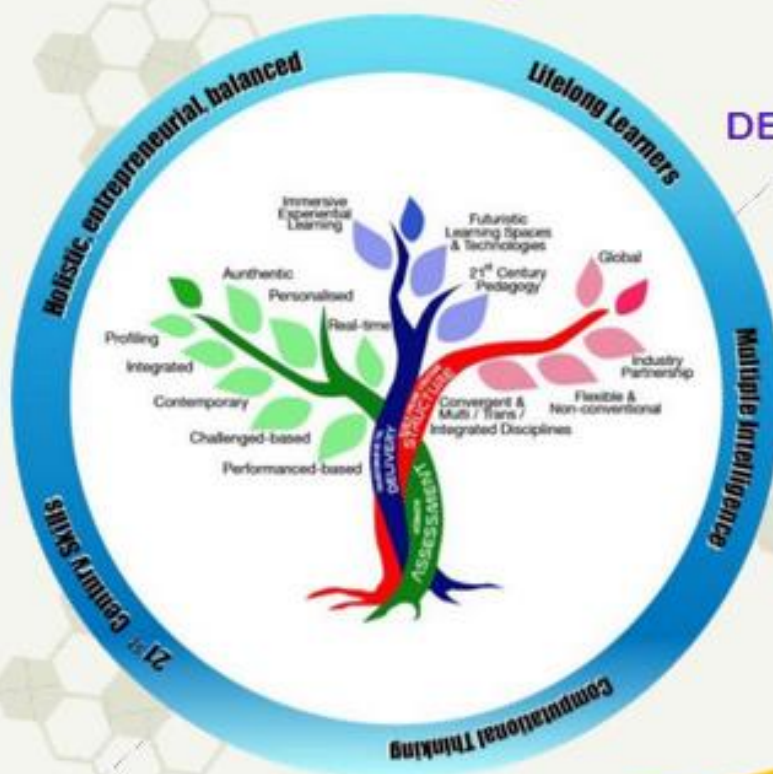




UUM
Universiti Utara Malaysia

UUM GUIDELINES FOR CURRICULUM REVIEW [SECOND EDITION]



DEPARTMENT OF ACADEMIC
AFFAIRS

Email: hea@uum.edu.my
Website: hea.uum.edu.my



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PREFACE

The curriculum review process provides an evidence-based means to answer questions that we may have about our programme. In the Malaysian Higher Education context, it is a part and parcel of the Malaysian Qualifications Framework process that cannot be left unchecked or must not be ignored.

This UUM Curriculum Review Guideline consists of six sections. Apart from the Introduction (1.0) section, the Guideline presents the Definition of Curriculum Review (2.0) and the Need for Curriculum Review (3.0).

The Cycle and Procedures of Curriculum Review (4.0) are discussed in the following section, which include providing the template and checklist for work. In addition, the categories and percentages of change are further elaborated in the section on the Changes Made in the Programme (5.0). Last but not least, in the final section (6.0), the Approval Process is addressed to describe the closing of the loop process.

It is hoped that the Guideline will assist instructors in the process of articulating the strengths of the programme, identifying specific actions to address gaps within an academic programme, improving teaching and learning practices, and providing an opportunity for critical reflections on the programme curriculum requirement at Universiti Utara Malaysia (UUM).

LIST OF TASK FORCE MEMBERS

ADVISOR

YBrs. Prof. Dr. Yusnidah Binti Ibrahim
Former Deputy Vice Chancellor (Academic & International)

YBrs. Prof. Dr. Shahimi Bin Mohtar
Deputy Vice Chancellor (Academic & International)

CHAIRPERSON

Prof. Dr. Nurahimah Binti Mohd. Yusoff
Director of Academic Excellence Development Unit (AEDU)

COMMITTEE

Assoc. Prof. Dr. Aspalila Binti Shapii
Assoc. Prof. Dr. Hasnizam Bin Shaari
Assoc. Prof. Dr. Roslina Binti Kamaruddin
Assoc. Prof. Dr. Siti Nurazira Binti Mohd Daud
Assoc. Prof. Dr. Zuryati Binti Mohamed Yusoff
Datin Dr. Minah Harun

SECRETARIAT

Mdm. Azian Binti Nafiah
Mr. Zairi Afandi Bin Ishak

1.0 INTRODUCTION

1.1 Flexible Education

The Malaysia Education Blueprint (2015-2025) for Higher Education (HE) or the MEB (HE) and the Eleventh Malaysia Plan (2016-2020) developed by the Ministry of Education Malaysia for Malaysians have outlined few strategic actions in higher education to transform the higher education landscape. Two major shifts in the MEB (HE) (2015-2025) that are relevant in guiding the flexible education in Malaysia are the third shift that is the 'Nation of Lifelong Learners' and the ninth shift known as the 'Globalised Online Learning'. Meanwhile, the Eleventh Malaysia Plan lists two focus areas: (i) strengthening the lifelong learning for skills enhancement (Focus Area C) and (ii) improving the quality of education for better student outcomes and institutional excellence (Focus Area D) which are relevant in guiding the 21st. century academic curriculum development in the Malaysian higher education institutions.

In moving forward, the Ministry of Education Malaysia (MOE) held a Seminar on Flexible Education 2019 in Putrajaya which was organised with the HE department and MQA. The focus is on flexible education which is a new approach in teaching and learning that would cater to the needs of the millennial generation. This will further strengthen the education sector in Malaysia as it prepares the nation for a new approach in teaching and learning that aligns with today's world of technology.

(<https://thepetridish.my/2019/08/29/making-education-flexible-and-future-ready-for-malaysians/>).

a. Definition of Flexible Education

According to the Advisory Note No.7/2016, the Malaysian Qualifications Agency (MQA, 2016), flexible education is an education system that is responsive to time, place and teaching method. It is also supported by the technology in offering academic programmes (teaching-enhanced learning, TEL). It marks the future of education which is more accessible and open to new ways of teaching and learning. It is the way forward as highlighted in the two-day seminar held in Putrajaya in 2019 on Flexible Education (<https://www.thestar.com.my/news/education/2019/07/14/flexibility-in-learning>).

According to Naidu (2017), flexible learning refers to the ability to customise one's pace, place and mode of learning. For instance, students may take accelerated programmes or engage in part-time learning to ensure they have time to work on it. Learning can take place in a variety of settings, including in the classroom, at home using the Internet, while commuting or as part of a work-study programme. The mode of delivery refers to the way that the content is delivered by technology, typically

through blended learning, fully online courses or technology-enhanced learning/experience.

b. Objectives of Flexible Education

According to MQA (2016), the objectives of flexible education are as follows:

- i. to avoid the duplication of learning time.
- ii. to emphasise that pace, time and teaching and learning method is not limited.
- iii. to allow multiple access in terms of information and teaching facilities.
- iv. to implement multiple teaching and learning methods.

c. The Implementation of Flexible Education

i. Offering of Programmes

According to the MQA (2017), the Higher Education Provider (HEP) can offer the following programmes:

● **Double Major**

The double major programme combines two main fields of studies from two different disciplines. The academic load or credit hours for both fields are almost similar (50%-50%) whereby each field of study must meet the minimum requirement of the field. The programme name is combined using the conjunction 'and', for example, Bachelor of Information Technology **and** Marketing.

● **Major-Minor**

The major-minor programme combines one main field of study with one minor from any other field. The academic load or credit hours for minor will be between twenty-five to thirty percent (25-30%) of the overall programme. The programme name is combined using the conjunction 'with', for example, Bachelor of Economics **with** Mathematics).

● **Major with Specialisation**

In the main field of study, twenty-five to thirty percent (25-30%) of credit hours of the overall programme is from specific specialisation in the same discipline or field. The field of specialisation is put in parentheses, for example, Bachelor in Finance (Islamic Banking).

● **Double Degree**

The double degree programme combines two programmes from two different fields. The academic load or credit hours for both fields are almost similar (50%-50%) whereby each field of study must meet the minimum requirement of the field. The duration

of study for a double degree is longer than a normal degree. This programme can be offered internally within one institution or between two different higher education institutions. Upon completion, the students will be awarded two different degrees. For example, Bachelor of Tourism and Hospitality Management and Bachelor of Business Administration.

- **Dual Degree**

The dual degree programme involves two programmes from two similar or closely similar fields from two different higher education institutions (locally or internationally). The percentage of courses taken by students from collaborative institutions must comply with the current policy of credit transfer. Upon completion, the students will be awarded two different degrees from collaborative institutions. For example, Bachelor of Industrial Mathematics offered by a local higher institution and Bachelor of Industrial Statistics offered by international collaborative higher education institutions.

- **Joint Degree**

The joint degree programme involves ownership and development of curriculum between collaborative higher education institutions. Apart from ownership and mutual responsibility in quality assurance of the programme, only one joint scroll will be awarded and signed by both higher education institutions. The offering of a joint degree programme is only allowed for a bachelor degree and above.

The HEP may refer to the ‘Compilations of Policies’ in MQA website (https://www.mqa.gov.my/pv4/pubs_compilationpolicies.cfm) for further guidance on the implementation of double major, major-minor, major with specialisation and double degree programmes. The distribution of credits for the various forms of flexible education programmes is shown in Figure 1.

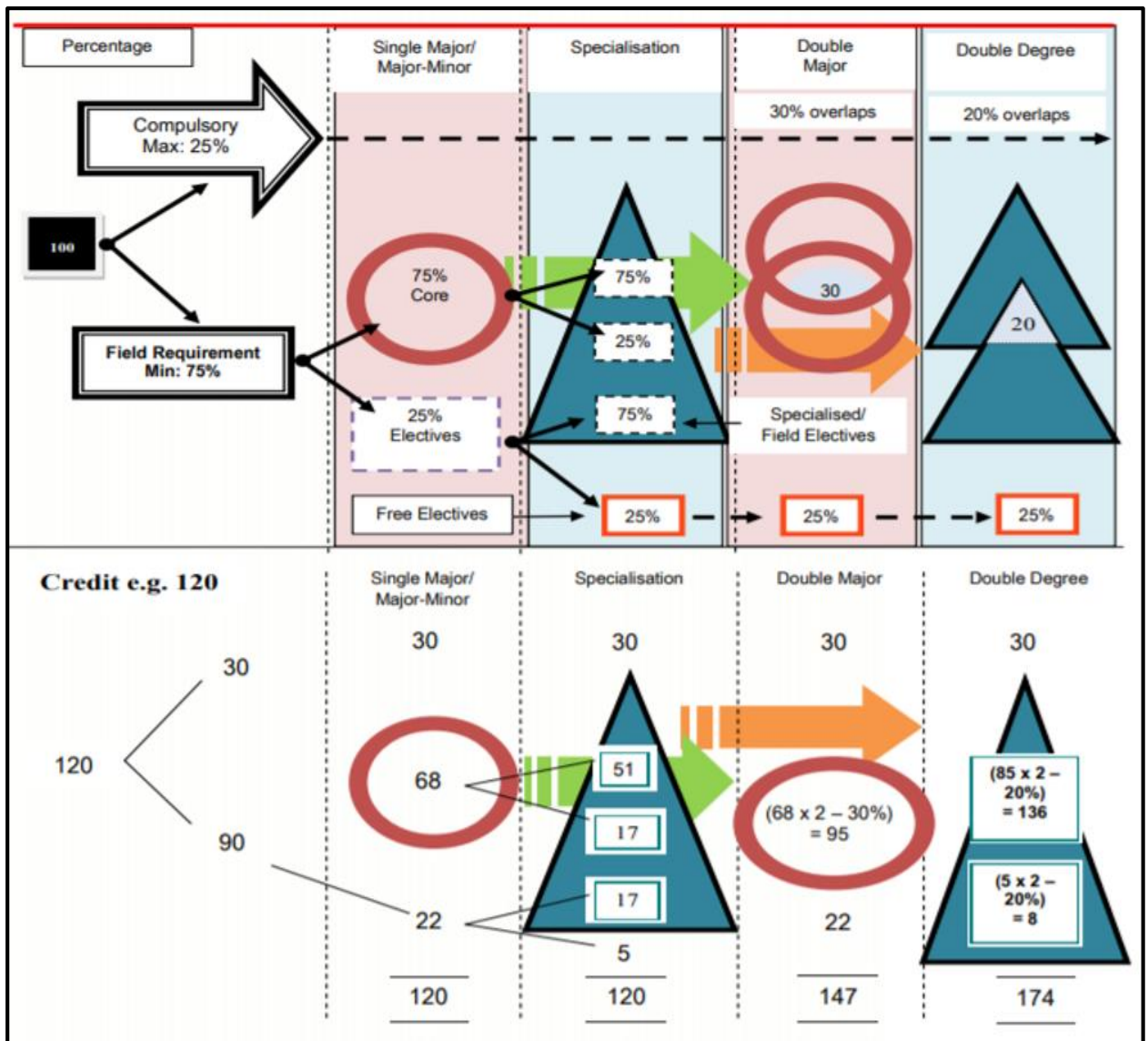


Figure 1:
Distribution of credits for the various forms of flexible education programmes.
 Source: Fernandez-Chung, R.M. (1998)

ii. Method of Programme Implementation

Besides the implementation of the programme conventionally, the HEP may implement the academic programmes through Open and Distance Learning (ODL) or a combination of the conventional and ODL which is commonly known as blended learning.

