PROGRAMME STANDARDS:
OCCUPATIONAL SAFETY AND HEALTH

Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

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

Programme Standards: Occupational Safety and Health
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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.

This PS document outlines sets of characteristics that describe the minimum levels of acceptable practices in the Occupational Safety and Health (OSH) programmes based on the quality assurance areas of 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 Diploma (Level 4) to Doctoral degree (Level 8) in the MQF.

This PS document was developed with the collaboration of the MQA, the Ministry of Higher Education, the Department of Occupational Safety and Health (DOSH), the Department of Skills Development (Jabatan Pembangunan Kemahiran, JPK) and the Ministry of Human Resources. It represents the significant contribution from the panel members (see Appendix 1) from both the public and private HEPs and the industry, and in consultation with various HEPs, relevant government and statutory agencies, professional bodies, industry, alumni and students (see Appendix 2) through stakeholders' workshops, online feedback and virtual pilot visits. This PS reflects national and international good practices to ensure OSH graduates from Malaysian HEPs are globally competitive.

The standards do not attempt to provide specific characteristics for OSH programmes, particularly those related to the development of curricula and provision of educational resources. This PS document encourages diversity and allows programme providers to be innovative in creating their own niches. HEPs should ensure that they produce graduates that meet the current and future needs of the industry and society.

The MQA would like to express its heartfelt appreciation to all the panel members and all stakeholders for their valuable inputs, as well as all the MQA officers who have contributed to developing the PS for OSH. Ultimately, the PS should benefit different stakeholders in producing OSH graduates to face future challenges.

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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
DKM	*Diploma Kemahiran Malaysia*
DLKM	*Diploma Lanjutan Kemahiran Malaysia*
DVM	*Diploma Vokasional Malaysia*
HEP	Higher Education Provider
MOOC	Massive Open Online Courses
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
NOSS	National Occupational Skills Standard
OSH	Occupational Safety and Health
PEO	Programme Educational Objective
PLO	Programme Learning Outcomes
PS	Programme Standards
SHO	Safety and Health Officer
SKM	*Sijil Kemahiran Malaysia*
SMDD	Standards: Master's and Doctoral Degree
SPM	*Sijil Pelajaran Malaysia*
STAM	*Sijil Tinggi Agama Malaysia*
STPM	*Sijil Tinggi Persekolahan Malaysia*
SVM	*Sijil Vokasional Malaysia*
TVET	Technical and Vocational Education and Training

1. INTRODUCTION

Occupational Safety and Health (OSH) focuses mainly on preventing injuries to personnel that can result from incidents associated with the job they perform at the workplace (ILO, 2006). This Programme Standards (PS) provides a guideline to Higher Education Providers (HEPs) on the minimum levels of acceptable practices in designing and offering Occupational Safety and Health (OSH) programmes at the tertiary level in Malaysia. The aim of this PS is 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 jobs related to OSH. Among the possible job designations are supervisors, executives, auditors, managers, and consultants of OSH-related fields. In addition, graduates may also become academicians, researchers or entrepreneurs. From a wider perspective, this document is equally valuable in nurturing career paths in OSH and to a variety of stakeholders such as potential students, employers, professionals, regulatory bodies, policy makers and HEPs.

Previously OSH was listed as one of the disciplines in the Programme Standards: Medical and Health Sciences and it has been referred to by HEPs in developing and offering OSH programmes. Now, OSH has its own PS. This document was developed and enhanced from the Programme Standards: Medical and Health Sciences (2019).

This PS adopts a holistic approach that combines theoretical and practical skills and knowledge, technology and wisdom that envisions the fulfilment of International Labour Organization (ILO) Conventions and Malaysian strategic drivers. Its aim is to create future generations of students of OSH that are aligned with the Malaysia OSH Master Plan. The aspiration of this PS on OSH studies is to fulfil Malaysia's industrial and societal needs, and at the same time, offer a global attraction and appeal to other countries worldwide on OSH education via knowledge collaborations, industries potentials and sustainable growth.

This document aims to assist HEPs to develop academic curricula, which provide students with the necessary knowledge, skills, attitudes and competencies in order for them to comprehend OSH-related issues and to enable them to adopt and develop methodologies and techniques in conducting research to innovatively solve the problems related to OSH. The academic programmes emphasise applied safety and health sciences, engineering and technologies, laws, management and humanities, to produce competent graduates for local and global markets.

OSH has gradually developed from a mono-disciplinary, risk-oriented activity to a multi-disciplinary and comprehensive approach that considers an individual's physical, mental and social well-being, general health and personal development. This development also occurs in the evolution of the legal framework from a prescriptive to self-regulatory, framework and towards fostering an environment of matured preventative culture.

OSH is a field which ensures safe and healthy working conditions at the workplace. This discipline safeguards a person at work and other persons from all forms of hazardous agents and factors such as physiological, physical, mechanical, hydraulic and pneumatic, chemical, ergonomics, biological, electrical, radiation, toxic gasses and vapours, as well as psychosocial in addition to occupational incident and accidents that need to be avoided.

OSH is a multidisciplinary approach aimed at:

i) The protection and promotion of the safety and health of workers and others at work by preventing and controlling all forms of safety hazards, occupational poisoning, diseases and factors leading to incidents/accidents and by eliminating occupational factors and conditions hazardous to safety and health at work;
ii) The development and promotion of safe and healthy work systems, work environments and work organisations;
iii) The enhancement of the physical, mental and social well-being of workers and support the development and maintenance of their working capacity, as well as professional and social development at work;
iv) Enabling workers to conduct socially and economically productive lives and to contribute positively to sustainable development;
v) Not to endanger society and the environment from work processes and business activities; and
vi) Promoting lifelong learning to help practitioners build the capability to keep pace with rapid changes at the workplace.

Students in the field would study:

i) Technical competencies, including machinery safety, electrical safety, fire safety, process safety, radiation safety, occupational health, industrial hygiene and ergonomics.
ii) Core competencies, including OSH laws and regulations, emergency preparedness and response, incident and accident management, planning, safety and health

strategy, leadership and management, human anatomy and physiology, engineering control and psychology.

iii) Behavioural competencies including stakeholder management, personal performance, communication and promotion, environmental and working with others, psychosocial, safety culture and sustainability, and return to work.

iv) Digital and numerical competencies, including information technology (IT), research methodology, statistics, documentation and report presentation, and entrepreneurship.

v) Ethics and professionalism.

Graduates in this field should have the competency to work as competent safety and health officers, safety and health executives, and safety supervisors. Those with postgraduate qualifications would take the roles of safety and health managers, academicians, researchers, and consultants in this field.

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 also 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:

i) Diploma (Level 4, MQF)
ii) Bachelor's Degree (Level 6, MQF)
iii) Master's Degree (Level 7, MQF: Coursework, Mixed Mode and Research)
iv) Doctoral Degree (Level 8, MQF: Mixed Mode and Research)

This document 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, and with the ethical responsibilities for the HEP and the students to be engaged towards the Sustainable Development Goals (SDGs). Hence, HEPs must take cognisance of the rapidly evolving subject matter and introduce effective and sustainable programme improvements.

The document aims to provide minimum requirements for the development and conduct of different levels of OSH programmes within the core areas described. Hence, the document

must be read together with other quality assurance documents and policies issued by MQA and other related agencies, including but not limited to the following:

i) The Malaysian Qualifications Framework (MQF) 2nd Edition
ii) The Code of Practice for Institutional Audit (COPIA)
iii) The Code of Practice for Programme Accreditation (COPPA) 2nd Edition
iv) The Code of Practice for Programme Accreditation: Open and Distance Learning (COPPA-ODL) 2nd Edition
v) The Code of Practice for TVET Programme Accreditation (COPTPA) 2nd Edition
vi) Relevant Standards
vii) Relevant Guidelines to Good Practices (GGP)

2. PROGRAMME DEVELOPMENT AND DELIVERY

2.1 PROGRAMME EDUCATIONAL OBJECTIVES

Programme educational objectives (PEOs) are broad statements describing the career and professional accomplishments that the programme prepares graduates to achieve after they graduated.

“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 that is the practical, intellectual and soft skills that are expected to be achieved by the students at the end of the programme" (COPPA 2nd Edition, 2017).

Guidance of the PEOs is provided under each level of study from diploma to doctoral level. **The flexibility in describing the PEOs remains with the HEPs, provided that the PEOs are consistent with the vision and mission of the HEPs.**

The PEOs of each qualification level are shown in Table 2.1.

