

GUIDELINES TO GOOD PRACTICES: CURRICULUM DESIGN AND DELIVERY

1. Introduction

The Guidelines to Good Practices: Curriculum Design and Delivery (GGP: CDD) is a document developed to assist Higher Education Providers (HEPs) to meet the standards on the item, Curriculum Design and Delivery, marked as Area 2 of the Code of Practice for Programme Accreditation (COPPA) and the Code of Practice for Institutional Audit (COPIA). The document is part of a series of seven such guidelines that are similarly designed to assist HEPs implement the practices and standards listed in COPPA and COPIA (the Codes). COPPA is concerned with the practices applied by HEPs in curriculum design and delivery, whilst COPIA is primarily concerned with institutional processes that are applied in curriculum development and delivery. Both for programme accreditation and institutional audit, the assessors' concerns are primarily with the procedures and practices adopted by the institutions in the areas covered by the Codes, and whether these match the provisions of the Codes.

The GGP: CDD deals with all five elements listed under Area 2 (Curriculum Design and Delivery) of COPPA, viz:

- 2.1 Academic Autonomy
- 2.2 Programme Design and Learning-Teaching Materials
- 2.3 Curriculum Content and Structure
- 2.4 Management of the Programme
- 2.5 Linkages and External Stakeholders

The layout of this document however reflects the curriculum design and delivery process that incorporates all elements from the idea of a curriculum to post implementation; monitoring and review. HEPs are expected to not merely copy the guidelines and samples given in the Appendices but to develop their own curriculum design and delivery processes which best fit the needs, specialism and requirements of the HEP and its students. In doing so, HEPs are expected to keep abreast with latest developments in the disciplines they offer.

Curriculum design and delivery is applied in the design of programmes as well as the modules that make up the programme and reference to programmes in this document would include a reference to the courses therein.

2. Curriculum Design

2.1. Overview

- i. Both COPPA and COPIA are concerned with the design and development of the formal curriculum. The formal curriculum has been defined as a series of planned events that are intended to have educational consequences.
- ii. The formal curriculum, plans the sequence in which the content of a particular programme is delivered, whether through conventional or non-conventional modes and the books and materials that are to be used. It also lays down the objectives and learning outcomes of the programme.
- iii. Typically, a curriculum design cycle has four stages as illustrated in Figure 1 and each stage involves a list of specific activities as shown in Table 1.

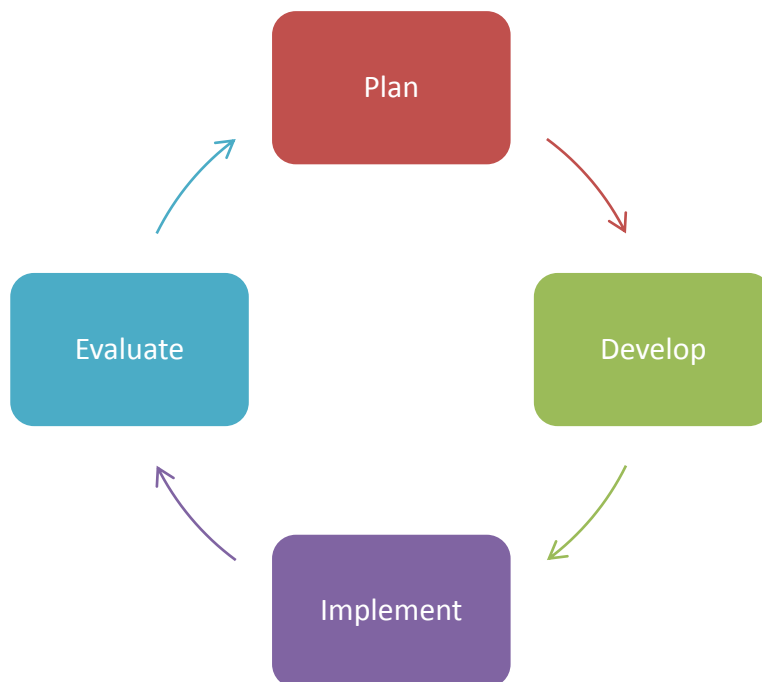


Figure 1: Curriculum Design Cycle

Table 1: Curriculum Design Activities for a Programme

Plan	<ul style="list-style-type: none"> • Convene a Curriculum Committee • Assess needs and issues • Identify key issues such as Malaysian Qualifications Framework (MQF) levels and level descriptors, and institutional vision/mission • Identify trends in the field of study/profession
Develop	<ul style="list-style-type: none"> • Articulate programme philosophy • State programme goal(s) • Sequence programme objectives and outcomes • Develop courses/modules • Identify and develop programme staff and physical resources • Develop and identify learning-teaching activities, assessment tools and procedures
Implement	<ul style="list-style-type: none"> • Deliver the programme • Assess the achievement of learning outcomes
Evaluate	<ul style="list-style-type: none"> • Review the Programme • Determine the success of the programme • Update the Programme

Note: HEPs may identify the person/persons in charge for each of these activities.

- iv. A curriculum can be designed either for a whole programme or a particular unit of study (described as subject, module or course as the usage in individual cases dictates) in a programme.
- v. A formal process of curriculum design involves a Curriculum Committee consisting of representatives that may include the academic and administrative staff of the HEP, government agencies, professional bodies and industries and other stakeholders.
- vi. The primary role of the Committee is to design and prepare the curriculum and relevant programme documents.

- vii. The Committee must be familiar with MQA and MOHE regulations on programme structures and admission requirements connected with the discipline or the field of study.
- viii. Where a programme is being designed with a view to obtain professional recognition, the HEP is encouraged to have the representation of such body at the design stage.
- ix. HEPs that acquire programmes from external institutions or professional bodies may not have control over the design of the curriculum. However, HEPs must ensure that relevant areas in Table 1 are met.

2.2. Curriculum Structure

- i. COPPA 2.3 states that a learning-teaching environment can only be effective when the curriculum content and structure is kept abreast with current development in the field of study.
- ii. A well-designed curriculum is built on a clear vision to reflect the interests of students who are admitted in the programme as well as national and global trends in the discipline.
- iii. The curriculum should also address learners' needs as individuals and citizens. It identifies outcomes relating to knowledge, skills, personal attitudes and attributes. It is underpinned by clear values.
- iv. The curriculum structure is a dynamic interplay between content, pedagogy and assessment. It provides a coherent and relevant set of learning experiences, within and outside of classrooms.
- v. The curriculum must also conform to, among others:
 - (a) the regulations and laws, that deal with educational programmes at the tertiary level (e.g. inclusion of the compulsory subjects stipulated by Act 555);
 - (b) level of qualifications (MQF, Appendix 2), learning outcome domains (MQF, Paragraph 14) and Appendix 1 of this document: 8 MQF Learning Outcome Domains, student competencies (MQF, Appendix 1), and credit and academic load (MQF, Paragraphs 19-22);
 - (c) professional body/industry requirements; and
 - (d) internal/university policies and procedures.

Credit and Academic Load

MQF defines the following:

Credit is the quantitative measure that represents the volume of learning or academic load to attain the set learning outcomes (Paragraph 19).

Academic load is a quantitative measure of all learning activities required to achieve a defined set of learning outcomes. These activities include lecture, tutorial, seminar, practical, self-study, retrieval of information, research, fieldwork, as well as preparing for and sitting of an examination (Paragraph 20).

The use of the above definitions significantly influences the manner in which credit is calculated in Malaysia. Hence in Malaysia, a credit is the total student learning time (SLT) required to achieve the identified learning outcomes for a particular module at the micro level and for the programme at the macro level. MQF in Paragraph 20 states that one credit equals 40 notional hours of SLT.

In establishing the SLT, primarily, one should establish the amount of time available per week for learning and teaching activities. The recommended SLT per week varies according to student band and these ranges between 40-55 hours and the average being 48 hours which becomes the mean for purposes of time tabling.

