PROGRAMME STANDARDS :

CREATIVE MULTIMEDIA TECHNOLOGY

Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

2nd Edition

This set of Programme Standards has been prepared to enhance the development of academic programmes in Creative Multimedia Technology and to ensure the quality of graduates. With this document, higher education providers will be able to provide quality education in Creative Multimedia Technology.

Programme Standards: Creative Multimedia
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FOREWORD

The Malaysian Qualifications Agency (MQA) has published numerous quality assurance documents such as the Malaysian Qualifications Framework (MQF), Code of Practice for Programme Accreditation (COPPA), Code of Practice for Institutional Audit (COPIA), Code of Practice for TVET Programme Accreditation (COPTPA), Code of Practice for Programme Accreditation: Open and Distance Learning (COPPA: ODL), Standards, Programme Standards (PS) and Guidelines to Good Practices (GGP), to ensure that the programmes offered by Higher Education Providers (HEPs) in Malaysia meet international practices. It is imperative that these documents must be revised periodically to reflect the changes in the industry, economy and the practice of higher education.

The MQA policies and good quality assurance practices are maintained through the PS guided by MQF, COPPA, and discipline requirements and practices. The MQA first introduced the PS for Creative Multimedia in 2012. Generally, the PS is subject to a comprehensive review every five years in order to update the requirements. The revised PS reflects the outcomes of the review conducted to ensure its relevance to the rapidly changing Creative Multimedia Technology programmes offered by different HEPs across higher education, technical and vocational education, and training providers.

This PS outlines revised sets of requirements describing the minimum levels of acceptable practices in the Creative Multimedia Technology programmes based on the quality assurance areas in COPPA 2nd Edition (programme development and delivery, assessment of student learning, student selection and support services, academic staff, educational resources, programme management, and programme monitoring, review and continual quality improvement), encompassing all levels of qualifications ranging from Certificate (Level 3) to Doctoral Degree (Level 8) in the MQF.

An expert panel (see Appendix 1) reviewed the PS based on the feedback obtained from the HEPs, expert assessors, MQA and the industry. The revisions were further refined through multiple online consultations involving public and private HEPs, relevant government and statutory agencies, professional bodies, industry, alumni and students (see Appendix 2). The revised PS reflects national and international good practices to ensure Creative Multimedia Technology graduates from Malaysian HEPs are globally competitive.

The MQA would like to express its heartfelt appreciation to all the panel members and all stakeholders for their valuable inputs and all the MQA officers who have contributed to developing the PS for Creative Multimedia Technology. Ultimately, the revised PS should benefit different stakeholders in producing creative multimedia technology graduates to face future challenges.

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Chief Executive Officer

Malaysian Qualifications Agency (MQA)

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ABBREVIATIONS

COPIA	Code of Practice for Institutional Audit
COPPA	Code of Practice for Programme Accreditation
COPPA: ODL	Code of Practice for Programme Accreditation: Open and Distance Learning
COPTPA	Code of Practice for TVET Programme Accreditation
CPD	Continuous Professional Development
GGP	Guidelines to Good Practices
HEP	Higher Education Provider
MOOC	Massive Open Online Courses
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
NOSS	National Occupational Skills Standard
PEO	Programme Educational Objective
PS	Programme Standards
SDG	Sustainable Development Goals
SKM	*Sijil Kemahiran Malaysia*
SPM	*Sijil Pelajaran Malaysia*
STAM	*Sijil Tinggi Agama Malaysia*
STPM	*Sijil Tinggi Persekolahan Malaysia*
TVET	Technical and Vocational Education and Training
WBL	Work-based Learning

1. INTRODUCTION

One of the primary objectives of the MQA is to monitor the quality of delivery, the systems, and the processes used by HEPs to achieve learning outcomes. The prepared outlines have processes to ensure the quality of education, and fair and ethical practices for learners to achieve the skills they need from the HEPs. This provides qualifications that are relevant and valuable towards the quality assurance areas of the students' intended disciplines and practices in the disciplinary areas of Creative Multimedia Technology (previously known as Creative Multimedia).

The additional word "technology" in the 'Creative Multimedia' Programme Standard; refers to the study of principles, methods, and the current tools arrived from various scientific findings utilised for practical purposes and to stimulate development in various areas of society, economy, and most certainly for education. The word technology is also aligned with the current Industrial Revolution phase and future development; which observes technology-based professions that cut across various disciplines based on conceptual design to materialised technology that inspects and aspires to professional integrated roles as a technologically based design specialist.

This Programme Standard (PS) measures the performance of other impact aspects of education, such as decentralization, providing HEPs in various areas of autonomy and greater accountability for outcomes, which are equally important functions. Even though PS structures form a part of the higher education system within this tract, this given guidance is intended to formulate excellent programmes. Most of the areas measure performance; however, their precision, effectiveness, and efficiency are dependent upon the HEP's manner of governance. The availability of this framework, political will, capacity of concerned management of the HEPs and their academicians, accessibility and reliability of evidence, etc., will attend to the critical issues that influence the future of this nation and globally on the level of impact and sustainability.

This PS need to prescribe a set of minimum criteria to ensure consistency in the quality of programmes offered by various HEPs, the PS should also encourage diversity and innovation. This will allow the HEPs to craft their specific niches to meet the dynamics of the targeted employment markets and the needs of society. In addition to the ethical responsibilities, the HEPs and the students are to consider in the direction towards Sustainable Development Goals (SDG).

The involvement of all stakeholders in the making of this PS process will enhance its ownership. HEPs, as in the other sectors of development, have gone through stages of evolution over the years. Starting from broad input-output monitoring to project-based monitoring systems to meet the needs of the stakeholders, and onto the current discourse with its focus on providing timely and reliable data on evidence-based indicators of progress at the different levels of implementation, including at the industry and community levels. The ultimate aim of this PS initiative is to help the HEPs in programme development and its conduct. In turn, it would systematically monitor and evaluate the issues of the education sector in a timely, reliable and tailored to meet their own needs of improving the quality, relevance and coverage of their education sectors.

The minimum criteria in the PS are based on what is considered the minimum level that should be attained by the HEPs to ensure that a programme can be adequately delivered. This, however, does not imply that the HEPs should ultimately aim to satisfy these minimum criteria. Instead, they should strive for continual quality improvement.

Since 2012, the MQA's Programme Standards: Creative Multimedia has been a reference for HEPs in developing and offering Creative Multimedia programmes.

This PS provides a guideline to the HEPs on the minimum levels of acceptable practices in designing and offering Creative Multimedia Technology programmes at the tertiary and post-secondary levels in Malaysia. The PS aims to ensure that students are equipped with the necessary knowledge, skills and competencies at the respective levels as prescribed in the Malaysian Qualifications Framework (MQF) to enable them to pursue career opportunities in a variety of new career paths that require a high proficiency in Creative Multimedia Technology.

For curriculum design, any HEP offering or intending to offer Creative Multimedia Technology programmes must therefore be positioned in one of the following disciplines:

PREVIOUS **(to be pivoted to the new disciplinary tracks as noted in the right column)**	**UPDATE**
Advertising	Intermedia Advertising
Animation and Visual Effects	Animation
Sound Design	Sonic / Audio Design
Video and Film	Cinematics
Games Development • Games Art • Games Design • Games Technology	Games Development • Games Art • Games Design • Games Technology
Interactive Media	Immersive & Interactive Media*
Virtual Reality	Spatial Design*
	Simulation Design*
Digital Art and Design	New Media Art
	Education Technology
	Web & Mobile Content Design

* These disciplinary tracks are part of Extended Reality (augmented/virtual/mixed reality)

This PS covers all the seven quality assurance areas: (i) programme development and delivery, (ii) assessment of student learning, (iii) student selection and support services, (iv) academic staff, (v) educational resources, (vi) programme management, and (vii) programme monitoring, review and continual quality improvement. This document describes the different levels of standards leading to the award of individual qualifications prescribed in the MQF based on different modes of study, which are:

- ❖ Certificate (Level 3, MQF);
- ❖ Diploma (Level 4, MQF);
- ❖ Bachelor's Degree (Level 6, MQF);
- ❖ Master's Degree (Level 7, MQF: Coursework, Mixed Mode and Research); and
- ❖ Doctoral Degree (Level 8, MQF: Mixed Mode and Research).

This PS specifies the minimum requirements of the programme. HEPs are encouraged to go beyond the basic minimum where they should be innovative in terms of customising, organising, delivering and assessing their programmes and specific subject matters to meet the current and future needs of the industry, society and country. Hence, HEPs must take cognisance of the rapidly evolving subject matter and introduce effective and sustainable programme improvements.

As the purpose of this PS is to provide minimum requirements pertaining to the development and conduct of different levels of Creative Multimedia Technology programmes within the core areas described, it is paramount that this document is read together with other quality assurance documents and policies issued by MQA and other related agencies which include, but are not limited to the following:

1. The Malaysian Qualifications Framework (MQF) 2nd Edition
2. The Code of Practice for Institutional Audit (COPIA)
3. The Code of Practice for TVET Programme Accreditation (COPTPA)
4. The Code of Practice for Programme Accreditation (COPPA) 2nd Edition
5. The Code of Practice for Programme Accreditation: Open Distance Learning (COPPA: ODL)
6. Relevant Standards
7. Relevant Guidelines to Good Practices (GGP).

2. PROGRAMME DEVELOPMENT AND DELIVERY

2.1 PROGRAMME EDUCATIONAL OBJECTIVES

Programme educational objectives (PEOs) are broad statements that describe the career and professional accomplishments that the programme is preparing students to achieve after they graduate.

"The quality of a programme is ultimately assessed by the ability of its graduates to carry out their expected roles and responsibilities in society. This requires the programme to have a clear statement of the competencies, which are the practical, intellectual and soft skills expected to be achieved by the students at the end of the programme" (COPPA 2nd Edition, 2017).

A guidance of the PEOs are provided under each level of study from certificate to doctoral level. **The flexibility in describing the PEOs remains with the Higher Education Providers (HEPs), provided that the PEOs are consistent with the vision and mission of the HEP.**

The PEOs of each qualification level are outlined below:

	Certificate (Fundamental)	Diploma (Basic)	Bachelor's Degree (Proficient)	Master's Degree (Advanced)	Doctoral Degree (Specialist)
PEO1	**Describe** and **apply** relevant knowledge and demonstrate basic technical skills in Creative Multimedia Technology.	**Discuss** and **apply** relevant and related principles and concepts while demonstrating technical skills in Creative Multimedia Technology.	**Analyse** and **relate** broad knowledge of Creative Multimedia Technology concepts and principles to practices incorporating technical skills in relevant fields	**Compare** and **integrate** advanced and in-depth knowledge of practise / research in the relevant fields of Creative Multimedia Technology.	**Verify** and **create** solutions to issues with in-depth and state-of-the-art knowledge of practise / research in the relevant fields of Creative Multimedia Technology.
PEO2	**Participate** in leading, interacting and communicating with peers and stakeholders while conforming to ethical practices.	**Cooperate** positively in leading, interacting and communicating with peers and stakeholders while conforming to ethical practices.	**Commit** to undertake the responsibility in leading and delivering assigned tasks when leading, interacting and communicating with peers and stakeholders while	**Adapt** to relevant issues and challenges in leading, interacting and communicating with peers and stakeholders while ensuring ethical practices.	**Explicate** the issues and areas in Creative Multimedia Technology when leading and engaging stakeholders with authority and assertiveness while

	Certificate (Fundamental)	Diploma (Basic)	Bachelor's Degree (Proficient)	Master's Degree (Advanced)	Doctoral Degree (Specialist)
			ensuring ethical practices.		ensuring ethical practices.
PEO3	**Recognise** the relevant digital technology and identify the associated numerical techniques that can be applied to Creative Multimedia Technology.	**Operate** with innovation and creativity, relevant and related digital technology together with the necessary numerical techniques in Creative Multimedia Technology.	**Demonstrate** technical competency in the innovative and creative use of digital technology and apply numerical techniques in Creative Multimedia Technology.	**Manage** and **adapt** proficiently to a wide range of digital technologies and recommend the necessary numerical techniques in providing an innovative solution to the industry.	**Design** and **create** novel solutions leveraging the current digital technologies and integrating numerical techniques to solve novel problems related to academia and/or industry.
PEO4	**Acknowledge** the need for lifelong learning and entrepreneurship for career development.	**Respond** to the need for lifelong learning and entrepreneurship skills for successful career development.	**Commit** to life-long learning and **exhibit** entrepreneurial skills for academic and career advancement in relevant industries.	**Organise** resources for life-long learning and **adapt** skills, leveraging on innovation for entrepreneurship, towards successful academic and career advancement in the relevant industries.	**Advocate** life-long learning and **support** entrepreneurship in enhancing the profession and industry.