Table 2.1: Programme Educational Objectives (PEOs) of each qualification level

MQF LEVEL	PEO 1	PEO 2	PEO 3	PEO 4
DIPLOMA (LEVEL 4, MQF)	Discuss and apply relevant and related principles and concepts while demonstrating technical skills in OSH.	Cooperate positively in leading, interacting and communicating with peers and stakeholders while conforming to ethical practices with an orientation towards Sustainable Development Goals (SDGs).	Operate with innovation and creativity, including the use of relevant and related digital technology together with the necessary numerical techniques in OSH.	Respond to the need for lifelong learning and entrepreneurship skills for successful career development/ study.

MQF LEVEL	PEO 1	PEO 2	PEO 3	PEO 4
BACHELOR'S DEGREE (LEVEL 6, MQF)	Analyse and relate broad knowledge of OSH concepts and principles, incorporating technical skills in OSH practices.	Commit to taking responsibility and delivering assigned tasks when leading, interacting and communicating with peers and stakeholders while ensuring ethical practices and orientation towards SDGs.	Demonstrate technical competency in the innovative and creative use of digital technology and numerical techniques in OSH.	Commit to life-long learning and exhibiting entrepreneurial skills for academic and career advancement in relevant industries.
MASTER'S DEGREE (LEVEL 7, MQF)	Compare and integrate in-depth knowledge of practice/ research in the relevant fields of OSH.	Adapt to relevant issues and challenges in leading, interacting and communicating with peers and stakeholders while ensuring ethical practices and orientation towards SDGs.	Manage and adapt proficiently to a wide range of digital technologies together with the necessary numerical techniques in providing an innovative solution to the industry.	Organise resources for lifelong learning and adapt skills, leveraging innovation for entrepreneurship, towards a successful academic and career advancement in relevant industries.
DOCTORAL DEGREE (LEVEL 8, MQF)	Verify and create solutions to issues with in-depth knowledge of practice/ research in the relevant fields of OSH.	Explicate the issues and areas in OSH with confidence and assertiveness when leading and engaging stakeholders while ensuring ethical practices with an orientation towards SDGs.	Design and create novel solutions leveraging on current digital technologies and numerical techniques when solving new problems related to academia and/or industry.	Advocate lifelong 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 to be done 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 OSH fields should **cumulatively reflect the five clusters[1] of learning outcomes** meant to develop well-balanced individuals with a holistic set of competencies.

The five clusters of learning outcomes are:

i. Knowledge and understanding;
ii. Cognitive skills;
iii. Functional work skills with focuses on:
    a. Practical skills
    b. Interpersonal skills
    c. Communication skills
    d. Digital skills
    e. Numeracy skills
    f. Leadership, autonomy and responsibility
iv. Personal and entrepreneurial skills; and
v. Ethics and professionalism.

Table 2.2 shows the mappings of learning outcomes based on the MQF learning outcomes for OSH. **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 2.2 : Learning Outcomes (LO) for OSH mapped against MQF LOs

DIPLOMA (LEVEL 4, MQF)

Upon successfully completing the programme, graduates will be able to:

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
1. Describe relevant and **related** principles, concepts and theories in OSH.	√										
2. Apply OSH knowledge to solve routine and non-routine problems in different departments/sections at the workplace.		√									
3. Perform OSH tasks/operations that are routine and non-routine at the workplace.			√								
4. Assume responsibility when interacting, communicating and collaborating, either individually or as a member of the OSH team, with internal and external stakeholders.				√	√						
5. Demonstrate digital skills in using a range of digital platforms/applications to support activities related to work/study.						√					
6. Apply numeracy and graphical skills related to OSH applications.							√				
7. Adopt good qualities of leadership and work autonomously to carry out responsibility for routine and non-routine OSH tasks.								√			

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
8. Show initiative in self-improvement for academic and career development.									√		
9. Explore and engage in activities relating to entrepreneurship.										√	
10. Comply with organisational and professional ethics in the OSH work environment.											√

BACHELOR'S DEGREE (LEVEL 6, MQF)

Upon successfully completing the programme, graduates will be able to:

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
1. Relate/Connect and explain knowledge in OSH at the workplace.	√										
2. Assess and analyse issues and conduct research on OSH at the workplace.		√									
3. Interpret, analyse, synthesise and apply evidence-based scientific principles in discussing ideas of preventive and corrective measures in OSH.			√								

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
4. Educate and train employees, employers and other interested parties on OSH.				√							
5. Adhere to the legal ethical principles and the professional code of conduct in OSH.					√						
6. Utilise digital applications and information management systems to enhance their OSH practices as well as to seek and process data related to work.						√					
7. Demonstrate skills to use and interpret routine and complex numerical and graphical/visual OSH data.							√				
8. Assume responsibility in leadership, communication and interaction in carrying out routine and non-routine OSH tasks.								√			
9. Select self-improvement initiatives and possibilities for further education related to OSH.									√		
10. Explore and engage in activities relating to entrepreneurship.										√	
11. Show commitment and responsibility in complying with any organisation and professional ethics.											√

MASTER'S DEGREE (LEVEL 7, MQF)

Upon successfully completing the programme, graduates will be able to:

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	2	3	4	5	6	7	8	9	10	11
1. Demonstrate mastery of knowledge in OSH.	√										
2. Appraise and summarise ideas and societal issues related to OSH.		√									
3. Demonstrate practical skills with confidence in OSH.			√								
4. Conduct research with minimal supervision and adhere to legal, ethical and professional codes of practice.				√							√
5. Assume responsibility for leading, communicating and working effectively with peers and stakeholders.					√			√			
6. Utilise the latest digital and numerical tools in solving issues and handling numerical and graphical data related to OSH practices.						√	√				
7. Demonstrate commitment to continuing professional development for academic and career advancement with an entrepreneurial mind-set in OSH applications.									√	√	

DOCTORAL DEGREE (LEVEL 8, MQF)

Upon successfully completing the programme, graduates will be able to:

LO	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills	Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1. Synthesise knowledge and contribute to original research that broadens the frontier of knowledge in OSH.	√	√									
2. Adapt practical ideas and skills when conducting research that leads to innovative practices in OSH.			√								
3. Assume responsibility for leading, communicating and engaging peers and stakeholders.				√				√			
4. Serve by providing expert advice to society in OSH.					√						
5. Utilise the latest digital and numerical tools in solving issues and handling complex data related to OSH practices.						√	√				
6. Show commitment to continuing professional development for academic and career advancement with an entrepreneurial mindset in OSH applications.									√	√	
7. Adhere to legal, ethical and professional codes of practice in providing recommendations related to OSH.											√

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 of the PS outlines the minimum credits of each curriculum component for all levels of qualifications. Specific requirements for the body of knowledge of the various core areas are in **Appendix 3**. **HEPs have the flexibility to design their own programme. However, they should cover the body of knowledge indicated in this document. Depending on the programme fields, elements of OSH shall be covered/embedded in core courses.**

In addition, HEPs are encouraged to develop their programmes to reflect the current best practices and to offer a high-quality academic programme. It is important that HEPs align their programmes with one or more of the Sustainable Development Goals (SDGs). OSH programmes may vary in their nomenclature; however, the programme nomenclature must reflect the content of the programme as mentioned in the Guidelines on Nomenclature of Malaysian Higher Education Programme (2018). Examples for each level are in **Appendix 4**.

Table 2.3 shows the minimum credits outlined for each qualification level. These requirements are based on the minimum graduating credit for each level and the requirement is still applicable even if HEPs were to offer total credits above the minimum graduating credit.

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

Table 2.3: Minimum credits of each curriculum component for all levels of qualifications

DIPLOMA (LEVEL 4, MQF)

COMPONENT	MINIMUM CREDITS
Compulsory Courses (General* and HEPs courses)	6
Core**	59
Industrial Training***	12
Elective**** (Optional)	0
Sub Total Credit	**77**
To complete the minimum requirement of 90 credits, the remaining 13 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**90**

Notes:

*	General courses refer to *Matapelajaran Pengajian Umum* (MPU) courses which are mandatory. Please refer to *Garis Panduan Matapelajaran 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.
**	Core component is inclusive of OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories.
***	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 suggested to be placed during the final semester.
****	Electives can be non-discipline related courses. Flexibility is given to HEPs to determine the appropriate credit.

Recommended Delivery Methods:

- Lectures/tutorials
- Blended learning/Massive Open Online Course (MOOC)
- Interactive Learning
- Flipped Learning
- Practical classes/laboratory work
- Field/industry visits
- Fieldwork
- Apprenticeship
- Industrial training

- Industry speaker
- Task-based learning
- Problem-based learning
- Project-based learning
- Work-based learning
- Experiential learning

BACHELOR'S DEGREE (LEVEL 6, MQF)

COMPONENT	MINIMUM CREDITS	
	SINGLE MAJOR	**MAJOR WITH MINOR**
Compulsory Courses (General* and HEPs courses)	8	
Core**	78	
Industrial Training***	12	
Minor	-	30 (From another field)
Elective****(Optional)	0	0
Sub Total Credit	**98**	**128**
	To complete the minimum requirement of 120 credits, the remaining 22 credits can be placed in any of the categories above or can be applied for OSH competencies***** (other than SHO) based on DOSH requirements.	-
GRADUATING CREDITS	**120**	**128**

For Bachelor's degree programmes related to OSH, the programmes must offer OSH core courses and industrial training.