SLT per semester determines the number of credits that is recommended for a student. Based on the student band which indicates the available learning-teaching hours per week, the total SLT per semester varies according to the number of weeks per semester. Therefore credit per semester is the available student learning time per week according to student band multiplied by the number of weeks per semester. The semester will comprise of contact weeks, study and semester breaks and final examination week.

This is further subjected to the best practice that the learning-teaching weeks per year are between 36 and 40 weeks (subject to 10% tolerance).

The workings are demonstrated in the two examples below; each for 2.5 semesters a year and 2 semesters a year.

SLT and Credit Calculation for:**I. 2 semesters – 36-week semester (18+18)**

No.	Items	Range
1.	Recommended SLT per week	40 – 55 hours
2.	Recommended total SLT per semester [recommended SLT per week x 18]	720 – 990 hours
3.	Recommended credit per semester [recommended total SLT per semester divide by 40 notional hours]	18 – 25 credits

Thus, credits range = 18×2 to 25×2
= 36 to 50

II. 2.5 semesters – 41-week semester (17+17+7)

No.	Items	Range
1.	Recommended SLT per week	40 – 55 hours
2.	Recommended total SLT per semester [recommended SLT per week x 17 weeks]	680 – 935 hours
3.	Recommended credit per semester [recommended total SLT per semester divide by 40 notional hours]	17 – 23 credits

AND

No.	Items	Range
1.	Recommended SLT per week	40 – 55 hours
2.	Recommended total SLT per semester [recommended SLT per week x 7 weeks]	280 – 385 hours
3.	Recommended credit per semester [recommended total SLT per semester divide by 40 notional hours]	7 – 10 credits

Thus, credits range = $17 \times 2 + 7$ to $23 \times 2 + 10$
= 41 to 56

- vi. There are many models that may be subscribed to in developing a curriculum. HEPs are encouraged to adopt one that best fits the needs of the field, profession and the strengths of the institution. Appendix 2 of this document: A Sample of Distribution of Credits for a Bachelor's Degree, provides an example of a model.

- vii. The curriculum structure should identify the objectives and learning outcomes of the programme and incorporate a schema that would map the curriculum to the stated objectives and learning outcomes.
- viii. *Programme objectives are specific statements on what a learner is expected to learn to achieve the programme aims (COPPA, 2008).*
- ix. *Learning outcomes are statements that explain what students should know, understand and can do upon the completion of a period of study (COPPA, 2008).* It must be doable, measurable, observable and assessable.
- x. Learning outcomes are built upon well tested and established taxonomies in the cognitive, affective and psychomotor domains and show the different levels of learning from the simple to the complex. A sample of this is provided in Appendix 3 of this document: Learning Outcomes Verbs from Simple to Complex.
- xi. Curricula also deal with assessment. Different types of assessment may be applied. Selection of assessment tasks reflects the level and field of study. This will be further elaborated in GGP: Assessment. However, in summary, the curriculum structure should consider:
 - (a) The most suitable type of assessment or a combination thereof;
 - (b) The weightage, duration, frequency and rubric of assessment;
 - (c) Mapping assessment to learning outcomes.

2.3. Planning

- i. COPPA 2.2.1 states that there must be a defined process by which the curriculum is established, reviewed and evaluated.
- ii. The procedures for curriculum design and delivery in an institution may be described in the constituent documents of the HEP or in its internal documents describing academic processes or academic regulations.
- iii. The two Codes define the expected level of each of the nine criteria. The HEPs may incorporate the levels of attainment (benchmarked and enhanced standards) as articulated in the Codes as part of their internal documents.
- iv. Planning, developing, implementing and evaluating of programmes may be carried out through the academic division of the HEP by whatever name the division is described.

- v. It would be useful to articulate the procedure for the development of programmes through a committee of the academic division constituted for that purpose.
- vi. The internal regulations of the HEP for the establishment of such a committee may also prescribe the membership of such a committee.
- vii. Depending on the nature of the programme designed, the following persons (COPPA 2.2.1 and 2.5) may be appointed on such a committee;
 - (a) Subject experts from within the HEP and other HEPs
 - (b) Representatives from the industry or profession that is likely to employ the graduates of the programme
 - (c) Representatives of local and foreign institutions who may be able to contribute to the development of the programme
 - (d) Representatives of the division in the HEP that is responsible for providing resources for the HEP
 - (e) Selected alumni who may be able to contribute to the curriculum development

2.4. Autonomy

- i. COPPA in 2.1 speaks of autonomy from three perspectives;
 - (a) that of the institution,
 - (b) the department which develops the programme and
 - (c) the staff involved in the design and delivery of the programme
- ii. The institution is expected to have sufficient autonomy over academic matters. Internal documents of the institution should spell out the way in which institutional autonomy is maintained.
- iii. Similarly the same documents may specify the role of the academic division in the design and delivery of programmes if the institution has such a division.
- iv. Individuals must be given sufficient autonomy in the design and delivery of the programme and to focus on areas of individual expertise.
- v. Individuals who deliver the courses must be given sufficient autonomy in grading and allocation of marks subject to the policy of the institution.

2.5. Needs Analysis

- i. COPPA 2.2.1 in specifying the Benchmarked standards for programme design and teaching stipulates that a programme is to be considered only after a needs analysis is carried out.
- ii. Curriculum designers should gather as much information as possible about all aspects of the proposed programme including issues and trends, nationally, regionally and internationally.
- iii. Information from stakeholders such as students, employers, professional bodies and alumni is useful for the purpose of needs analysis.
- iv. Other relevant sources of information may include:
 - (a) Alumni surveys
 - (b) Tracer studies
 - (c) Exit surveys
 - (d) Employer surveys
 - (e) Future trends
 - (f) External examiner/assessor reports
 - (g) National needs – Government blue prints
 - (h) International experts
 - (i) Student performance data
 - (j) Programme standards/guidelines
- v. HEPs must establish potential demand for the programme through a market demand and supply analysis.
- vi. Availability of staff, the institution's physical and financial resources to support the programme must be considered when planning for a programme. The institution must ensure sufficient resources are available in proportion to student population and needs of the programme.

2.6. Viability and Sustainability of the Programme

- i. The HEPs may develop their own criteria and procedures to assess the viability and sustainability of the programme.
- ii. The justification for the programme of its viability and sustainability may be established by:
 - (a) programmes offered by other HEPs locally and internationally in the same field;
 - (b) existing and future demands for manpower in the field; and
 - (c) for the development of knowledge
 - (d) any variations introduced in the field.
- iii. Availability of staff to support the programme has also to be considered when planning for delivery.
- iv. HEPs must disclose in the curriculum development documents the procedures for the use of staff from industry or other institutions where there is reliance on such staff.

2.7. Academic, Administrative and Physical Resources

- i. COPPA 2.4.1 states that there must be adequate resources to implement the learning-teaching activities. Prescriptions of the resources can be found in individual Programme Standards documents and subject to peer assessment. Adequate support in developing learning-teaching activities through various methods or strategies must be provided.
- ii. HEPs have to establish a means to recruit adequate number of academics with the necessary qualifications and experience to fulfill the learning-teaching needs of the programme in a timely manner.
- iii. HEPs should provide administrative support for the programme to manage resources, student attendance, counseling and the maintenance of academic records. The administrators of the programme should work in tandem with the academics in fulfilling the aims of the programme.
- iv. Utilisation of the part time academics has to be in accordance with the nature and the needs of the programme. In such situations, the institution must ensure that students' interests are always safeguarded.
- v. The HEP should be in a position to provide adequate academic resources to support the programme in the form of library resources, electronic

databases and software that may be required according to the needs of the programme and these must be identified and listed clearly in the programme documents.

