MQA

Agensi Kelayakan Malaysia
Malaysian Qualifications Agency

STANDARDS:

MASTER'S AND DOCTORAL DEGREE

Standard :

Master's and Doctoral Degree document outlines sets of characteristics that describe and represent guidelines and on the minimum levels of acceptable practices of master's and doctoral degree by coursework, mixed mode and research which includes industrial doctoral and PhD by published work.

STANDARDS: MASTER'S AND DOCTORAL DEGREE BY RESEARCH

AREA 1: PROGRAMME DEVELOPMENT AND DELIVERY

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The vision, mission and educational goals of the Higher Education Provider (HEP) guide its research planning and implementation and bring together its members to produce graduates of excellence. The general goal is to develop postgraduates with in-depth knowledge at the frontier of a specialized field through the: - development of knowledge through research based on the systematic/enquiry process and its outcomes; - enhancement of communications and leadership skills, and attitudes, ethics, sense of professionalism for societal advancement within the framework of the institutional and national vision; - use analytical and creative problem-solving skills to evaluate and make decisions based on research evidence and/or experience; - the quest for knowledge through lifelong learning in line with the changes in the field of studies/practice; - research outcomes that are relevant to the national and international development; and - dissemination of research through publications and/or products. Research programmes are the building blocks that support the vision, mission and goals of the HEP. Hence, these institutional goals must be considered in the design and implementation of research programmes. For greater socio-economic impact, these programmes should challenge the candidates and graduates to contribute to the achievement of **Sustainable Development Goals**. The quality of the research programmes is ultimately determined by the capability of graduates to carry out their expected roles and responsibilities as described in the MQF.	The vision, mission, educational goals and learning outcomes of the higher education provider (HEP) guide its research planning and implementation, and bring together its members to produce graduates of excellence. The general goal is to develop broadly-trained graduates through the: - development of knowledge, research and communication skills and competency based on the scientific/enquiry process and its outcomes; - enhancement of generic skills such as attitudes, ethics, sense of professionalism and leadership skills for societal advancement within the framework of the national vision; - utilisation of analytical and problem solving skills in order to evaluate and make decisions critically and creatively based on research evidence and/or experience; - enhancement of the quest for knowledge and lifelong learning skills in line with the advancement of global development; - research outcomes that are relevant to the national and international context; and - dissemination of research outcomes through publications. Research programmes are the building blocks that support the larger vision and mission of the HEP. Hence, these larger institutional goals must be considered in the design of research programmes. The quality of the research programmes is ultimately determined by the capability of its researchers to carry out their expected roles and responsibilities in national and international developments.
1.1. Statement of Educational Objectives of Academic Programme and Learning Outcomes	**1.1 Statement of Educational Objectives of Academic Programme and Learning Outcomes**
A programme's stated objectives and learning outcomes guide what it wants the candidates to achieve. These objectives and learning outcomes must be	A programme's stated aims, objectives and learning outcomes guide what it wants the candidates to achieve. It is crucial for these aims, objectives and