Notes:

*	General courses refer to *Matapelajaran Pengajian Umum* (MPU) courses which are mandatory. Please refer to *Garis Panduan Matapelajaran 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.
**	Core component is inclusive of OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories. For single major programmes, the credits follow the combination of both the components for core and minor.
***	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 suggested to be place during the final semester.
****	Electives can be non-discipline related courses. Flexibility is given to HEP's to determine the appropriate credit. The number of credits for electives should not lead to a minor.
*****	OSH competencies can be referred from DOSH website: https://www.dosh.gov.my/index.php/services/enforcement/certification/competent-person-info?start=10

Recommended Delivery Methods:

- Lectures/tutorials
- Blended learning/MOOC
- Interactive Learning
- Flipped Learning
- Practical classes/laboratory work
- Field/industry visits
- Fieldwork
- Apprenticeship
- Industrial training
- Industry speaker
- Task-based learning
- Problem-based learning
- Project-based learning
- Work-based learning
- Experiential learning
- Final year project
- Seminar
- Empirical studies
- Case study

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

COMPONENT	MINIMUM CREDITS
Core*	30
Project**	6
Elective*** (Optional)	0
To complete the minimum requirement of 40 credits, the remaining 4 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**40**

Notes:

*	Core component is inclusive of OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories.
	Coursework component must include a course in research methodology.
**	The project is not limited to a research project, provided it demonstrates knowledge and understanding of the relevant subject area.
	The recommended minimum word limit for a project paper is 7,000.
	The following requirements must be decided by the HEP: i. Maximum period of study considering good practices. ii. A project report or equivalent conspectus guideline or manual must be provided to describe a common structure and format for submission.
***	Electives offered must be discipline-related courses. Flexibility is given to HEPs to determine the appropriate credit.

Recommended delivery methods:

- Lectures/tutorials
- Blended learning/MOOC
- Interactive Learning
- Flipped Learning
- Laboratory work
- Field/industry visits
- Fieldwork
- Industry speaker
- Problem-based learning
- Project-based learning
- Seminar
- Empirical studies
- Case study

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

COMPONENT	MINIMUM CREDITS
Core*	8
Dissertation**	20
Elective*** (Optional)	0
Sub Total Credit	**28**
To complete the minimum requirement of 40 credits, the remaining 12 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**40**

Notes:

*	Core component is inclusive of OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories.
	Coursework component must include a course in research methodology.
	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 2nd Edition).
**	Students are required to undertake research in a related field of study and submit a dissertation.
	The recommended minimum word limit for a dissertation is 15,000.
	The following requirements must be decided by the HEP: i. Maximum period of study considering good practices. ii. A dissertation or equivalent conspectus guideline or manual must be provided to describe a common structure and format for submission (Refer to the Standards: Master's and Doctoral Degree, 2nd Edition).
***	Electives offered must be discipline-related courses. Flexibility is given to HEP's to determine the appropriate credit.

Recommended delivery methods:

- Lectures/tutorials
- Blended learning/MOOC
- Laboratory work
- Field/industry visits
- Fieldwork
- Industry speaker
- Problem-based learning
- Project-based learning
- Seminar
- Empirical studies
- Case study

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

COMPONENT	CREDITS	REMARKS
Dissertation*	No credit value	Students must have followed a research methodology course (which must encompass the broad approaches, methods and analyses in the field or discipline) or show evidence of attendance in any equivalent courses which support research in the field/s and to be undertaken by the students.

Notes:

*	Students are required to undertake research in a related field of study and submit a dissertation.
	The recommended minimum word limit for a dissertation is 30,000.
	The following requirements must be decided by the HEP: i. The maximum period of study considering good practices and validity of research undertaken. ii. A dissertation or equivalent conspectus guideline or manual must be provided to describe a common structure and format for the dissertation or conspectus (Refer to the Standards: Master's and Doctoral Degree, 2nd Edition).

Recommended delivery methods:

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

DOCTORAL DEGREE BY MIXED MODE (LEVEL 8, MQF)

COMPONENT	MINIMUM CREDITS
Core*	24
Thesis**	40
Sub Total Credit	**64**
To complete the minimum requirement of 80 credits, the remaining 16 credits can be placed in any of the categories above.	
GRADUATING CREDITS	**80**

Notes:

*	The ratio of coursework to thesis is within the range of 50:50 or 40:60 or 30:70. (Refer to the Standards: Master's and Doctoral Degree, 2nd Edition).
**	Students are required to undertake research in a related field of study and submit a thesis.

	The recommended minimum word limit for a thesis is 40,000.
	The HEP must have a set of procedures and guidelines pertaining to: i. The maximum period of study considering good practices. ii. A thesis or conspectus guideline or manual must be provided to describe a common structure and format for submission (Refer to the Standards: Master's and Doctoral Degree, 2nd Edition).

DOCTORAL DEGREE BY RESEARCH (LEVEL 8, MQF)

COMPONENT	CREDITS	REMARKS
Thesis*	No credit value	Students must have followed a research methodology course (which must encompass the broad approaches, methods and analyses in the field or discipline) or show evidence of attendance in any equivalent courses which support research in the field/s and to be undertaken by the students.

Notes:

*	Students are required to undertake research in a related field of study and submit a thesis.
	The recommended minimum word limit for a thesis is 50,000.
	The following requirements must be addressed by the HEP: i. The maximum period of study considering good practices and validity of research undertaken. ii. A thesis or equivalent conspectus guideline or manual must be provided to describe a common structure and format for the thesis or conspectus (Refer to the Standards: Master's and Doctoral Degree, 2nd Edition).

Recommended delivery methods:

- Supervision of thesis
- Colloquium/Seminar/Workshop
- Attachment

3. ASSESSMENT OF STUDENT LEARNING[3]

"Assessment of student learning is a key aspect of quality assurance and it is one of the most important measures to show the achievement of learning outcomes. Hence, it is crucial that an appropriate assessment method and mechanism is in place. Qualifications awarded based on the results of the assessment. The methods of student assessment must be clear, consistent, effective, reliable 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 a course;
iv. **HEPs 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.**
v. Assessments for the work-based learning (WBL) or 2u2i mode of study (industry components) can be either solely conducted by an industry coach or jointly conducted by an industry coach and HEP academic staff.

The percentages of continuous and final assessments for each level of study are presented in **Table 3.1**. The suggested forms of assessments indicated are **merely examples**. 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 the Guidelines to Good Practices: Assessment of Students, which is available on the MQA website: www.mqa.gov.my.

Table 3.1: The percentages of continuous and final assessments for each core course

DIPLOMA (LEVEL 4, MQF)

MODULES		SUGGESTED FORMS OF ASSESSMENT
CONTINUOUS ASSESSMENT (%)	**FINAL ASSESSMENT (%)**	
50 – 70	30 – 50	○ Assignment (Individual/Group) ○ Project ○ Quiz ○ Written test ○ Oral test ○ Demonstration ○ Practical assessment ○ Case studies ○ Presentation ○ Industrial training report ○ Portfolio/Logbook ○ Industry evaluation - examined by two suitable qualified examiners (one external examiner from the industry) ○ Final examination

BACHELOR'S DEGREE (LEVEL 6, MQF)

MODULES		SUGGESTED FORMS OF ASSESSMENT
CONTINUOUS ASSESSMENT (%)	**FINAL ASSESSMENT (%)**	
30 – 70	30 – 70	○ Assignment (Individual/Group) ○ Project ○ Case studies ○ Simulation ○ Quiz ○ Written test ○ Oral test ○ Practical assessment ○ Presentation ○ Demonstration ○ Industrial training report ○ Portfolio/Logbook ○ Industry evaluation - examined by two suitable qualified examiners (one external examiner from industry) ○ Final examination

MASTER'S DEGREE (LEVEL 7, MQF)

MODE	MODULES		SUGGESTED FORMS OF ASSESSMENT
	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	
COURSEWORK Coursework Project	 30 –70 0 – 40	 30 – 70 60 – 100	○ Assignment (Individual/Group) ○ Project ○ Case studies ○ Quiz ○ Written test ○ Oral test ○ Practical assessment ○ Presentation ○ Demonstration ○ Final examination
MIXED MODE Coursework Dissertation	 30 –70 0	 30 – 70 100	○ Assignment (Individual/Group) ○ Project ○ Case studies ○ Quiz ○ Written test ○ Oral test ○ Practical assessment ○ Presentation ○ Demonstration ○ Dissertation ○ Viva-voce ○ Final examination
RESEARCH Dissertation	 0	 100	o Dissertation o Viva-voce

DOCTORAL DEGREE (LEVEL 8, MQF)

MODE	MODULES		SUGGESTED FORMS OF ASSESSMENT
	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	
MIXED MODE Coursework Thesis	 30 – 70 0	 30 – 70 100	○ Assignment (Individual/Group) ○ Project ○ Case studies ○ Written test ○ Oral test ○ Practical assessment

MODE	MODULES		SUGGESTED FORMS OF ASSESSMENT
	CONTINUOUS ASSESSMENT (%)	FINAL ASSESSMENT (%)	
			○ Presentation ○ Demonstration ○ Thesis ○ Viva-voce ○ Final examination
RESEARCH Thesis	0	100	○ Thesis ○ Viva-voce

Notes:

i. The HEPs should have a clear policy on the criteria for the appointment of external and internal examiners for dissertation/thesis assessment at postgraduate levels.

ii. The composition of the dissertation/thesis examiners should meet the requirements of the Standards: Master's and Doctoral Degree, 2nd Edition.