- vi. If the curriculum envisages any part of the delivery to be conducted outside HEP premises, e.g. training centers, hospitals, clinics, schools and industries, there should be a clear indication as to how these are to be carried out and the learning outcomes achieved.
- vii. HEPs would be required to show that sufficient and appropriate learning spaces are provided to facilitate the learning-teaching activities. These may include but are not limited to the list indicated:
 - (a) chat rooms (virtual and physical)
 - (b) lounges
 - (c) discussion rooms
 - (d) consultation rooms
 - (e) wireless access
 - (f) laboratories
 - (g) study/social space
 - (h) faculty resource centre

2.8. Approval Process

- i. The HEP must set out its own process to obtain the approval of programmes taking into consideration existing MQA and MoHE requirements.
- ii. Whilst it is not possible to capture the variations in the processes, Appendix 4 of this document: Two Samples of Curriculum Approval Process, indicates two examples that are widely practiced by HEPs.

2.9. Programme Information

- i. COPPA 2.4.1 states that students as well as potential students should have full access to the most current and accurate information about the objectives, outline, learning outcomes and methods of assessment of the programme.
- ii. Such information should be found on the official website of the institution, Student Handbook and Course Handbook.

- iii. The information required may include but are not necessarily limited to the following:
 - (a) fees;
 - (b) entry requirements;
 - (c) student conduct;
 - (d) graduation requirements;
 - (e) academic session/calendar;
 - (f) synopsis of the programme;
 - (g) programme structure (courses);
 - (h) unit requirements;
 - (i) electives;
 - (j) prerequisites;
 - (k) internship/practicum;
 - (l) assessment and appeal processes; and
 - (m) credit transfer.

2.10. Programme Management and Leadership

- i. COPPA 2.4.1 states that the respective programme must have appropriate coordinator and team of academic staff responsible for the planning, implementation, evaluation and improvement of the programme.
- ii. The respective Programme Standards developed by MQA would provide guidelines on programme leadership. Where such document is not already available, institutions should generally ensure that the programme leadership is made up of person/s who have the subject knowledge and experience to sufficiently deal with curriculum design and delivery.
- iii. For programmes in level 6 of MQF and above, the programme leader or coordinator must be supported by a programme committee, membership of which may include relevant external stakeholders including alumni and students.
- iv. The leader or coordinator (and the programme committee) must have the autonomy to ensure that the programme is delivered in a manner that meets its learning-teaching needs.
- v. The Senate or the academic board or any person given the authority by the senate or the academic board may appoint a programme committee.

- vi. The programme committee will advise, plan and implement the programme and evaluate its progress.
- vii. The programme committee will be supported by the HEP and provided with adequate resources and autonomy to carry out its functions. In providing for the programme committee, the HEP must allocate sufficient financial and other resources (reflective to the number of students and nature of programmes) to ensure all activities undertaken are met.
- viii. A programme committee must establish its terms of reference and the procedures involved in the management of the curriculum giving timelines and a flowchart of the activities.
- ix. In deciding this, the committee should normally consider the following:
 - (a) The commencement and termination of semesters
 - (b) Assessment schedules (e.g. setting of questions, moderations, marking, external examiners' evaluation, appeals and publication of results)
 - (c) Project and assignment deadlines
 - (d) Dates for adding and dropping courses
 - (e) Advanced standing, transfer of credits and exemptions
- x. The HEP should establish procedures to link the activities of the programme committee with the other divisions of the institution involved in the academic process.

3. CURRICULUM DELIVERY

3.1. Overview

- i. COPPA 2.2.1 states that there must be a variety of learning-teaching methods in order to achieve the eight MQF learning outcome domains and to ensure that students take responsibility for their own learning, hence an outcome based learning-teaching and credits based on notional SLT.
- ii. Curriculum delivery is a process to achieve learning outcomes of the programme and should be supported by assessments.
- iii. Delivery is a process involving the planning for teaching, assessing, moderating, recording and reporting of the learning-teaching process.
- iv. Curriculum Delivery embraces the many ways in which learners are enabled to achieve the outcomes offered to them by a curriculum. Teaching, learning support, advice and guidance, coaching, mentoring, peer and collaborative learning, feedback and assessment, personal development planning and tutoring, skills development and practice, are among the many processes that might be involved.
- v. Delivery modes may include classroom delivery, independent and private study, online and blended learning.
- vi. The delivery modes should support the development of autonomous, lifelong learners who are skilled in reflecting on their learning (both formal and informal) and who are able to plan for their personal, educational and professional development.
- vii. Delivery at the course level must support the overall programme learning outcomes. To achieve this, mapping at various levels of the programme are required. Examples of these are provided below and in the corresponding appendices.
 - (a) Linking institutional mission to programme objectives, programme learning outcomes, module learning outcomes and assessment – Appendix 5 of this document: The Global Picture for An Outcome Based Learning-Teaching
 - (b) Mapping of eight MQF Learning Outcome Domains to programme themes, learning and employability skills – Appendix 6: A Sample

of the Mapping of MQF Learning Outcome Domains to Programme Themes, Learning and Employability Skills.

- (c) HEP should also map Learning Outcome to individual modules in the programme. This can be done via a direct mapping of MQF Learning Outcome Domain to modules as given in Appendix 7: A Sample of Mapping of MQF Learning Outcome Domains to Modules or via mapping of the learning skills to modules as given in Appendix 8: A Sample of Mapping of UCTI Learning Skills to Modules.
 - (d) Mapping of programme learning outcomes to module learning outcomes and the level of its assessment – Appendix 9: A Sample of How Outcomes are Addressed, Demonstrated and Evaluated.
- viii. Effective curriculum delivery cycle involves the following stages and these will be elaborated further below:
- (a) Plan
 - (b) Deliver
 - (c) Assess and
 - (d) Evaluate

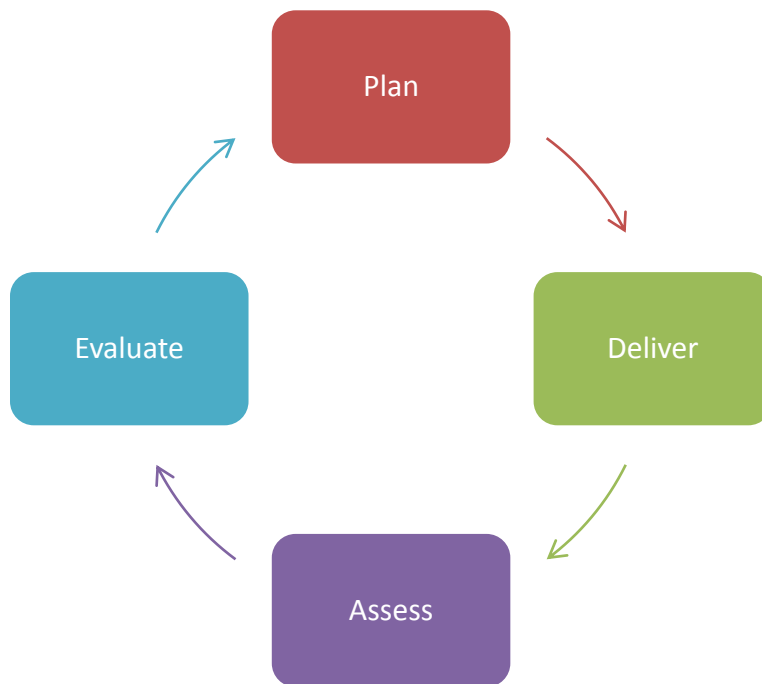


Figure 2: Curriculum Delivery Cycle

3.2. Plan

- i. In planning for the introduction of a programme, adequate time should be allocated for preparing and familiarising teaching and support staff to the new curriculum, and to the delivery mode prescribed in the programme documents.
- ii. The programme coordinator and the programme committee (if any) shall be responsible for the delivery of the programme.
- iii. The institution is responsible for ensuring sufficient resources in proportion to student population ratio.
- iv. The institution must ensure that the needs of the programme and its specifications that may be found in any regulations concerning the delivery are met. Among others these are:
 - (a) Academic staff: - The programme should have adequate number of academics with the necessary qualifications and experience to fulfil the learning-teaching needs of the programme
 - (b) Content and pedagogical support: - Adequate support for improvement in relation to content and pedagogical knowledge through various methods or strategies must be provided, e.g. Pedagogical training, Staff Development Programmes and Teaching Portfolio, a sample of which is given in Appendix 10 of this document: Sample of a Teaching Portfolio.
 - (c) Administrative and support staff
 - (d) Academic resources
 - (e) Physical Resources
 - (f) Training centers (for industrial training/attachment and clinical practice)
- v. There should be procedures through which the Senate or the academic board or any person given the authority to affirm that the programmes are supported with adequate academic, administrative and physical resources. This relationship may be reflected in a diagrammatic format as given in Appendix 11 of this document: A Sample of Internal Academic Authority and Process.