2.2 LEARNING OUTCOMES

Learning outcomes are detailed statements describing in explicit terms the achievement of learners. Assessment of the learners is conduct upon completion of a period of study.

"A programme is designed and delivered to facilitate the attainment of a set of desired learning outcomes. It starts with a clear definition of the intended outcomes that students are to achieve by the end of the programme and supported by appropriate instructional approaches and assessment mechanisms" (COPPA 2nd Edition, 2017).

The learning outcomes in Creative Multimedia Technology should **cumulatively reflect the five clusters[1] of learning outcomes** aimed to develop well-balanced individuals with a holistic set of competencies.

The five clusters of learning outcomes are:

- Knowledge and Understanding;
- Cognitive Skills;
- Functional Work Skills with a focus on:
    a. Practical Skills
    b. Interpersonal Skills
    c. Communication Skills
    d. Digital Skills
    e. Numeracy Skills
    f. Leadership, Autonomy and Responsibility
- Personal and Entrepreneurial Skills; and
- Ethics and Professionalism.

Table 2.1 shows the mapping of learning outcomes based on MQF learning outcomes for Creative Multimedia Technology. **The flexibility in describing the learning outcomes remains with the HEPs provided they are sufficiently covered.**

[1] Malaysian Qualifications Agency. (2018). Malaysian Qualifications Framework 2nd Edition. Cyberjaya, Malaysia.

Table 2.1: PLO BASED ON MQF 2.0's LO FOR CREATIVE MULTIMEDIA TECHNOLOGY

CERTIFICATE

At the end of the programme, graduates will be able to:

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
1. Explain and apply basic knowledge and tools including numeracy skills in their field of study.	•	•					•				
2. Demonstrate the ability to perform tasks based on instructions including the use of digital media technology, and various intermedia techniques in Creative Multimedia Technology.		•	•			•					
3. Recognise and able to communicate and interact with peers, clients, superiors and society in a work-related environment.				•	•						
4. Cooperate with responsibility and commitment to professional and ethical practices including adherence to health, safety and environmental rules and regulations.								•			•
5. Prepare and produce creative content with digital technology applications.			•			•					
6. Demonstrate initiative for lifelong learning and have an entrepreneurial mindset in the application of Creative Multimedia Technology.									•	•	

DIPLOMA

At the end of the programme, graduates will be able to:

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
1. Discuss and apply relevant and related knowledge including numeracy skills in the specialised field of study.	•	•					•				
2. Apply design knowledge and practices in content creation.		•	•								
3. Demonstrate responsibility to articulate, communicate, interact and document workflow with peers, clients, superiors and society.			•	•	•						
4. Comprehend and communicate multimedia / visual literacy in Creative Multimedia Technology.					•						
5. Manage and execute content creation with digital technology applications.						•	•				
6. Demonstrate commitment in leadership with professional and ethical practices including adherence to legal requirements and organisational functions.								•			•
7. Demonstrate lifelong learning initiatives for academic and career development and an entrepreneurial mindset in the applications of Creative Multimedia Technology.									•	•	

BACHELOR'S DEGREE

At the end of the programme, graduates will be able to:

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
1. Analyse and apply broad knowledge and skills including the use of numeracy techniques in relevant areas in Creative Multimedia Technology effectively for innovative practices.	•	•					•				
2. Critically analyse historical, contextual, conceptual theories, and ethical judgement in Creative Multimedia Technology practice.	•	•									
3. Create, conceive ideation and innovation for the practise areas of Creative Multimedia Technology.		•	•			•					
4. Articulate and communicate ideas and concepts comprehensively in visual, written and oral engagements.				•	•						
5. Execute design concepts and ~~cost~~ analysis through the use of digital and other technologies for effective delivery.			•			•	•				
6. Construct a Creative Multimedia Technology, through reflectivity, reviews and evaluations.		•	•								
7. Communicate and interact effectively with experts, peers, clients, superiors and society under work and organisational related environment for the development of Creative Multimedia Technology.				•	•						

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
8. Demonstrate commitment in leadership and accountability and a commitment to professional and ethical practices, including adherence to legal requirements and organisational functions.								•			•
9. Demonstrate commitment to lifelong learning for academic and career development and an entrepreneurial mindset in the applications of Creative Multimedia Technology.									•	•	

MASTER'S DEGREE

At the end of the programme, graduates will be able to:

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
1. Integrate advanced and multi-disciplinary knowledge related to practices and issues in Creative Multimedia Technology.	•	•									
2. Create, conceive ideation and digital innovation for the advancement of knowledge in the practice areas of Creative Multimedia Technology; with maintained objectivity for new ideas.		•	•			•					
3. Adapt advanced skills in practice-based, practice-led research, and research methodology; in documentation, description, appraisals, and empirical analysis of evidence and problems.	•		•				•				
4. Create, construct, communicate and interact with ideas that are at the forefront of their area of specialisation.		•		•	•						
5. Design and promote innovative portfolio, practice or research incorporating socio-cultural issues and industry needs through appropriate Creative Multimedia Technology approach.		•	•								
6. Demonstrate interpersonal, managerial and leadership skills with a commitment to professional and ethical practices in delivering innovative or creative services and / or conducting exploratory research.				•				•			•

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
7. Proficient use of digital technology and other applied technologies and numeracy skill applications to enhance study, research, work and / or practices.						•	•				
8. Demonstrate commitment to continuing professional development for academic and career advancement and an entrepreneurial mindset in the application of Creative Multimedia Technology.									•	•	

DOCTORAL DEGREE

At the end of the programme, graduates will be able to:

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
1. Incorporate multi-disciplinary and advanced knowledge through a systematic judgement with an in-depth understanding of the field of study.	•	•									
2. Utilise advanced scholastic, critical academic inquiry and assessment, and practise expertise in their field of study to expand the body of knowledge through autonomous and original ideas.		•	•								
3. Generating new concepts, hypotheses, methods, goods, or advanced practises and empirical analysis, through the conduct of critical research, assessment, and synthesis.		•	•				•				
4. Utilise the appropriate use of emerging technology including digital platforms, to communicate and engage with academics and the industry towards collaborative research findings.				•	•	•					
5. Demonstrate exemplary managerial, autonomy, and leadership abilities, as well as a dedication to technical and ethical standards, in the delivery of innovative or creative content.								•	•		•

PLO	MQF 2.0										
	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
6. Advocate continuing professional development for academic and career advancement and an entrepreneurial mindset in the application of digital creative content.									•	•	

Note:

These mapping are the recommended example; HEP are required to cater towards their programme mapping towards their HEP's objective

2.3 CURRICULUM DESIGN AND DELIVERY[2]

Learning and teaching can only be effective when the curriculum content and the programme structure are kept abreast with the most current development in its field of study (COPPA 2nd Edition, 2017). 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 (Guidelines to Good Practice: Curriculum Design and Delivery, 2011).

This section outlines the minimum credits of each curriculum component for all levels of qualifications as stated in Table 2.2. Specific requirements as to the body of knowledge of the various core areas are in **Appendix 3**. **HEPs have the flexibility to design their programme. However, they should cover the body of knowledge indicated in this document.**

In addition, HEPs are encouraged to develop their programmes to reflect the current best practices and to offer a high-quality academic programme. Creative Multimedia Technology programmes may vary in their nomenclature; however, the programme nomenclature must reflect the content of the programme as indicated in the MQF. Examples for each level are in **Appendix 4**.

Table 2.2: Minimum credits of each curriculum component for all levels of qualifications

CERTIFICATE (LEVEL 3, MQF)

<table>
<tr><th>COMPONENT</th><th>MINIMUM CREDITS</th></tr>
<tr><td>Compulsory Courses
(General* and HEPs courses)</td><td>4</td></tr>
<tr><td>Core**</td><td rowspan="2">45</td></tr>
<tr><td>Industrial Training*** (optional)</td></tr>
<tr><td>Elective**** (optional)</td><td>0</td></tr>
<tr><td>Subtotal Credits</td><td>49</td></tr>
<tr><td colspan="2">To complete the minimum requirement of 60 credits, the remaining 11 credits can be placed in any of the categories above.</td></tr>
<tr><td>GRADUATING CREDITS</td><td>60</td></tr>
</table>

[2] Standards in this area are best read together with Guidelines to Good Practices: Curriculum Design and Delivery, which is available on the MQA Portal: www.mqa.gov.my.

Notes:

*	General courses refer to Mata Pelajaran Pengajian Umum (MPU) courses which are mandatory. Please refer to *Garis Panduan Mata Pelajaran Pengajian Umum (MPU) Edisi Kedua* for the minimum credit requirement as stipulated by the Ministry of Higher Education (MoHE). HEP has an option to offer its own compulsory courses in addition to the General courses.
**	● The Core component is inclusive of common and discipline core.
***	● Industrial training must be in a relevant industry and is allocated at a minimum, according to the formula of 1 credit = 2 weeks of training. It is recommended to be placed in the final year. ● **Industrial training is OPTIONAL** for the HEP to offer. If industrial training is offered, the minimum recommendation is 4 credit hours (2 months).
****	Flexibility is given to HEPs to determine the appropriate range.

Recommended Delivery Methods:

- Lectures / Tutorials
- Practical classes / Practical workshop / Studio / Laboratory work / Demonstration technique
- Work-based Learning (WBL) (conventional, 2u2i, incubation, technopreneurship)
- Blended learning
- Industry speaker
- Field / Industry visits
- Apprenticeship
- Industrial training
- Exhibition

DIPLOMA (LEVEL 4, MQF)

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	6
Core**	59
Industrial Training*** (optional)	
Elective**** (optional)	0
Subtotal Credits	**65**
To complete the minimum requirement of 90 credits, the remaining 25 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**90**

Notes:

*****	General courses refer to Mata Pelajaran Pengajian Umum (MPU) courses which are mandatory. Please refer to *Garis Panduan Mata Pelajaran Pengajian Umum (MPU) Edisi Kedua* for the minimum credit requirement as stipulated by the Ministry of Higher Education (MoHE). HEP has an option to offer its own compulsory courses in addition to the General courses.
**	● The Core component is inclusive of common and discipline core.
***	● Industrial training must be in a relevant industry and is allocated at a minimum number, according to the formula of 1 credit = 2 weeks of training. It is recommended to be placed in the final year. ● **Industrial training is OPTIONAL** for the HEP to offer. If industrial training is offered, the minimum requirement is 6 credit hours (3 months).
****	Flexibility is given to HEPs to determine the appropriate range.