4. STUDENT SELECTION

This section of the PS relates to the selection of students for a programme of study.

"In general, admission to a programme needs to comply with the prevailing policies of the Ministry of Education (MOE). There are varying views on the best method of student selection. Whatever the method 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 a desired enrolment. If HEP operates in 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 selection of students into the OSH programmes shall be formulated in reference to generic national higher education policies pertaining to minimum student entry requirements.

The minimum entry requirements are shown in **Table 4.1**.

Table 4.1: Minimum entry requirement for student admission

MQF LEVEL	ENTRY REQUIREMENT	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)
DIPLOMA (LEVEL 4, MQF)	i. Possess *Sijil Pelajaran Malaysia* (SPM) or equivalent with pass in English at SPM level and **THREE CREDITS** in the following subjects*: ● Mathematics and **ONE** Science subject (Biology/Physics/Chemistry/General Science); and ● Any other **ONE** subjects. **OR** ii. Possess *Sijil Kemahiran Malaysia* (SKM) Level 3/*Sijil Vokasional Malaysia* (SVM) in the relevant field (Note: The HEPs need to conduct specific screening and guidance	Achieve a minimum Band 3 in Malaysian University English Test (MUET) **OR** equivalent to Common European Framework of Reference for Languages (CEFR) (High B1)***.

MQF LEVEL	ENTRY REQUIREMENT	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)
	related to the field of the program for the students); **OR** iii. A Certificate (Level 3, MQF) in the 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 2.0) 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. Additional requirement for iii – v: A pass in English **AND** credit in Mathematics and **ONE** Science subject (Biology/Physics/Chemistry/ General Science) at SPM level or equivalent qualifications (Refer to the notes (*) below this table).	
BACHELOR'S DEGREE (LEVEL 6, MQF)	i. A pass in STPM with a minimum of Grade C (GP 2.00) in any **TWO** subjects*; **OR** ii. A pass in STAM with at least Grade *Jayyid**; **OR** iii. Matriculation or Foundation with at least a CGPA of 2.00*; **OR** iv. A Diploma (Level 4, MQF) with at least a CGPA of 2.00*; **OR** v. A *Diploma Kemahiran Malaysia* (DKM)/ *Diploma Vokasional Malaysia* (DVM)**; **OR** vi. Other relevant equivalent qualifications recognised by the Malaysian Government. Additional requirement for i – iv: A credit in **ONE** Science subject (Biology/Physics/Chemistry/	Achieve a minimum Band 3 in MUET **OR** equivalent to CEFR (Low B2)***.

MQF LEVEL	ENTRY REQUIREMENT	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)
	General Science) at SPM level or equivalent qualifications (Refer to the notes (*) below this table).	
MASTER'S DEGREE (LEVEL 7, MQF)	**Master's Degree by Coursework** i. A Bachelor's degree (Level 6, MQF) in the relevant field with a minimum CGPA of 2.50 or equivalent, as accepted by the HEP Senate; **OR** ii. A Bachelor's degree (Level 6, MQF) in the relevant field or equivalent with a minimum CGPA of 2.00 and not meeting a CGPA of 2.50, can be accepted subject to rigorous internal assessment****; **OR** iii. A Bachelor's degree (Level 6, MQF) in non-related fields with a minimum CGPA of 2.00 as accepted by the HEP Senate and with **THREE** years relevant working experience*****, subject to a rigorous internal assessment****; **OR** iv. A Bachelor's degree (Level 6, MQF) in non-related fields with a minimum CGPA of 2.00 as accepted by the HEP Senate and without relevant working experience, subject to passing pre-requisite courses******; **OR** v. The equivalent/related qualifications to a Bachelor's degree (Level 6, MQF) recognised by the Malaysian Government. **Master's Degree by Mixed Mode** i. A Bachelor's degree (Level 6, MQF) in the relevant field with a minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; **OR** ii. A Bachelor's degree (Level 6, MQF) in the	Achieve a minimum Band 4 in MUET **OR** equivalent to CEFR (Mid B2)***.

MQF LEVEL	ENTRY REQUIREMENT	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)
	relevant field or equivalent with a minimum CGPA of 2.50 and not meeting a CGPA of 2.75, can be accepted subject to rigorous internal assessment****; **OR** iii. A Bachelor's degree (Level 6, MQF) in non-related fields with a minimum CGPA of 2.00 as accepted by the HEP Senate and with **THREE** years relevant working experience*****, subject to a rigorous internal assessment****; **OR** iv. A Bachelor's degree (Level 6, MQF) in non-related fields with a minimum CGPA of 2.00 as accepted by the HEP Senate and without relevant working experience, subject to passing pre-requisite courses******; **OR** v. Other equivalent/related qualifications to a Bachelor's degree (Level 6, MQF) recognised by the Malaysian Government. **<u>Master's Degree by Research</u>** i. A Bachelor's degree (Level 6, MQF) in the relevant field with a minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; **OR** ii. A Bachelor's degree (Level 6, MQF) in the relevant field or equivalent with a minimum CGPA of 2.50 and not meeting a CGPA of 2.75, can be accepted subject to rigorous internal assessment ********; **OR** iii. A Bachelor's degree (Level 6, MQF) in the relevant field or equivalent with a minimum CGPA of 2.00 and not meeting a CGPA of 2.50, can be accepted subject to a minimum of **FIVE** years of working experience and rigorous internal assessment.	

MQF LEVEL	ENTRY REQUIREMENT	ENGLISH COMPETENCY REQUIREMENT (INTERNATIONAL STUDENT)
	Candidates without a qualification in the related fields or relevant working experience must undergo appropriate pre-requisite courses (OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories) as determined by the HEP and meet the minimum CGPA based on (i) to (iii).	
DOCTORAL DEGREE (LEVEL 8, MQF)	**Doctoral Degree by Mixed Mode** i. A Master's degree (Level 7, MQF) in the relevant field with a CGPA of 3.0 or equivalent as accepted by the HEP Senate; **OR** ii. Other qualifications equivalent to a Master's degree (Level 7, MQF) recognised by the Government of Malaysia. **Doctoral Degree by Research******* i. A Master's degree (Level 7, MQF) in the relevant field as accepted by the HEP Senate; **OR** ii. Other qualifications equivalent to a Master's degree (Level 7, MQF) recognised by the Government of Malaysia. Candidates without a related qualification in the field/s or working experience in the relevant fields must undergo appropriate pre-requisite courses (OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories) as determined by the HEP.	Achieve a minimum Band 4 in MUET **OR** equivalent to CEFR (Mid B2)***.

Notes:

<table>
<tr><td>*</td><td>A pass in English at SPM level or equivalent qualifications

(English subject requirement does not apply to international students since they are required to meet certain scores of international English examinations and are privileged with certain exemptions)</td><td rowspan="3">Can be waived should any other higher qualifications contain English, Mathematics and any Science subjects including General Science with an equivalent/higher achievement.

Malaysian students using English as the medium of instruction in their previous study or with at least Band 2 in MUET or equivalent can be exempted from a pass in the English requirement.