3.3. Deliver

- i. The instructional design to support the achievement of the programme learning outcomes should be collegial involving heads and coordinators, lecturers, tutors and support staff.
- ii. A variety of techniques should be used in combination in delivery of the programme, subject to the overall programme structure. These may include but are not limited to the following:
 - (a) Face to face delivery, e.g. lecture, tutorial and laboratory.
 - (b) Action learning
 - (c) Collaborative Learning
 - (d) Self directed learning
 - (e) Cooperative learning, such as problem based learning and project based learning
 - (f) Technology-based delivery, such as online methods, Tele-conferences, Game-based methods and Mobile systems.
 - (g) Experiential method, such as Field work, project-based learning, and On-Site learning or visits
 - (h) Work-based learning (WBL) method such as Industrial training, Practicum, Work attachments
- iii. The appropriateness of these delivery modes should be demonstrated by mapping to MQF LO Domains on the specific courses and programme documents.
- iv. For example, the face-to-face delivery approach is appropriate to address the knowledge domain while technology based delivery and experiential learning approaches can address the social skills and responsibilities domain as shown in Table 2 below.

Table 2: Mapping of MQF Learning Outcome Domains to Delivery

MQF Learning Outcome Domains	Examples of Delivery Approaches
Knowledge	Lectures, tutorial, discussions, debates, forums, presentations, field trips, industrial attachment, seminars/consultations, demonstrative teaching – mini lab approaches, competency based approaches
Social skills and responsibilities	Group work, industrial attachment, community projects

- v. To address the domain of values, attitudes and professionalism, Work-based learning (WBL) methods may be useful.
- vi. Specific techniques such as problem-based learning can also be used to address different learning outcomes such as teamwork, problem solving and leadership skills that fall under the different domains.

3.4. Assess

- i. The preamble to COPPA Area 3 states that student assessment is a crucial aspect of quality assurance because it drives student learning. Assessment of individual modules cumulatively reflects the assessment of the programme and the achievement of the learning outcomes. Further elaboration will be provided in GGP: Assessment. However a brief outline is given here.
- ii. Assessment may be formative or summative, though many assessment tasks involve an element of both, e.g. an assignment that is marked and returned to the student with detailed comments.
- iii. Formative assessment is useful to monitor the achievement of the learning outcomes, whilst summative assessment is useful to gauge the level of achievement of the learning outcomes.
- iv. There are many techniques of assessment appropriate to the exercise. For example;
 - (a) To ensure that effective delivery and learning has occurred in the classroom, Classroom Assessment Techniques (CAT) may be employed.
 - (b) For technology based delivery approaches, learning can be tracked through discussions in fora, chat room records and wikis.
 - (c) For the experiential learning approach, learning can be assessed through direct observation by the supervisor at the worksite, reports by supervisors or student log books.
- v. The results from these assessments will indicate the appropriateness of delivery approaches and the assessment mode adopted. There are three main forms:
 - (a) Self assessment, through which a student learns to monitor and evaluate their own learning. This should be a significant element in the curriculum as the aim is to produce graduates who are appropriately reflective and self-critical. This can be illustrated

- through for example portfolios and reflective journals or logs (including blogs).
- (b) Peer assessment, is when students provide feedback on each other's learning. This can be viewed as an extension of self assessment and presupposes trust and mutual respect. Students can learn to judge each other's work as reliably as tutors.
 - (c) Tutor/Lecturer assessment, in which a member of staff or teaching assistant provides commentary, feedback on the student's work and evaluate the achievements of learning outcomes.
- vi. Learning occurs most effectively when a student receives feedback on what they have (and have not) already learned. Hence, assessments must be monitored closely to ensure feedback given to students is effective and timely. A brief explanation on effective feedback is given in box below.

Characteristics of Effective Feedback

The significance of feedback for learning and the potential of formative assessment to enhance pedagogy (Yorke 2003) emphasises that all assessment activities in HEPS should aim to produce effective feedback.

Characteristics of effective feedback are:

1. Timely feedback

Students benefit from a very prompt return marked work with useful comments preferably within one to two weeks from the submission date. Whenever there are more than one assessed works, students should receive feedback on the first work before subsequent work is given to allow students to take necessary steps for improvement. There are several ways to speed up provision of giving feedback that may be found in various literatures.

2. Feed forward

The key principle of feedback is that it will usefully inform the student of ways to improve their performance or 'feed forward' (Torrance 1993; Hounsell 2006). Feedback needs to provide specific and sufficient comment and suggestions on strengths, areas for development and strategies for improvement (Bloxham and Boyd 2007).

3. No overloading

Not to overload or overcorrect, three to four comments targeting on those that would be most helpful to the student in understanding the grade awarded and in improving their future work. Detailed corrections such as spelling, formatting, style and grammar should be limited to only first paragraph.

4. Encourage positive motivation
Feedback impact on the self-efficacy beliefs of the student, and this may be major influence on how they approach their studies; student will be more likely to perform better if they believe they are capable of improving (Bloxham and Boyd 2007).
5. Feedback style
Coaching approach may encourage students to self assess themselves.
6. Feedback language
Language of feedback must be aligned with mark given. Avoid mismatches for example "65%, excellent."
7. Structure of feedback
Ideally, comments given in the feedback should be linked to for example module learning outcome, marking or grading descriptor or assessment criteria to help student to focus on its objectives.

Sources:

1. Malaysian Qualification Agency (2010), Guidelines to Good Practices: Curriculum Design and Delivery, Panel of Experts, Malaysia, Kuala Lumpur.
2. Bloxham, S. and Boyd, P. (2007). Developing Effective Assessment in Higher Education. Berkshire: Open University Press.
3. Hounsell, D. (2006) *Towards more sustainable feedback to students*. Paper presented to the Northumbria EARLI SIG Assessment Conference, Darlington, 29th August - 1st September.
4. Torrance, H. (1993) Formative assessment: some theoretical problems and empirical questions, *Cambridge Journal of Education*, 23 (3):333-343.
5. Yorke, M. (2003) Formative assessment in higher education: moves towards theory and the enhancement of pedagogic practice. *Higher Education* 43 (4), pp.477-501.

- vii. Students usually learn more by understanding the strengths and weaknesses of their work, than by knowing the mark or grade given to it. For this reason feedback mechanisms such as comments and rubrics should be put in place. Continuous summative assessment tasks (including unseen examinations) should include an element of formative feedback.
- viii. HEPs are required to map the learning outcomes to the methods of assessments and how these are measured and this will be discussed in greater detail in GGP: Assessment.
- ix. Provision must be made for the recording and the maintenance of the assessment data.