NEW	STANDARD 2013
explicitly stated and communicated to the candidates as well as to the internal and external stakeholders.	learning outcomes to be expressed explicitly and to be made known to the candidates as well as to the internal and external stakeholders.
1.1.1. The programme must be consistent with, and supportive of, the vision, mission and goals of the HEP.	**1.1.1 Basic Standards** i. The programme must define its aims, objectives and learning outcomes and identify its internal and external stakeholders.
1.1.2. The department must formulate the programme, objectives and learning outcomes in consultation with relevant internal and external stakeholders.	ii. The department must consult and discuss with relevant internal and external stakeholders when formulating programme aims and objectives. iii. The programme objectives must reflect the key elements of the outcomes of higher education that are in line with national and international practices.
1.1.3. The HEP must state its programme educational objectives, learning outcomes, learning and teaching strategies, and assessment methods, and ensure constructive alignment between them.	iv. The programme aims, objectives and learning outcomes must be consistent with and supportive of the HEP's vision and mission.
1.1.4. The programme objectives and learning outcomes must encompass provision for training or support to enable research candidates to achieve the outcomes as described in the appropriate MQF Level and expanded in the applicable programme standard.	v. The programme aims, objectives and learning outcomes must encompass provision for training or support to enable research candidates to acquire skills in problem identification, analytical problem solving and publication of research outcomes. vi. The aims, objectives and learning outcomes of the master's programme must encompass research and research training skills in addressing problems of concern.
1.1.5. The programme's objectives and learning outcomes must be periodically reviewed in consultation with internal and external stakeholders.	vii. The aims, objectives and learning outcomes of the doctoral programme must encompass knowledge creation, novelty and innovation. **1.1.2 Enhanced Standards** i. The internal and external stakeholders should include national and international researchers. ii. The programme's aims, objectives and learning outcomes should be periodically reviewed in consultation with internal and external stakeholders, including international peers.
1.2. Learning Outcomes The quality of the research programme is determined by the ability of the graduates to carry out the expected roles and responsibilities in society. This requires the programme to have clear statements of the learning outcomes to be achieved. These statements should collectively reflect the appropriate	**1.2 Learning Outcomes** The quality of the research programme is ultimately assessed by the capability of the candidates to carry out their expected roles and responsibilities in society. This requires the programme to have clear statements of the learning outcomes to be achieved. These statements should cumulatively reflect the MQF five clusters of learning outcomes:

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NEW

MQF Level descriptor encompassing the five (5) clusters of learning outcomes and other needs of the HEP.

No	Clusters		
1	Knowledge and Understanding		
2	Cognitive Skills		
3	Functional Work Skills	3.1	Practical Skills
		3.2	Interpersonal Skills
		3.3	Communication Skills
		3.4	Digital Skills
		3.5	Numerical Skills
		3.6	Leadership, Autonomy & Responsibility
4	Personal and Entrepreneurial Skills		
5	Ethics and Professionalism.		

1.2.1. The scope of learning outcomes must reflect the knowledge, skills, abilities and attitudes outlined in the appropriate MQF Level descriptors that candidates should achieve upon completion of the programme and other needs of the HEP.

Master's Degree by Research (Level 7, MQF)

At the end of the programme, graduates must be able to:
   i. Demonstrate in-depth and frontier knowledge and understanding in the relevant field/s or practice;
   ii. Critically and creatively apply knowledge in one or more fields to resolve complex disciplinary and practical problems;
   iii. Conduct rigorous and independent research or investigation with minimal supervision;
   iv. Perform research adhering to legal, ethical, professional and **sustainable** practices;
   v. Demonstrate intellectual leadership qualities and management skills;
   vi. Communicate effectively in the field/s and interact with specialist and general audience;

STANDARD 2013

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

1.2.1 Basic Standards
   i. The scope of learning outcomes must reflect the competencies that the candidates should have upon completion of the programme:

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

At the end of the programme, graduates must be able to:
   1. demonstrate mastery of knowledge in the relevant field;
   2. apply practical skills in the relevant field;
   3. relate ideas to societal issues in the relevant field;
   4. conduct research with minimal supervision and adhere to legal, ethical and professional codes of practice;
   5. demonstrate leadership qualities through communicating and working effectively with peers and stakeholders;
   6. generate solutions to problems using scientific and critical thinking skills; and
   7. manage information for lifelong learning.