Those without a credit in Mathematics and/or Science subjects at the SPM level or equivalent can be admitted but are required to attend special enhancement course(s). These special enhancement courses should be SPM equivalent, remedial in nature. Students must pass the Mathematics and Science subject enhancement courses as a pre-requisite to the related core courses.</td></tr>
<tr><td></td><td>A credit in Mathematics and ONE Science subject at SPM level or equivalent qualifications</td></tr>
<tr><td></td><td>A credit in ONE Science subject at SPM level or equivalent qualifications</td></tr>
<tr><td>**</td><td colspan="2">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.</td></tr>
<tr><td>***</td><td colspan="2">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.</td></tr>
<tr><td>****</td><td colspan="2">Rigorous assessment to evaluate the suitability of an applicant for a programme through the statement of purpose, interview and other methods may cover the following criteria:
i. Demonstration of strong OSH experience, and that you have held significant managerial responsibilities.
ii. Evidence of any achievements in your professional life, for example, consistently performing at a high level, a consistent career progression and any impact that you have had on your organisation.</td></tr>
</table>

	iii. Professional skills that you have developed, for example, teamwork, leadership, problem-solving, negotiating and analytical skills. iv. How you will contribute to your class and what experiences you can bring to the institution. (Lancaster University, 2021)
*****	Experience can be cumulative experience even before acquiring the required qualification for a particular level of study. However, the experience must be relevant to the level of study, as well as the content.
******	The pre-requisite courses must equip the students with necessary (OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories) of one level lower than the programme level.
*******	The HEPs can take excellent Bachelor's degree (Level 6, MQF) graduates for direct admission to Doctoral degree by research (Level 8, MQF) programme with the following conditions: i. Students have first-class Bachelor's degree (Level 6, MQF) or equivalent qualification; or ii. Students have obtained a CGPA of at least 3.67 or equivalent from either an academic or Technical and Vocational Education and Training (TVET) programme; and iii. Evaluated through rigorous internal assessment by the HEP; and iv. Approved by the HEP Senate and accepted as a candidate for the Doctoral degree (Level 8, MQF) programme. Students must demonstrate appropriate progress during the candidature period.

Accreditation of Prior Experiential Learning

APEL.A provides an alternative entry route to formal programmes of study from Certificate (Level 3, MQF) through to Doctoral degree (Level 8, 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 for Access (APEL.A) and Accreditation of Prior Experiential Learning for Micro-credentials (APEL.M)].

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, HEP is expected to search for and appoint the best-suited candidates, to serve its programmes, in an open, transparent and fair manner. It is important that every programme has appropriately qualified and sufficient number of academic staffs, 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 staffs, 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 5.1 provides the minimum requirements of the qualifications of academic staff and relevant staff ratios for the different levels in OSH. **Besides possessing qualifications in the relevant field, HEPs must ensure that academic staff are assigned courses based on their areas of expertise or relevant industry experience.**

Table 5.1 Qualifications for academic staff

MQF LEVEL	REQUIREMENT	REMARK
DIPLOMA (LEVEL 4, MQF)	i. A Bachelor's degree (Level 6, MQF) in the relevant field with: a. A minimum of **THREE** years of working experience** or equivalent in relevant fields; **OR** b. The staff must be a certified Competent Person. **OR** ii. A Bachelor's degree (Level 6, MQF) in other fields with **FIVE** years of working experience** in the relevant fields; **OR** iii. A Diploma (Level 4, MQF) in the relevant field with:	<u>Academic staff ratio</u> i. At least 60% of the academic staff are full-timers. ii. Part-time staff may consist of industry practitioners or from the academia. iii. The minimum number of academic staff in the related field for each programme is 6*. <u>Staff-student ratio</u> i. Programme – 1:25

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

MQF LEVEL	REQUIREMENT	REMARK
	a. A minimum of **SIX** years of relevant industrial experience**/industry engagement at the supervisory level in the relevant discipline of the subject taught; **OR** b. The staff must be a certified Competent Person. (The number of staff with this qualification should not exceed 30% of the total academic staff)	
BACHELOR'S DEGREE (LEVEL 6, MQF)	i. A Master's degree (Level 7, MQF) in the relevant field with at least **ONE** year of working experience** or equivalent; **OR** ii. A Master's degree (Level 7, MQF) in other fields with **FIVE** years of working experience** or equivalent in relevant fields; **OR** iii. Practitioners with a Bachelor's degree (Level 6, MQF) with **EIGHT** years of working experience** or equivalent in relevant fields. (The number of staff with this qualification should not exceed 30% of the total academic staff)	<u>Academic staff ratio</u> i. At least 60% of the academic staff are full-timers. ii. Part-time staff may consist of industry practitioners or from academia. iii. The minimum number of academic staff in the related field for each programme is 10*. <u>Staff-student ratio</u> i. Programme – 1:25
MASTER'S DEGREE (LEVEL 7, MQF)	**<u>Master's Degree by Coursework</u>** **Supervisor/Teaching Staff** i. The teaching staff must have a Doctoral degree (Level 8, MQF) in the relevant fields. ii. Where the supervisor/teaching staff has a Master's degree (Level 7, MQF) in the relevant field, the teaching staff must have at least **FIVE** years of experience** in teaching.	<u>Academic staff ratio</u> i. At least 60% of the academic staff are full-timers. ii. Part-time staff may consist of industry practitioners or from the academia. iii. The minimum number of academic staff in the related field for each programme is 5* (only for Coursework and Mixed Mode programme).

MQF LEVEL	REQUIREMENT	REMARK
	<u>Master's Degree by Mixed Mode</u> **1. Principal Supervisor** i. The principal supervisor must have a Doctoral degree (Level 8, MQF) in the relevant fields. ii. Where the principal supervisor has a Master's degree (Level 7, MQF) in the relevant field, the principal supervisor must: a. have at least **FIVE** years of experience** in teaching and research; **AND** b. has co-supervised master's candidate. iii. The supervisors must have gone through structured supervisor training[5]. iv. The HEP Senate may impose other criteria as it deems necessary. **2. Co-supervisor** i. Co-supervisor must have a Doctoral degree (Level 8, MQF) in the relevant fields. ii. Where the co-supervisor has only a Master's degree (Level 7, MQF) in the relevant field, the co-supervisor must have at least **ONE** year of experience** in teaching and research. iii. A co-supervisor from the industry or practitioner must have at least a Bachelor's degree (Level 6, MQF) **AND** have at least **FIVE** years of experience** in the field at a level appropriate for the dissertation.	<u>Staff-student ratio</u> i. Programme – 1:20 (only for Coursework and Mixed Mode programme) ii. Overall principal supervisor to student ratio is 1:10*** When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP. When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP. On a case-by-case basis, co-supervisor may be appointed amongst industry experts, subject to the approval of the HEP Senate.

[5] This training programme should be designed to explain and explicate the roles, responsibilities, expectations, policies and rules of the HEP and interpersonal challenges in dealing with personal, cultural, academic and intellectual issues through a multitude of methods.

MQF LEVEL	REQUIREMENT	REMARK
	iv. The supervisors must have gone through structured supervisor training. v. The HEP Senate may impose other criteria as it deems necessary. **3. Teaching Staff** i. The teaching staff must have a Doctoral degree (Level 8, MQF) in the relevant fields. ii. Where the teaching staff has a Master's degree (Level 7, MQF) in the field, the teaching staff must have at least **FIVE** years of experience** in teaching. iii. Teaching staff from the industry or practitioner must have at least a Bachelor's degree (Level 6, MQF) **AND** have at least **FIVE** years of experience** in the field at a level appropriate for the courses to teach professional components (Refer to Glossary). **<u>Master's Degree by Research</u>** **1. Principal Supervisor** i. The principal supervisor must have a Doctoral degree (Level 8, MQF) in the relevant fields. ii. Where the principal supervisor has a Master's degree (Level 7, MQF) in the relevant field, the principal supervisor must: a) have at least **FIVE** years of experience** in teaching and research; **AND** b) has co-supervised the Master's degree (Level 7, MQF) candidate.	