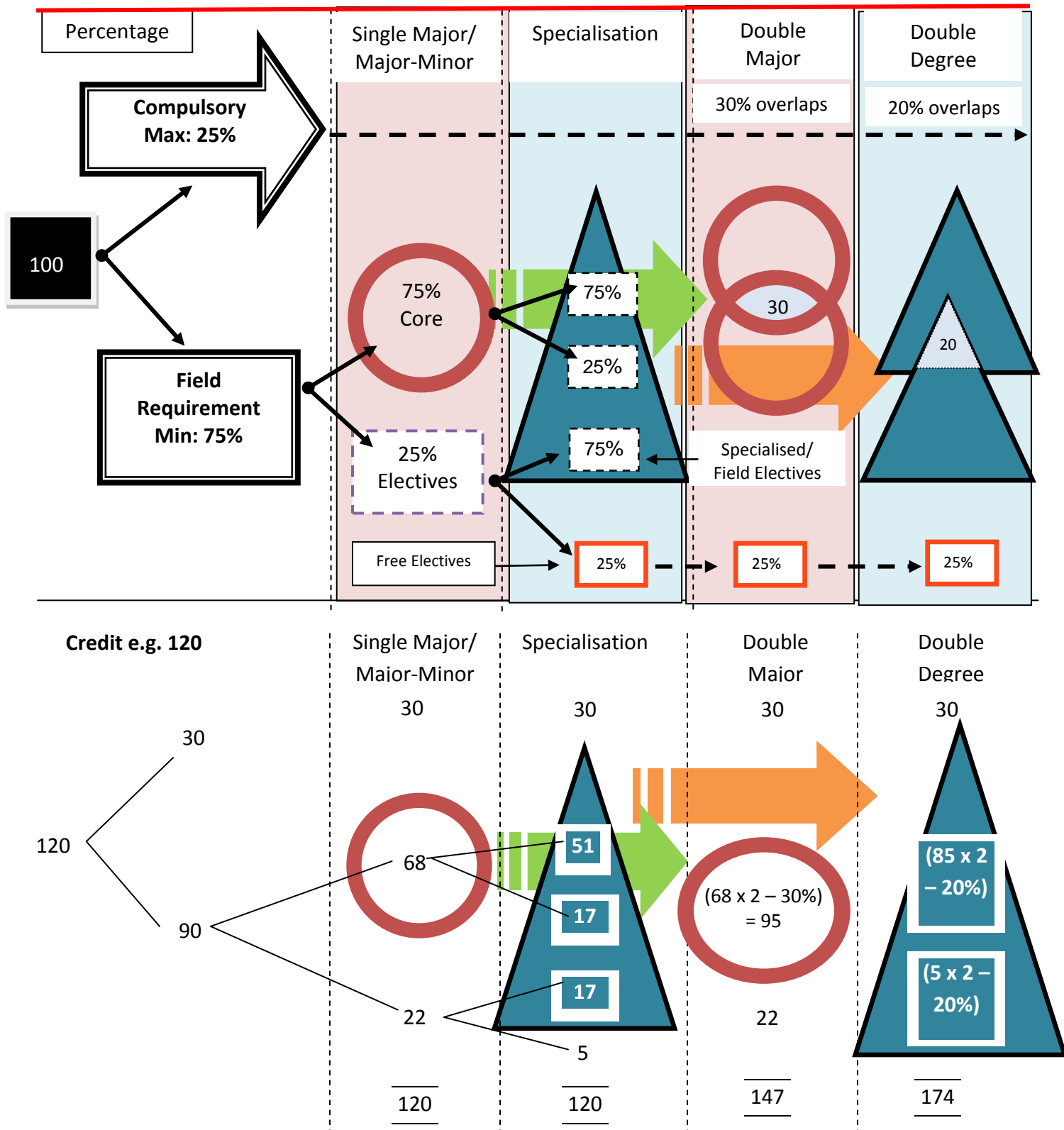
3.5. Evaluate

- i. The preamble to COPPA Area 7 states that quality enhancement calls for programmes to be regularly monitored and reviewed.
- ii. Monitoring and review is the continuous appraisal and the evaluation of the past learning-teaching activities of the design and assessment of the programme respectively. It is normally carried out for future improvement and development.
- iii. Programme monitoring involves all levels and sections of the learning-teaching process. Mainly it involves the periodic monitoring of teaching for example via management and peer observations, a sample of an observation schedule is given in Appendix 12 of this document: Sample of An Observation Schedule.
- iv. There are two types of review:
 - (a) A sectional/thematic review gauges the effectiveness of the curriculum and delivery. This may be conducted annually or as required, usually in tandem with the Examination Board findings.
 - (b) A full review of the programme is required at the end of every cycle using feedback from internal and external stakeholders such as industry, alumni, professional body and external examiners.
- v. Programme monitoring and review should also be the responsibility of the programme committee. When using stakeholders in curriculum review, the HEP should provide the Term of Reference (TOR) and processes involved in such stakeholder participation.
- vi. Both monitoring and review processes must be documented and the feedback and the actions taken as a result, and where appropriate should be communicated to the staff, students and made available to relevant stakeholders to encourage further participation and rapport.
- vii. Monitoring and review involve all levels and sections of the learning-teaching process. Mainly it involves
 - (a) schedule, outlines and lesson plan
 - (b) class cancellation, postponement and additional teaching and teaching load.
 - (c) student attendance, maintain and coordinate time table,
 - (d) students' performance
 - (e) management and student evaluations of lecturers, peer observation (Appendix 13 of this document: Sample of A Peer Observation Form).
- viii. These will be further detailed in GGP: Programme Monitoring and Review.

Appendix 1: 8 MQF Learning Outcome Domains

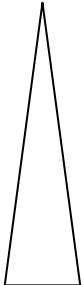
No.	MQF Learning Outcome Domains	Demonstrated by
1.	Knowledge of Discipline Areas	<ul style="list-style-type: none"> • The knowing of major ideas • Mastery of the subject matter • Observing and recalling information • Recognising concepts
2.	Practical Skills	<ul style="list-style-type: none"> • Carrying out a professional task e.g. running, dancing, and diagnosis • Reading and understanding instructions • Perceiving and responding effectively • Applying learnt skills in a safe environment
3.	Social Skills & Responsibilities	<ul style="list-style-type: none"> • Meeting people and networking • Showing an interest in and concern of others • Being comfortable in talking with and accepting guidance and directions • Responding sympathetically and emphatically to others.
4.	Values, Attitudes & Professionalism	<ul style="list-style-type: none"> • Having feelings, perceptions, opinions and attitudes about oneself, towards others and the organisation • Having the capacity to show sympathy • Having empathy and the capacity for tolerance • Good time management
5.	Communication, Leadership & Team Skills	<ul style="list-style-type: none"> • Being able to write, speak and listen • Being responsible and dignified • Being a Team player • Having multicultural and multiracial competencies
6.	Problem Solving & Scientific Skills	<ul style="list-style-type: none"> • Projecting critical and lateral thinking and logical reasoning • Being creative and explorative • Being inspired • Producing new ideas and technologies based on existing skills
7.	Managerial & Entrepreneurial Skills	<ul style="list-style-type: none"> • Planning and implementing effectively • Knowing what to do and how to do at the right time and place • Making judgments and decisions • Having good time management
8.	Information Management & Lifelong Learning Skills	<ul style="list-style-type: none"> • Using ICT in the location and evaluation of information • Using information management systems • Learning how to learn • Adopting a continuous professional development approach

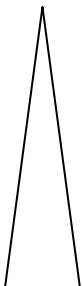
Appendix 2: A Sample of Distribution of Credits for a Bachelor's Degree

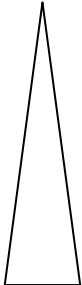


Source: Fernandez-Chung, R.M (1998), "A Model for Curriculum Credit Distribution", Deakin University, Australia, Geelong