Recommended Delivery Methods:

- Lectures / Tutorials
- Practical classes / Practical workshop / Studio / Laboratory work / Demonstration technique
- WBL (conventional, 2u2i, incubation, technopreneurship)
- Blended learning
- Industry speaker
- Field / Industry visits
- Apprenticeship
- Industrial training
- Exhibition

BACHELOR'S DEGREE (LEVEL 6, MQF)

Single Major Programme

E.g. Bachelor in Environmental Design, Bachelor in Emerging Technology, Bachelor in Instructional Technology, Bachelor in Multimedia Advertising, Bachelor in Animation, Bachelor in Visual Effects, Bachelor in Game Technology

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	8
Core**	66
Industrial Training***	6
Elective **** (optional)	0
Subtotal Credits	**80**
To complete the minimum requirement of 120 credits, the remaining 40 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**120**

Specialisation Programme

E.g. Bachelor in Digital Media Design (Mobile Application), Bachelor in Interactive Media Design (Immersive Media), Bachelor in Learning Technology (Gamification), Bachelor in Game Development (Environment)

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	8
Core**	66
Industrial Training***	6
Specialisation	30
Elective **** (optional)	0
Subtotal Credits	**110**
To complete the minimum requirement of 120 credits, the remaining 10 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**120**

Major - Minor Programme

E.g. Bachelor in Web Design with Programming, Bachelor in Interactive Media with Marketing, Bachelor in Multimedia with Management, Bachelor in Game Art with Illustration, Bachelor in Learning Technology with Entrepreneurship, Bachelor in Game Development with E-Sports Management

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	8
Core** (Major)	66
Industrial Training*** (Major)	6
Minor	30
Elective**** (optional)	0
Subtotal Credits	**110**
To complete the minimum requirement of 120 credits, the remaining 10 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**120**

Double Major Programme

Double Major within this programme standard

E.g. Bachelor in Learning Technology and Game Development, Bachelor in Game Art and Animation, Bachelor in Spatial Design and Immersive Media

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	8
Common Core	66
Discipline Core** (Major 1)	
Discipline Core** (Major 2)	40
Industrial Training***	6
Electives****	0
GRADUATING CREDITS	**120**

Double Major from different programme standard

E.g. Bachelor in Simulation Design and Archaeology, Bachelor in Cinematics and Artificial Intelligence, Bachelor in Immersive Media and Manufacturing

COMPONENT		MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)		8
Core of CMT**	Common Core	66
	Discipline Core	
Industrial Training***		6
Core of Second Major from other programme standard **		Minimum credit requirement for core component as per the specific programme standards. Minimum of 66 credits for Second Major without its own Programme Standard or field suitability.
Industrial Training***		Based on programme standards or the field requirement
Electives****		0
GRADUATING CREDITS		**146**

Notes:

*	General courses refer to Mata Pelajaran Pengajian Umum (MPU) courses which are mandatory. Please refer to *Garis Panduan Mata Pelajaran Pengajian Umum (MPU) Edisi Kedua* for the minimum credit requirement as stipulated by the Ministry of Higher Education (MoHE). HEP has an option to offer its own compulsory courses in addition to the General courses.
**	● The Core component is inclusive of common and discipline core. ● For a double major programme, if the majors are governed by programme standards (PS), the minimum core requirements can be based on the respective PS. However, the minimum graduating credit specified in this PS must be fulfilled.
***	● Industrial training must be in a relevant industry and is allocated at a minimum, according to the formula of 1 credit = 2 weeks of training. It is recommended to be placed in the final year. ● At a Bachelor's degree level, **industrial training is COMPULSORY** with a minimum of 6 credits (3 months).
****	Flexibility is given to HEPs to determine the appropriate range.

Recommended Delivery Methods:

- Lectures / Tutorials
- Interactive Learning
- Blended learning
- Practical classes / Practical workshop / Studio / Laboratory work / Demonstration technique
- Field / Industry visits
- Fieldwork
- Apprenticeship
- Industrial training
- Industry speaker
- Task-based learning
- Problem-based learning
- Project-based learning
- WBL (conventional, 2u2i, incubation, technopreneurship)
- Experiential learning
- Final year project
- Seminar
- Empirical studies
- Case study
- Exhibition

MASTER'S DEGREE by COURSEWORK (LEVEL 7, MQF)

<table>
<tr><th colspan="3">COMPONENT</th><th>CREDITS</th></tr>
<tr><td rowspan="7">Core</td><td colspan="2">Discipline (coursework subjects)</td><td>20 – 30</td></tr>
<tr><td colspan="3">AND (choose one of the options below)</td></tr>
<tr><td colspan="2">Master Project Report
Recommended: The Master Project Report is 7,000 to 10,000 words, or any other equivalent value and must fulfil the minimum PLO.</td><td rowspan="5">10 – 18</td></tr>
<tr><td colspan="2">OR</td></tr>
<tr><td>Exegesis
Recommended: The exegesis and creative output constitute a studio-based research of 5,000 to 7,000 words, a documented record of visual or creative work and must fulfil the minimum PLO.</td><td>Creative Output
prototype / exhibition / poster presentation / technology application / portfolio / etc.</td></tr>
<tr><td>50%</td><td>50%</td></tr>
<tr><td colspan="2">Exegesis with Creative Output must be executed simultaneously as the due process to its completion.</td></tr>
<tr><td colspan="3">Elective (optional)</td><td>0</td></tr>
<tr><td colspan="3">Subtotal</td><td>30 – 48</td></tr>
<tr><td colspan="4">To complete the minimum requirement of 40 credits, the remaining credits can be placed in discipline or elective categories above.</td></tr>
<tr><td colspan="3">GRADUATING CREDITS</td><td>40</td></tr>
</table>

Recommended Delivery Methods:

- Lectures
- Practical classes / Practical workshop / Studio / Laboratory work / Demonstration technique
- Blended learning
- Studio work
- Fieldwork
- Apprenticeship
- Guest lecture series (prominent speakers from the industry and academic institutions)
- Seminar
- Exhibition
- Face-to-face supervision
- Workshop
- Case study

MASTER'S DEGREE by MIXED MODE (LEVEL 7, MQF)

<table>
<tr><th colspan="3">COMPONENT</th><th>MINIMUM CREDITS</th></tr>
<tr><td rowspan="7">Core</td><td colspan="2">Discipline</td><td>12</td></tr>
<tr><td colspan="2">AND (choose one of the options below)</td><td></td></tr>
<tr><td colspan="2">Dissertation
Recommended: Submission of a dissertation of 12,000 to 20,000 words, or any other equivalent value and must fulfil the minimum PLO.</td><td rowspan="5">28</td></tr>
<tr><td colspan="2">OR</td></tr>
<tr><td>Exegesis
Recommended: The exegesis and creative output constitute a studio-based research of 10,000 to 15,000 words, a documented record of visual or creative work and must fulfil the minimum PLO.</td><td>Creative Output
Creative output – prototype / exhibition / poster presentation / technology application / portfolio / etc.</td></tr>
<tr><td>70%</td><td>30%</td></tr>
<tr><td colspan="2">Exegesis with Creative Output must be executed simultaneously as the due process to its completion.</td></tr>
<tr><td colspan="3">GRADUATING CREDITS</td><td>40</td></tr>
</table>

Notes: (for Master's degree by Coursework and Mixed Mode)

i. Coursework components must include research methodology.

ii. The ratio of coursework to dissertation is within the range of 50:50 or 40:60 or 30:70. (Refer to the Standards: Master's and Doctoral Degree).

iii. Students are required to undertake research in a related field of study and submit a dissertation / exegesis with creative output.

Recommended Delivery Methods:

- Lectures
- Practical classes / Practical workshop / Studio / Laboratory work / Demonstration technique
- Blended learning
- Studio work
- Fieldwork
- Apprenticeship
- Guest lecture series (prominent speakers from the industry and academic institutions)
- Seminar
- Exhibition

- Face-to-face supervision
- Workshop
- Case study

MASTER'S DEGREE by RESEARCH (LEVEL 7, MQF)

COMPONENT	CREDITS	REMARKS
Dissertation / Exegesis with creative output Recommended: Submission of a dissertation of 20,000 to 50,000 words, or any other equivalent value and must fulfil the minimum PLO. Recommended: The exegesis and creative output constitute a studio-based research of 15,000 to 30,000 words, a documented record of visual or creative work and must fulfil the minimum PLO.	No credit value	Students must have followed a research methodology course (which must encompass the broad approaches methods and analyses in the field or disciplines) or show evidence of attendance in any equivalent courses which support research in the field/s to be undertaken by the candidates.

Notes:

i. Students are required to undertake research in a related field of study and submit a dissertation / exegesis with creative output.

ii. The weightage ratio of research process and activities against creative output must be within the range of 70:30.

iii. The HEP must have a set of procedures and guidelines pertaining to:
   a) The minimum and maximum period of study.
   b) Format of the dissertation (refer to the Standards: Master's and Doctoral Degree)
   c) Format of exegesis and creative output.

iv. Exegesis with Creative Output must be executed simultaneously as the due process to its completion.

Recommended delivery methods:

- Lectures
- Face-to-face supervision
- Seminar / Workshop
- Supervision of dissertation

DOCTORAL DEGREE by MIXED MODE (LEVEL 8, MQF)

<table>
<tr><th colspan="3">COMPONENT</th><th>MINIMUM CREDITS</th></tr>
<tr><td rowspan="7">Core</td><td colspan="2">Discipline</td><td>24</td></tr>
<tr><td colspan="2">AND</td><td rowspan="6">56</td></tr>
<tr><td colspan="2">Thesis
Recommended: Submission of a thesis of 50,000 to 60,000 words, or any other equivalent value and must fulfil the minimum PLO.</td></tr>
<tr><td colspan="2">OR</td></tr>
<tr><td>Exegesis
Recommended: The exegesis and creative output constitute to studio-based research of 30,000 to 50,000 words and documented record of visual or creative work and must fulfil the minimum PLO.</td><td>Creative Output
Creative output – prototype / exhibition / poster presentation / technology application / portfolio / etc.</td></tr>
<tr><td>70%</td><td>30%</td></tr>
<tr><td colspan="2">Exegesis with Creative Output must be executed simultaneously as the due process to its completion.</td></tr>
<tr><td colspan="3">GRADUATING CREDITS</td><td>80</td></tr>
</table>

Notes:

i. Students are required to undertake research in a related field of study and submit a thesis / exegesis with creative output.

ii. The ratio of coursework to dissertation is within the range of 50:50 or 40:60 or 30:70 (refer to the Standards: Master's and Doctoral Degree).

iii. The programme must include appropriate training in research methodology.

iv. The HEP must have a set of procedures and guidelines pertaining to the format of the thesis (refer to the Standards: Master's and Doctoral Degree) or format of exegesis and creative output.

Recommended delivery methods:

- Lectures
- Blended learning
- Practical classes / laboratory work
- Studio work practical classes / Practical workshop / Studio / Laboratory work / Demonstration techniques
- Fieldwork

- Apprenticeship
- Guest lecture series (prominent speakers from the industry and academic institutions)
- Seminar
- Exhibition
- Face-to-face supervision
- Workshop
- Case study

DOCTORAL DEGREE by RESEARCH (LEVEL 8, MQF)

COMPONENT	CREDITS	REMARKS
Thesis / Exegesis with creative output Recommended: Submission of a thesis of 80,000 to 100,000 words, or any other equivalent value and must fulfil the minimum PLO. Recommended: The exegesis and creative output constitute studio-based research of 60,000 to 80,000 words and documented record of visual or creative work and must fulfil the minimum PLO.	No credit value	Students must have followed a research methodology course (which must encompass the broad approaches methods and analyses in the field or disciplines) or show evidence of attendance in any equivalent courses which support research in the field/s to be undertaken by the candidates.