NEW	STANDARD 2013
vii. Select and use suitable digital and analytical tool techniques to research problems; and viii. Demonstrate commitment to lifelong learning and personal development. *Doctoral Degree by Research (Level 8, MQF)* At the end of the programme, graduates should be able to: i. Demonstrate a critical and in-depth understanding of frontier knowledge by generating substantial and original contributions to a field and/or practice; ii. Synthesise existing and new knowledge in one or more discipline areas to develop new concepts or interpretations or applications; iii. Conduct rigorous and independent research or investigation with minimal supervision iv. Demonstrate intellectual leadership qualities and management skills; v. Perform research adhering to legal, ethical, professional and **sustainable** practices; vi. Communicate cogently in the field/s and interact with specialist and general audience; vii. Select and use suitable digital and analytical techniques to research problems; and viii. Demonstrate commitment to lifelong learning and personal development. 1.2.2. The HEP is responsible for the effective delivery and achievement of the programme learning outcomes (to be read together with 7.16). 1.2.3. The programme must demonstrate how the planned activities contribute to the fulfilment of the programme learning outcomes (the department must describe the activities and evidence against each of the programme learning outcomes from admission to graduation (<u>see Appendix 2)</u>).	**DOCTORAL DEGREE by RESEARCH (LEVEL 8, MQF)** At the end of the programme, graduates should be able to: 1. synthesise knowledge and contribute to original research that broadens the frontier of knowledge in the relevant field; 2. adapt practical skills leading to innovative ideas in the relevant field; 3. provide expert advice to society in the relevant field; 4. conduct research independently and adhere to legal, ethical and professional codes of practice; 5. display leadership qualities through communicating and working effectively with peers and stakeholders; 6. appraise problems in the relevant field critically using scientific skills; and 7. integrate information for lifelong learning. Note: For the industrial doctoral programme, 'in the relevant field' should be read as 'in the relevant industry.' ii. The programme must demonstrate how the defined research components contribute to the fulfillment of the programme's learning outcomes. iii. The attainment of the learning outcomes must be continuously assessed throughout the programme. **1.2.2 Enhanced Standards** i. At the end of the programme, graduates should be able to publish in peer reviewed publications. ii. The programme should specify the link between research competencies expected on completion of studies and those required for career enhancement and future research.

NEW	STANDARD 2013
1.2.4. The programme should specify the link between learning outcomes expected on completion of studies and those required for careers in research related field/s. 1.2.5. There must be appropriate learning and supervision relevant to the programme educational objectives and learning outcomes.	
1.3 Programme Design and Delivery For the accreditation of programmes offered by HEPs, the term "Programme" refers to research that is structured for a specified duration and volume of learning for the award of a master or doctoral degree by research. **Academic Autonomy** An academic institution is expected to have sufficient autonomy over academic matters. Such autonomy should be reflected at the departmental level where the programme is being offered. 1.3.1. The department must have sufficient autonomy to design the programme structure and to allocate the resources necessary for the attainment of the learning outcomes. Where applicable, the provision must also cover programmes conducted in geographically separated campuses or in collaboration with other HEPs within and outside the country. 1.3.2. The academic staff must be given sufficient autonomy to focus on their areas of expertise in the supervision of candidates, research and writing, scholarly activities, academic administration duties, and community engagement.	**2.0 Programme Design and Delivery** For the purpose of these standards in the accreditation of programmes offered by HEPs, the term "Programme" refers to research that is structured for a specified duration of time and volume of learning. This is required to attain the stated learning outcomes for the award of a master's or doctoral degree by research. **2.1 Academic Autonomy** An academic institution is expected to have sufficient autonomy over academic matters. Such autonomy should be reflected at the departmental level where the programme is being offered. Recommended nomenclature of postgraduate degrees awarded is as shown in Table 1. Table 1: Nomenclature of Postgraduate Degrees Awarded

Table 1: Nomenclature of Postgraduate Degrees Awarded

Qualification	Mode		
	Research	**Mixed Mode**	**Coursework**
Master's	MPhil	MPhil	Master's degree according to field of specialisation
Doctorate	PhD or Professional Doctorate	PhD	Doctoral degree according to field of specialisation e.g. DBA, DEd, DEng
Post Doctorate	DSc, DEngSc	Not applicable	Not applicable

NEW	STANDARD 2013
	2.1.1 Basic Standards i. The department must have sufficient autonomy to design the programme structure and to allocate the resources necessary for its implementation, so as to ensure the attainment of the learning outcomes. Where applicable, the provision must also cover programmes conducted on campuses that are geographically separated. ii. The academic staff must be given sufficient autonomy to focus on areas of his / her expertise, such as academic supervision of candidates, research and writing, scholarly activities, academically-related administrative duties, and community engagement. iii. The HEP must have clearly-stated rules and regulations on conflict of interest, particularly in the areas of appointment of supervisors and examiners, to ensure that candidates' best interests are addressed. iv. The HEP must have clearly-stated policies on intellectual property. **2.1.2 Enhanced Standards** i. The HEP should have clearly-stated policies on conflict of interest, such as in the areas of private practice, part time employment and consultancy services. ii. The HEP should have a policy on academic autonomy for the department and the academic staff, reflecting the intellectual maturity of the HEP. iii. The HEP should have clearly-stated policies on indemnity insurance.
Programme Design and Supervision 1.3.3. The department must have a defined process by which the programme is established, reviewed, and improved with the involvement of the academic staff and other stakeholders. 1.3.4. A needs analysis for the programme must be carried out to obtain information from stakeholders, whose feedback should be considered in the design and improvement of the programme. 1.3.5. The programme must be only considered after the resources to support the programme have been identified and allocated.	**2.2 Programme Design and Supervision** **2.2.1 Basic Standards** i. The department must have a defined process by which the programme structure is established, reviewed and evaluated with the involvement of the academic staff and stakeholders. ii. The programme must be considered after the resources and / or access to resources to support the programme have been identified. iii. The programme structure and supervision must support the attainment of the programme learning outcomes.