MQF LEVEL	REQUIREMENT	REMARK
	iii. The supervisors must have gone through structured supervisor training. iv. The HEP Senate may impose other criteria it deems necessary. **2. Co-supervisor** i. Co-supervisor must have a Doctoral degree (Level 8, MQF) in the relevant field. ii. Where the co-supervisor has only a Master's degree (Level 7, MQF) in the relevant field, the co-supervisor must have at least **ONE** year of experience** in teaching and research. iii. A co-supervisor from the industry or practitioner must have at least a Bachelor's degree (Level 6, MQF) **AND** have at least **FIVE** years of experience** in the field at a level appropriate for the dissertation. iv. The supervisors must have gone through structured supervisor training. v. The HEP Senate may impose other criteria it deems necessary.	
DOCTORAL DEGREE (LEVEL 8, MQF)	**<u>Doctoral Degree by Mixed Mode</u>** **1. Principal/Supervisor** i. The principal supervisor must have a Doctoral degree (Level 8, MQF) in relevant fields; **AND** a) have at least **TWO** years teaching experience** and research; **AND** b) has supervised/ co-supervised Master's degree (Level 7, MQF) or Doctoral	<u>Academic staff ratio</u> i. In addition to observing staff to student ratio, the programme must consist of academic staff with expertise or background contributing to the related core courses offered. ii. At least 60% of the academic staff are full-timers. iii. Part-time staff may consist of industry

MQF LEVEL	REQUIREMENT	REMARK
	degree (Level 8, MQF) research candidate to completion in the relevant field. ii. Where a principal supervisor has only a Master's degree (Level 7, MQF), extensive experience** in research is required in addition to conditions in (i)(a) and (i)(b), and subject to the approval of the Senate of the HEP. iii. The supervisors must have gone through structured supervisor training. iv. The HEP Senate may impose other criteria as it deems necessary. **2. Co-supervisor** i. Co-supervisor must have a Doctoral degree (Level 8, MQF) in the relevant fields **AND** have at least **TWO** years of teaching experience** and research. ii. Where a co-supervisor has only a Master's degree in the relevant fields (Level 7, MQF), extensive experience** in research is required and subject to the approval of the Senate of the HEP. iii. A co-supervisor from the industry or practitioner must have at least a Master's degree (Level 7, MQF) **AND** have at least 10 years of experience** in the field at a level appropriate for the thesis. iv. The supervisors must have gone through structured supervisor training. v. The HEP Senate may impose other criteria as it deems necessary.	practitioners or from the academia. iv. The minimum number of academic staff in the related field for each programme is 10* (only for Mixed Mode programme). <u>Staff-student ratio</u> i. 1:12 (only for Mixed Mode programme) ii. Overall principal supervisor student ratio is 1:10*** When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP. When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP. A Doctoral degree holder without experience (without any publication in indexed journals and has no experience in completing doctoral supervision) may be appointed as a co-supervisor. On a case by case basis, co-supervisor may be appointed amongst industry experts, subject to the approval of the HEP Senate.

MQF LEVEL	REQUIREMENT	REMARK
	3. Teaching Staff i. The teaching staff must have a Doctoral degree (Level 8, MQF) in the relevant fields **AND** have at least **TWO** years of teaching experience**. ii. Teaching staff from the industry or practitioners must have at least a Master's degree (Level 7, MQF) **AND** have at least 10 years of experience** in the field at a level appropriate for the courses to teach practical/professional/hands-on components. **<u>Doctoral Degree by Research</u>** **1. Principal Supervisor** i. The principal supervisor must have a Doctoral degree (Level 8, MQF) in relevant fields; **AND** a) have at least **TWO** years of teaching experience** and research; **AND** b) has supervised/ co-supervised Master's degree (Level 7, MQF) or Doctoral degree (Level 8, MQF) research candidate to completion in the relevant field. ii. Where a principal supervisor has only a Master's degree (Level 7, MQF), extensive experience** in research is required in addition to conditions in (i)(a) and (i)(b), and subject to the approval of the Senate of the HEP. iii. The supervisors must have gone through structured supervisor training.	

MQF LEVEL	REQUIREMENT	REMARK
	iv. The HEP Senate may impose other criteria it deems necessary. **2. Co-supervisor** i. Co-supervisor must have a Doctoral degree (Level 8, MQF) in relevant fields. ii. Where a co-supervisor has only a Master's degree (Level 7, MQF), extensive experience** in research is required and subject to the approval of the Senate of the HEP. iii. A co-supervisor from the industry or practitioner must have at least a Master's degree (Level 7, MQF) **AND** have at least **10** years of experience** in the field at a level appropriate for the thesis. iv. The supervisors must have gone through structured supervisor training. v. The HEP Senate may impose other criteria it deems necessary.	

Notes:

*	Refer to *Surat Makluman MQA Bil. 7/2014 – Garis Panduan Beban Staf Akademik*.
**	Experience can be cumulative experience even before acquiring the required qualification for a particular level of study. However, it must be relevant to the level of study, as well as the content.
***	The overall principal supervisor-student ratio is inclusive of Master's and Doctoral degree students.

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, by considering the qualification in the related field together with the relevant industry experience gained. HEPs should ensure that these academic staff are assigned courses based on their qualifications and areas of expertise.

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 their intellectual maturity and enrich the learning experience of students.

The HEPs must also commit to providing staffs 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 OSH programmes, HEPs are required to provide sufficient resources conducive to support teaching and learning in the field. Lecture rooms, 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.

In providing the resources and facilities, HEPs are encouraged to be resourceful and creative. Where resources and facilities are shared or provided through a consortium or outsourced services, HEPs must ensure adequate and reasonable access to these facilities and resources by the candidates (SMDD 2nd Edition, 2021).

a) Basic facilities

Basic generic facilities include classrooms suited for teaching and learning, in buildings, with Certification of Fitness to Stay (CF) appropriate to the Uniform Building By-Laws, in particular sections related to School Premises and with proper BOMBA certification. Space should be sufficient for the number of students taken in. Premises must be well-furnished with appropriate fittings, furniture and equipment, which are safe according to safety and health standards and well-maintained.

In addition, there will be resources relating to physical resources, such as classrooms and computer labs. Library books and reference material are also part of the resources dedicated to the programme.

b) Laboratories and other facilities

Labs should be sufficient to meet the training needs of the students:

- OSH Lab

Most of the laboratory work can be conducted in groups.

c) Placement in various related premises and centres

As per Occupational Safety and Health (Amendment) Act 2022.

d) Minimum Equipment Requirement Based on Level of Programme

The following table shows the list of minimum equipment pertaining to the level of the programme. The HEPs must take necessary steps to ensure that the equipment available is in keeping with the progress of the profession.

NO.	EQUIPMENT	DIPLOMA	BACHELOR'S DEGREE AND ABOVE
1.	Airborne Sampling Pump	✓	✓
2.	Personal Air Sampling Pump	✓	✓
3.	Anatomy Models Set	✓	✓
4.	Anemometer	✓	✓
5.	Audiometer	✓	✓
6.	Audiometry Booth	-	✓
7.	Back Belts	✓	✓
8.	Bandage Sets-triangular	✓	✓
9.	Computer Anti-glare Spectacles	✓	✓
10.	Construction Fall Protection Suits and Harnesses	✓	✓
11.	Voltmeter	✓	✓
12.	Demo Easy to Fix-home DIY Smoke Detector Sets	✓	✓
13.	Dosimeter	✓	✓
14.	Emergency Eye Wash	✓	✓
15.	Emergency Lighting	✓	✓
16.	Emergency Shower	✓	✓
17.	Lab Coats - Chemical Resistant	✓	✓
18.	Lab Coats - Normal Khaki	✓	✓
19.	Set-fire (Warmth) Detector, with Different Glass Bulbs	✓	✓
20.	Demo Set - Fire Smoke Detector	✓	✓
21.	Types of Respirator Sets	✓	✓
22.	Types of Earmuffs	✓	✓
23.	Types of Specialty Work Gloves	✓	✓
24.	Emergency Forehead Torch	✓	✓
25.	Emergency Hammer	✓	✓
26.	Emergency Torch Lights	✓	✓
27.	Emergency Whistles	✓	✓
28.	EMF Volt Test Meter	✓	✓
29.	Types of Face Shields	✓	✓

NO.	EQUIPMENT	DIPLOMA	BACHELOR'S DEGREE AND ABOVE
30.	Fire Extinguisher - Intact ABC	✓	✓
31.	First Aid Box	✓	✓
32.	Goniometers	✓	✓
33.	Head Protection (Safety Helmet)	✓	✓
34.	Hose Reels	✓	✓
35.	Lux Meter	✓	✓
36.	Lockout/Tagout Kits	✓	✓
37.	Mannequin for First Aid Courses	✓	✓
38.	Portable Multi Gas Meter	✓	✓
39.	Safety Goggles – All Types	✓	✓
40.	Safety Ladders	✓	✓
41.	Types of Safety Shoes	✓	✓
42.	Skull, Spines and Skeleton Set	✓	✓
43.	Sound Level Meter	✓	✓
44.	Stretchers	✓	✓
45.	Traffic Controller Reflector Suit	✓	✓
46.	Vibration Meter (Hand Arm/ Whole Body)	-	✓
47.	Wet Bulb Globe Temperature	✓	✓

7. PROGRAMME MANAGEMENT

"There are many ways of administering an educational institution and the methods of management differ between 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 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 document, academic leadership is largely focused on suitably qualified persons in OSH to manage the delivery of the programme 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 OSH and perception of the education 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 and 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. flexible to changing demands and pressures from key stakeholders to achieve individual and organisational goals;
vii. ability to promote continuous learning among staff and student; 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 7.1**.

