Content Standard** | **Declarative Knowledge** | **Functional Knowledge** |
|  | Demonstrate…. |  |  |
|  |  |  |  |

**Course 2:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Content Standard** | **Declarative Knowledge** | **Functional Knowledge** |
|  | Demonstrate…. |  |  |
|  |  |  |  |

**Course 3:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Content Standard** | **Declarative Knowledge** | **Functional Knowledge** |
|  | Demonstrate…. |  |  |
|  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | | *Year Level* |
|  |  | ***Essential Learning*** | |  |  |  |
| **Week** | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1 |  |  |  |  |  |  |

**CONTRUCTIVE Alignment (Biggs and Tang, 2007)**

*How will we know the learners have learned?*

*What do we want the learners to know?*

*How will the learners learn?*

**Assessment Tasks (ATs)**

Format such that the target verbs are elicited and deployed in context

Criteria or rubics that clearly allow judgment as to the quality of the students’ performance

**Intended Learning Outcomes (ILOs)**

expressed as verbs students have to enact

**A**

*The very best understanding that could be reasonably expected:* verbs such as hypothesize, apply to “far” domains, generate, relate to principle, etc.  
**B**

High satisfactory understanding:

Verbs such as explain, solve, understand main ideas, analyze, compare, etc.

C

*Quite satisfactory learning, with understanding at a declarative level:* verbs such as elaborate, classify, cover topics a to n

D

*Understand at a level that would warrant a PASS:* low level verbs, also inadequate but salvageable higher level attempts

**Teaching/Learning Activities (TLAs)**

Designed to elicit desired verbs

May be:

* Large class activities
* Small class activities
* Teacher-managed
* Peer-managed
* Self-managed

As best suits context

**COURSE PLAN IN COLLEGE ALGEBRA**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Preliminary Period | | **Unit 1:** | | | | *Year Level* |
|  |  | ***Essential Learning*** | |  |  |  |
| **Week** | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1 |  |  |  | **STEP 7** | Don’t forget to observe  Constructive Alignment (CA) here! |  |

**ESSENTIAL ELEMENTS OF A WELL-DEFINED ILO**

1. Cognitive Demand of the Content Standard (CD)
2. Real-World Context (RC)
3. Meaning Making Output (MMO

**Consider the following:**

**1**

Compare and contrast the different activities of the country’s familiar animals during different seasons, and create a four-column table to display the findings

**2**

Analyze various themes that recur in fictional literature (e.g. tolerance, loyalty); assemble passages from multiple genres that illustrate one such theme to typical 3rd year students and develop various questions and answers for classmates – at least three literal, two interpretive and two evaluative – to guide their analysis of the pieces

**3**

Determine the necessary for the race and gender laws enacted during the 20th century on the abuses resulting from the Jim Crow laws and other discriminatory practices of the late 19th century; prepare a timeline as a prewriting strategy, including significant events, implications, and any cause and effect relationship at play; compose two editorials to publish in the 1890s, one for a conservative and one for a liberal newspaper.

**WILLIAM SPADY’s DEMONSTARTION MOUNTAIN**

Structured Task Performances

DISCRETE CONTENT SKILLS

Complex Unstructured Task

Performances

HIGHER ORDER COMPETENCIES

Life Role Functioning

COMPLEX ROLE PERFORMANCES

**TRADITIONAL ZONE**

**TRANSITIONAL ZONE**

**TRANSFORMATIONAL ZONE**

***Consider the following:***

All students will correctly identify themes in the book of Mathew.

All students will examine Paul’s road to salvation and then compare

or contrast it to their own path to salvation

Having examined several different pathways to represent the Gospel,

all students will pick up a particular culture and decide how best to

present the Gospel to a member of the culture. All students will

present their model to the class.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | ***Essential Learning*** | |  |  |  |
| **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| Demonstrate understanding of mathematical translations  Demonstrate competence in solving linear quadratic and radical equations | Concept and Properties of Equality Linear Equations   * Solving Linear Equations in One variable * Linear equations involving fractions * Changing mathematical sentences to symbols * Applied Problems | *Enumerating* properties of equality *Expressing* mathematical sentences to symbols  *Solving* linear equations using the properties of equality  *Solving* word problems following  Polya’s steps | Translate English phrases into algebraic expressions, and participate in the Bingo game by matching 24 pairs of expressions  Solve linear equations using algebraic tiles and accomplish at least ten word problems on number, investment and geometry | Bingo game  Algebraic tiles  Problem-solving instruction | Bingo activity cards  Assignment Proposal |

**COURSE PLAN IN COLLEGE ALGEBRA**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | **Unit 1:** | | | | *Year Level* |
|  |  | ***Essential Learning*** | |  |  |  |
| **Week** | **Content Standards** | **Declarative Knowledge** | **Functional Knowledge** | **Intended Learning Outcomes (ILO)** | **Suggested Teaching/Learning Activities (TLAs**) | **Assessment Tasks (ATs)** |
| 1 |  |  |  |  | **STEP 8** | **STEP 9** |