Notes:

i. Students are required to undertake research in a related field of study and submit a thesis / exegesis with creative output.

ii. The weightage ratio of research process and activities against creative output must be within the range of 70:30.

iii. The HEP must have a set of procedures and guidelines pertaining to:
   a) Minimum and maximum periods of study.
   b) Format of the thesis Degree or format of exegesis and creative output. (refer to the Standards: Master's and Doctoral)

iv. Exegesis with Creative Output must be executed simultaneously as the due process to its completion.

v. **PhD by Retrospective or Prior Publication**

The applicant must have publications that contribute to the scholarship of knowledge in the field and are acknowledged by academic peers. A formal application must be submitted to the HEP and must include:

a) a minimum of 5 publications or equivalent works in alignment with the theme of the specialization;

b) an executive summary of the above publications to demonstrate the applicant's contribution to knowledge in the field; and

c) a list of scholarly publication / peer-reviewed creative work or equivalent

(refer to the Standards: Master's and Doctoral)

Recommended delivery methods:

- Lectures
- Face-to-face supervision
- Seminar / Workshop
- Training attachment

3. ASSESSMENT OF STUDENT LEARNING[3]

"Assessment of students learning is a key aspect of quality assurance and it is one of the most important indicator of learning outcomes achievement. Hence, it is crucial that appropriate assessment methods and mechanism are in place. Qualifications are finally awarded on the basis of the results of the assessment. The assessment methods used must be aligned, clear, consistent, effective, reliable, engaging, authentic and in line with current practices. They must clearly measure the achievement of the intended learning outcomes" (COPPA 2nd Edition, 2017).

The methods of assessment depend on the specific requirements of each course. Nonetheless, the following must be considered as a general guide:

i. Assessments should comprise formative and summative assessments;
ii. Assessments must be appropriate to the learning outcomes;
iii. **Candidates are required to pass BOTH continuous and final assessments for every course**. HEPs can define the meaning of a pass; however, a pass should imply that the examiner is satisfied that the candidate has met all the learning outcomes of the particular course; and
iv. **The HEP must have clear marking guidelines such as assessment rubrics, marking schemes and others for continuous and final assessments to indicate the achievement of course learning outcomes.**

The percentages of continuous and final assessments for a course at each level of study are presented in Table 3. The suggested form of assessments indicated are merely examples. The HEPs are encouraged to use a variety of methods and tools appropriate for measuring learning outcomes and competencies.

[3] Standards in this area are best read together with Guidelines to Good Practices: Assessment of Students, which is available on the MQA Portal: www.mqa.gov.my.

Table 3: The percentages of continuous and final assessments for each common core and discipline core course

LEVEL	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	SUGGESTED FORMS OF ASSESSMENT
CERTIFICATE (LEVEL 3, MQF)	50 to 70	30 to 50	○ Assignment ○ Quiz / Test ○ Demonstrations ○ Observation ○ Presentations ○ Practical assessment ○ Laboratory reports ○ Reflective module assessment ○ Self-reflective report ○ Peer assessment ○ Portfolio / Log book ○ Final examination (written / oral) ○ Project / Industry products ○ Simulation ○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry) ○ Final year project (compulsory) – excluded for Certificate
DIPLOMA (LEVEL 4, MQF)	60 to 70	30 to 40	
BACHELOR'S DEGREE (LEVEL 6, MQF)	40 to 70	30 to 60	
MASTER'S DEGREE (LEVEL 7, MQF)			
COURSEWORK	40 to 60	40 to 60	○ Assignment ○ Course / Module Project ○ Presentation ○ Seminar ○ Research / Capstone project ○ Project Report / Exegesis ○ Exhibition ○ Reviews and critiques ○ Graduate seminar ○ Graduate studio ○ Simulation

LEVEL	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	SUGGESTED FORMS OF ASSESSMENT
			○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry)
MIXED MODE	30 to 40	60 to 70	○ Assignment ○ Course / Module project ○ Presentation ○ Seminar ○ Research / Capstone project ○ Dissertation / Exegesis ○ Exhibition ○ Reviews and critiques ○ Graduate seminar ○ Graduate studio ○ Simulation ○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry)
RESEARCH	0	100 (Dissertation / Exegesis with creative output)	○ Proposal defence ○ Research Progress ○ Dissertation/ Exegesis ○ Viva voce ○ Presentation ○ Seminar ○ Simulation ○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry)
DOCTORAL DEGREE (LEVEL 8, MQF)			
MIXED MODE	30 to 40	60 to 70	○ Assignment ○ Course / Module project

LEVEL	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	SUGGESTED FORMS OF ASSESSMENT
			○ Presentation ○ Seminar ○ Written / Oral assessment ○ Viva voce ○ Thesis ○ Exhibition ○ Reviews and critiques ○ Final project ○ Graduate seminar ○ Graduate studio ○ Graduate exhibition (online / virtual / conventional) ○ Simulation ○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry)
RESEARCH	0	100 (Thesis / Exegesis with creative output)	○ Proposal defence ○ Research progress ○ Thesis ○ Viva voce ○ Presentation ○ Seminar ○ Simulation ○ Virtual online assessment (traditional & alternative) ○ Expert-based assessment (academic & industry)

Notes:

i. The HEPs should have a clear policy on the appointment of external and internal examiners.

ii. The examiners should be from the relevant field of study.

iii. The composition of the dissertation / thesis / exegesis and creative output's examiners are prescribed as follows:

a. Master's degree by Coursework

The Masters Project Report or Exegesis with Creative Output to be examined by at least two examiners (with one external examiner from academic or industry related to the candidate's field of discipline).

b. Master's Degree by Mixed Mode

The Dissertation or Exegesis with Creative Output is to be examined by at least two examiners (with one external examiner from academic or industry related to the candidate's field of discipline).

c. Master's Degree by Research

The Dissertation or Exegesis with Creative Output is to be examined by at least two examiners, one of whom is an external examiner (with one external examiner from academic or industry related to the candidate's field of discipline).

d. Doctoral Degree by Mixed Mode / Research

The Thesis or Exegesis with Creative Output is to be examined by at least three examiners, two of whom are external examiners from academic or industry related to the candidate's field of discipline.

4. STUDENT SELECTION

This section of the Programme Standards relates to the selection of students for programme of study.

"In general, admission to a programme needs to comply with the prevailing policies of the Ministry of Higher Education (MoHE). There are varying views on the best method of student's selection. Whatever method is used, the HEP must be able to defend the consistency of the method it utilises. The number of students to be admitted to a programme is determined by the capacity of the HEP and the number of qualified applicants. HEP admission and retention policies must not be compromised for the sole purpose of maintaining the desired enrolment. If a HEP operates geographically separated campuses or if the programme is a collaborative one, the selection and assignment of all students must be consistent with national policies" (COPPA 2nd Edition, 2017).

The standards for the recruitment selection of students into the Creative Multimedia Technology programmes shall be formulated in reference to generic national higher education policies pertaining to minimum student entry requirement.

The minimum entry requirements are shown in **Table 4:**

Table 4: Minimum Entry Requirement for Student Admission

LEVEL	ENTRY REQUIREMENTS	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENTS)
CERTIFICATE (LEVEL 3, MQF)	i. Possesses *Sijil Pelajaran Malaysia* (SPM) with at least credit in any ONE (1) subject; **OR** ii. Possesses *Sijil Kemahiran Malaysia* (SKM) Level 2 in relevant field; **OR** iii. Other relevant equivalent qualifications recognised by the Malaysian Government. **AND** iv. Pass an interview (online / virtual / conventional) **OR** submission of student's portfolio, to be determined by the HEP as required.	-

LEVEL	ENTRY REQUIREMENTS	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENTS)
DIPLOMA (LEVEL 4, MQF)	i. Possesses SPM with at least credit in THREE (3) subjects; **OR** ii. Possesses SKM Level 3 / *Sijil Vokasional Malaysia* (SVM) (Note: The HEPs are to conduct screening and provide necessary guidance specific to the discipline of the programme); **OR** iii. A Certificate (Level 3, MQF) in relevant field with at least CGPA of 2.00; **OR** iv. A pass in *Sijil Tinggi Persekolahan Malaysia* (STPM) with at least Grade C (GP 2.00) in any subject; **OR** v. A pass in *Sijil Tinggi Agama Malaysia* (STAM) with at least Grade *Maqbul*; **OR** vi. Other relevant equivalent qualifications recognised by the Malaysian Government. **AND** vii. Pass an interview (online / virtual / conventional) **OR** submission of student's portfolio, to be determined by the HEP as required.	Achieve a minimum score of High Band 2 in the Malaysian University English Test (MUET) or equivalent to CEFR Mid B1.***
BACHELOR'S DEGREE (LEVEL 6, MQF)	i. A pass in STPM with at least Grade C (GP 2.00) in any TWO (2) subjects; **OR** ii. A pass in STAM with at least grade *Jayyid*; **OR** iii. Matriculation or Foundation with at least CGPA of 2.00; **OR** iv. A Diploma (Level 4, MQF) with at least CGPA of 2.00; **OR** v. An Advanced Diploma (Level 5, MQF) with at least CGPA of 2.00; **OR**	Achieve a minimum score of Band 3 in MUET or equivalent to CEFR Low B2.***

LEVEL	ENTRY REQUIREMENTS	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENTS)
	vi. A *Diploma Kemahiran Malaysia* (DKM) / *Diploma Vokasional Malaysia* (DVM) subjected to HEP Senate / Academic Board's approval****; **OR** vii. A *Diploma Lanjutan Kemahiran Malaysia* (DLKM) subjected to HEP Senate / Academic Board's approval****; *Note for (vi) & (vii): The HEPs are to conduct screening and provide necessary guidance specific to the discipline of the programme*; **OR** viii. Other relevant equivalent qualifications recognised by the Malaysian Government. **AND** ix. Pass an interview (online / virtual / conventional) **OR** submission of student's portfolio, to be determined by the HEP as required.	
MASTER'S DEGREE (LEVEL 7, MQF)	**Master's Degree by Coursework** i. A Bachelor's degree (Level 6, MQF) in relevant fields with a minimum CGPA of 2.50, as accepted by the HEP Senate; **OR** ii. A Bachelor's degree (Level 6, MQF) in relevant fields with a minimum CGPA of 2.00 and not meeting a CGPA of 2.50; **OR** iii. A Bachelor's degree (Level 6, MQF) in non-relevant fields with minimum CGPA of 2.00 as accepted by the HEP Senate and with relevant working experience; **OR** iv. A Bachelor's degree (Level 6, MQF) in non-relevant fields with minimum CGPA of 2.00 as accepted by the HEP Senate and without relevant working experience, subject to passing pre-requisite courses determined by the HEP; **OR**	Achieve a minimum score of Band 4 in MUET or equivalent to CEFR Mid B2.***

LEVEL	ENTRY REQUIREMENTS	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENTS)
	v. Other relevant equivalent qualifications recognised by the Malaysian Government. **AND** vi. Pass an interview (online / virtual / conventional) and submission of student's portfolio through rigorous internal assessment determined by the HEP as required. **Master's Degree by Mixed Mode and Research** i. A Bachelor's degree (Level 6, MQF) in relevant fields with a minimum CGPA of 2.50, as accepted by the HEP Senate; **OR** ii. A Bachelor's degree (Level 6, MQF) in relevant fields with minimum CGPA of 2.00 and not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years relevant working experience; **OR** iii. A Bachelor's degree (Level 6, MQF) in non-relevant fields with minimum CGPA of 2.00 and with 5 years relevant working experience; **OR** iv. Other relevant equivalent qualifications recognised by the Malaysian Government. **AND** v. Pass an interview (online / virtual / conventional), submission of student's portfolio and research proposal through rigorous internal assessment determined by the HEP as required.	
DOCTORAL DEGREE (LEVEL 8, MQF)	*__Doctoral Degree by Mixed Mode / Research / **Industrial Doctoral Degrees / PhD by Retrospective or Prior Publications__ i. A Master's degree (Level 7, MQF) in relevant / non relevant fields accepted by the HEP Senate; **OR**	Achieve a minimum score of Band 4 in MUET or equivalent to CEFR High B2.***

* *Applicable to all Doctoral programmes including Doctoral Degree by Retrospective or prior publication and TVET.*
***Refer to Standard: Master's and Doctoral Degree*

LEVEL	ENTRY REQUIREMENTS	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENTS)
	ii. Other qualifications equivalent to a master's degree recognised by the Government of Malaysia. **AND** iii. Pass an interview (online / virtual / conventional), submission of student's portfolio and research proposal through rigorous internal assessment determined by the HEP as required.	