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1.3.6. The programme structure and supervision system must support the attainment of the programme learning outcomes. 1.3.7. The programme must include a variety of academic activities to support the attainment of the learning outcomes and personal development of the candidates (see Appendix 3).	iv. There must be a variety of academic activities to attain the learning outcomes and to ensure that candidates take responsibility for their own learning. **2.2.2 Enhanced Standards** i. The programme structure should encourage multi-disciplinary approaches through a variety of activities to enhance the personal and professional development of the candidate. ii. The needs analysis for the programme should involve feedback from external sources including stakeholders, whose comments should be considered for the purposes of programme improvement. iii. There should be community engagement activities that will enrichen candidates' experiences and foster their personal and professional development. iv. There should be collaborative participation with national and international HEPs and / or research centres (for example, through joint supervision, candidate exchange, joint degrees and split programmes). iv. There should be provision of group supervision in order to manage and minimise risk.
Programme Structure Typically, the programme structure for research masters and doctoral programmes is characterised by a supervised research project for a specified duration, production of a thesis or dissertation or a coherent conspectus[1] incorporating, articles, portfolios, artefacts or compositions or some combination of the features and an oral examination. Within this modality, there are several variations due to the disciplinary practices and inclusion of publications (prior and concurrent) in the thesis submissions. To ensure comparability of the award as MQF Levels 7 and 8 qualifications, it is critical that despite the differences and variations, the candidates are assessed to satisfy similar learning outcomes. Therefore, within HEPs these modes or variations must be articulated through a unitary	**2.3 Programme Structure** The supervision environment can only be effective if the programme structure is continually kept up-to-date with current developments in the field of study. **2.3.1 Basic Standards** i. The programme must satisfy the following requirements: *Master's Degree by Research* 1) For fulltime candidature, the conventional period is 2 years, whereas for part time candidature, the conventional period is 3 years. However, the HEP Senate may allow exemptions for outstanding candidates who completed their studies within a shorter period.

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[1] A critical review which locates the artefact/s within a coherent theoretical framework and field/s of study.

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master and doctoral framework. Separate masters and doctoral frameworks will raise concerns about the comparability of outcomes inconsistent with the MQF.
 	
1.3.8. The programme must satisfy the following requirements:
 	
Master's Degree by Research
  i. The typical duration of study for full-time and part-time candidates is 2 and 3 years, respectively. However, the HEP Senate may allow exemptions for outstanding students who completed their studies within a shorter period.
 	
  ii. Candidates 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 of any equivalent courses which support research in the field and to be undertaken by the candidates.
 	
  iii. The following requirements must be addressed by the HEP:
    a) Relevant prerequisite courses for candidates without related qualifications and relevant working experience or require updating of knowledge in specified areas before enrolling in the programme.
    b) Maximum period of study considering good practices and validity of research undertaken.
    c) A dissertation or equivalent conspectus guideline or manual must be provided to describe a common structure and format for dissertation or conspectus.
    d) The HEP must establish the minimum word limit subject to the guidance in the relevant programme standards or good practices. The Senate or the equivalent authority in the HEP can use its discretion in cases where a dissertation or conspectus does not comply with the word limit but meets all other requirements.
	2) Candidates must have followed a research methodology course.
	3) The following requirements must be decided by the HEP:
	    e) Relevant prerequisite courses
	    f) Maximum period of candidature
	    g) Format of the dissertation