The HEP may refer to 'Code of Practices for ODL ([https://www2.mqa.gov.my/qad/garispanduan/2019/COP%20ODL/1.%20COP%20-%20ODL_BM%20-%20\[FB\].pdf](https://www2.mqa.gov.my/qad/garispanduan/2019/COP%20ODL/1.%20COP%20-%20ODL_BM%20-%20[FB].pdf)) and the guideline for Work-Based Learning - ([https://www2.mqa.gov.my/qad/garispanduan/2019/COP%20ODL/1.%20COP%20-%20ODL_BM%20-%20\[FB\].pdf](https://www2.mqa.gov.my/qad/garispanduan/2019/COP%20ODL/1.%20COP%20-%20ODL_BM%20-%20[FB].pdf)).

iii. Multi-Entry

Apart from the the conventional admission, flexible education allows students to enroll through the Accreditation of Prior Experiential Learning (APEL) types of programme (certificate, diploma, bachelor degree, master). Through APEL admission, candidates without formal qualification or who do not meet the minimum qualification can enroll in the programme via fulfilling APEL requirements (Table 1).

Table1:
Multi-entry through APEL

| Admission level | APEL Requirements |
|--------------------------------|--|
| Level 3, MQF (Certificate) | Aged 19 years and above with relevant job experiences |
| Level 4, MQF (Diploma) | Aged 20 years and above with relevant job experiences |
| Level 6, MQF (Bachelor Degree) | Aged 21 years and above with relevant job experiences |
| Level 7, MQF (Master) | Aged 30 years and above, at least hold STPM/Diploma/equivalent (foundation) with relevant job experiences. |

Besides, candidates also need to pass an aptitude test and the portfolio assessment conducted by MQA. The HEP may use an equivalent entry requirement for international admission.

iv. Multi-Exit

The HEPs may award any qualification based on the level similar to MQF, if a student quits or is unable to complete the required credit for graduation. This can be conducted as follows:

- Level 6, MQF namely ‘Sijil Siswazah’ (30 credits), ‘Diploma Siswazah’ (60 credits), and ‘Ijazah Sarjana Muda’ (120 credits).
- Level 7, MQF namely ‘Sijil Pascasiswazah’ (20 credits), ‘Diploma Pascasiswazah’ (30 credits) and ‘Ijazah Sarjana’ (40 credits).

v. Student Mobility via Credit Transfer Mechanism.

In practice, credit transfer can be implemented based on two categories:

- Vertical - credit transfer from low to high levels such as certificate to diploma to bachelor degree.

- Horizontal - credit transfer from same level of qualification for example certificate to certificate/diploma to diploma/bachelor degree to bachelor degree.

Credit transfer must be based on the subject to subject mapping. The general requirements for credit transfer are several:

- Pass with minimum grade C;
- Same credit value;
- Course content similarity not less than 80 percent;
- Course for credit transfer is from a programme that is accredited by MQA.

vi. Collaboration between Institution

There are several methods of programme offering which can be conducted through collaboration with institution such as:

a) Joint award programmes

This programme can be conducted through collaboration between two or more institutions in developing programme curriculum.

b) Collaboration programme

This programme is offered between local and international higher education institutions. This can be conducted based on 2+1, 2+2, 3+0, 4+0 or others.

1.2 The Future Ready Curriculum Framework (FRCF)

The HEP must consider the marketability of the graduates in meeting the requirements of the workforce in the 21st century. Based on the Malaysian Qualifications Framework 2.0 (MQF-2.0, 2017), students are expected to master skills based on five major clusters; (i) knowledge, (ii) cognitive competency, (iii) functional work skills, (iv) personal and entrepreneurship skills, and (v) ethical and professionalism skills. The latest learning outcomes as in MQF 2.0 is shown in Figure 2. Hence, the content of the structure, teaching delivery and assessment of academic programmes must be improved. At the same time, the teaching infrastructure and facilities also need to be updated.

| | | |
|---|-------|-------------------------------------|
| Knowledge | LOC1 | Knowledge |
| Cognitive Skills | LOC2 | Cognitive Competency |
| Practical Skills | LOC3a | Functional Work Skills |
| Interpersonal Skills | LOC3b | |
| Communications | LOC3c | |
| Digital Skills | LOC3d | |
| Numeracy Skills | LOC3e | |
| Leadership, Autonomy and Responsibility | LOC3f | |
| Personal Skills | LOC4a | Personal and Entrepreneurial Skills |
| Entrepreneurial Skills | LOC4b | |
| Ethics and Professionalism | LOC5 | Ethics and Profesionalism |

Figure 2:

MQF 2.0 Learning outcomes

Source: Malaysia Qualifications Agency (2019)

To meet the objective of humanising higher education by the HE Department (*Jabatan Pengajian Tinggi*), five major pillars were addressed in the future ready curriculum namely, (i) lifelong learners, (ii) multiple intelligence, (iii) computational thinking, (v) 21st century skills, and (v) holistic, entrepreneurial, balanced. In order to achieve the main pillars, FRCF was introduced. The following Figure 3 and 4 summarised the framework.

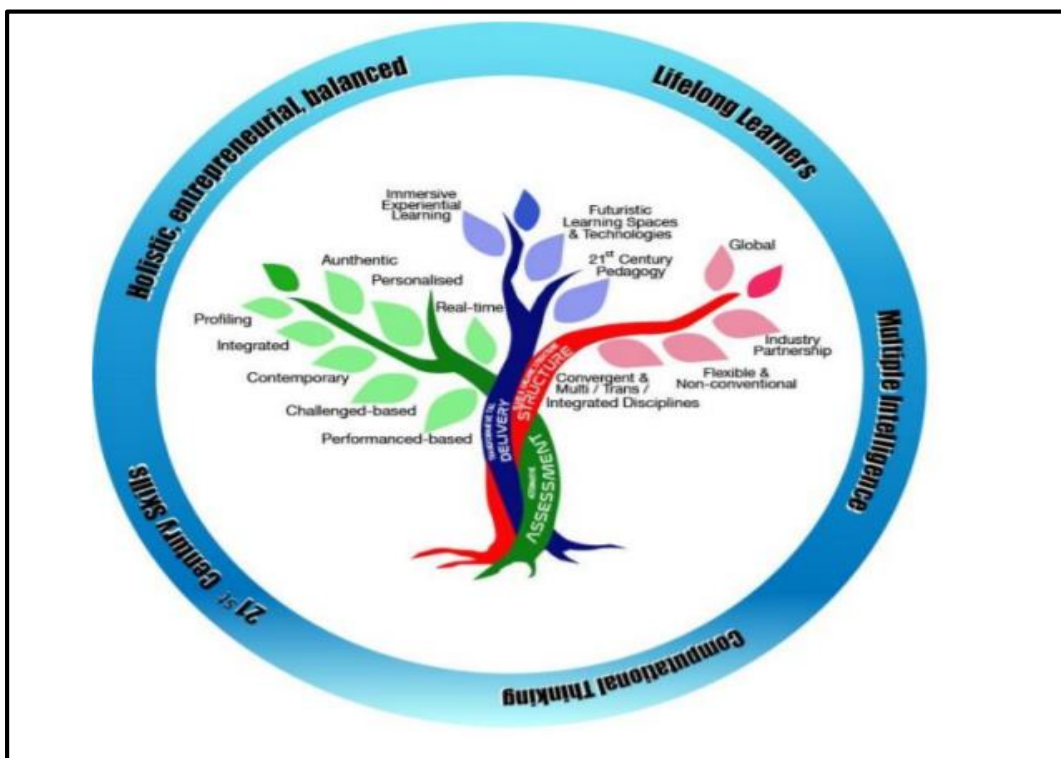


Figure 3: FRCF

Source : Jabatan Pengajian Tinggi (2018)

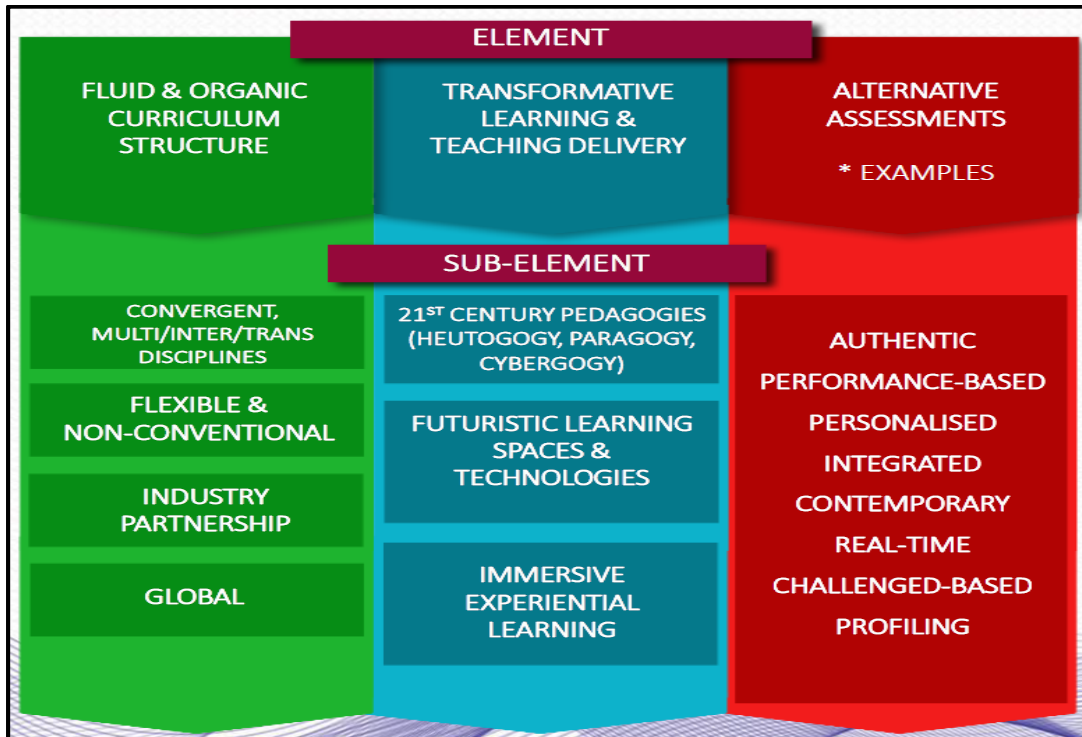


Figure 4:
Elements and sub-elements of FRCF
 Source : *Jabatan Pengajian Tinggi (2018)*

In general, FRCF is a framework that highlights three elements (curriculum structure, learning and teaching delivery and assessment) that are constructively aligned to prepare graduates in meeting the challenges of the 21st century. Firstly, the curriculum structure needs to be fluid and organic, not rigid and fixed. Secondly, transformative learning and teaching delivery is promoted through the redesigning of learning spaces, leveraging the latest Fourth Industrial Revolution (IR4.0) technologies and promoting immersive learning towards the achievement of learning goals. Finally, alternative assessments promote a holistic assessment of the outcomes as well as the learning process, focusing on what the student can and are able to do, rather than merely focusing on the mastery of knowledge.