Appendix 3: Learning Outcomes Verbs from Simple to Complex

Cognitive		<i>Development of intellectual skills</i>
Simple  Complex	Knowledge	Define, describe, identify, list, recall, match, reproduce, label, state, outline, select, recognise, know
	Comprehension	Comprehend, convert, defend, distinguish, estimate, explain, interpret, summarise, generalise, paraphrase, rewrite
	Application	Apply, change, compute, construct, produce, operate, use, discover, demonstrate, manipulate, prepare, modify, solve
	Analysis	Analyse, break down, compare, contrast, deconstruct, relate, differentiate, discriminate, distinguish, identify, illustrate
	Synthesis	Categorise, combine, compile, compose, create, devise, plan, design, explain, generate, modify, organise, revise, tell
	Evaluation	Appraise, compare, conclude, contrast, criticise, critique, defend, describe, discriminate, evaluate, explain, relate

Affective		<i>Growth in feeling or emotional areas</i>
Simple  Complex	Receiving Phenomena	Ask, choose, describe, follow, gives, hold, identify, locate, name, points to, select, sit, erect, reply, use
	Responding to a Phenomena	Answer, assist, aid, comply, conform, discuss, greet, help, label, perform, practice, present, recite, report, select, write
	Valuing	complete, demonstrate, differentiate, explain, follow, form, initiate, invite, join, justify, propose, read, report, select, share, study, work
	Organisation	Adhere, arrange, combine, compare, complete, defend, explain, formulate, generalise, identify, integrate, modify, organise, prepare, relate, synthesis
	Internalising values	Act, discriminate, display, influence, listen, modify, perform, practice, propose, qualify, question, revise, serve, solve, verify

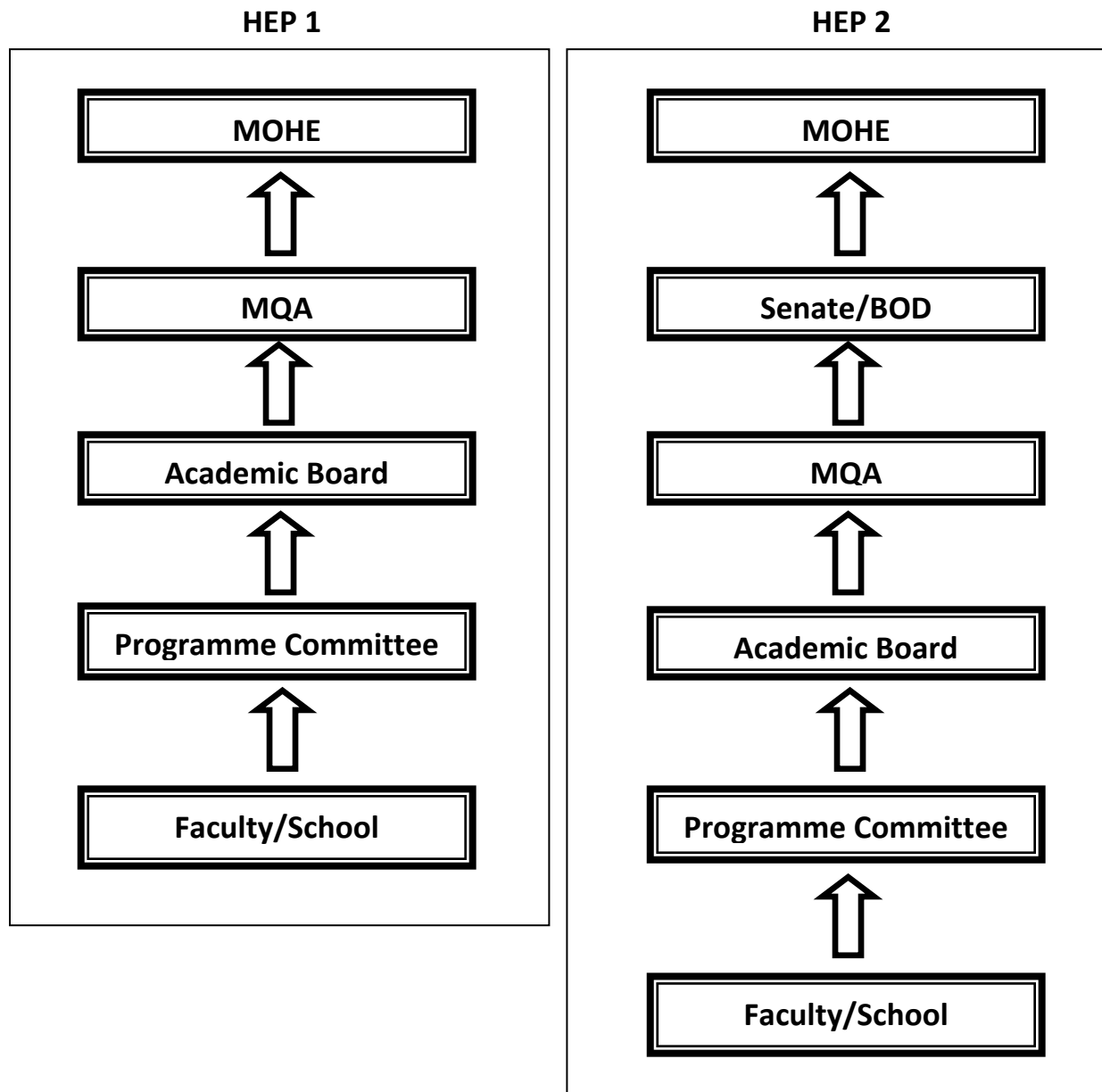
Psychomotor		<i>Physical or Manual skills</i>
Simple  Complex	Perception	Choose, describe, detect, differentiate, distinguish, identify, isolate, relate, select
	Set	Begin, display, explain, move, proceed, react, show, state, volunteer
	Guided Response	Copy, trace, follow, react, reproduce, imitate, respond
	Mechanism	assemble, calibrate, construct, dismantle, display, fasten, fix, mend, grind, heat, manipulate, measure, organise, sketch
	Complex Overt Response	assemble, build, calibrate, construct, dismantle, display, fasten, fix, heat, manipulate, measure, mend, mix, organise, sketch
	Adaptation	Adapt, alter, change, rearrange, reorganise, revise, vary
	Origination	Arrange, build, combine, compose, construct, create, design, initiate, make, originate

Note:

Verbs for Learning Outcomes according to complexity

Source: Fernandez-Chung, R.M (2008) "Writing Learning Outcomes", Malaysian Qualification Agency (MQA), Malaysia, Kuala Lumpur