NEW	STANDARD 2013
Doctoral Degree by Research i. The typical duration of study for full time and part time candidate is 3 and 4 years respectively. However, the HEP Senate may allow exemptions for outstanding students who completed their studies within a shorter period. ii. Candidates 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 candidates. iii. The following requirements must be addressed by the HEP: a) Relevant prerequisite courses for candidates without related qualifications and relevant working experience or require updating of knowledge in specified areas before enrolling in the programme. b) Maximum period of study considering good practices and validity of research undertaken. c) A thesis or conspectus guideline or manual must be provided to describe a common structure and format for thesis or conspectus. d) The HEP must establish the minimum word limit subject to the guidance in the relevant programme standards or good practices. The Senate or the equivalent authority in the HEP can use its discretion in cases where a thesis or conspectus does not comply with the word limit but meets all other requirements. *Doctoral Degree by Retrospective or Prior Publication* Under this mode, the candidate's publications and other equivalent works prior to registration are included in the submission for the Doctoral award.	*Doctoral Degree by Research* 1) For fulltime candidature, the conventional period is 3 years, whereas for part time candidature, the conventional period is 4 years. However, the HEP Senate may allow exemptions for outstanding candidates who completed their studies within a shorter period. 2) Candidates must have followed a research methodology course. 3) The following requirements must be decided by the HEP: a) Relevant prerequisite courses b) Maximum period of candidature c) Format of the thesis *PhD by Published Work* 1) The minimum duration of candidature is 6 months and must not exceed 2 years. 2) A supervisor must be appointed to: c) Guide the candidate in choosing the published work for the submission

NEW	STANDARD 2013

i. The minimum duration of candidature is 6 months and must not exceed 2 years.
 	
ii. A supervisor must be appointed to:
  a) Guide the candidate in choosing or organising the published work for submission.
  b) Guide the candidate in preparing a thesis or conspectus consistent with the area of specialisation or expertise and the doctoral outcomes.
 	
iii. Thesis/commentary/conspectus report requirements:
  a) Published work must encompass high-quality journals, monographs, books, research-based chapters in books, electronic publications, creative works, artefacts in the field which have not been used to obtain other awards or deemed a part of those awards.
  b) The publications or productions must be published or produced within a period not exceeding 10 years from the date of submission.
  c) For the 5 nominated publications or productions, the candidate must be the principal author or creator with the contributions of others clearly defined.
  d) The thesis/conspectus must contain:
    1. a list of all scholarly published or equivalent works.
    2. acknowledgement of co-authors and verification of originality. Each published work or production must begin with a clear statement about the contribution made by each author in any jointly published work or production.
    3. a summary of the major findings/outcomes/value of each of the published work or production. It should explain how the work/production is integrated into one coherent intellectual framework, and how, when taken together, it demonstrates advanced knowledge and skills including new contributions in the relevant field or practice.
	d) Guide the candidate in preparing a thesis coherent with the theme of specialisation
	3) Thesis requirements:
	  a) Published work must encompass high impact factor journals, monographs, books, research-based chapters in books, high impact and high quality electronic publications, creative works, artifacts in the field.
	  b) The articles must be published within a period not exceeding 10 years from the date of submission.
	  c) For the 5 nominated publications, the candidate must be the principal author.
	  d) The thesis must contain:
	    1. a list of scholarly published works;
	    2. acknowledgement of co-authors and verification of originality. Each published work must begin with a clear statement about the contribution made by each author in any joint published work;
	    3. a summary of the major findings of each of the published works. It should explain how the work is integrated into one coherent intellectual framework, and how, when taken together, it contributes to knowledge in the relevant field; and
	    4. an introductory chapter, literature review, research methodology (where applicable), discussion and conclusion which explains the significance of the contributions.
	
	ii. The programme must incorporate the appropriate research skills essential for understanding of the concepts, principles and methods that support the programme outcomes.
	iii. The programme must be periodically reviewed to keep abreast of knowledge developments in the discipline, and with the needs of the society.
	iv. The department must provide the technology and global networking for candidates to access real-time information and identify areas of importance.
	