Operational definition of FRCF

1. *Organic and fluid curriculum structure*
 FRCF is a curriculum with a flexible structure that grows naturally, not requiring systematic and structured approaches. It can be restructured (updated and shaped as and when necessary) in order to respond to the changing needs of the industry and students' educational experiences.
2. *Transformative learning & teaching delivery*
 Promotes twenty-first (21st) century learning and teaching delivery through futuristic learning spaces and the use of IR4.0 technology that creates meaningful immersive experiential learning.

3. *Alternative assessments*

The FRCF promotes a holistic assessment of the outcomes and the learning process. It emphasises what students can and are able to do.

Criteria of IR4.0 driven curriculum

As a guideline, the HEPs must follow the FRCF criteria as set up by the Public *University Academic Programme Transformation Task Force*. The taskforce had outlined fourteen (14) criteria driven by IR4.0 by priority based on the importance of the industry:

- i. Programme Educational objectives (PEO), Programme Learning Outcome (PLO), Curriculum Learning Outcome (CLO), and constructive alignment that support IR4.0;
- ii. Programme adapting 21st century skills;
- iii. Programme with non-conventional teaching and learning method;
- iv. Programme with alternative assessments;
- v. Programme based on teaching approach : heutagogy, paragogy, cybergogy
- vi. Programme with flexibility;
- vii. Programme that recognise lifelong learning (LLL);
- viii. Programme with experiential-based learning;
- ix. Programme with industry-based;
- x. Programme implementing IR4.0 in teaching and learning;
- xi. Programme with work-based learning;
- xii. Global programme;
- xiii. Programme with non-conventional curriculum structure;
- xiv. Hybrid programme.

The following Table 2 summarises the example of FRCF practices.

Table 2:
Summary of FRCF

| ELEMENT | SUB-ELEMENT | EXAMPLE |
|-----------------|-----------------------------|--|
| FLUID & ORGANIC | Convergent disciplines | Multidisciplinary |
| | | Interdisciplinary |
| | | Transdisciplinary |
| | Flexible & non-conventional | Massive Open Online Course (MOOC), Online and Distance Learning (ODL). |
| | | Personalisation and learner's engagement. |
| | | Joint Programme. |

| | | |
|---|---|--|
| | | Micro Credentials/APEL-C. |
| | | Problem-Based Learning (PBL). |
| | Industry partnership | 2 years in university and 2 years in industry (2u2i)/3u1i. |
| | Global | Double, dual, joint degree. |
| TRANSFORMATIVE LEARNING & TEACHING DELIVERY | 21st century pedagogies | Heutagogy (self-determined learning, autonomous learners). |
| | | Paragogy (also known as peeragogy- student's interaction with their peers in accomplishing their educational goals). |
| | | Cybergogy (creating engaged learning online- cognitive, emotion and social intersect). |
| | Futuristic learning spaces & technologies (IR4.0) | futuristic learning spaces such as University Teaching and Learning Centre (UTLC) Future Lab, Internet of Things (IoT). |
| | Immersive experiential learning | Simulation or artificial environment (role-play, simulated learning environment, augmented/virtual reality learning environment). Experiential learning (gap year, 2u2i, SULAM) |
| ALTERNATIVE ASSESSMENT | Authentic assessment | Working portfolio, showcase/model portfolio. |
| | Performance-based | Application of real work scenario for critical thinking, problem solving, self-evaluation and HOTs. |
| | Personalised assessment | Measure students' readiness to be assessed-flexibility, adaptability. |

| | | |
|--|-----------------------|---|
| | Integrated assessment | An interdisciplinary approach to assessment (summative and formative assessment, industry involvement, real life situation, capstone projects, portfolio-based assessments). |
| | Contemporary | Apprenticeship model, presentation, project-based, case-based, take-home and oral examination. |
| | Real-time assessment | Observation, thinking aloud and diagnosing students' strengths and Weaknesses-immediate feedback. E.g., Concept quiz via Kahoot/Clicker, reflection via WA group, student- generated test questions, in-class discussions through chat tool, chain note, one-minute paper. |
| | Challenge based | Emphasis on collaboration, cooperation and group competition. |
| | Profiling | Analyses students' values, interests, preferences, basic English proficiency test as well as basic computing test. It adopts the 21st century skills and abilities in assessing the students' competencies and state of mind. |

Source : Ahmad Azli (2018).

2.0 DEFINITION

2.1 Curriculum Review

Curriculum review is the process of improving an academic programme which must be conducted on a periodical and systematic basis to ensure effectiveness, quality and sustainability of the academic programme. The characteristics of a good academic programme depends on a curriculum that is flexible, dynamic and relevant. Such a curriculum can prepare graduates to face a challenging future job market. To ensure the quality and sustainability of the academic programme, its curriculum must be dynamic, relevant, meeting the current needs of industry and future ready. Hence, academic programmes must be reviewed periodically and systematically to ensure an effective curriculum.

In order to meet the requirements and challenges of the 21st century education landscape, the HEPs are encouraged to improve their academic programme inline with current development, industry's need, and technology changes. The FRCF that is flexible and organic is expected to produce more adaptive graduates in preparing them towards future 21st century challenges especially related to IR4.0.

3.0 THE NEED FOR CURRICULUM REVIEW

Periodic programme review is a formative component in quality assurance strategy. The Code of Practice Programme Accreditation (COPPA) has stated the need for HEP to continually and systematically review academic programmes. In addition, the periodic programme review is significantly important in improving the academic programmes in response to the changing nature of the discipline, trends in the industry, the stakeholder's expectation, shifting in student demographic as well as the outcomes of the module and programme evaluation. By evaluating the relevance, the currency and the comprehensiveness of the programme in a dynamic world, this will help to enhance the students' learning experience, engagement, outcomes and contributes to the HEP strategic goals. In general, the periodic programme review needs to consider many aspects. These include the changes in the programme standards, the input from the market needs analysis, the input from the external examiner report, the CQI report, the stakeholders' report, the benchmarking process and the need to consolidate and segregation, and streamline (*Jumud*), withhold (*Beku*) or discontinue (*Lupus*) the academic programme(s). Furthermore, the HEP should also consider the adequacy of resources (physical infrastructure, financial and human) and the sustainability of the current programme.

3.1 The Programme Standard

The changes in the programme standard and professional body should be considered in the periodic programme review. This is to ensure that the programme offered will fulfill and align with the accreditation standard and stakeholders' needs. The quality assurance documents can be used as the reference points for the national qualification criteria and standard. Besides

the programme document standard by professional bodies and other accreditation, the quality assurance documents by MQA includes:

- i. Malaysian Qualifications Framework (MQF):** It is an instrument developed based on a set of criteria that are approved nationally and benchmarked against international best practices. The current version of MQF is MQF 2.0.
- ii. Code of Practice:** It includes Code of Practice Programme Accreditation (COPPA), Code of Practice Institutional Audit (COPIA), Code of Practice programme Accreditation on Open and Distance Learning (COPPA ODL) and Code of Practice for TVET Programme Accreditation (COTPA). The current versions of COPPA and COPPA ODL are COPPA 2.0 and COPPA ODL 2.0 respectively.
- iii. Standards document:** It sets a general requirement of certain qualifications based on the MQF. The standards documents are, Standard of Executive Diploma, Standard of Foundation, Standard for Graduate Certificate and Graduate Diploma and Masters and Doctoral Degree.
- iv. Programme standard:** It outlines a minimum level of set criteria that should be attained by the HEPs. There are twenty-four (24) programme standards that have been developed by MQA including the Accounting Programme Standard, Business Studies Programme Standard, Computing Programme Standard, Creative Multimedia Programme Standard, Education Programme Standard, Finance Programme Standard, Hospitality and Tourism Programme Standard, Information Science Programme Standard, Language, Media and Communication Studies Programme Standard, Muamalat and Islamic Finance Programme Standard.
- v. Guideline to Good Practice** is a compilation of good practices by HEPs. There are guidelines to Good Practices on Academic Staff, Academic Staff Workloads, Accreditation of Prior Experiential Learning (APEL), Accreditation of Prior Experiential Learning for Credit Award (APEL(C)), Assessment of Student, Credit Transfer for MOOC, Curriculum Design and Delivery, Guideline of Curriculum Foundation (GCF), Guideline to Good Practices: Micro Credentials, Guideline on Term Used for External Examiner, External Advisor and Advisory Board, Monitoring, Reviewing and Continually Improving Institutional Quality (MR-CIIQ), Malaysia Qualifications Statement (MQS) and Work-Based Learning (WBL).

3.2 Market needs analysis

The rationale for market need analysis is that the academic programme will be able to review and realign curriculum to be industry-demand-driven. The source of data are from Information Technology related agency (e.g., Malaysia Digital Economy Corporation (MDEC), MIMOS Berhad, Malaysia External Trade Development Corporation (MATRADE), job recruitment or portal agency (e.g., Jobstreet), input from agency (e.g., Kementerian Sumber Manusia, Institut Maklumat dan Analisis Pasaran Buruh (ILMIA) and Economic Planning Unit (EPU) that is related to the programme need to be considered in periodic programme review.

In addition, the employer surveys that deliberate on the suitability and curriculum design and delivery, job opportunity and the needs of the organisation as well as financial assistance are among important aspects of the market and industry needs analysis. The scope of the employer survey should consider the current needs of the labour market for academic programme sustainability, relevancy and fulfil the current demand nationally and internationally. The employer survey should cover the component of the market needs on the relevancy and suitability of the curriculum, career prospect and financial sponsor. The data and input from the industry need to be analysed systematically and documented in the employer's report.

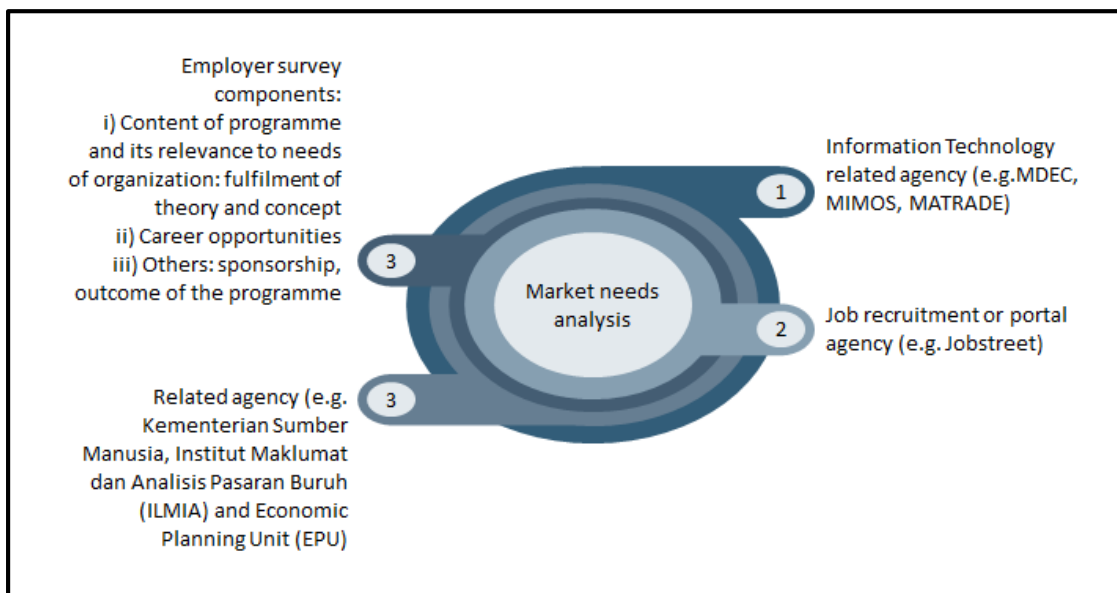


Figure 5: Sources of market needs analysis

Source: Garis Panduan Pembangunan Program Akademik Universiti Awam, Edisi Kedua (2018)

3.3 External examiner report

The appointment of external examiner or external advisor is compulsory at MQF qualification level six and above as stated in COPPA. The appointed external examiner or external advisor must be among the academics who have vast experience and high academic standing. The 'Panduan

Penggunaan Istilah Pemeriksa luar” (*external examiner*), ‘Penasihat Luar’ (*external advisor*) dan ‘Lembaga Penasihat’ (*advisory board*) explain the criteria, scope and level of involvement, function and responsibilities and the appointment by the MQA . The external examiner or external advisor is responsible for examining the curriculum including the course content, assessment, curriculum design and delivery, infrastructure and staff with the aim to maintain the quality of the academic programme. In addition, this exercise will help the HEP to close the gaps by addressing the opportunities for improvement and to enhance the strengths of the programme. The template of the UUM external examiner report can be downloaded from the HEA website (<http://hea.uum.edu.my/index.php/media-download>).