Table 7.1: Criteria for selection of programme leader

MQF LEVEL	REQUIREMENT
DIPLOMA (LEVEL 4, MQF)	A Bachelor's degree (Level 6, MQF) in the relevant field; **AND** a. A minimum of **FIVE** years of relevant academic experience; **OR** b. A minimum of **FIVE** years of relevant industrial experience.
BACHELOR'S DEGREE (LEVEL 6, MQF)	A Master's degree (Level 7, MQF) in the relevant field; **AND** a. A minimum of **FIVE** years of relevant academic and research experience; **OR** b. A minimum of **FIVE** years of relevant industrial experience.
MASTER'S DEGREE (LEVEL 7, MQF)	i. A Doctoral degree (Level 8, MQF) in the relevant field; **AND** a. A minimum of **THREE** years of relevant academic and research experience; **OR** b. A minimum of **THREE** years of relevant industrial experience; **OR** ii. A Master's degree (Level 7, MQF) in the relevant field; **AND** a. A minimum of **FIVE** years of relevant academic and research experience; **OR** b. A minimum of **FIVE** years of relevant industrial experience.
DOCTORAL DEGREE (LEVEL 8, MQF)	A Doctoral degree (Level 8, MQF) in the relevant field; **AND** a. A minimum of **FIVE** years of relevant academic and research experience; **OR** b. A minimum of **FIVE** years of relevant industrial experience.

Note:

Experience can be cumulative experience even before acquiring the required qualification for a particular level of study. However, the experience must be relevant to the level of study as well as the content.

8. PROGRAMME MONITORING, REVIEW AND CONTINUAL QUALITY IMPROVEMENT[6]

"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 student progress, employability and performance.

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

Measures of student performance would include the average study duration, assessment scores, passing rate at 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 performance 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 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.

Comprehensive monitoring and review of the programme for its improvement is 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

[6] Standards in this area are best read together with the Guidelines to Good Practices: Monitoring, Reviewing and Continually Improving Institutional Quality (MR-CIIQ) and Guidelines on Terms Used for External Examiner, External Advisor and Advisory Board, which are available on the MQA website: 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 requirements, and keep pace with changes in the OSH field and the requirements of the stakeholders.

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

i. The HEP must have a Quality Assurance (QA) unit/personnel for internal quality assurance.
ii. A comprehensive curriculum review should be conducted at least once every 2 to 5 years. However, updating the curriculum to keep pace with current developments should be conducted at a more regular interval.
iii. Compulsory appointment of external advisor(s) who are qualified in the relevant fields to provide feedback on programme design and review.
iv. Compulsory appointment of external examiner(s) who are qualified in the relevant fields to review the assessment systems for Bachelor's degree (Level 6, MQF) and above.
v. Consultation/Engagement with stakeholders.

Additionally, HEPs are encouraged to demonstrate the following:

i. Continual benchmarking against top universities at national and international levels for Bachelor's degree (Level 6, MQF) and above.
ii. Linkages with related professional bodies, government agencies and industry.
iii. Engagement with industry practitioners through a formalised mechanism such as appointment in Board of Studies, or by establishing an industry advisory panel.
iv. Active participation of academic staff at relevant conferences, seminars, workshops and short courses.
v. Presentations by invited speakers, local or international.
vi. Organising conferences, seminars and workshops for HEPs which run Master's degree (Level 7, MQF) and above.
vii. Encouraging international exchange amongst students and staffs for Bachelor's degree (Level 6, MQF) and above.

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APPENDIX 1

LIST OF PANEL MEMBERS

NO.	PANEL MEMBERS	ORGANISATION
1.	Prof. Dr. Mohamad Khan Jamal Khan (Chairman)	Asia Metropolitan University
2.	Associate Prof. Ts. Dr. Mohd Rafee Baharuddin	Universiti Putra Malaysia (UPM)
3.	Associate Prof. Dr. Ezrin Hani Sukadarin	Universiti Malaysia Pahang (UMP)
4.	Dr. Abdul Mujid Abdullah	Universiti Teknologi MARA (UiTM)
5.	Dr. Suhaila Abdul Hamid	Open University Malaysia (OUM)
6.	Mr. Mohd Nasrom Mohd Nawi	Universiti Sains Malaysia (USM)
7.	Mr. Rosli Abdul Rahman	University of Cyberjaya (UoC)
8.	Mr. Mohd Rafi Remli	FGV Plantations (M) Sdn. Bhd.
	PERMANENT REPRESENTATIVES	
9.	Ir. Hj. Mohd Hatta Zakaria	Department of Occupational Safety and Health (DOSH), Ministry of Human Resources
10.	Mr. Ahmad Nazri Ab Kader	

Mrs. Siti Salwa Abdullah assisted in the development process and can be contacted for further information or query via email: salwa@mqa.gov.my.

APPENDIX 2

LIST OF ORGANISATIONS INVOLVED IN THE STAKEHOLDERS' WORKSHOPS

1. Higher Education Providers
2. Industry
3. Government Agency
4. Student
5. Panel of Assessors
6. MQA's Officer

APPENDIX 3

BODY OF KNOWLEDGE IN OSH

Component	Body of Knowledge	Diploma	Bachelor	Master (CW/ MM)	PhD (MM)
Basic Sciences	Human Anatomy and Physiology	√	√		
	Industrial Chemistry	√	√		
	Industrial Psychology	√	√		
	Applied Physics	√	√		
	Elementary Statistics	√	√		
Legal	OSH Legislation	√	√	√	√
	Related Legislation and Standards	√	√	√	√
Safety	Occupational Safety	√	√	√	√
	OSH Risk Assessment	√	√	√	√
	Construction Safety	√	√	√	√
	Process Safety Management	√	√	√	√
	Work Related Road Safety	√	√		
	Fire Safety	√	√		
	Personal Protective Equipment (PPE)	√	√		
	Machine Safety	√	√		
	Ventilation	√	√	√	√
	Safety Management			√	√

Component	Body of Knowledge	Diploma	Bachelor	Master (CW/ MM)	PhD (MM)
Health	Occupational Health	√	√	√	√
	First Aid	√	√		
	Ergonomics	√	√	√	√
	Industrial Toxicology	√	√		
	Industrial Hygiene	√	√	√	√
	Chemical Safety	√	√		
	Psychosocial	√	√		
	Noise Management	√	√		
	Indoor Air Quality	√	√		
	Hygiene Management			√	√
	Chemical Management			√	√
	Health Management			√	√
Management	OSH Related Theories	√	√	√	√
	OSH Management System	√	√	√	√
	Waste Management	√	√		
	Occupational Economics	√	√	√	√
	Organisational Behaviour	√	√	√	√
	Accident Investigation	√	√		
	OSH Programme, Training & Promotion	√	√		
	OSH Professional Ethics	√	√		

Component	Body of Knowledge	Diploma	Bachelor	Master (CW/ MM)	PhD (MM)
	OSH Communication	√	√		
	Emergency Preparedness & Response	√	√	√	√
	Facility Management	√	√	√	√
	Research Methodology		√	√	√
	Quality Management		√		
	Human Resource Management		√	√	√
	Industrial Relations		√	√	√
	Return to Work		√		
	Safety Leadership		√	√	√
	Behavioural Safety		√	√	√
	Change Management		√		

Notes: For any programme that encompasses two PSs, HEPs are to refer to the Body of Knowledge of both PSs. In terms of the other components of standards, HEPs are to adopt whichever is higher. CW: Coursework; MM: Mixed Mode.

A programme which offers OSH as minor courses should cover the following courses: OSH Legislation, Related Legislation and Standards, Occupational Safety, OSH Risk Assessment, Occupational Health, OSH Management System and OSH Related Theories.

APPENDIX 4

EXAMPLES OF NOMENCLATURES

Programme Structure	Explanation	Example*
Major	Programme that focuses only in one main area.	● Diploma in Occupational Safety and Health ● Bachelor of Science in Occupational Safety and Health ● Master of Science in Occupational Safety and Health
Major – Minor	Programme with **an area of study** covering **25 – 30% of the BOK in another area from the programme major (programme core).** The conjunction **'with'** is used in naming this type of programme where the major and minor areas are mentioned. The programme structure for **Diploma** programmes shall not include a minor in another area.	● Bachelor in Occupational Safety and Health with Marketing ● Bachelor in Occupational Safety and Health with Human Resource Management

*Notes:

- Calculation of the percentage of major and minor are based on credit hours.
- Discipline refers to the major field of the programme.
  (Refer to the Guidelines on Nomenclature of Malaysian Higher Education Programme for further reference.)