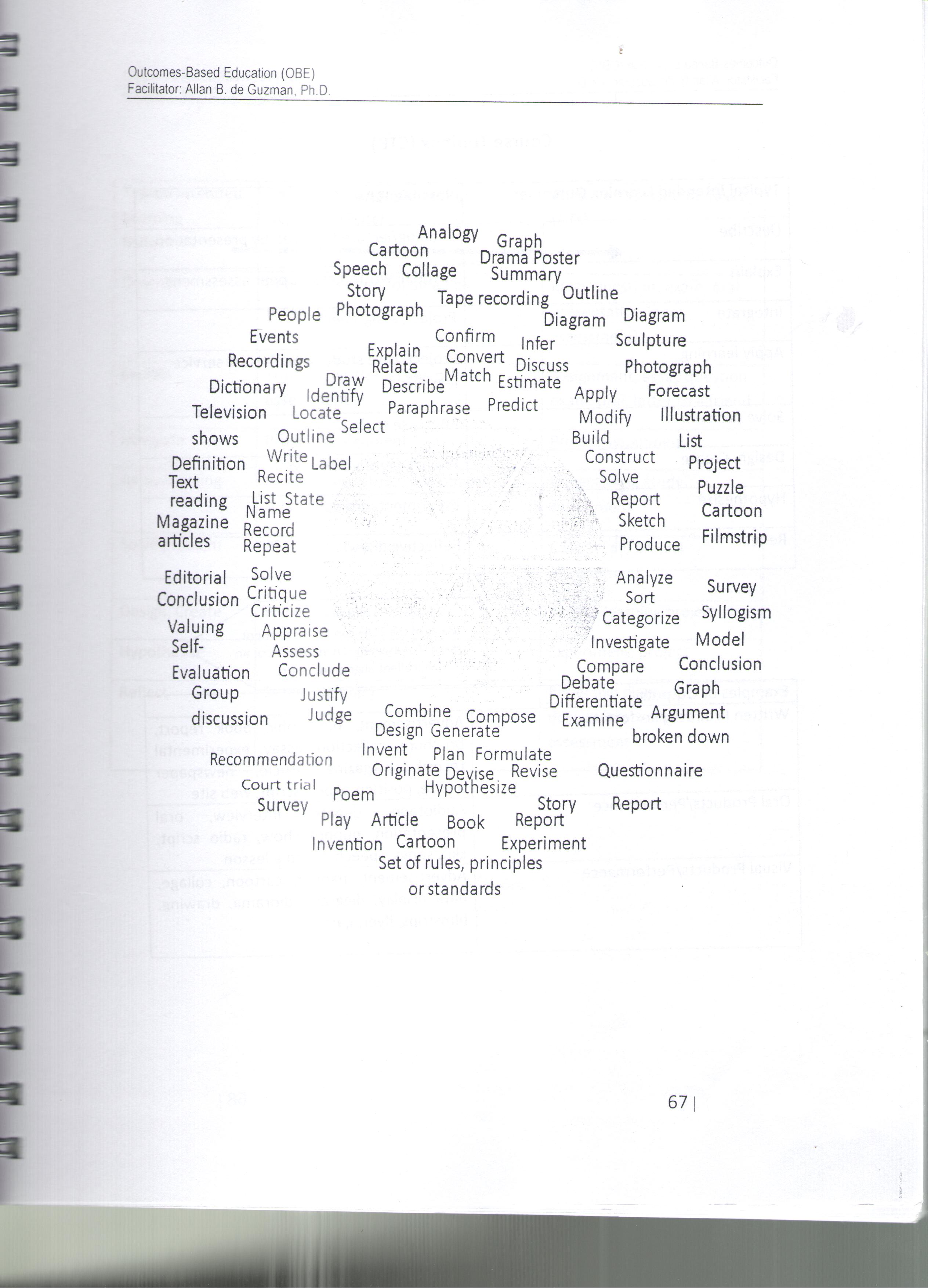
1. Select the kinds of teaching methods you will be using to conduct your class.

Don’t forget to observe

Constructive Alignment (CA) here!

Students various learning styles as identified by Kolb, namely: converger, diverger, assilator and accommodator

Have a **COURSE TOOL BOX** that contains possible teaching methods and strategies that cut across various learning domains



**Course Toolbox (CTB)**

|  |  |
| --- | --- |
| **Typical Intended Learning Outcomes** | **Possible TLAs** |
| Describe | Reading/lecture followed by presentation |
| Explain | Tutorial, written essay, peer assessment |
| Integrate | Project, assignment |
| Apply learning | Project, case study, work based, service learning |
| Solve Problem | PBL, case study |
| Design, Create | Project, creative writing |
| Hypothesize | Experiment, project |
| Reflect | Reflective diary |

**Note:**

Many of the TLAs can be assessment tasks (TAs) as well – an indication of an excellent alignment effort

|  |  |
| --- | --- |
| Example of Outputs | |
| Written Products/Performance | Advertisement, biography, book report, brochure, collection, essay, experimental record, magazine article, newspaper article, position paper, script, web site |
| Oral Products/Performance | Audiotape, debate, interview, oral presentation, puppet show, radio script, skit, songs, speech, teach a lesson |
| Visual Products/Performance | Advertisement, banner, cartoon, collage, data display, diagram, diorama, drawing, filmstrips, flyer, game |

|  |  |  |
| --- | --- | --- |
| **Typical Intended Learning Outcomes** | **Possible Teaching/Learning Activities (TLAs)** | **Possible Assessment Tasks (ATs)** |
| Describe | Reading/lecture followed by presentation | Essay question, exam, oral presentation (peer assessment) |
| Explain | Tutorial, written essay, peer assessment | Assignment, essay question, exam, oral, letter to a friend |
| Integrate | Project, assignment | Project assignment |
| Apply learning | Project, case study, work based, service learning | Project, case study, experiment |
| Solve Problem | PBL, case study | Case study, project experiment |
| Design, Create | Project, creative writing | Service learning project |
| Hypothesize | Experiment, project | Experiment, project |
| Reflect | Reflective diary | Reflective diary, dossier/portfolio, self-assessment |