Notes:

***	Refer to Surat JPT GS 1000-630(41). 9th December 2019 – *Syarat Kompetensi Bahasa Inggeris Kepada Pelajar Antarabangsa* for equivalent English language assessments and score.
****	For Public Universities: Refer to Surat JPT.S(BPKP)2000/400/04/01 Jld.5(53), 20th November, 2019 - *Pindaan syarat kelayakan minimum (Syarat am) Diploma TVET (DKM, DLKM, DVM) sebagai syarat kelayakan masuk ke program Ijazah Sarjana Muda di Universiti Awam (UA).*
	For Private Higher Educational Institutions: Refer to Surat JPT/GS 1000-606 Jld. 2(23), 21st April, 2020 - *Kemasukan Pelajar Lulusan Diploma Kemahiran Malaysia (DKM), Diploma Lanjutan Kemahiran Malaysia (DLKM) dan Diploma Vokasional Malaysia (DVM) ke Peringkat Sarjana Muda (Tahap 6 MQF) atau yang setara dengannya di Institusi Pendidikan Tinggi Swasta.*
Exemption to the requirement for the interview OR portfolio review can be given according to the candidate's academically certified related field of studies for the entry into Certificate, Diploma and Bachelor's Degree.	
For the candidate who had not passed the internal rigorous assessment; HEP can determine for the candidate to be re-assessed for the entry to the programme to pass preparatory courses determined by the HEP before entering the programme; subjected to HEP's Senate / Academic Board's approval.	
Working experience can be cumulative industry engagement even before acquiring required qualification for a particular level of study, however it must be relevant to the level of study as well as the content.	

A Bachelor’s degree with the following conditions:

i. a Bachelor's degree in the field or related fields with first-class (CGPA of 3.67 or higher) or its equivalent from an academic or Technical and Vocational Education and Training (TVET) programme;
ii. to undergo internal assessment; and
iii. any other requirements of the HEP.

A Bachelor’s degree candidates who are registered for master’s degree programmes may apply to convert to the doctoral degree programmes subjected to the following conditions:

i. within 1 year for full time and within 2 years for part-time candidates;
ii. has shown competency and capability in conducting research at a doctoral-level through rigorous internal evaluation by the HEP; and
iii. approval of the HEP Senate.

Accreditation of Prior Experiential Learning for Access (APEL.A)

APEL.A provides an alternative entry route to formal programmes of study from Certificate (Level 3, MQF) through to Master's Degree by coursework and mixed mode (Level 7, MQF) through recognition of learning and experiences regardless of how and where it was acquired. (Refer to the Guidelines to Good Practices: Accreditation of Prior Experiential Learning (APEL)).

5. ACADEMIC STAFF[4]

"As the quality of the academic staff is one of the most important components in assuring the quality of higher education, a HEP is expected to search for and appoint the best-suited candidates, to serve its programmes, in an open, transparent and fair manner. To achieve this, HEPs are expected to design and implement an academic staff search and recruitment practice that is as efficient as it is effective to achieve the desired results. Every programme must have an appropriately qualified and sufficient number of academic staff, working in a conducive environment that attracts talented individuals. The numbers recruited have to be adequate for, and appropriate to, the needs of the programmes. The role of the academic staff in various activities has to be clarified in order to reflect a fair distribution of responsibilities. It is important for the HEP to provide a continuous staff development programme for its academic staff, for them to be current in their knowledge and skills, both in their chosen discipline as well as in their pedagogical skills" (COPPA 2nd Edition, 2017).

Table 5 provides the minimum requirements of the qualifications of academic staff and relevant staff ratios for the different qualification levels in Creative Multimedia Technology. **Besides possessing qualifications in the related field, HEPs must ensure that academic staff are assigned courses based on their areas of expertise or relevant industry experience.**

Table 5: Qualifications for Academic Staff

MQF LEVEL	REQUIREMENTS	NOTES
CERTIFICATE (LEVEL 3, MQF)	● A Bachelor's degree (Level 6, MQF) with relevant field; **OR** ● A Diploma (Level 4, MQF) in the relevant field with TWO (2) years of relevant industry experience / industry engagement **OR** the staff must be industry certified in a relevant discipline; **OR** **Tutors / Instructors** ● A Certificate (Level 3, MQF) in the relevant field with TWO (2) years of industrial working experience, **OR** the	<u>Academic staff ratio:</u> ● At least 60% of the academic staff are full-timers. ● Part-time staff may consist of industry practitioners or from academia. ● The minimum number of academic staff in relevant field for each programme is 4*. <u>Staff - student ratio:</u> ● Academic staff to student ratio – 1:15 (class practical,

[4] Standards in this area must be read together with Guidelines to Good Practices: Academic Staff and Guidelines: Academic Staff Workload, which are available on the MQA Portal, www.mqa.gov.my.

MQF LEVEL	REQUIREMENTS	NOTES
	staff must possess skills in the relevant area. (The number of staff with this qualification should not exceed 30% of the total academic staff **and they are employed as tutors / instructors).**	tutorial, courses related to studio-based, lab, workshop) ● Academic staff to student ratio – 1:30 (theory-based courses) ● Support staff to lab/studio/workshop –1:2 (Support Staff = Technicians / lab / workshop / studio assistant)
DIPLOMA (LEVEL 4, MQF)	● A Bachelor's degree (Level 6, MQF) in a relevant field; **OR** ● A Diploma (Level 4, MQF) in the relevant field with a minimum of FIVE (5) years of industry experience / industry engagement at supervisory level in the relevant field of the subject taught **OR** the academic staff member is industry certified in the relevant discipline **(the programme should not employ more than 30% of the staff in this category); OR** **Practical classes** ● A Certificate (Level 3, MQF) in the relevant field with a minimum of THREE (3) years of relevant industry experience / industry engagement or the academic staff member is industry certified in the relevant field **(qualified to teach practical classes only).** ● A Diploma (Level 4, MQF) in the relevant field with a minimum of TWO (2) years of relevant industry experience / industry engagement or the academic staff member is industry certified in the relevant field **(qualified to teach practical classes only).**	<u>Academic staff ratio:</u> ● At least 60% of the academic staff are full-timers. ● Part-time staff may consist of industry practitioners or from academia. ● The minimum number of academic staff in relevant field for each programme is 6*. <u>Staff - student ratio:</u> ● Academic staff to student ratio – 1:15 (class practical, tutorial, courses related to studio-based, lab, workshop) ● Academic staff to student ratio – 1:30 (theory-based courses) ● Project supervisor (academic staff) to student final year project (FYP) ratio – 1:15 ● Support staff to lab/studio/workshop – 1:2 (Support Staff = Technicians / lab / workshop / studio assistant) HEP is encouraged to appoint an industry practitioner as the project advisor.

MQF LEVEL	REQUIREMENTS	NOTES
BACHELOR'S DEGREE (LEVEL 6, MQF)	● A Master's degree (Level 7, MQF) in a relevant field; **OR** ● A Bachelor's degree (Level 6, MQF) in a relevant field with FIVE (5) years of relevant industry experience / industry engagement in the subject taught; (the programme should not employ more than 30% of the staff in this category); **OR** **Practical classes** ● A Diploma (Level 4, MQF) in the relevant field with a minimum of THREE (3) years of relevant industry experience / industry engagement or the academic staff member is industry certified in the relevant field **(qualified to teach practical classes only).** ● A Bachelor's degree (Level 6, MQF) in the relevant field with a minimum of ONE (1) year of relevant industry experience / industry engagement or the academic staff member is industry certified in the relevant field **(qualified to teach practical classes only).**	<u>Academic staff ratio:</u> ● At least 60% of the academic staff are full-timers. ● Part-time staff may consist of industry practitioners or from academia. ● The minimum number of academic staff in relevant field for each programme is 10*. <u>Staff - student ratio:</u> ● Academic staff to student ratio – 1:15 (class practical, tutorial, courses related to studio-based, lab, workshop) ● Academic staff to student ratio – 1:30 (theory-based courses) ● Project supervisor (academic staff) to student final year project (FYP) ratio – 1:15 ● Support staff to lab/studio/workshop – 1:2 (Support Staff = Technicians / lab / workshop / studio assistant) HEP is encouraged to appoint an industry practitioner as the project advisor.
MASTER'S DEGREE (LEVEL 7, MQF)	**<u>By Coursework, Mixed Mode and Research</u>** **(Teaching staff)** • A Doctoral degree (Level 8, MQF) in a relevant field; **OR**	<u>Academic staff ratio:</u> ● The principal supervisor must be a full-time staff. For supervision, the principal supervisor must be in the relevant field of study. ● At least 60% of the academic staff are full-timers.

MQF LEVEL	REQUIREMENTS	NOTES
	• A Master's degree (Level 7, MQF) in a relevant field with at least FIVE (5) years of teaching experience and research / project consultation / industry experience / industry engagement. **(Principal supervisor)** • A Doctoral degree (Level 8, MQF) in a relevant field; **OR** • A Master's degree (Level 7, MQF) in a relevant field a. with at least FIVE (5) years of teaching experience and research / project consultation / industry experience / industry engagement; **and** b. has co-supervised master's candidate. **(Co-supervisor)** • A Doctoral degree (Level 8, MQF) in a relevant field; **OR** • A Master's degree (Level 7, MQF) in a relevant field with at least ONE (1) year of teaching experience academic with extensive experience in research / project consultation / industry experience / industry engagement with required approval by the Senate of the HEP; **OR** • A Bachelor's degree (Level 6, MQF) in a relevant field with at least FIVE (5) years of project consultation / industry experience / industry engagement with required approval by the Senate of the HEP **(applicable for co-supervisor from industry / practitioner)**.	● Part-time staff may consist of industry practitioners or from academia. ● On a case-to-case basis, co-supervisors / co-teach can be appointed among industry practitioners or other HEPs, subject to the university's approval. ● The supervisors must go through structured supervisor training. ● The minimum number of academic staff in relevant field for each programme is 5* (only for Coursework and Mixed Mode programme). <u>Staff - student ratio:</u> ● Academic staff to student ratio – 1:15 (class practical, tutorial, courses related to studio-based, lab, workshop) ● Academic staff to student ratio – 1:30 (theory-based courses) ● Overall Principal supervisor to student ratio – 1:7** ● Support staff to lab/studio/workshop – 1:2 (Support Staff = Technicians / lab / workshop / studio assistant)

MQF LEVEL	REQUIREMENTS	NOTES
DOCTORAL DEGREE (LEVEL 8, MQF)	**By Mixed Mode and Research** **(Teaching Staff)** • A Doctoral degree (Level 8, MQF) in a relevant field with at least TWO (2) years of teaching experience; **OR** • A Master's degree (Level 7, MQF) in a relevant field with at least SEVEN (7) years of teaching experience; **OR** • A Master's degree (Level 7, MQF) in a relevant field with at least TEN (10) years of project consultation / industry experience / industry engagement with required approval by the Senate of the HEP **(applicable for teaching staff from industry / practitioner)**. **(Principal supervisor)** ● A Doctoral degree (Level 8, MQF) in a relevant field a. with at least TWO (2) years of teaching experience and research; **and** b. has supervised master's or doctoral research candidate to completion (Mixed mode / Research mode); **OR** ● A Master's degree (Level 7, MQF) in a relevant field a. with SEVEN (7) years of teaching experience with extensive experience in research / project consultation / industry experience / industry engagement with required approval by the Senate of the HEP; **and** b. has supervised master's or doctoral research candidate to completion. **(Co-supervisor)** ● A Doctoral degree (Level 8, MQF) in a relevant field with at least TWO (2) years of teaching experience and	Academic staff ratio: ● The principal supervisor must be a full-time staff. For supervision, the principal supervisor must be in the relevant field of study. ● At least 60% of the academic staff are full-timers. ● Part-time staff may consist of industry practitioners or from academia. ● On a case-to-case basis, co-supervisors / co-teach can be appointed among industry practitioners or other HEPs, subject to the university's approval. ● The supervisors must go through structured supervisor training. ● The minimum number of academic staff in relevant field for each programme is 10* (only for Mixed Mode programme). Staff - student ratio: ● Academic staff to student ratio – 1:15 (class practical, tutorial, courses related to studio-based, lab, workshop) ● Academic staff to student ratio – 1:30 (theory-based courses) ● Overall Principal supervisor to student ratio – 1:7** ● Support staff to lab/studio/workshop – 1:2 (Support Staff = Technicians / lab / workshop / studio assistant)

MQF LEVEL	REQUIREMENTS	NOTES
	research and has supervised master's candidate to completion; **OR** • A Master's degree (Level 7, MQF) in a relevant field with FIVE (5) years of teaching experience with extensive experience in research / project consultation / industry experience / industry engagement with required approval by the Senate of the HEP; **OR** • A Master's degree (Level 7, MQF) in a relevant field with at least TEN (10) years of project consultation / industry experience / industry engagement with required approval by the Senate of the HEP. (only for co-supervisor from industry / practitioner).	