3.4 Continuous Quality Improvement (CQI) Report

The practice of CQI is a process of regularly reviewing the tools (via data collection and analysis) and activities used for programme monitoring and review. It is a continuous self-reflective process that involves measuring the effectiveness of the courses and programme. The CQI involves planning, implementation, review and improvement process at various stages such as the input, process and output. The CQI report will be a basis for the programme curriculum improvement. However, other factors such as Graduate Employability (GE) data and the Graduate on Time (GoT) data should be analysed and considered in the curriculum review process. The details of CQI are available in the UUM CQI Guideline for Academic programmes 2020.

3.5 Stakeholders’ Report

The feedback from stakeholders is very important to uphold the dynamic changes required for curriculum review. The stakeholders include the Ministry of Higher Education (MOHE), MQA, professional body, industries, *Perbadanan Tabung Pengajian Tinggi Nasional* (PTPTN), Graduates Tracer Study, parents, society and alumni. Their comments can be utilised when implementing the changes in the curriculum for the betterment of the programme.

3.6 Benchmarking

Benchmarking is a method or tool to identify good practices and opportunity for improvement through comparisons of quality and performance of other organisations elsewhere. The comparison is done against some standard, that is, a benchmark. There are four stages in benchmarking activities; planning, implementing, reviewing and improving. The key activities involve identifying areas for benchmarking, data collection, data analysis and recommendation for improvement (GGP:MR-CIIQ, 2014).

3.7 Consolidation and Segregation Process

The consolidation and segregation process should also be considered during the periodic programme review. This process allows the HEP to align with

the challenge faced by the institutions (such as financial and physical infrastructure) that may affect the programme learning outcomes, comply with the current requirement of the ministry (related organisation) and consider the sustainability of the academic programme. Consolidation refers to the merging of minimum two academic programmes at the same MQF level whilst segregation refers to one or more academic programmes at the same MQF level to separate into a few programmes.

3.8 Streamline, Withhold, Discontinue or Reoffering of Programmes

This mechanism can be adopted by HEP to ensure the existing academic programmes remain relevant, competitive and sustainable in the long-run. This mechanism can identify the needs of academic programmes not only at the national level but also at the international level through labour demand data, knowledge development and any new changes in certain areas. The HEP can develop their own criteria and procedures to improve the competitiveness and sustainability of an academic programme. The *Garis Panduan Pembangunan Program Akademik Universiti Awam*, Second Edition, (2018), explains the operational definition of streamline, withhold or discontinue of the academic programmes. Figure 6 depicts the suggested criteria that can be considered by HEP before making any decision to streamline, withhold, discontinue or reoffering the academic programmes.

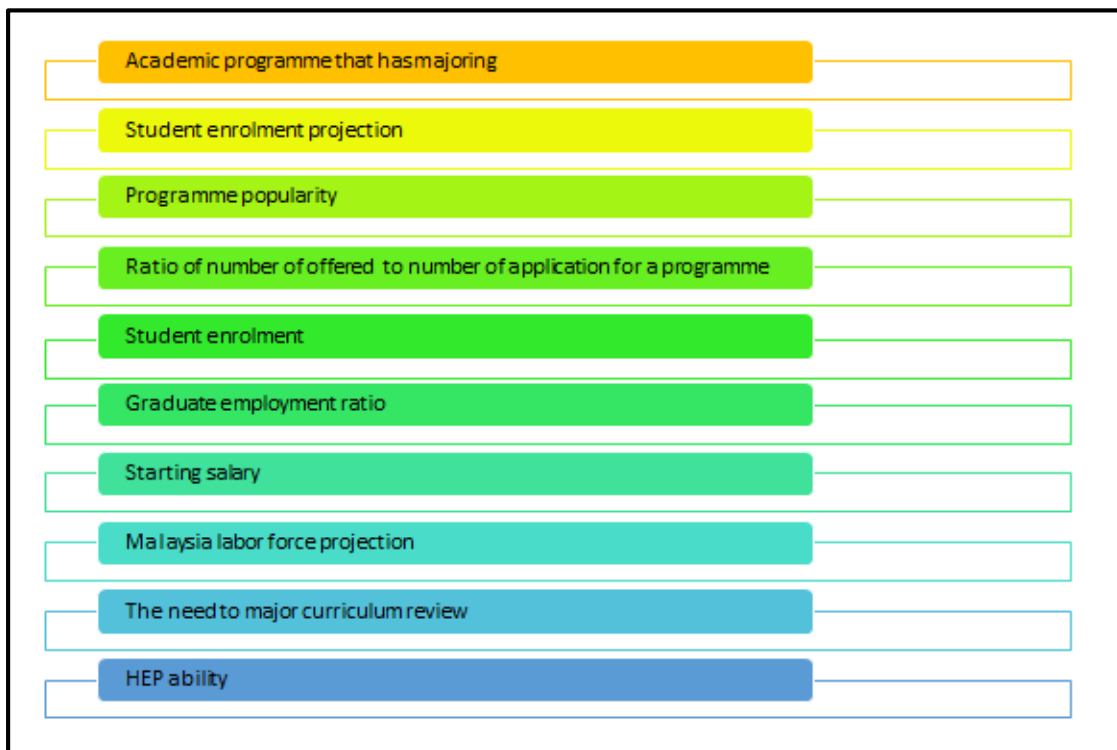


Figure 6: Suggested criteria

Source: *Garis Panduan Pembangunan Program Akademik Universiti Awam, Edisi Kedua (2018)*

4.0 THE CYCLE AND PROCEDURES

4.1 The cycle and process

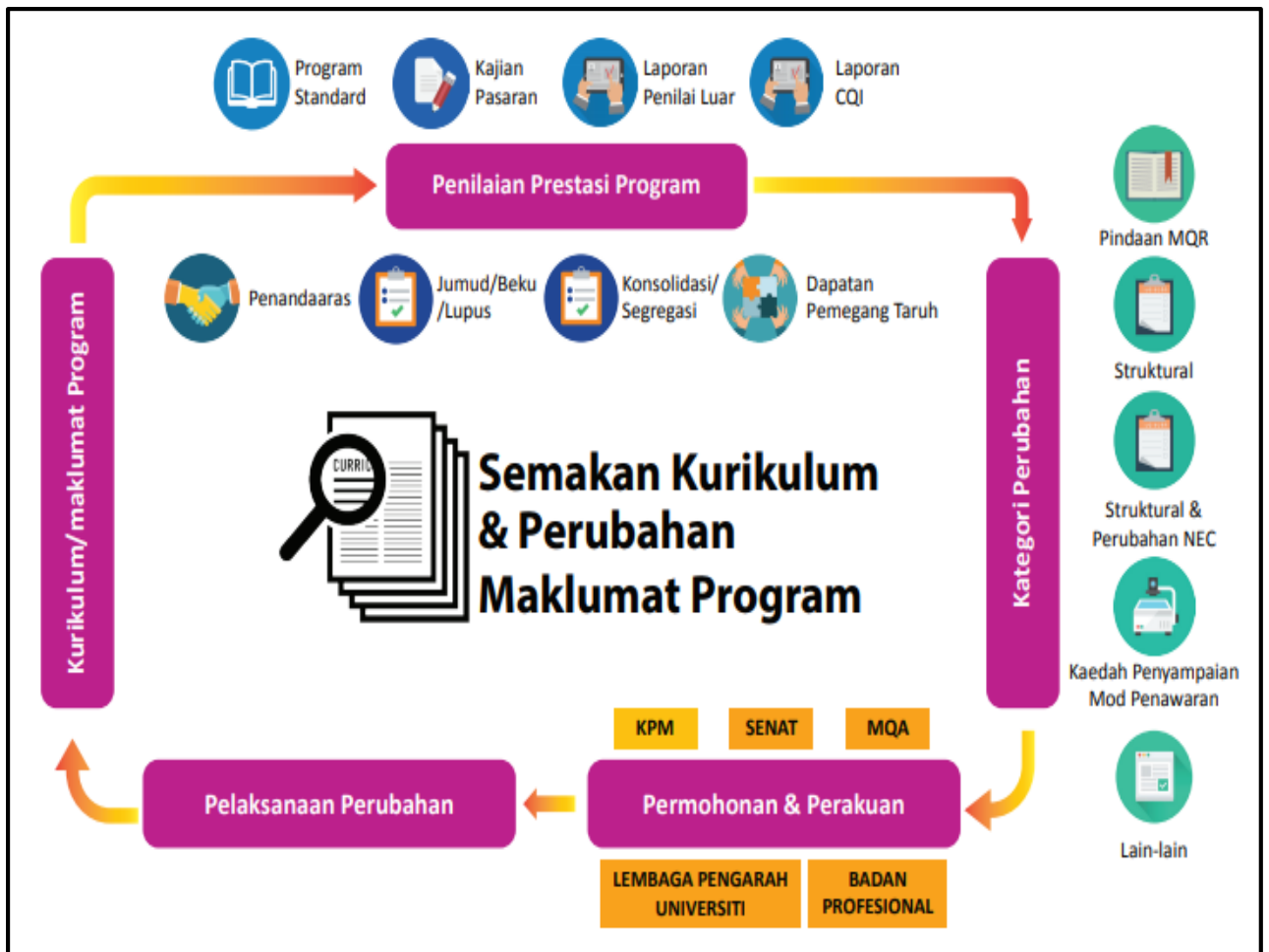
As emphasised in COPPA Area 7, all programmes are required to be regularly monitored and reviewed to ensure that the quality of the programme is maintained. The programme monitoring and reviewing is seen as a continuous appraisal and the evaluation of the past learning-teaching activities and assessment. It is carried out for future improvement and development.

There are two types of review:

- a) **A sectional/thematic review** which evaluates 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** which requires the review of the programme to be conducted at the end of every cycle using the feedback from the internal and external stakeholders such as the industry, alumni, professional body and external examiners.

The curriculum review process in UUM and other HEP that have received programme accreditation must follow the process according to the endorsement and approval as stipulated by the Ministry of Higher Education (MOHE) and Malaysian Qualification Agency (MQA). In general, the curriculum review process includes determining the curriculum of the programme, evaluating the performance of the programme, evaluating the categories of review and application, endorsing and implementing the programme.