APPENDIX 5

AREAS OF EMPLOYMENT

The OSH graduates will find it essential or highly advantageous to have a varied portfolio of work to show the prospective employers of the OSH careers listed below:

Diploma

Safety and Health Officers
Safety and Health Executives
Safety Supervisors
Site Safety Supervisors

Bachelor's degree and above

Safety and Health Managers
Safety and Health Academicians
Safety and Health Researchers
Safety and Health Consultants
Safety and Health Trainers
Chemical Health Risk Assessors
Industrial Hygienist

APPENDIX 6

MAPPING OF THE BOK TO PRACTICAL SPECIFICATIONS REQUIRED BY DOSH FOR COMPETENT PERSON

DIPLOMA (LEVEL 4, MQF):

Area	Body of Knowledge	Core Practical Skills	Mapping
Basic Sciences	Human Anatomy and Physiology		
	Industrial Chemistry		
	Industrial Psychology		
	Applied Physics		
	Elementary Statistics		
Legal	OSH Legislation	C	1, 4, 6, 10, 12
	Related Legislation and Standards	C	1, 4, 6, 10, 12
Safety	Occupational Safety	C	3, 4
	OSH Risk Assessment	C	3, 4
	Construction Safety		3, 4
	Process Safety Management		3
	Fire safety		3, 9
	Personal Protective Equipment (PPE)		9
	Machine Safety		3
	Ventilation		8, 11
	Work Related Road Safety		3
Health	Occupational Health	C	3, 4
	First Aid		9
	Ergonomics		8, 11
	Industrial Toxicology		8, 11
	Industrial Hygiene		8, 11
	Chemical Safety		8, 11
	Phychosocial		8
	Noise Management		8, 11
	Indoor Air Quality		8, 11
Management	OSH Related Theories	C	7
	OSH Management System	C	2
	Waste Management		8
	Occupational Economics		
	Organizational Behaviour		
	Accident Investigation		7
	OSH Programme, Training & Promotion		5
	OSH Professional Ethics		
	OSH Communication		5
	Emergency Preparedness & Response		9
	Facility Management		2

No.	List of Practical Specifications	Industrial Training
1	**Implementation of OSH Regulatory Requirements**	During the industrial practice
2	**Implementation of OSH Management System**	During the industrial practice
3	**Conduct of Hazard Identification, Risk Assessment and Risk Control (HIRARC)/Risk Management**	Workplace risk assessment at site at least 1
4	**Workplace Inspection (Checklist)**	Workplace inspection
5	**OSH Promotion Activities**	Conduct at least 1 safety awareness programme and 1 on tool box
6	**Conduct of Safety and Health Committee Meeting**	Assist SHO/safety committee to prepare and organize at least 1 meeting
7	**Conduct of Incident, Accident and Occupational Disease Investigation**	Assist investigation or review previous investigation report
8	**Conduct of Occupational Hygiene Assessment (Noise/ Chemical/Ergonomics)**	Review at least any 1 assessment report/documentation and monitor the implementation of action plan
9	**Handling of OSH Emergency**	Assist handling of OSH Emergency
10	**Familiarization with DOSH Online System Including MyKKP and MySKUD**	Assist SHO in any related matter using the system
11	**SHO Monthly Report**	Produce SHO monthly report minimum 2 and action plan
12	**A Logbook**	Must reflect 1 - 11
13	**Presentation of Risk Assessment (E.g.: HIRARC) to Industrial Panel (SHO) and Supervisor after Industrial Training**	Compulsary

BACHELOR'S DEGREE (LEVEL 6, MQF):

Area	Body of Knowledge	Core Practical Skills	Mapping
Basic Sciences	Human Anatomy and Physiology		
	Industrial Chemistry		
	Industrial Psychology		
	Applied Physics		
	Elementary Statistics		
Legal	OSH Legislation	C	1, 4, 6, 10, 12
	Related Legislation and Standards	C	1, 4, 6, 10, 12
Safety	Occupational Safety	C	3, 4
	OSH Risk Assessment	C	3, 4
	Construction Safety		3, 4
	Process Safety Management		3
	Fire safety		3, 9
	Personal Protective Equipment (PPE)		9
	Machine Safety		3
	Ventilation		8, 11
	Work Related Road Safety		3
Health	Occupational Health	C	3, 4
	First Aid		9
	Ergonomics		8, 11
	Industrial Toxicology		8, 11
	Industrial Hygiene		8, 11
	Chemical Safety		8, 11
	Phychosocial		8
	Noise Management		8, 11
	Indoor Air Quality		8, 11
Management	OSH Management System		2
	OSH Related Theories	C	7
	Research Methodology	C	
	Quality Management		
	Waste Management		8
	Facility Management		
	Human Resource Management		
	Industrial Relations		
	Return to Work		
	Occupational Economics		
	Safety Leadership		
	Organizational Behaviour		
	Accident Investigation		7
	OSH Programme, Training & Promotion		5
	OSH Professional Ethics		
	OSH Communication		5
	Emergency Preparedness & Response		9
	Behavioural Safety		
	Change Management		2

No.	List of Practical Specifications	Industrial Training
1	**Implementation of OSH Regulatory Requirements**	During the industrial practice
2	**Implementation of OSH Management System**	During the industrial practice
3	**Conduct of Hazard Identification, Risk Assessment and Risk Control (HIRARC)/Risk Management**	Workplace risk assessment at site at least 2
4	**Workplace Inspection (Checklist)**	Workplace inspection
5	**OSH Promotion Activities**	Conduct at least 2 safety awareness programme and 2 on tool box
6	**Conduct of Safety and Health Committee Meeting**	Assist SHO/safety committee to prepare and organize at least 2 meeting
7	**Conduct of Incident, Accident and Occupational Disease Investigation**	Assist investigation or review previous investigation report
8	**Conduct of Occupational Hygiene Assessment (Noise/ Chemical/Ergonomics)**	Review at least any 2 assessment report/ documentation and monitor the implementation of action plan
9	**Handling of OSH Emergency**	Assist handling of OSH Emergency
10	**Familiarization with DOSH Online System Including MyKKP and MySKUD**	Assist SHO in any related matter using the system
11	**SHO Monthly Report**	Produce SHO monthly report minimum 3 and action plan
12	**A Logbook**	Must reflect 1 - 11
13	**Presentation of Risk Assessment (E.g.: HIRARC) to Industrial Panel (SHO) and Supervisor after Industrial Training**	Compulsary

GLOSSARY

1)	Body of Knowledge	A profession's Body of Knowledge is a key "trait" required to clearly define the profession's competence territory. The Body of Knowledge provides the underlying knowledge base required for professionals to competently perform their jobs and apply principles to practice. Any Body of Knowledge must be periodically re-evaluated and is the basis for course and curriculum design, program accreditation and professional certification. Organisations may define their Bodies of Knowledge in terms of learning outcomes, content domains and competency categories.
2)	Core	Required modules related to Occupational Safety and Health programmes.
3)	Continuous Assessment	Assessments conducted throughout the duration of a course for the purpose of determining student attainment.
4)	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.
5)	Final Assessment	Assessment of student attainment at the end of a course which can be in the form of a final examination, lab assessment, presentation, dissertation/thesis, project or industrial training report.
6)	Final Examination	A written examination scheduled within an official examination period held at the end of an academic term.
7)	Formative Assessment	The assessment of student progress throughout a course, in which the feedback from the learning activities is used to improve student attainment.
8)	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.

9)	Learning Outcomes	Statements on what a learner should know, understand and do upon the completion of a period of study.
10)	Modules	Components of a programme. The term ‘modules’ is used interchangeably with subjects, units or courses.
11)	Open and Distance Learning (ODL)	The provision of flexible educational opportunities in terms of access and multiple modes of knowledge acquisition.
12)	Programme	An arrangement of modules 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.
13)	Programme Educational Objectives	Broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve after they have graduated.
14)	Project Paper	Refers to the documentation of the research or any applied project prepared and submitted by the candidate for the award of the Master’s and Doctoral degree programme by coursework.
15)	Quality Assurance	Comprises planned and systematic actions (policies, strategies, attitudes, procedures and activities) to provide 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.
16)	Related field(s)	Referring to programmes covered under this programme standards, including programmes comprising of 25% of courses listed in this PS.
17)	Relevant field(s)	Having some reasonable connection with OSH field.
18)	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.
19)	Teaching Staff from the Industry/Practitioner	Professional is referred to a Competent Person registered with the Department of Occupational Safety and Health and holding a position of Senior Manager or above (only applicable to Master's degree by Mixed Mode).

20) 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.
21) Viva Voce	An oral examination on a student's communication skills and knowledge of relevant facts from their thesis or dissertation.

UPDATES

AMENDMENT RECORDS				
No.	**Date**	**Areas**	**Description**	**Page(s)**
1.	15/3/2023	Student Selection	Amendment on Table 4.1: Minimum entry requirement for student admission	25 – 31