Notes:

*	Refer to Surat Makluman MQA Bil. 7/2014 – *Garis Panduan Beban Staf Akademik*.
**	The overall principal supervisor-student ratio is inclusive of Master's and Doctoral degree students.
Working experience can be cumulative industry engagement even before acquiring required qualification for a particular level of study, however it must be relevant to the level of study as well as the content.	
HEPs can hire full-time Subject Specialists for all levels, who have at least a minimum of 10 years' industry experience, and notable or exceptional talent in the relevant discipline approved by the Board of Faculty / Senate.	
A candidate without a Bachelor's degree but with a Master's degree obtained through the Accreditation of Prior Experiential Learning for Access [APEL.A] route may be accepted as academic staff, considering the qualification in the related field together with the relevant industry experience gained. The HEPs should ensure that these academic staff are assigned courses based on their qualifications and areas of expertise. the related industry experience gained.	

Academic Staff Development

In order to deliver quality programmes and to produce marketable graduates, competent qualified academic staff must be employed. Hence, HEPs must ensure that the academic qualifications of their academic staff are accredited by the relevant accreditation bodies.

It would also be an advantage for the HEPs to hire those with certain years of working experience to reflect on their intellectual maturity and enrich learning experience of students.

The HEPs must commit to providing staff with development opportunities to ensure that their staff are able to contribute fully to their vision and mission. Therefore, the **HEPs must provide the academic staff with at least 40 hours per year of Continuous Professional Development (CPD) programmes** to enhance their expertise and skills in teaching, learning, assessment and research. The CPD may include participating in training, workshops and conferences; pursuing academic / professional qualifications; engaging in self-directed studies; coaching / mentoring / tutoring; and performing industrial attachments, consultancies and community services. Part-time and / or contract staff should also be considered in the CPD programmes.

6. EDUCATIONAL RESOURCES

"Adequate educational resources are necessary to support the teaching and learning activities of a programme. These include all the required academic and instructional expertise, physical facilities, information and communication technologies, research facilities, and finance" (COPPA 2nd Edition, 2017).

For Creative Multimedia Technology programmes, the HEPs are required to provide sufficient resources conducive to support teaching and learning in the field. Lecture and tutorial rooms, and technical support / facilities, must be designed to accommodate student-centred learning. For research in postgraduate programmes, candidates should be provided with a conducive work area.

Educational resources recommended for Creative Multimedia Technology programmes include:

i. Sufficient qualified experts in various fields.
ii. Technical support / facilities.
iii. Computer / laptop / digital drawing tablet.
iv. Printers and scanners facilities.
v. Internet access.
vi. Lecture / tutorial rooms (with sufficient audio-visual facilities).
vii. Library / resource center (including online resources for teaching and research) with up-to-date resources.
viii. Material and resource library
ix. Working space / station (with access to the internet).
x. Computer laboratory / studio that is well-equipped (with access to the internet).
xi. Ratio of Computer Station to Students (1:3).
xii. Sufficient access to relevant software according to the needs of the programmes and students.
xiii. Relevant online databases, online journals, statistical packages, qualitative analysis software, and citation and referencing software.
xiv. Gallery / exhibition space equipped with Exhibition Display System.
xv. Research or project lab.
xvi. CAD / CAM lab.
xvii. Digital cameras system (aerial, action, underwater, remote, drone camera, 3D camera, etc).
xviii. Videography equipment.

xix. VR Headset, console and platform.

xx. Art / Design / Drawing studio.

xxi. Sound recording studio.

xxii. Green screen studio.

xxiii. Storage space / room.

xxiv. Online learning facilities / equipment.

xxv. Performance / Motion-Capture Studio facility and its accessories

xxvi. 3D Printers and 3D Scanner.

xxvii. 360 Projection Screen / Facilities.

xxviii. Projection-Mapping equipment (hardware / software).

xxix. Laser projector.

xxx. Facilities and equipment for students with disabilities.

Table 6: Required teaching facilities and educational resources

AREAS OF CREATIVE MULTIMEDIA TECHNOLGY	TEACHING FACILITIES AND EDUCATIONAL RESOURCES
Animation	• Digital computer studio / classroom fitted with drawing interface tools (e.g. digitizer, drawing tablet, digital drawing tablet, or digital art board) • 3D Scanning and Printing equipment / facilities • Relevant Animation Software
Education Technology	• Learning spaces/pods with common areas for discussion and group discussion • Interactive board or screen • Stable internet connection and electric terminals stations • LMS / Learning platform
Game Development	• High Specification Computer Studio (complete with software and game engine related to game development) • Game Studio (equipped with relevant game devices such as consoles, mobile devices, etc)
Intermedia Advertising	• Music and Sound Recording Studio & Equipment • Photography and Videography Studio & Equipment • Industry-Appropriate System and Hardware and Editing Labs • 2D/3D Print Labs
Sonic / Audio Design	• Digital Audio Workstation (Audio software) • Audio Design and Sound Recording Studio & Equipment (live room, control room) • Sound System studio • Audio Interface • Sound Capture equipment

Cinematics	• Green Screen Studio / workshop; equipped with appropriate space, lighting accessories, facilities, backdrop sweep • Cinematographic Cameras and its accessories Appropriated as provided by the HEP programme: traditional, compact/mobile, action / steadycams, VR, holographic, aquatics, or air drones • Non-linear Editorial Tools Softwares (visual, audio, and VFX compositing) relevant to the programme • Screening theatre / facilities • Appropriated ratio of cameras to students (1:4)
New Media Art	• Maker Space/Workshop (equipped with digital fabrication tools and machines) • Digital Media Lab (equipped with sound system, projectors, TVs, LED screen etc) • Digital equipment (VR headsets, mobile devices, tablets, webcams, sensors, etc) • Photography and Videography Studio & Equipment • Music and Sound Recording Studio & Equipment
Web & Mobile Content Design	• Digital equipment (mobile devices, tablets, etc) • Photography and Videography Studio & Equipment • Music and Sound Recording Studio & Equipment
Immersive & Interactive Media	• Maker Space/Workshop (equipped with digital fabrication tools and machines) • Digital Media Lab (equipped with sound system, projectors, TVs, LED screen etc) • Digital equipment (VR headsets, mobile devices, tablets, webcams, sensors etc) • Photography and Videography Studio & Equipment • Music and Sound Recording Studio & Equipment
Spatial Design	• High Specification Computer Studio (complete with software related to spatial design) • AR/VR Headset and console • 3D Printers and 3D Scanner • CAD/CAE for design and analysis • Model making and prototyping studio
Simulation Design	• High Specification Computer Studio (complete with software related to simulation development) • VR Headset and console • 3D Printers and 3D Scanner • CAD/CAE for design and analysis • Model making and prototyping studio

Notes:

All above mentioned facilities must be appropriately and adequately equipped and must meet minimum safety standards and special needs.
All studios / workshops / classrooms / labs / workstations must be equipped with appropriate space, accessories, equipment with enough number of computers (if related to the courses), and working areas and must meet minimum safety standards.
All Creative Multimedia Technology programmes run by the HEP must have the appropriate reading references and materials accessible to the staff and students, related to the programmes in the HEP's library or resource room.
The programme must have sufficient, relevant and appropriate physical facilities and training resources at the commencement of the programme to ensure its effective delivery including facilities for practical-based programmes and those with special needs.
Opens the facilitation from the industry to collaborate, and facilitate on the needs of HEPs programme through appropriate Memorandum of Understanding (MoU) / Memorandum of Agreement (MoA) / Letter of Agreement (LoA); MQA verified and approved facilities.

7. PROGRAMME MANAGEMENT

"There are many ways of administering an educational institution and the methods of management differ between Higher Education Providers (HEPs). Nevertheless, governance that reflects the collective leadership of an academic organisation must emphasise excellence and scholarship. At the departmental level, it is crucial that the leadership provides clear guidelines and direction, builds relationships amongst the different constituents based on collegiality and transparency, manages finances and other resources with accountability, forges a partnership with significant stakeholders in educational delivery, research and consultancy, and dedicates itself to academic and scholarly endeavours. Whilst formalised arrangements can protect these relationships, they are best developed by a culture of reciprocity, mutuality and open communication" (COPPA 2nd Edition, 2017).

This PS does not raise issues pertaining to governance and administration as these are at the institutional rather than at the programme level. In this PS, academic leadership is largely focused on suitably qualified persons in the Creative Multimedia Technology to manage the programme delivery from admission to graduation. The leaders of the programme should demonstrate knowledge of the field and the attributes of good ethical values in work practices. A person holding the programme leadership position must has relevant academic qualifications and experience in the area of study. Additionally, the following characteristics may be looked in a programme leader:

i. broad-based view of creative multimedia technology and perception of the industry and its impact on the environment and society;
ii. ability to inspire others to perform at their full potential;
iii. ability to listen and communicate effectively with sensitivity to both individuals and groups;
iv. ability to show a strong commitment in translating the organisation's aspirations through initiatives consistent with the organisation's purposes;
v. ability to make sound judgements based on relevant input or information;
vi. be flexible to changing demands and pressures from key stakeholders to achieve individual and organisational goals;
vii. ability to promote continuous learning among staff and students; and
viii. ability to establish a constructive mechanism for collaboration with stakeholders.

The programme leaders, i.e. Programme Coordinator, Head of Programme or equivalent position, must meet the qualification and experience requirements as stated in **Table 7**.

Table 7: Criteria for selection of programme leader

MQF LEVEL	MINIMUM REQUIREMENTS
CERTIFICATE (LEVEL 3, MQF)	A Bachelor's degree (Level 6, MQF) in relevant field and TWO (2) years of academic with industry experience / industry engagement in relevant field; **OR** A Diploma (Level 4, MQF) in relevant field and FIVE (5) years of academic with industry experience / industry engagement in relevant field.
DIPLOMA (LEVEL 4, MQF)	A Bachelor's degree (Level 6, MQF) in a relevant field and FIVE (5) years of academic with industry experience / industry engagement in the relevant fields.
BACHELOR'S DEGREE (LEVEL 6, MQF)	A Master's degree (Level 7, MQF) in a relevant field and THREE (3) years of academic with industry experience / industry engagement in the relevant fields.
MASTER'S DEGREE (LEVEL 7, MQF)	A Doctoral degree (Level 8, MQF) in a relevant field and THREE (3) years of academic with industry experience / industry engagement.
DOCTORAL DEGREE (LEVEL 8, MQF)	A Doctoral degree (Level 8, MQF) in a relevant field and FIVE (5) years of academic with industry experience / industry engagement.