Figure 7 illustrates the summary of curriculum review process that all schools/ programmes in UUM are required to follow:



*Figure 7: Summary of Curriculum Review Process (source: GPPA, 2018)
The respective schools need to form a review committee to monitor and conduct the curriculum review for their academic programmes.*

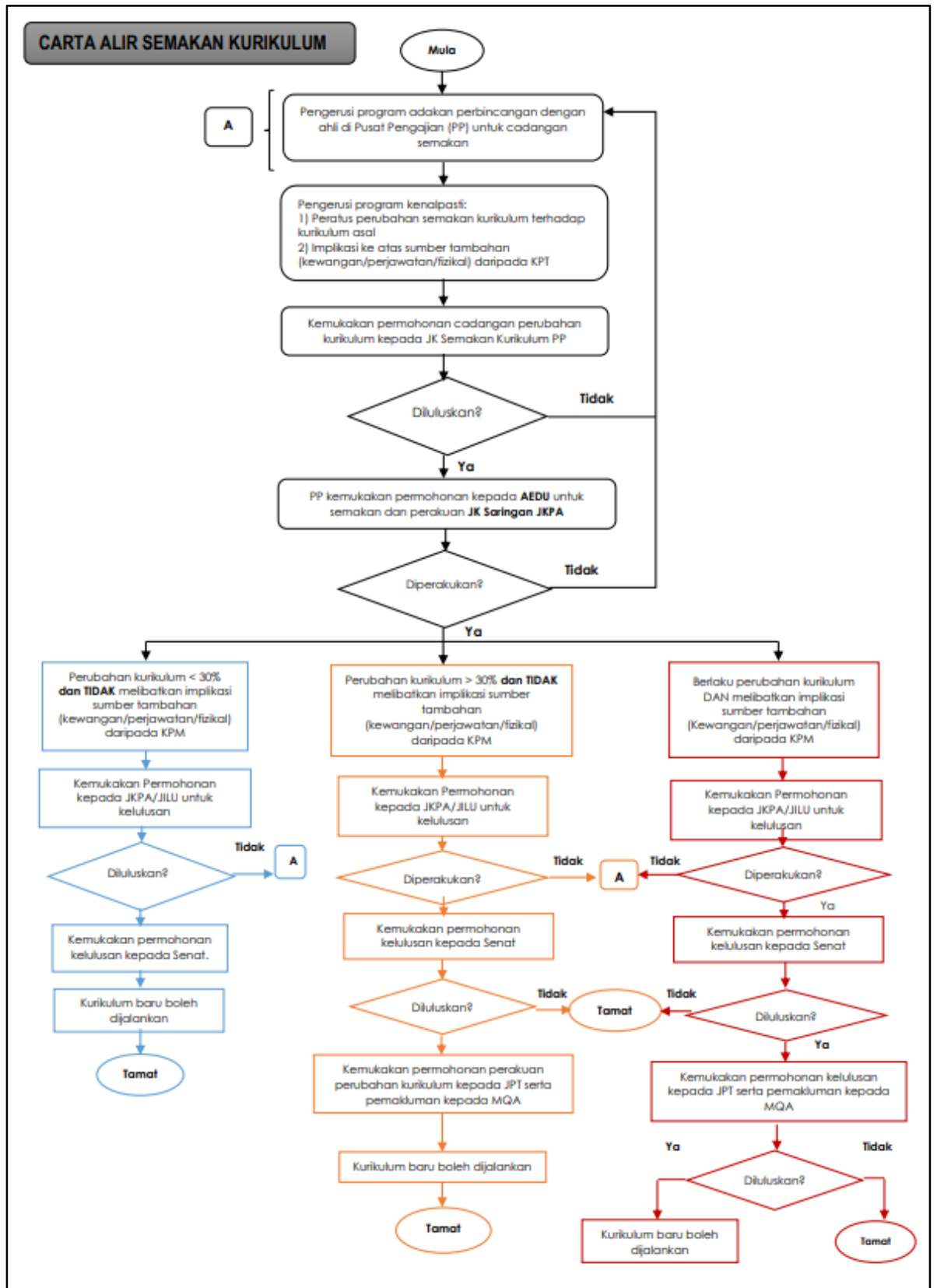


Figure 8:
Flow Chart of Curriculum Review Process

All schools have to submit paperwork for the curriculum review to the Academic Excellence Development Unit (AEDU) and the Academic Development Committee (JKPA/JILU) and UUM Senate for approval (refer to the sample in Section 4.2). After the paper is endorsed by the UUM Senate, the paperwork will be submitted to the ministry (JPT) at the JKPT meeting for further endorsement (Format Appendix 2, Appendix 3 dan Appendix 4). The paperwork submitted for the approval application, is subject to the accreditation status of the public university (Refer to the paperwork sample template in Appendix 1: **SAMPEL KERTAS CADANGAN SEMAKAN KURIKULUM PROGRAM**).

4.2 Sample of paper work for curriculum review is as attached in Appendix 1 (Lampiran 1)

4.3 The Curriculum Review Committee of Academic Programmes

The Curriculum Review Committee (By Programme) should also be the responsibility of the programme committee at the school level. The committee comprises academics holding these positions:

- Head of Department,
- Programme Coordinator, and
- Faculty members involved in teaching the programmes.

4.4 The Curriculum Review Checklist

The following section describes a checklist for the curriculum review process.

CURRICULUM REVIEW CHECKLIST (FOR EXISTING PROGRAMMES)

| NO. | ACTIVITY/ TASK/ STEP | TICK (√) | Date |
|-----|--|-------------|------|
| 1 | Appoint Curriculum Review Committee (By Programme) at the school level: <ol style="list-style-type: none"> i. Head of Department ii. Programme Coordinator iii. Faculty members involved in teaching the programme Issue appointment letters. | | |

| | | | |
|---|--|--|--|
| 2 | <p>Appoint (academics outside of the school):</p> <ol style="list-style-type: none"> i. Appoint External Examiner (Academic, must be Assoc. Prof. and above) – must get approval from VC. ii. Appoint External Advisor (Alumni) – only School’s approval iii. Appoint Industry Advisory Board – must get approval from the University <p>Issue appointment letters.</p> | | |
| 3 | <p>Obtain feedback/do mapping etc.:</p> <ol style="list-style-type: none"> i. The development of PEO, PLO, CLO (MQF2.0) – should get feedback from external examiner, alumni, industry advisory board and must also in line with the university’s mission and vision. ii. Mapping all courses (university core, programme core, elective) with the PLOs. iii. Make sure programme core courses are mapped with all PLOs to ensure all PLOs are tested. iv. One course mapped with at least 3 PLOs v. One course has at least 3 CLOs | | |
| 4 | <p>Check relevant documents:</p> <ol style="list-style-type: none"> i. Refer to the MQA Programme Standards (https://www2.mqa.gov.my/QAD/). ii. For BFin, BBank and BRMI – refer to Finance Programme Standards. iii. For BSc Econ and BSc Agribusiness – refer to the Business Programme Standards. | | |
| 5 | <p>Do Market Survey (Google form)</p> <ol style="list-style-type: none"> i. Employer survey/alumni survey/exit survey | | |
| 6 | <p>Write/obtain/present report:</p> <ol style="list-style-type: none"> i. Market survey report ii. External examiner, external advisor, industry advisory board report iii. Continual Quality Improvement (CQI) report AOL report iv. Graduate employability data & graduate on time (GOT) data | | |
| 7 | <p>Prepare curriculum review paperwork</p> <ol style="list-style-type: none"> i. Get the latest paperwork template | | |
| 8 | <p>Prepare/present relevant paperwork:</p> <ol style="list-style-type: none"> i. At the Department meeting | | |

| | | | |
|--|---|--|--|
| | <ul style="list-style-type: none"> ii. At the School (JKPA) meeting iii. At the HEA meeting (JK Saringan) iv. At the University meeting (JKPA) v. At the Senate meeting | | |
|--|---|--|--|

4.5 Considerations for the Curriculum Review Process:

- 4.5.1 The programme monitoring and review should also be the responsibility of the programme committee at the school level.
- 4.5.2 When requesting for the stakeholders' participation in the curriculum review, the programme provider should provide the Term of Reference (TOR) and processes involved.
- 4.5.3 Both the monitoring and reviewing processes must be documented and the feedback and the actions are reported as results. The report/results should be conveyed where appropriate to the staff, students and made available to the relevant stakeholders to encourage further participation and to establish a good rapport.

5.0 THE CHANGES MADE IN THE PROGRAMME

5.1 The Categories of Change: Programme and Course Component

The continuous improvement process carried out by the school through the curriculum review will impact the original programme details approved by the MOHE and MQA. The curriculum review of the programme conducted might require some improvements on the components and the course. The classifications of adjustments are as follows:

- 5.1.1 Components of Programme Details
 - a. Changes requiring amendment of Malaysian Qualifications Register (MQR) information.
 - b. STRUCTURAL changes in programme design (curriculum) that do not lead to the exchange of other fields of study (Exchange of NEC code). The percentage of curriculum changes taken into account is cumulative based on the original curriculum approved.
 - c. Changes in programme design (curriculum) leading to the exchange of other fields of study (exchange of NECs).
 - d. Changes/Additions to programme delivery methods from Conventional to Open Distance Learning (ODL) OR changes/additions to programme offering modes from mixed-mode or coursework mode to research mode for postgraduate programmes.

The status of the programme component changes due to the curriculum review as shown in Table 5.1.

Table 5.1. Programme Details: Checklist of Changes/Retained Items

| Curriculum Review Category | Item | Review Category Components | Changes made | No Changes | Change Indicator |
|--------------------------------------|-------------|-----------------------------------|---------------------------|-------------------|-------------------------|
| Programme Details (Weightage 30%) | 1 | Programme name | Name Changed | | Changes |
| | | | Name Retained | | No Changes |
| | 2 | Study duration | Duration reduced | | Changes |
| | | | Duration added | | Changes |
| | | | Duration retained | | No Changes |
| | 3 | Study Session/Semester | Session/Semester changed | | Changes |
| | | | Session/Semester retained | | No changes |
| | 4 | Teaching mode | Teaching mode changed | | Changes |
| | | | Teaching mode retained | | No changes |
| | 5 | Study Mode | Study mode changed | | Changes |
| | | | Study mode retained | | No changes |
| | 6 | Delivery Mode | Delivery Mode changed | | Changes |
| | | | Delivery Mode retained | | No changes |

| | | | | | |
|---|---|---|---|--|----------------------|
| | 7 | Total credits of Graduates (<i>Jumlah kredit bergraduat</i>) | Change of total credit before/after review | | Percentage of change |
| Programme Learning Outcome (Weightage 30%) | 8 | Programme Educational Objective (PEO) | Retained | | No changes |
| | | | Grammar refinement | | No changes |
| | | | PEO dropped | | Changes |
| | | | PEO added | | Changes |
| | | | Amendments made on the direction of the programme | | Changes |
| | | | Amendments redirect the purpose of the programme | | Changes |
| | 9 | Programme Learning Outcome (PLO) | Retained | | No changes |
| | | | Grammar refinement | | No changes |
| | | | PLO dropped | | Changes |
| | | | PLO added | | Changes |

SOURCE: HEA website

5.1.2 Components of Course/Course Details

According to the MOHE, the components of the course details include these aspects:

- a) Changes in the course structure to meet the programme standards.
- b) Coordination of the course content with topic replacement in line with the current knowledge development.
- c) Addition of the blended learning components in the programme management.
- d) Changes in the formative or summative assessment method or composition.

- e) Changes in the course synopsis
- f) Update of reference materials.

Table 5.1.2 below displays the description of changes made in the course details as specified by the Ministry and UUM.

Table 5.1.2 Changes in the course details

| Curriculum Review Category | Item | Review Category Components | Changes Made | Change Indicator |
|--|-------------|-----------------------------------|-----------------------------------|-------------------------|
| Course details (weightage 40%) | 1 | Course name | Changed | Changes |
| | | | Retained | No changes |
| | 2 | Course code | Changed | Changes |
| | | | Retained | No changes |
| | 3 | Course credit | Changed | Changes |
| | | | Retained | No changes |
| | 4 | Course learning outcomes (CLO) | Changes in CLO to PLO mapping | Changes |
| | | | Changes in Bloom's Taxonomy level | Changes |
| | | | CLO dropped | Changes |
| | | | CLO added | Changes |
| | | | CLO retained | No changes |
| | 5 | Delivery method | Retained | No changes |
| | | | Changes less than 50% | No changes |
| | | | Changes more than 50% | Changes |
| | 6 | | Retained | No changes |

| | | | | |
|--|---|-----------------------|-----------------------|------------|
| | | Assessment method | Changes less than 50% | No changes |
| | | | Changes more than 50% | Changes |
| | 7 | Assessment percentage | Retained | No changes |
| | | | Changes less than 50% | No changes |
| | | | Changes more than 50% | Changes |
| | 8 | Course content | Retained | No changes |
| | | | Changes less than 50% | No changes |
| | | | Changes more than 50% | Changes |

SOURCE: HEA website

5.2 Percentage of Changes

The method of measuring the percentage change in the curriculum of academic programmes offered by the respective schools in UUM is intended to allow the programme owner to know such change(s) in the process of curriculum review. The calculation is based on the changes in both the programme and course components. The sample calculations are provided in the following section.