Appendix 4: Two Samples of Curriculum Approval Process

**Note:**

MOHE = The Ministry of Higher Education

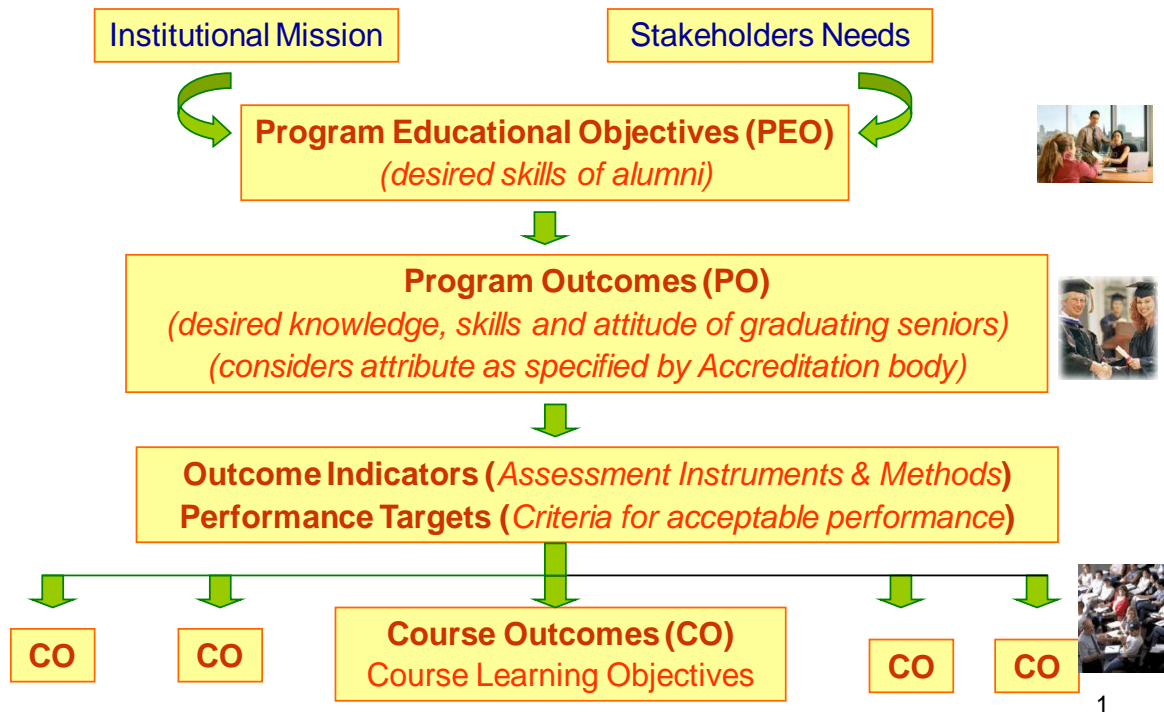
MQA = Malaysian Qualification Agency

BOD = Board of Director

Source: Malaysian Qualification Agency (2010), Guidelines to Good Practices: Curriculum Design and Delivery, Panel of Experts, Malaysia, Kuala Lumpur

Appendix 5: The Global Picture for an Outcome Based Learning Teaching

THE GLOBAL PICTURE – the 'where'



1

Source: Felder, R. M and Brent, R (2005), "A Half Day Workshop on Designing Courses for Outcome-Based Education", presentation material, 5 Dec, Malaysia, Kuala Lumpur

Appendix 6: A Sample of Mapping of MQF Learning Outcomes Domains to Program Themes, Learning and Employability Skills

Learning Outcomes Domains		Programme Themes	Learning Skills	Employability Skills
MQF	UCTI			
1. Knowledge	Knowledge and understanding	Integration	Critical thinking & analysis	Knowledge Subject defined skills Critical thinking
2. Practical skills	Application			Techniques Job market/company Research Writing job applications And CVs Taking job interviews Taking tests
3. Social skills and responsibilities		Interactivity	Self & cultural awareness	Enthusiasm Self and cultural awareness
4. Values, attitudes and professionalism				Reflection Ethical Personal manner and appearance Timeliness and punctuality Integrity Trustworthy
5. Communications, leadership and team skills	Communication		Communication Team working	Verbal Writing English language Presentational Team working Motivating others Empathy Assertiveness Leadership
6. Problem solving skills	Enquiry Analysis Problem solving	Intelligence Imagination Innovation	Effective problem solving Creative & innovation	Enquiry Analytical Problem solving Creativity Innovation Ingenuity Imagination
7. Information management and lifelong learning skills	Learning	Information Independence	ICT skills Learning Numeracy & quantitative skills	ICT Numeracy Learning Independent work and autonomy Career development planning
8. Managerial and entrepreneurial skills	Reflection	Ingenuity Inventiveness	Self management	Adaptability Managerial and supervisory Client focus Self management Drive to achieve Energy

Source: Asia Pacific University College of Technology and Innovation (UCTI) (2009)

Appendix 7: A Sample of Mapping of MQF Learning Outcome Domains to Modules

TAMHIDI PENGAJIAN ISLAM DAN BAHASA ARAB

NO.	SEM	COURSE CODE	COURSE	CREDIT	Knowledge	Practical skills	Problem solving and scientific skills	Communication, leadership and team skills	Social skills and responsibilities	Values, attitudes and professionalism	Information management and lifelong learning skills	Managerial and entrepreneurial skills
1	I	TLA0622	Al-Lughah al-Arabiyyah I	4	√	√	√	√	√			
2	I	TPA0063	Sirah and Islamic History	3	√			√				
3	I	TPA0044	Dirasat Nahwiyyah wa Sarfiyyah	4	√	√	√	√	√			
4	I	TPA 0013	Tafsir wa Ulum al-Quran	4	√	√	√	√		√	√	
5	I	TPA0032	Tajwid wa Tilawah	4	√	√	√	√				
6	I	TLE0014	English Language I	4	√	√	√	√	√		√	
7	I	TCL0822	ICT Skill	2	√	√	√	√			√	√
8	II	TLA0632	Al-Lughah al-Arabiyyah II	4	√	√	√	√	√			
9	II	TPA0023	Tauhid wa Akhlak	3	√	√	√	√		√		
10	II	TPA0093	Balaghah	3	√	√	√	√	√			
11	II	TPA0053	Al Madkhal ila Dirassat al Adab Arabi	3	√	√	√	√	√			
12	II	TPA0084	I'jaz Al-Quran	4	√	√	√	√		√	√	
13	II	TPA0074	Hadith wa Ulum Hadith	4	√	√	√	√		√	√	
14	II	TLE0024	English Language II	4	√	√	√	√	√		√	

Source: Universiti Sains Islam Malaysia (USIM) (2009), "Tamhidi Pengajian Islam Dan Bahasa Arab."

Appendix 8: A Sample of Mapping of UCTI Learning Skills to Modules

Skills Map for BSc. (Hons) in Computer Games Development	Module																																		
	Level 1							Level 2							Level 3																				
	Computer Games Design: Documentation	Computer Games Level Design	Computing & IT in the Workplace	Fundamental of Software Development	Games Engines	Games Physics	Introduction to C Programming	Introduction to management	Mathematics for Technology	Professional and Enterprise Development	Basic 3D Computer Character Modeling	Believable Models for Games & Virtual Reality	Computer Games Design: High Concept & Pre-production	Computer Games Design: Production & Testing	Computer Graphics	Creativity & Innovation	Programming Concepts in C++	Imaging & Special Effects	Managing Business	Mathematics for Technology II	Research Methods	Web Applications	3D Computer Graphics	Advanced 3D Character Modeling & Animation	Audio for Computer Games	HCI & Usability	Innovation Mgmt. & New product Development	Mobile Multimedia and Gaming	Multimedia Techniques for Animation, Games & Film Effects	Programming Techniques for Animation & Computer Games	Computer Games Development Project	Project Management	Investigations in Computer Games Development		
1. Critical Thinking Analysis & Synthesis	/	/	/	/	/	/	/	/			/			/	/	/			/	/			/		/	/	/			/	/	/	/		
2. Effective Problem Solving			/		/	/	/	/					/		/	/			/				/			/		/		/		/			
3. Creativity & Innovation	/	/								/	/				/	/	/				/	/	/	/	/		/	/			/	/			
4. Communication						/	/		/		/	/			/	/	/	/	/	/	/	/				/		/	/		/	/	/		
5. Numeracy & Quantitative Skills					/	/	/	/						/	/	/			/			/	/	/	/	/		/							
6. Communication & Information Technology						/	/				/	/			/	/	/	/	/			/			/	/	/	/	/	/	/	/	/	/	
7. Self Management	/	/	/	/								/	/					/	/	/				/	/	/	/	/	/	/	/	/	/	/	/
8. Learning			/					/		/								/	/	/	/				/	/	/			/		/	/		
9. Self Awareness & Cultural Awareness		/	/						/	/		/	/					/			/		/	/	/	/	/	/	/	/	/	/	/	/	/
10. Team Working	/	/	/	/	/	/	/	/	/	/								/			/		/	/	/	/	/	/	/	/	/	/	/	/	/

Note: This Appendix must be read in line with Appendix 6.