Working experience can be cumulative industry engagement even before acquiring required qualification for a particular level of study, however it must be relevant to the level of study as well as the content.

The programme must be supported by sufficient support staff. The criteria and responsibilities of the school, faculty or department academic leadership must be well documented. The management must institute a quality assurance system that is supported by sufficient administrative and support staff and the effective deployment of available resources to implement academic and non-academic activities.

Remarks: The Appointment for the Management of the Faculty, Academic Centre, Department, School, etc.; requires the HEPs' organisation's policy to be appointed accordingly to support its structural frameworks and to be appropriated towards the governing of the programme.

8. PROGRAMME MONITORING, REVIEW AND CONTINUAL QUALITY IMPROVEMENT[5]

"Quality enhancement calls for programmes to be regularly monitored, reviewed and evaluated. These include the responsibility of the department to monitor, review and evaluate the structures and processes, curriculum components as well as the student's progress, employability and performance.

Feedback from multiple sources; students, alumni, academic staff, employers, professional bodies and informed citizens to assists in enhancing the quality of the programme. Feedback can also be obtained from an analysis of students' performances and longitudinal studies.

Measures of student's performances include the average study duration, assessment scores, passing rate in examinations, success and dropout rates, students' and alumni' reports about their learning experience, as well as time spent by students in areas of special interest. Evaluation of student's performances in examinations can reveal very useful information. For example, if student selection has been correctly done, a high failure rate in a programme indicates something amiss in the curriculum content, teaching-learning activities or assessment system. The programme committees need to monitor the performance rate in each course and investigate if the rate is too high or too low.

Student's feedback, for example through questionnaires and representation in programme committees, is useful for identifying specific problems and for continual improvement of the programme.

One method to evaluate programme effectiveness is a longitudinal study of the graduates. The department should have mechanisms for monitoring the performance of its graduates and for obtaining the perceptions of society and employers on the strengths and weaknesses of the graduates and to respond appropriately" (COPPA 2nd Edition, 2017).

"Comprehensive monitoring and review of the programme for its improvement are to be carried out with a proper mechanism, considering feedback from various parties. The committee responsible for this should be granted adequate autonomy to carry out its responsibility

[5] Standards in this area are best read together with Guidelines to Good Practices: Monitoring, Reviewing and Continually Improving Institutional Quality and Guidelines on Terms Used for External Examiner, External Advisor and Advisory Board, which are available on the MQA Portal: www.mqa.gov.my.

effectively. It is desirable that the departments work in association with the HEP's central Quality Assurance Unit to ensure objectivity" (COPPA 2nd Edition, 2017).

The HEPs are expected to provide evidence of their ability to monitor, maintain and improve the quality of the programme consistent with internal and external requirement, and keep pace with changes in the field of Creative Multimedia Technology and the requirements of the stakeholders.

These shall be demonstrated by, but are not limited, to the following:

i. The department must have a Quality Assurance (QA) unit for internal quality assurance of the department working together with the QA unit of the HEP.
ii. A comprehensive curriculum review should be conducted at least once every 3 to 5 years. Nonetheless, updating the curriculum to keep pace with current developments should be conducted at more regular intervals.
iii. Compulsory appointment of external advisors and examiner (academicians) who are qualified in the relevant fields to assure quality of Bachelor's degree (Level 6, MQF) and above.
iv. Consultation / engagement with stakeholders

Additionally, HEPs are encouraged to demonstrate the following:

i. Continual benchmarking against top universities at national and international levels.
ii. Linkages with related professional bodies, government agencies and industry.
iii. Active participation of academic staff at relevant conferences, seminars, workshops and short courses.
iv. Presentations by invited speakers, local or international.
v. Organising conferences, seminars and workshops.
vi. Encouraging international exchange among students and staff.

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APPENDIX 1

LIST OF PANEL MEMBERS

NO.	PANEL MEMBERS	ORGANISATION
1.	Prof. Madya Ts. Dr Azhar Hj. Abd Jamil (Chairman)	Jabatan Seni Reka Grafik dan Media Digital Fakulti Seni Lukis dan Seni Reka UiTM Shah Alam
2.	Prof. Madya Dr. Khairul Azril Ismail	De Institute of Creative Technology (iCAD) UCSI University Kuala Lumpur
3.	Asst. Prof. Khairul Hazrin Hashim	Panel of Programme Standard: Art & Design MQA Panel Expert panel
4.	Prof. Dr. Ts. Neo Tse Kian	Faculty of Creative Multimedia Multimedia University
5.	Ts. Dr. Pouline Koh Chai Lin	Faculty of Innovation and Technology Taylor's University
6.	Mrs. Ts. Ummu Hani Yusof	Program Games Art Kolej Komuniti Selayang Jabatan Pendidikan Politeknik dan Kolej Komuniti (JPPKK)
7.	Mr. Cheang Lin Yew	Digital Media Design Department The One Academy of Communication Design
8.	Mr. Ts. Zulkifly Amirudin	Blindspot Studios Sdn Bhd

APPENDIX 2

LIST OF ORGANISATIONS INVOLVED IN THE STAKEHOLDERS' WORKSHOPS

1. **Higher Education Providers**

Universiti Teknologi MARA (UiTM)
Universiti Pendidikan Sultan Idris (UPSI)
Universiti Malaya (UM)
Universiti Malaysia Sabah (UMS)
Universiti Malaysia Sarawak (UNIMAS)
Universiti Malaysia Kelantan (UMK)
Universiti Multimedia (MMU)
Universiti Selangor (UNISEL)
Universiti Sultan Azlan Shah (USAS)
Universiti Kuala Lumpur (UniKL)
Universiti Tunku Abdul Rahman (UTAR)
Raffles University
Sunway University
Taylor's University
UCSI University
Kolej Universiti Selatan
Kolej Universiti Islam Antarabangsa Selangor (KUIS)
Kolej Universiti Islam Pahang Sultan Ahmad Shah (KUIPSAS)
Kolej Universiti Tunku Abdul Rahman
UNITAR International University
UOW Malaysia KDU University College
Asia Pacific University of Technology & Innovation (APU)
Han Chiang University College of Communication
Kuala Lumpur Metropolitan University College
INTI International College Subang
New Era University College
Widad University College
Kolej Antarabangsa Yayasan Melaka
Kolej Pengajian Tinggi Raffles
The One Academy
Kolej IACT
Kolej PIA

Melaka International College of Science and Technology (MiCoST)
Kolej Kemahiran Tinggi MARA
Kolej Poly-Tech MARA

2. Government Agency

Kementerian Pengajian Tinggi (KPT)
Akademi Seni Budaya dan Warisan Kebangsaan (ASWARA)
Jabatan Pengajian Politeknik Dan Kolej Komuniti (JPPKK)
Majlis Amanah Rakyat (MARA)
Malaysia Digital Economy Corporation (MDEC)

3. Industry

Base FX KL
Blindspot Studio
Hidden Chest Studio
Kelembai Studios Sdn Bhd
PlayStation Studios Malaysia
Malaysia Airlines (MAS)
Radio Televisyen Malaysia (RTM)
Malaysian Institute of Interior Designers (MIID)
Red Circle Studio Sdn Bhd
SCM ASIA
Silver Ant Sdn Bhd
Warnakala Studio Sdn Bhd

4. MQA Panel of Assessors (Creative Multimedia)

5. MQA's Officer

APPENDIX 3

BODY OF KNOWLEDGE (BOK)

Bodies of knowledge for all areas of Creative Multimedia Technology. Choose any BOK based on the specific requirements of the programme:

- 3D Digital Sculpting
- Advertising Analytic
- Animation and trailer design
- Animation Principles
- Animation Studio Management
- Applied Artificial Intelligent (AI)
- AR/VR/MR/XR (Extended Reality)
- Art and Design Aesthetics
- Arts Development (Concept, Character, Props, Environment)
- Audio mixing and Automation
- Beat, Tempo, Time Signature & Key
- Coding (for the specific related area)
- Compositing & Visual Effect
- Computer-Aided Design (CAD)
- Concept Art
- Consumer Behaviour
- Contemporary Exhibition Practice
- Corporate Identity
- Creative Copywriting
- Curation
- Data Communication and Networking
- Design and Project Management
- Design Thinking
- Digital Audio Workstation
- Digital Drawing/Illustration
- Digital Fabrication & Prototyping
- Digital Illustration
- Digital Imaging
- Directing and Screenwriting
- Entrepreneurship
- Environmental and Ambience Media
- Foley and SFX
- Gamification
- Graphic Design (Typography, Layout, Illustration, Design Concept)
- Graphics Programming
- History and Contemporary Studies
- Intellectual Property & Copyright
- Interactive Design
- Lighting & Rendering
- Marketing and Branding
- Media Culture and Technology
- Media Management and Optimization
- Packaging Design and Technology
- Photography and Digital Imaging
- Photography Art Direction

- Printing Technology (Offset and Digital)
- Professional Practice
- Quality Assurance and Testing
- Recording and Sound Design
- Responsive Environment
- Scenography, Display and Installation
- Scoring Scene / Sequence
- SFX and Manipulation Sound
- Sound Editing & Development
- Spatial Practices
- Storytelling
- Streaming; Media and Entertainment Studies
- User Experience and Interface (UX and UI)
- Videography and Motion Art
- Visual and Media Culture
- Visual Communication

AREAS OF CMT	REQUIRED BODY OF KNOWLEDGE FOR EACH AREA
Animation	• Asset Development (Character, Props, Environment) • Principles of Animation • Animation Techniques • Animation Production Pipeline
Education Technology	• Learning environment and psychology theories • Modern Teaching Pedagogy Studies (Remote, inclusive, immersive) • Contemporary Instructional Systems Design
Games Development	**Games Art** • 2D / 3D Game Asset • 2D / 3D Game Animation (Rigging) • 3D Game Modelling (Geometric & Organic) • 3D Game Texture and Lighting
	Games Design • Game Development Life Cycle (Production) • Game Level Design • Game World Creation • Game Design Documentation
	Games Technology • Fundamentals of Programming • Game Engine Architecture • Game Programming • Mathematics and Logic for Games

Intermedia Advertising	• Media Culture and Technology • Art and Creative Direction • Graphic Design (Typography, Layout, Illustration, Design Concept) Digital Network Applications (Website, Mobile and Social Media Platform)
Sonic / Audio Design	• SFX and Manipulation Sound • Recording and Sound Design • Foley and SFX • Scoring Scene / Sequence Beat, Tempo, Time Signature & Key
Cinematics	• Cinematic Fabrication • Pre-production, Production, Post-production • Digital Cinematic Technology & Motion Capture • Immersive, fabricated Visual Effects in AR/VR • Streaming; Media and Entertainment Studies
New Media Art	• Physical Computing • Creative Coding • Generative Art • Interactive Installation Art • Experimental Media & Interface • Real-time Media • Digital Fabrication & Prototyping • Spatial Practices • Responsive Environment Design
Web & Mobile Content Design	• Web Coding (Front End Web) • Data-driven Design • Information Design • User Experience and Interface (UX and UI)
Immersive & Interactive Media	• Physical Computing • Creative Coding • Experimental Media & Interface • Real-time Media • Digital Fabrication & Prototyping • Spatial Practices • Responsive Environment Design • User Experience and Interface (UX and UI)
Spatial Design	• Interior/ Built environmental studies • 2D & 3D Space Studies • Design Studies • Performative Design • Audio & Visualisation Techniques • Human-centered Interaction • Digital Studies

Simulation Design	• Design Management and Product Strategy • Design processes, production, practices • Model Design & Making • Computer-aided Design Studies • 2D and 3D Studies

For any programme that encompasses two programme standards, the HEPs are to refer to the Body of Knowledge of both the programme standards. In terms of the other components of standards, the HEPs are to adopt whichever is higher.