Sample Calculation 1: Changes in PEO or PLO

- a) Changes in PEO or PLO can occur if:
- i. The number of PEOs or PLOs changes; either the number of PEOs or PLOs decreases or increases.

| Item | The original number of PEOs or PLOs (A) | Number of new PEOs or PLOs (B) |
|------|---|--------------------------------|
| PEO | 3 | 5 |

| | |
|--|-----|
| Percentage of change, $C = [B - A] / A \times 100$ $= [5 - 3] / 3 \times 100$ | 40% |
|--|-----|

| | | |
|---|-------|----|
| PLO | 8 | 11 |
| Percentage of change, $C = [B - A] / A \times 100$ $= [11 - 8] / 8 \times 100$ | 37.5% | |

Total changes in the number of PEOs and PLOs = 40% + 37.5% = 77.5%

- ii. There is a change in the statement of PEO or PLO that brings a change of context (domain change) to the initial PEO or PLO.

| Item | The original number of PEOs or PLOs (A) | The number of PEOs or PLOs has changed (B) |
|--|---|--|
| PLO | 8 | 2 |
| Percentage of change, $C = B/A \times 100$ $= 2/8 \times 100$ | 25% | |

Sample Calculation 2: Changes in the Course

- a) There are improvements in the core programme components after the review has been carried out.

| Item | The total credit hours affected by the changes |
|---|--|
| 1. BEEB1013 changed from three (3) credit hours to four (4) credit hours. | 3 |
| 2. BEEB2013 changed CLO to PLO mapping (3 credit hours) | 3 |
| 3. BEED1013 Changes in the content are more than 30% (3 credit hours) | 3 |
| TOTAL | 9 |

Calculation of the Percentage Changes:

| Item | The original total credit hours (A) | The total credit hours affected by the changes (B) |
|---|-------------------------------------|--|
| Core Courses of the Programme | 54 | 9 |
| Percentage of change, $C = B/A \times 100$ $= 9/54 \times 100$ | | 16.7% |

6.0 THE APPROVAL PROCESS

6.1 The University Approval

The application for curriculum review must reach a few stages at the university level before it is finally approved and endorsed by the University Senate. The University curriculum approval processes are established to ensure that not only the standards for high quality university curriculum are met and maintained but the curriculum offered also meets the needs of the students. The approval process should be done appropriately and effectively through various stages:

- i. The completed working paper for the curriculum review that has been prepared by the respective Schools (see Section 4.2) needs to be tabled at the *Jawatankuasa Saringan* JKPA (AEDU) for review and evaluation to identify areas of possible improvement.
- ii. When *JK Saringan* is satisfied that the necessary amendments have been carried out, the working paper will be brought forward to the JKPA University for approval. Upon revision/approval of the paper, the respective schools need to table the paper at the University Senate for the final approval.
- iii. Upon receiving the Senate's approval, the new curriculum is effective from the date of the approval.

6.2 MoHE and MQA Approval

Upon the completion of the curriculum review process, the University needs to inform the MoHE and MQA of the type of changes made to the academic programme to enable the MQR to be updated. As such, if the changes evolve around information relating to the internal operation, the Senate's approval is sufficient.

The table 6.2 below shows the type of changes and the level of approval needed in order for the review to become effective.

Table 6.2 Type of changes and the level of approval

| TYPE OF CHANGES | ACTION BY UUM/RESPECTIVE SCHOOLS |
|--|---|
| <p>i. Changes that require amendments to the details as stated in the Malaysia Qualifications Register.</p> <p><i>Perubahan Yang Memerlukan Pindaan Maklumat Pada Daftar Kelayakan Malaysia (MQR)</i></p> | |
| <p>a) Editorial changes of the programme title (e.g., Bachelor (Information Technology) to Bachelor of Information Technology)</p> <p><i>Pindaan editorial pada penamaan program. (Contoh: Sarjana Muda (Teknologi Maklumat) kepada Sarjana Muda Teknologi Maklumat</i></p> <p>b) Editorial changes of the National Education Code (NEC). (e.g., NEC 340 to NEC 342).</p> <p><i>Pindaan editorial pada National Education Code (NEC). (Contoh: NEC 340 kepada NEC 342)</i></p> <p>c) Changes of the total credit for graduation (e.g., Bachelor programme 123 credits to 136 credits).</p> <p><i>Perubahan kredit bergraduasi. (Contoh: Program Sarjana Muda 123 kredit kepada 136 kredit)</i></p> <p>d) Changes of the duration of study (e.g., duration of 2 ½ years to 2 years OR total of teaching weeks in a semester from 14</p> | <p>Application for KPT approval through presenting a paperwork for the curriculum review.</p> <p><i>Memohon kelulusan KPM (PT) dengan mengemukakan Kertas Cadangan Semakan Kurikulum.</i></p> <p>Inform MQA in writing and attach it with the KPT letter of approval for any changes/amendment of information.</p> <p><i>Memaklumkan kepada MQA secara bertulis dengan disertakan surat kelulusan perubahan/pindaan maklumat daripada KPM (PT) bersama maklumat perubahan.</i></p> <p>Inform BPKP and the relevant sponsors regarding the approval of the changes.</p> <p><i>Memaklumkan kelulusan perubahan ini kepada BPKP dan badan penaja yang berkaitan.</i></p> |

| | |
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| <p>weeks to 17 weeks OR changes of number of short and long semester OR total of teaching week per semester).</p> <p><i>Perubahan tempoh pengajian. (Contoh: Tempoh pengajian 2 ½ tahun kepada 2 tahun ATAU bilangan minggu pembelajaran dalam 1 semester daripada 14 minggu kepada 17 minggu ATAU perubahan bilangan semester panjang dan pendek atau bilangan minggu pengajian per semester)</i></p> <p>e) Changes/Addition to the mode of study (e.g., Part time or full time).</p> <p><i>Perubahan/Penambahan kaedah pengajian. (Contoh: Sepenuh masa atau separuh masa)</i></p> | |
| <p>ii. STRUCTURAL changes of the programme framework (curriculum) without changing the field of study (does not involve change to NEC). Percentage of curriculum changes is CUMULATIVE based on the original approval of the curriculum.</p> <p><i>Perubahan bersifat STRUKTURAL pada rekabentuk program (kurikulum) yang tidak membawa kepada pertukaran bidang pengajian lain (tidak membawa kepada penukaran NEC). Peratusan perubahan kurikulum yang diambil kira adalah secara KUMULATIF berdasarkan kurikulum asal seperti yang diluluskan</i></p> | |
| <p>a) Title /name of the program caused by amendment of the Body of Knowledge (BOK) or following the current trend.</p> <p><i>Penamaan program disebabkan pindaan pada Body of Knowledge (BOK) atau mengikut trend penamaan semasa.</i></p> <p>b) Changes/Addition to Work-Based Learning method (WBL)</p> | <p>Application for the MoHE approval through a paperwork for the curriculum review. <i>Memohon kelulusan KPM (PT) dengan mengemukakan Kertas Cadangan Semakan Kurikulum.</i></p> <p>If the changes require amendment to MQR, PPT needs to inform MQA in writing and attach it with the MoHE letter of approval for changes/amendment of information.</p> <p><i>Sekiranya perubahan memerlukan pindaan pada MQR, PPT perlu memaklumkan kepada MQA secara bertulis dengan disertakan surat kelulusan perubahan/pindaan maklumat</i></p> |

| | |
|---|--|
| <p>(e.g.,: WBL method which is developed based on GGP:WBL or GGP:2u2i).</p> <p><i>Perubahan/Penambahan kepada kaedah Work-Based Learning (WBL). (Contoh: Kaedah WBL yang dibangunkan berdasarkan Garis Panduan Amalan Baik: Pembelajaran Berasaskan Kerja (GGP:WBL) atau Garis Panduan Pelaksanaan Mod Pengajian 2u2i)</i></p> <p>c) Programme structure (e.g.,: Major, Minor or Specialisation)</p> <p><i>Struktur program. (Contoh: Major, minor atau pengkhususan)</i></p> <p>d) Changes of the Programme Educational Objectives (PEO) or Programme Learning Outcomes (PLO).</p> <p><i>Perubahan pada Objektif Pendidikan Program (Programme Educational Objectives, PEO) atau Hasil Pembelajaran Program (Programme Learning Outcomes, PLO).</i></p> <p>e) Changes of the structural curriculum contents are more than 30 percent (30%) from the original curriculum which are the core major or minor components, or specialisation which affects dropping, adding or substituting of courses or major changes of the Course Learning Outcomes (CLO) which is not editorial or both.</p> | <p><i>daripada KPM (PT) bersama maklumat perubahan</i></p> |
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|---|---|
| <p>(e.g.: Changes of the curriculum of bachelor programme 120 credit involving change of 6 courses amounting to 18 credit. In addition, major changes to CLO are made to 7 other courses amounting to 21 credits. Overall, the structural changes involve 39 credits which is 32.5% from curriculum component).</p> <p><i>Perubahan kandungan kurikulum bersifat struktural melebihi 30% daripada kurikulum asal komponen teras, major, minor atau pengkhususan yang melibatkan pengguguran, penambahan atau penggantian kursus atau perubahan major Course Learning Outcomes (CLO) yang bukan editorial atau gabungan kedua-duanya.</i></p> <p><i>(Contoh: Perubahan kurikulum program Sarjana Muda 120 kredit yang melibatkan pertukaran enam (6) kursus sebanyak 18 kredit. Dalam pada itu, perubahan major CLO dibuat ke atas tujuh (7) kursus lain sebanyak 21 kredit. Secara keseluruhan, perubahan struktural melibatkan 39 kredit iaitu 32.5% daripada komponen kurikulum)</i></p> | |
| <p>iii. Changes of the programme framework (curriculum) leading to the change of the field of study (change of NEC).</p> <p><i>Perubahan pada reka bentuk program (kurikulum) yang membawa kepada pertukaran bidang pengajian lain (membawa kepada pertukaran NEC).</i></p> | |
| <p>a) Change of title and programme content leading to other field BOK (e.g., Bachelor of Information Technology to Bachelor of Business Information System;</p> | <p>The University Senate has to accredit new programme. <i>Senat universiti perlu mengakreditasi program baharu.</i> The application for MoHE approval through a paperwork for the curriculum review.</p> |