Source: Asia Pacific University College of Technology and Innovation (UCTI) (2009), B.Sc (Hons) in Computer Games Development.

Appendix 9: A Sample of How Outcomes are Addressed, Demonstrated and Evaluated

PROGRAM LEARNING OUTCOMES Students will be able to:	<i>[HOW OUTCOMES ARE ADDRESSED, DEMONSTRATED AND EVALUATED]</i>	Module LO1	Module LO2	Module LO3	→
OUTCOME A	LEVEL EVALUATED DEMONSTRATION	Introduced Exam		Emphasised Papers	
OUTCOME B	LEVEL EVALUATED DEMONSTRATION		Introduced No evaluated demonstration	Advanced/Applied Group Project	
OUTCOME C	LEVEL EVALUATED DEMONSTRATION	Introduced Presentation	Reinforced Small group work – not formally evaluated		
↓					

Source: Malaysian Qualification Agency (2010), Guidelines to Good Practices: Curriculum Design and Delivery, Panel of Experts, Malaysia, Kuala Lumpur

Appendix 10: Sample of A Teaching Portfolio

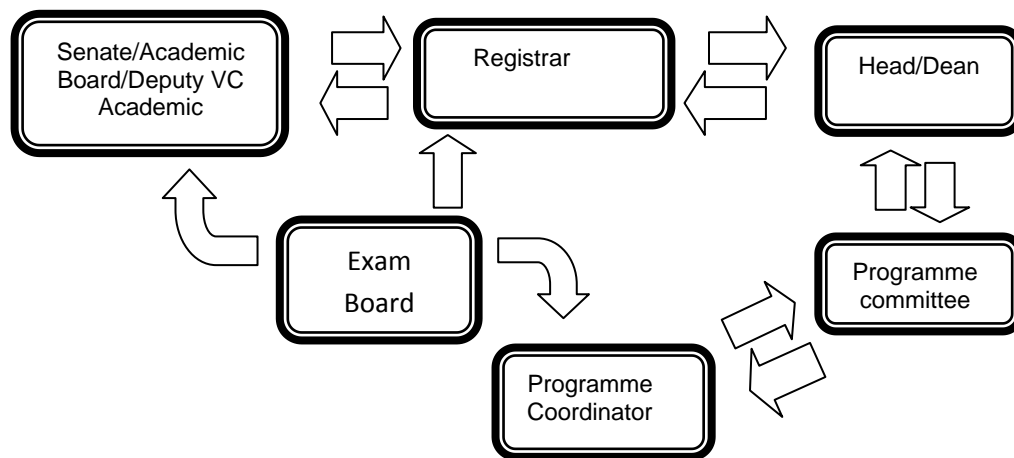
Name of Institution

Name :
 Department :
 Programme :
 Year :

Contents

- 1. Personal Teaching Philosophy and Goals**
- 2. Teaching Responsibilities**
 - 2.1 On-going
 - 2.1.1 Courses Taught
 - 2.1.2 Grading and Feedback
 - 2.2 Past
 - 2.2.1 Courses Taught
 - 2.2.2 Grading and Feedback
- 3. Teaching Methods**
 - 3.1 Lessons
 - 3.1.1 Lesson Planning and Schedules
 - 3.1.2 Group or Individual Discussion
 - 3.1.3 Group or Individual Written Analysis
 - 3.2 Formative and Summative Assessments
 - 3.3 Uses of Technology
- 4. Programme Information**
 - 4.1 Teaching Plan
 - 4.2 Timetable
 - 4.3 Curriculum
- 5. Teaching Evaluation**
 - 5.1 Students
 - 5.2 Management
 - 5.3 Peers
- 6. Teaching Improvement and Future Plans**
 - 6.1 CPD Requirements
 - 6.2 Future Modules
- 7. Aspirations**
 - 7.1 Self
 - 7.2 Students
 - 7.3 Institutions

Source: Moses, A. S. (2002-2009), "Teaching Portfolio", Taylor's University College, Malaysia, Kuala Lumpur.

Appendix 11: A Sample of Internal Academic Authority and Process**Note:**

1. Normally, the department/faculty/school board passes the list of programmes before sending it to the senate for approval. The terminologies and positions may vary between HEPs.

Appendix 12: Sample of An Observation Schedule

A. General Information					
1. Name of Presenter:	_____				
2. Name of Observer:	_____				
3. Title of Presentation:	_____				
4. Venue/Date/Time:	_____				
B. Aspects Evaluated (Please circle the number for each aspect)					
Description	Level of Perception				
	Excellent	Good	Satisfactory	Fair	Room for Improvement
1. Introduction					
a. Clarity of Learning Outcomes	5	4	3	2	1
b. Relevance to topic	5	4	3	2	1
c. Appropriateness of introduction	5	4	3	2	1
2. Content					
a. Knowledge	5	4	3	2	1
b. Appropriateness of coverage	5	4	3	2	1
c. Level of interest generated	5	4	3	2	1
d. Logical flow of presentation	5	4	3	2	1
e. Correctness of language used	5	4	3	2	1
f. Clear and relevant use of analogies/examples	5	4	3	2	1
3. Presentation					
a. Appropriate pacing	5	4	3	2	1
b. Confidence	5	4	3	2	1
c. Enthusiasm	5	4	3	2	1
d. Provoking students to think	5	4	3	2	1
e. Clarity of presentation	5	4	3	2	1
f. Interaction with students	5	4	3	2	1
g. Effective use of teaching/learning aids	5	4	3	2	1
h. Effective class management	5	4	3	2	1
4. Closure					
a. Appropriateness of closure	5	4	3	2	1
b. Use of effective questions to gain feedback	5	4	3	2	1
c. Appropriate links to the next lesson	5	4	3	2	1
Total Score					

C. Observer's Overall Comments and Suggestions for Improvement**D. Presenter's Comments/Remarks****E. Signatures**

1) Observer/Date

2) Presenter/Date

F. Interpretation

Source : Fernandez-Chung, R.M (2008), "An Outcome Based Education", Top – down Grant 2008/2009, Ministry of Higher Education, Malaysia, Kuala Lumpur.

Appendix 13: Sample of A Peer Observation Form

Dear Colleague,

Thank you for agreeing to observe me for this session. I appreciate your frank views on some aspects of my ability in delivering this session.

Class:	
Date/Time/Venue:	
Peer Observer:	
Mode of Delivery Observed (please circle one)	Discussion/Lecture/Practical/Seminar/Student Presentation/Study Tour/Tutorial/others: _____

Answer the following questions and add further comments for improvement where necessary.

1.	Were the objectives of the session clearly given?
2.	Was the session clearly structured?
3.	Was the session clearly audible?
4.	Was the session coherent?
5.	Was there appropriate use of audio visual?
6.	Was I enthusiastic?
7.	Did I demonstrate sufficient knowledge in the subject matter?
8.	Did the students respond well to the approach used?
9.	Did I encourage classroom interaction?
10.	Did I encourage active participation?

11.	Was the delivery method adopted suitable to the achievement of the learning outcomes?
12.	Were the handouts provided useful?
13.	How was the pacing and timing of the session?
14.	To what extent were the intended objectives achieved.
15.	Have you any suggestions that might improve the presentation?
16.	Are there any specific points that you would like to discuss with me?
General Observations/Further Comments	
<i>(signature)</i> NAME OF THE LECTURER BEING OBSERVED DATE:	<i>(signature)</i> NAME OF THE PEER DATE:

Note:

You may want to replace the word 'I' with the 'observed lecturer'.

Source: Fernandez-Chung, R.M (2006), "The Effective Peer Observation", University of Leicester, United Kingdom, Leicester.

Panel of Experts
Guidelines to Good Practices: Curriculum Design and Delivery

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