The BOK's mapping must factor in: the HEP's infrastructure, manpower, the unique selling point of the HEP, the programme level offered by the quality MQF level, and the mapping of PLO proposed.

APPENDIX 4

EXAMPLES OF NOMENCLATURES

Programme Structure	Explanation	Example***
Major	Programme that focuses only in one main area.	● Certificate in 2D Animation ● Diploma in Game Art ● Bachelor in Environmental Design ● Bachelor in Emerging Technology ● Bachelor in Multimedia Advertising ● Bachelor in Animation ● Bachelor in Visual Effects ● Bachelor in Game Technology ● PhD in Immersive Design
Major with Specialisation	A programme that has a **specialised field** that covers 25-30%* of the body of knowledge **for the area of specialisation**. This specialisation is indicated in the bracket. The programme structure for **Certificate** and **Diploma** programmes shall not include specialisation.	● Bachelor in Digital Media Design (Mobile Application), ● Bachelor in Interactive Media Design (Immersive Media), ● Bachelor in Learning Technology (Gamification), ● Bachelor in Game Development (Game Environment)
Major – Minor	Programme with a **minor** that includes 25-30%* of the body of knowledge **in another discipline****. The conjunction **'with'** is used in naming this type of programme where the major and minor disciplines are mentioned. The programme structure for **Certificate** and **Diploma** programmes shall not include a minor in another discipline.	● Bachelor in Web Design with Programming ● Bachelor in Interactive Media with Marketing ● Bachelor in Multimedia with Management ● Bachelor in Game Art with Illustration ● Bachelor in Learning Technology with Entrepreneurship ● Bachelor in Game Development with E-Sport Management

Double Major	A double major programme should consist of an equal percentage (50%) of the body of knowledge from **two different disciplines**. The conjunction **'and'** is used in naming this type of programme where both disciplines are mentioned. The programme structure for **Certificate** and **Diploma** programmes shall not include a double major.	● Bachelor in Learning Technology and Game Development ● Bachelor in Game Art and Animation ● Bachelor in Spatial Design and Immersive Media ● Bachelor in Simulation Design and Archaeology ● Bachelor in Cinematic and Artificial Intelligence ● Bachelor in Immersive Media and Manufacturing

Notes:

If the percentage of courses offered in the programme structure is less than 25% of the body of knowledge of the major discipline, it should not be stated in the programme nomenclature. However, it can be stated in the transcript.

(Refer to the Guidelines on Nomenclature of the Malaysian Higher Education Programme for further reference).

* Calculation of the percentage of major, specialisation and minor is based on credit hours.

** Discipline refers to the major field of the programme.

*** Example given is for guidance only.

APPENDIX 5

Creative Multimedia Technology graduates will find it essential or highly advantageous to have a varied portfolio of work to show prospective employers of the art careers listed below: -

- 3D Generalist
- 3D Modeller
- Animation Director
- Animator
- AR/VR Content writers
- AR/VR Developer
- Art Director
- Art Educators
- Art Promoters
- Automotive Stylist
- Background Artist
- Brand Strategist
- Ceramic Designer
- CG Artist
- Character Artist
- Character Modeller
- Clean Up Artist
- Composer
- Compositor
- Concept Artist
- Coordinator
- Copywriter
- Corporate Image Designer
- Creative Director
- Creative Technologist
- Curators
- Design Consultants
- Design Manager
- Digital Artist
- Digital Content Producer
- Digital Designer
- Digital Illustrator
- Digital learning specialist
- Digital learning trainer
- Digital Media Designer
- Educational Technology Entrepreneur
- Entrepreneurs
- Environment Artist
- Environmental Designer
- Environmental Modeller
- Event Manager
- Exhibition Designer
- Fashion Buyer
- Fashion Illustrator
- Fashion Stylist
- Fine Artist
- Foley Artist
- Freelance Designers
- Frontend Developer
- Game Artist
- Game Designer
- Game Programmer
- Game Tester
- Gemmologist
- Geographic Information Designer (GIS)
- Illustrator
- Image Consultant
- Information Designer
- Interactive Designer
- Jewellery Designer
- Lead Animator
- Learning / Instructional Designer
- Learning and Development Manager
- Lecturers
- Level Designers
- Line Producer
- Matchmove Artist
- Media journalist
- Modelling Artist
- Motion Graphic Designer
- Multimedia Artist
- Multimedia Content Designer
- Multimedia Designer
- Multimedia Journalist
- Multimedia Photographer
- Multimedia Visualizer
- New Media Artist
- Organisation Learning manager
- Packaging Designer
- Panoramic Photographer
- Photo Editor
- Photo Journalist

- Photogrammetrist
- Printing Technologist
- Producer
- Product Designer
- Production Consultants
- Production Manager
- Professional Photographer
- Programme Director
- Scenographer
- Set and Background Designer
- Sound Designer
- Sound Director
- Sound Engineer
- Storyboard Artist
- Technical Artist
- Textile Designer
- User Interface / User Experience Designer
- Vehicle Artist
- Video Editor
- Videographer
- Visual Effects Artist
- Visual Effects Designer
- Visual Jockey
- Wayfinding Designer
- Web Designer
- User Interface / User Experience Designer
- Vehicle Artist
- Video Editor
- Videographer
- Visual Effects Artist
- Visual Effects Designer
- Visual Jockey
- Wayfinding Designer
- Web Designer

GLOSSARY

1.	Common Core	Required course for all disciplines related to Creative Multimedia Technology programmes.
2.	Core Abilities/ Social Skills and Social Values	Essential workplace skills or broad common abilities that cut across occupational and academic titles. They are broader skills that run through courses and are cross-functional to many disciplines and occupations. They enable learners to perform competencies and are learning tools supporting the NOSS requirements.
3.	Courses	Components of a programme. The term 'courses' is used interchangeably with subjects, units or courses.
4.	Creative Output	Creative output is a form of presentation of the various selected medium of literary, visual, digital, musical or performance literacy of the students. It must be a substantial, coherent and resolved body of work that demonstrates a comprehensive exploration of the artistic form and content which uses appropriate methods and techniques in the execution of the work. This follows to identify and address the aims and objectives which meet the presentation standards as set by the HEP.
5.	Curatorial	Curatorial refers to a platform that presents historical and contemporary approaches in curation practices. The central emphasis is the presentation and representation of visual arts, both theoretical and applications, complemented by critical writing. It covers all forms of thematic expressions in physical galleries or virtual reality through electronic media.
6.	Dissertation	Refers to the degree for the Master's programme by documentation of the original research prepared and submitted by the candidate for the award of the

		degree for the Master's programme by research and mixed mode.
7.	Discipline Core	Required courses for a specific discipline related to Creative Multimedia Technology programmes.
8.	Exegesis	Exegesis is a scholarly written work of critical analysis that rigorously argues the case of the overall thesis and provides a critical context for the contribution to knowledge made through the creative component; This form of writing, its methodologies, contexts and outcomes of artistic research would be within the premises of Digital Creative Content; is aimed at stimulating a wider understanding of the value of practice as research. Students would be focused largely on the processes rather than the final outcome exclusively. As the research develops, the exegesis activities would be based on records, documents and interpretations of what occurs in the duration of the creative progress. The exegesis is an essay (in which the HEP will determine the word counts), which supports the creative output.
9.	Extensive Experience	The attainment in the breadth and depth of the engagement in the BoK attained through completed and recognisable outputs. (e.g.: research-based / lead, consultations, creative output)
10.	Fabrication	The act of producing creative outputs, involving planning, material studies and the action for its production.

11. Formative Assessment	The assessment of student progress throughout a course, in which the feedback from the learning activities is used to improve student's attainment.
12. Industrial Exposure	A student's experience in an organisation through field visits in the industry that is appropriate to their field. This exercise does not carry any credit values.
13. Industrial Training / Industrial Attachment	A period of time within the programme when students are required to be placed in the industry to experience the real working environment.
14. Industry Engagement	The candidate had exposed with the industry appropriate relevant field which are commonly of consultancy works, project-hirings, activities with a variety of arenas and efforts to bring industry and the world of academia together for mutual benefit. The experience can be accumulated, and based on the assessments of impact through exchange of knowledge and ideas, enhance capabilities and technologies, that meets the current needs of the stakeholders.
15. Interview	The interview is designed to assess a student's academic potential. Decisions are generally based on the student's ability to think independently and to engage with new ideas.
16. Learning Outcomes	Statements on what a learner should know, understand and do upon the completion of a period of study.
17. Open and Distance Learning (ODL)	The provision of flexible educational opportunities in terms of access and multiple modes of knowledge acquisition.

18.	Programme	An arrangement of courses that are structured for a specified duration with a specified learning volume to achieve the stated learning outcomes. This usually leads to an award of a qualification.
19.	Programme Educational Objectives	Broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve after they have graduated.
20.	Portfolio	A selection of a student's work to exhibit their interests, efforts and achievements. Portfolios come in many forms and are used for assessing a potential learning performance or process. Portfolio submission are usually being candidate systematically organised the material creatively displayed artefacts to display the skill proficiency, and disciplinary-specific aptitude. The portfolio assessments are commonly in any form of suitable platforms (digitally or physically manufactured), or prepared works of created images, diagrams, artistic impressions, sound works, product development, or animated works or designs, to communicate a formulated message. Such visualization are commonly through visual-audial processes that as a way to communicate both abstract and concrete ideas. The prepared works provides tangible evidence of the candidate's ability in a reflective practise, in which the HEP will provide the appropriated design review rubrics to assess the students' works. The assessments, can be pose questions to the student in synchronous review, or asynchronous assessment.
21.	Project Paper	Refers to the documentation of the original practical research or any applied project prepared and submitted by the candidate for the award of the

	master's and doctoral degree programme by coursework.
22. Quality Assurance	Comprises planned and systematic actions (policies, strategies, attitudes, procedures and activities) to provide an adequate demonstration that quality is being achieved, maintained and enhanced, and meets the specified standards of teaching, scholarship and research as well as student-learning experience.
23. Rigorous Internal Assessments	This process is to evaluate the suitability of an applicant for the programme with the purpose that cover the following criteria: Demonstration candidates' academic and personal development's experience in the relevant fields for the required basic skills and acquired knowledge of the programme. The aptitude of the candidate suited towards the provided programme through these recommended measured tests (list is not limited to): Interview or formulated assessments for Verbal Reasoning, Diagrammatic Reasoning, Situational Judgement, E-tray Exercise, Error Checking, Personality Tests, Cognitive Ability, Spatial Awareness. These assessments, can be done via conventional meet, online (both synchronous, or asynchronous manner) For Postgraduate level (Masters and Doctoral Degree); the Internal Rigorous Assessments, it is recommended to include as well for research proposal as a part of this process by the candidate. The assessment of the proposals would require the articulation of the proposition or question underpinning and guiding the academic inquiry with

	clear structured argument in support of the proposition.
24. Summative Assessment	The assessment of learning, which summarises the progress of the learner at a particular time and is used to assign the learner a course grade.
25. Thesis	Refers to the documentation of the original research prepared and submitted by the candidate for the award of the degree for the doctoral programme by research and mixed mode.
26. Visualisation	Visualisation is any technique for creating images, diagrams, artist impressions, product development or animations to communicate a message. Visualisation through visual imagery has been an effective way to communicate both abstract and concrete ideas.
27. Viva Voce	An oral examination on a student's communication skills and knowledge of relevant facts from their thesis or dissertation.