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| <p>Master of Administration to Master of Human Resource).</p> <p><i>Perubahan penamaan dan kandungan program yang menjurus kepada Body of Knowledge (BOK) bidang pengajian lain.</i></p> <p><i>Contoh:</i></p> <ul style="list-style-type: none"> - <i>Sarjana Muda Teknologi Maklumat kepada Sarjana Muda Sistem Maklumat Perniagaan</i> - <i>Sarjana Pentadbiran Perniagaan kepada Sarjana Sumber Manusia.</i> | <p><i>Memohon kelulusan KPM (PT) dengan mengemukakan Kertas Cadangan Permohonan Program Akademik Baharu.</i></p> <p>Next, submit the programme details/information to MQA together with the MoHE approval letter for conducting the programme to be recorded in the Provisional Accreditation List or registered in the MQR.</p> <p><i>Seterusnya mengemukakan maklumat program kepada MQA beserta surat kelulusan mengendalikan program daripada KPM (PT) untuk disenaraikan dalam Senarai Akreditasi Sementara atau didaftarkan dalam MQR.</i></p> |
| <p>iv. Changes/addition to the course delivery method from the Conventional to Open and Distance Learning (ODL) mode OR changes/addition to the mode of study from mixed mode or coursework mode to research mode for postgraduate programme.</p> <p><i>Perubahan/penambahan kaedah penyampaian program daripada Konvensional kepada Open and Distance Learning (ODL) ATAU perubahan/penambahan mod penawaran program daripada mod campuran atau mod kerja kursus kepada mod penyelidikan bagi program pascasiswazah.</i></p> | |

| | |
|---|--|
| <p>a) Changes/addition to the course delivery method from the conventional to Open and Distance Learning (ODL) mode.</p> <p><i>Perubahan/penambahan kaedah penyampaian program daripada Konvensional kepada Open and Distance Learning (ODL)</i></p> <p>b) Changes/addition to the mode of study from mixed mode or coursework mode to the research mode for the postgraduate programme.</p> <p><i>Perubahan/penambahan mod penawaran program daripada mod campuran atau mod kerja kursus kepada mod penyelidikan bagi program pascasiswazah.</i></p> | <p>The University Senate has to accredit new programme. <i>Senat universiti perlu mengakredit program baharu.</i></p> <p>Application for MoHE approval through a paperwork for the curriculum review. <i>Memohon kelulusan KPM (PT) dengan mengemukakan Kertas Cadangan Permohonan Program Akademik Baharu.</i></p> <p>Next, submit programme details/information to MQA together with the approval letter from MoHW for conducting the programme to be recorded in the Provisional Accreditation List or registered in the MQR. <i>Seterusnya mengemukakan maklumat program kepada MQA beserta surat kelulusan mengendalikn program daripada KPM (PT) untuk disenaraikan dalam Senarai Akreditasi Sementara atau didaftarkan dalam MQR.</i></p> |
| <p>v. Changes other than Category i, ii, iii and iv.</p> <p><i>Perubahan selain daripada Kategori i, ii, iii dan iv.</i></p> | |
| <p>a) Changes made to fulfil the standard programme requirements. <i>Perubahan bagi memenuhi keperluan standard program.</i></p> <p>b) Coordinate course contents by substituting/replacing with current issues and relevant topics. <i>Penyelarasan kandungan kursus dengan penggantian topik selaras dengan perkembangan ilmu semasa.</i></p> <p>c) Add blended learning component in the management/component of the programme.</p> | <p>No need to inform MQA and MoHE. PPT needs to keep all records and documentations of the review for endorsement during the compliance audit/evaluation. <i>Tidak perlu memaklumkan kepada MQA dan KPM (PT). PPT perlu menyimpan rekod dan bukti-bukti pengesahan untuk semakan semasa penilaian audit pematuhan.</i></p> |

| | |
|---|---|
| <p><i>Penambahan komponen pembelajaran teradun (blended learning) dalam pengendalian program.</i></p> <p>d) Changes of the composition of formative and summative assessments. <i>Perubahan kaedah atau komposisi penilaian formatif dan sumatif.</i></p> <p>e) Changes of the course synopsis. <i>Perubahan sinopsis kursus.</i></p> <p>f) Update/amend references. <i>Pengemaskinian bahan rujukan.</i></p> | |
| <p>g) Changes of the academic session for the first cohort of a new programme. <i>Perubahan Sesi Pengajian bagi pengambilan kohort pertama program baharu.</i></p> <p>h) Changes of the academic session which relate to the changes of details/curriculum review. <i>Perubahan Sesi Pengajian yang terlibat dengan perubahan maklumat/semakan kurikulum.</i></p> <p>i) Changes of information of the programme status. <ul style="list-style-type: none"> - Withhold - Discontinue - Streamline/reoffering <p><i>Perubahan Maklumat Status Program</i></p> <ul style="list-style-type: none"> - Penjumudan - Pembekuan - Penawaran semula program </p> | <p>No need to inform MQA and MoHE. PPT needs to keep all records and documentations for endorsement purposes during the compliance audit/evaluation. <i>Tidak perlu memaklumkan kepada MQA. PPT perlu menyimpan rekod dan bukti-bukti pengesahan untuk semakan semasa penilaian audit pematuhan.</i></p> <p>Changes of item (g), (h) and (i): Need to apply for MoHE's approval; attach a justification letter. <i>Perubahan pada item g), h) dan i) perlu memohon kelulusan KPM (PT) dengan mengemukakan surat justifikasi permohonan.</i></p> |

| | |
|--|---|
| <p>j) Disposal of Academic Programme <i>Pelupusan Program Akademik</i></p> | <p>Submission of disposal of academic programme letter together with the accreditation certificate to MQA. <i>Mengemukakan surat penghentian program dan menyerahkan sijil perakuan akreditasi kepada MQA.</i></p> <p>Apply for endorsement from MoHE; attach a letter of justification for the application. <i>Memohon pengesahan KPM (PT) dengan mengemukakan surat justifikasi permohonan.</i></p> |
|--|---|

6.3 Board of Approval

The Board of Approval is only required when the curriculum review process involves additional staff, physical and financial resources. (Refer to the letter by JPT(A)1000/001/019/01Jld.21(34) dated 12 November 2020).

REFERENCES

- Ahmad Azli, N. (2018). Overview on 21st Century Curriculum. Available online from https://utmlead.utm.my/download/course_materials/lt_2019/program_pemeriksaan_kurikulum_abad_ke-21/21CC-NAA.pdf
- Fernandez-Chung, R.M. (1998). A Model for Curriculum Credit Distribution, Deakin University, Australia, Geelong.
- Jabatan Pengajian Tinggi (2018). Malaysia Future Ready Curriculum Framework : An Introduction. Available online from [https://ir.unimas.my/id/eprint/26655/1/Pengenalan%20Rangka%20Kurikulum%20Tersedia%20Masa%20Hadapan\(2\).pdf](https://ir.unimas.my/id/eprint/26655/1/Pengenalan%20Rangka%20Kurikulum%20Tersedia%20Masa%20Hadapan(2).pdf)
- Jabatan Pengajian Tinggi (2018). Garis Panduan Pembangunan Program Akademik Universiti Awam, Edisi Kedua.
- Malaysia Qualifications Agency (2017). Terminologi Standard bagi Program Joint-Degree (JD) dan Double Degree (DD). Available online from <https://www.mqa.gov.my/pv4/document/advisoryNotes/Advisory%20Note%20No.%201%202017%2020april2017.pdf>
- Malaysia Qualifications Agency (2019). Malaysia Qualifications Framework (MQF) 2nd Edition. Available online from <https://www.mqa.gov.my/pv4/document/mqf/2019/Oct/updated%20MQF%20Ed%202%2024102019.pdf>
- Malaysia Qualifications Agency (2014). Guideline to Good Practices: Monitoring, Reviewing and Continually Improving Institutional Quality (GGP:MR-CIIQ). Available online from <https://www2.mqa.gov.my/qad/garispanduan/MR%20CIIQ%20BI.pdf>
- Naidu, S. (2017). How flexible is flexible learning, who is to decide and what are its implications? *Distance Education*, 38(3), 269-272, DOI: [10.1080/01587919.2017.1371831](https://doi.org/10.1080/01587919.2017.1371831)

APPENDICES

Lampiran 1: FORMAT KERTAS CADANGAN PERMOHONAN SEMAKAN KURIKULUM UNTUK MESYUARAT JAWATANKUASA PENDIDIKAN TINGGI (JKPT)

| Bil. | Perkara | Keterangan |
|------|--|--|
| 1. | UNIVERSITI AWAM | Nyatakan nama universiti. |
| 2. | TUJUAN | Nyatakan dengan ringkas tujuan kertas cadangan |
| 3. | VISI, MISI & MATLAMAT PENDIDIKAN UNIVERSITI | Nyatakan visi, misi dan Matlamat Pendidikan universiti. |
| 4. | BIDANG TUJAHAN UNIVERSITI | Nyatakan bidang tujuhan universiti. |
| 5. | ENTITI AKADEMIK YANG MEMOHON | 5.1 Nyatakan program akademik sedia ada di entiti akademik yang memohon semakan kurikulum. 5.2 Nyatakan secara ringkas sejarah penubuhan dari segi tarikh penubuhan, bilangan program akademik dan bilangan pelajar terkini yang berdaftar. |
| 6. | LOKASI PENAWARAN | 6.1 Nyatakan lokasi program akademik dijalankan 6.2 Nyatakan lokasi baharu yang dicadangkan (jika berkaitan). 6.3 Nyatakan kelulusan Audit Lokasi (jika berkaitan). |
| 7. | PROGRAM AKADEMIK YANG DISEMAK | Nyatakan nama program akademik dalam Bahasa Melayu dan Bahasa Inggeris. Contoh: <i>Sarjana Muda Undang-Undang</i> <i>Bachelor of Law</i> |
| 8. | TAHAP KERANGKA KELAYAKAN MALAYSIA (MQF) | Nyatakan tahap MQF program yang disemak. Contoh: Sarjana Muda: Tahap 6 |

| Bil. | Perkara | Keterangan | | | | | | | | | |
|-------------------------|---|--|-------------------------|-----------------------|------------------------|--------------|-------------------------|--------------------------|--------------|--------------------------|--------------------------|
| 9. | NATIONAL EDUCATION CODE (NEC) | Nyatakan kod bidang program akademik tersebut berdasarkan manual NEC. | | | | | | | | | |
| 10. | PENGIKTIRAFAN BADAN PROFESIONAL | Nyatakan sama ada program akademik perlu diiktiraf oleh mana-mana badan profesional. Contoh: Lembaga Kelayakan Profesyen Undang-Undang (<i>Legal Profession Qualifying Board</i>). | | | | | | | | | |
| 11. | INSTITUSI/ORGANISASI KERJASAMA | Sekiranya ia melibatkan penawaran bersama institusi/organisasi lain, nyatakan nama institusi/organisasi dan nama program yang berkaitan di institusi/organisasi berkenaan. Sila lampirkan LoI/MoU/MoA | | | | | | | | | |
| 12. | SESI PENGAJIAN KURIKULUM YANG DISEMAK SEMULA BERKUAT KUASA | Nyatakan semester dan sesi pengajian program akademik akan dimulakan. Contoh: Semester 1 Sesi 2018/2019 (September 2018). | | | | | | | | | |
| 13. | MOD PENAWARAN | Nyatakan mod penawaran sama ada kerja kursus, penyelidikan, campuran dan mod industri. Bagi mod industri, nyatakan status mod penawaran semasa sama ada diteruskan atau tidak. | | | | | | | | | |
| 14. | KREDIT BERGRADUAT | Nyatakan jumlah kredit bergraduasi program akademik tersebut. | | | | | | | | | |
| 15. | KAEDAH DAN TEMPOH PENGAJIAN | <p>15.1 Nyatakan kaedah pengajian sama ada secara sepenuh masa atau separuh masa.</p> <p>15.2 Nyatakan tempoh minimum dan maksimum pengajian.</p> <p>Contoh:</p> <table border="1"> <thead> <tr> <th>Kaedah Pengajian</th> <th>Tempoh Minimum</th> <th>Tempoh Maksimum</th> </tr> </thead> <tbody> <tr> <td>Sepenuh Masa</td> <td>4 Tahun (8 semester)</td> <td>6 Tahun (12 semester)</td> </tr> <tr> <td>Separuh Masa</td> <td>6 Tahun (12 semester)</td> <td>7 Tahun (16 semester)</td> </tr> </tbody> </table> | Kaedah Pengajian | Tempoh Minimum | Tempoh Maksimum | Sepenuh Masa | 4 Tahun (8 semester) | 6 Tahun (12 semester) | Separuh Masa | 6 Tahun (12 semester) | 7 Tahun (16 semester) |
| Kaedah Pengajian | Tempoh Minimum | Tempoh Maksimum | | | | | | | | | |
| Sepenuh Masa | 4 Tahun (8 semester) | 6 Tahun (12 semester) | | | | | | | | | |
| Separuh Masa | 6 Tahun (12 semester) | 7 Tahun (16 semester) | | | | | | | | | |

| Bil. | Perkara | Keterangan |
|------|--------------------------------------|---|
| | | 15.3 Nyatakan dengan jelas sekiranya terdapat gabungan semester panjang dan semester pendek |
| 16. | KAEDAH PENYAMPAIAN PROGRAM | <p>16.1 Nyatakan kaedah penyampaian sama ada:</p> <ul style="list-style-type: none"> i. Konvensional ii. Pembelajaran Terbuka dan Jarak Jauh (<i>Open and Distance Learning, ODL</i>) <p>16.2 Nyatakan Pembelajaran dan Pengajaran (PdP) Yang Transformatif berasaskan penyampaian abad ke-21 menerusi ruang pembelajaran yang futuristik serta penggunaan teknologi digital terkini bagi mewujudkan pembelajaran imersif berdasarkan pengalaman.</p> |
| 17. | JUSTIFIKASI SEMAKAN KURIKULUM | <p>Nyatakan justifikasi yang merangkumi rasional berikut (mana yang berkaitan):</p> <ul style="list-style-type: none"> 17.1 Unjuran statistik keperluan pekerjaan di sektor awam dan swasta bagi tempoh 5 tahun. 17.2 Jenis pekerjaan yang berkaitan dan jumlah keperluan industri. Hasil dapatan <i>Labour Force Survey (LFS)</i> boleh digunakan sebagai sumber rujukan. 17.3 Peratus Kebolehpasaran Graduan (<i>Graduate Employability</i>) bagi program sedia ada. 17.4 Faktor perkembangan dan perubahan teknologi. 17.5 Perubahan standard program 17.6 Kajian Pasaran 17.7 Laporan Penilai/Pemeriksa Luar 17.8 Laporan Penambahbaikan Kualiti Berterusan (<i>Continual Quality Improvement, CQI</i>) 17.9 Analisis Dapatan Pemegang Taruh 17.10 Penandaarasan 17.11 Keperluan semasa dalam bidang 17.12 Amalan Pendidikan Berimpak Tinggi (<i>High</i> |

| Bil. | Perkara | Keterangan | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|-----------------------|--------------|--------|--|--|--|---------|--|--|--|--|--|----------|--|--|--|--|--|----------|--|--|--|--|--|
| | | <p><i>Impact Educational Practices, HIEPs)</i></p> <p>17.13 Konsolidasi atau Segregasi</p> <p>17.14 Lain-lain justifikasi yang berkaitan.</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. | KELESTARIAN PROGRAM | Nyatakan kelestarian program dengan memfokuskan kepada isu sejauh manakah program dijangka bertahan di pasaran | | | | | | | | | | | | | | | | | | | | | | | | |
| 19. | OBJEKTIF PENDIDIKAN PROGRAM | Nyatakan Objektif Pendidikan Program (PEO). | | | | | | | | | | | | | | | | | | | | | | | | |
| 20. | HASIL PEMBELAJARAN PROGRAM | <p>20.1 Nyatakan keupayaan keterampilan kompetensi khusus (<i>specific competencies</i>) yang akan ditunjukkan oleh pelajar di akhir program, seperti domain yang dinyatakan dalam MQF dan Standard Program (jika berkaitan).</p> <p>20.2 Tunjukkan matriks Hasil Pembelajaran Program (PLO) lawan Objektif Pendidikan Program (PEO).</p> <p>20.3 Tunjukkan matriks Kursus lawan Hasil Pembelajaran Program (PLO).</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| 21. | KOMPONEN/MAKLUMAT YANG DIUBAH DAN STRUKTUR KURIKULUM BAHARU | <p>21.1 Nyatakan perubahan komponen/ maklumat program (rujuk Lampiran 3.1 untuk kategori perubahan maklumat).</p> <table border="1" data-bbox="759 1444 1489 1597"> <thead> <tr> <th>Komponen/ Maklumat</th> <th>Sedia Ada</th> <th>Baharu</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>21.2 Lampirkan struktur kurikulum dan pelan pengajian terkini.</p> | Komponen/ Maklumat | Sedia Ada | Baharu | | | | | | | | | | | | | | | | | | | | | |
| Komponen/ Maklumat | Sedia Ada | Baharu | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22. | UNJURAN PELAJAR | <p>Nyatakan unjuran, enrolmen dan keluaran pelajar dalam tempoh lima (5) tahun.</p> <table border="1" data-bbox="759 1814 1489 1966"> <thead> <tr> <th>Tahun</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Unjuran</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Enrolmen</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Keluaran</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Tahun | | | | | | Unjuran | | | | | | Enrolmen | | | | | | Keluaran | | | | | |
| Tahun | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unjuran | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enrolmen | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keluaran | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Bil. | Perkara | Keterangan |
|-------------|---|--|
| 23. | SYARAT KEMASUKAN | <p>23.1 Nyatakan syarat am, khusus dan syarat khas kemasukan/program</p> <p>23.2 Nyatakan keperluan kelayakan asas termasuk Band MUET.</p> <p>23.3 Nyatakan keperluan dan kemahiran prasyarat serta syarat/kelayakan lain jika diperlukan.</p> <p>23.4 Nyatakan keperluan pelajar untuk mengambil apa-apa kursus khas bagi mereka yang tidak memenuhi kriteria kemasukan, syarat am dan khusus mengikut kelulusan Senat.</p> <p>23.5 Nyatakan kategori OKU yang diterima masuk ke program ini.</p> |
| 24. | PERBANDINGAN PROGRAM AKADEMIK YANG DIPOHON DENGAN UNIVERSITI LAIN DALAM NEGARA/PERTINDIHAN PROGRAM | <p>24.1 Nyatakan program yang sama atau hampir sama di universiti lain (awam dan swasta) dalam negara/pertindihan program.</p> <p>24.2 Nyatakan persamaan, perbezaan dan kekuatan program akademik yang dipohon dengan program universiti yang lain dalam negara yang dibandingkan.</p> |
| 25. | PERBANDINGAN DENGAN PROGRAM AKADEMIK DI UNIVERSITI LUAR NEGARA | <p>25.1 Nyatakan program yang sama atau hampir sama yang ditawarkan oleh universiti lain di luar negara.</p> <p>25.2 Nyatakan persamaan, perbezaan dan kekuatan program akademik yang dipohon dengan program universiti yang lain di luar negara yang dibandingkan.</p> |
| 26. | IMPLIKASI PERJAWATAN/FIZIKAL DAN KEWANGAN | <p>26.1 Nyatakan keperluan perjawatan sama ada memadai dengan perjawatan sedia ada atau penambahan baharu.</p> <p>26.2 Nyatakan keperluan fizikal/infrastruktur sama ada memadai dengan keperluan fizikal/infrastruktur sedia ada atau penambahan baharu.</p> |

| Bil. | Perkara | Keterangan | | | | | | | | | | |
|--|---|---|------------------|---------------|--|--|----------------------------------|--|------------------------------|--|---------|--|
| | | <p>26.3 Nyatakan implikasi kewangan yang berkaitan.</p> <p>26.4 Nyatakan sama ada implikasi yang dinyatakan menggunakan peruntukan dalaman universiti atau memerlukan peruntukan tambahan daripada pihak kementerian.</p> | | | | | | | | | | |
| 27. | PENJUMUDAN/ PEMBEKUAN/ PELUPUSAN PROGRAM | Nyatakan program sedia ada yang telah/akan dijumudkan/dibekukan/dilupuskan | | | | | | | | | | |
| 28. | MAKLUMAT KELULUSAN ASAL PROGRAM AKADEMIK | <table border="1"> <thead> <tr> <th>Kelulusan</th> <th>Tarikh</th> </tr> </thead> <tbody> <tr> <td>Kelulusan asal program oleh Senat UA</td> <td></td> </tr> <tr> <td>Kelulusan asal program oleh JKPT</td> <td></td> </tr> <tr> <td>Sesi program asal ditawarkan</td> <td></td> </tr> </tbody> </table> <p>Nyatakan nombor rujukan/kod QR akreditasi dalam Daftar Kelayakan Malaysia (MQR)</p> | Kelulusan | Tarikh | Kelulusan asal program oleh Senat UA | | Kelulusan asal program oleh JKPT | | Sesi program asal ditawarkan | | | |
| Kelulusan | Tarikh | | | | | | | | | | | |
| Kelulusan asal program oleh Senat UA | | | | | | | | | | | | |
| Kelulusan asal program oleh JKPT | | | | | | | | | | | | |
| Sesi program asal ditawarkan | | | | | | | | | | | | |
| 29. | TARIKH SEMAKAN KURIKULUM DILULUSKAN | <table border="1"> <thead> <tr> <th>Kelulusan</th> <th>Tarikh</th> </tr> </thead> <tbody> <tr> <td>Tarikh semakan kurikulum terdahulu oleh JKPT</td> <td></td> </tr> <tr> <td>Akreditasi Penuh/MQA</td> <td></td> </tr> <tr> <td>Senat</td> <td></td> </tr> <tr> <td>LPU/LGU</td> <td></td> </tr> </tbody> </table> | Kelulusan | Tarikh | Tarikh semakan kurikulum terdahulu oleh JKPT | | Akreditasi Penuh/MQA | | Senat | | LPU/LGU | |
| Kelulusan | Tarikh | | | | | | | | | | | |
| Tarikh semakan kurikulum terdahulu oleh JKPT | | | | | | | | | | | | |
| Akreditasi Penuh/MQA | | | | | | | | | | | | |
| Senat | | | | | | | | | | | | |
| LPU/LGU | | | | | | | | | | | | |

MAKLUMAT PEGAWAI PENYEDIA DOKUMEN UNTUK DIHUBUNGI:

| MAKLUMAT | URUS SETIA UA | ENTITI AKADEMIK YANG MEMOHON |
|-------------------------|-----------------------------|--|
| Nama | Nama Pegawai Pentadbiran | Nama Dekan/Pengarah |
| Jawatan | Jawatan Pegawai Pentadbiran | Dekan/Pengarah Fakulti/Pusat Pengajian/ Pusat/Institut |
| No. Tel. pejabat | | |
| No. Tel. Bimbit | | |
| E-Mel | | |

Nota: Pihak UA hendaklah menghantar dua (2) salinan dokumen berserta satu (1) cakera padat yang mengandungi kertas cadangan dalam format *Microsoft Word*, saiz *font* 12 dan jenis *font* Arial

FREQUENTLY ASKED QUESTIONS (FAQ)

1) What is flexible education?

Flexible education is an education system that is responsive to time, place and teaching method. It is also supported by technology in offering academic programmes (teaching-enhanced learning, TEL).

2) How should I design a good curriculum review?

A good curriculum review should consider the future ready curriculum framework (FRCF) as outlined by Jabatan Pengajian Tinggi (JPT). FRCF consists of three main elements namely; fluid & organic curriculum structure; transformative learning and teaching delivery; and alternative assessment.

3) Why should every academic programme conduct a periodic programme review?

The periodic programme review need to be conducted at least three (3) to five (5) years to improve the academic programmes in response to the changing nature of the discipline, trends in the industry, stakeholders' expectation, shifting in student demographic as well as outcomes of module and programme evaluation.

4) What data will be used to conduct a periodic programme review?

During the periodic programme review process, the HEP needs to consider changes in programme standards, input from market needs analysis, input from external examiner report, CQI report, stakeholder report, benchmarking process and the adequacy of resources (physical infrastructure, financial and human) and the sustainability of the current programme.

5) Who should be involved in a curriculum review process?

Every school in the university should be involved. The respective schools should form a Curriculum Review Committee (By Programme) and this programme committee at the school level normally include the Head of Department, Programme Coordinator and all faculty members involved in teaching the programmes.

6) How frequent should the curriculum review be conducted?

The curriculum review should be conducted at least once within three (3) to five (5) years after the first programme offering (after receiving full accreditation for an undergraduate programme) or after receiving input/ feedback from the MOHE based on the programme standards or professional body accreditation requirements.

Prepared by:
Academic Excellence Development Unit (AEDU)
Department of Academic Affairs, UUM

April 2021