	2.3.2 Enhanced Standards
	i. The programme should fulfill the requirements of the discipline, taking into account the appropriate discipline standards and best practices.

NEW	STANDARD 2013
4. an introductory chapter, literature review, research methodology (where applicable), discussion and conclusion which explains the significance of the contributions. *Doctoral Degree by Concurrent or Prospective Publication* There are variations to this mode. Typically, a candidate submits a thesis/conspectus which incorporates publications that may have multiple authors since registration. Such submission follows the conventional thesis format. A candidate presents a portfolio of interconnected, published research papers or articles encapsulated in a coherent thesis/conspectus, demonstrating overall an original contribution to knowledge. Such publications may include papers, chapters, monographs, books, scholarly editions of a text, technical reports, creative work in relevant areas, or other artefacts. In this mode, the candidate is examined on these materials and the conspectus, sometimes supported by a curriculum vitae. The final assessment takes the same form as outlined above for other doctoral degrees, namely assessment of the thesis and/or portfolio and an oral examination (viva voce). i. Attribution statement – showing the role of candidate and other authors appropriately confirmed by the co-authors. ii. The publications are integrated and integral part of the thesis/conspectus with the candidate playing a major scholarly role. iii. The thesis (with the publications or equivalent works) must meet the criteria and outcomes established for a doctoral award and assessed through a viva voce.	ii. HEPs should identify niche areas of research and research strengths.

NEW	STANDARD 2013
Industrial Doctoral Degrees Industrial doctoral degrees are designed within the overall doctoral-level outcomes and expectations with specific objectives. Industrial PhDs are, by and large, research degrees where the industry partners i.e., employers or a consortium of employers co-determine the objects of the doctoral study which are typically applied in nature. Another category of industrial doctoral degrees is professional or practice-based doctoral degrees. These industrial doctoral degrees typically have a significant taught component in a specific field and research in or on professional practice or organisational setting. In short, industrial doctoral degrees adhere to the general doctoral outcomes in the MQF with different orientations. These programmes may be fully research-based or some combination of taught courses and thesis which are focused on specific disciplines and may require experience in the practice or profession. In addition to taught courses and other forms of assessments (creative works and performances), these awards require a written thesis or conspectus of differing lengths and a viva voce. Typically, research-based degrees are called Doctor of Philosophy (PhD) and professional and practice-based degrees are called by their specific discipline or practice, for example, Doctor of Business Administration, Doctor of Engineering or Doctor of Education. HEPs are advised to be guided by the latest guideline issued by MQA on nomenclature for appropriate qualification title. The requirements stipulated in this Standard for research, mixed-mode and coursework doctoral degree designs apply to all types of doctoral degrees.	
1.3.9. The programme must incorporate appropriate research knowledge and skills essential to undertake original and independent study or investigation in the field/s or discipline.	

NEW	STANDARD 2013
1.3.10. The programme must be periodically reviewed and improved to keep abreast of knowledge in the discipline, and with the needs of the candidates, industry and society.	

AREA 2: ASSESSMENT OF CANDIDATE LEARNING

NEW	STANDARD 2013
Assessment of 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, appropriate assessment methods and mechanisms must be in place. Qualifications are awarded based on the results of the assessment. The methods of assessment must be clear, consistent, effective, reliable and in line with current and good practices. It must reliably measure the achievement of the learning outcomes. The management of the assessment system is the HEP's responsibility as a body that confers the qualification. The robustness and security of the processes and procedures related to assessment as well as appropriate documentation of learning achievement are important in inspiring confidence in the qualifications awarded by the HEP.	Assessment of candidate is a crucial aspect of quality assurance because it drives candidate's learning. It is one of the most important measures to show the attainment of learning outcomes. The results of assessment are also the basis of the award of postgraduate degrees. Hence, the methods of assessment of candidate must be clear, consistent, effective, reliable, in line with current practices, and supportive of the attainment of the learning outcomes.
2.1. Relationship between assessment and learning outcomes 2.1.1. Assessment principles, methods and practices must be constructively aligned to the learning outcomes of the programme, consistent with the levels defined in the MQF. 2.1.2. A variety of assessment methods must be used consistent with the learning outcomes and programme content. 2.1.3. Formative assessment must include regular monitoring of research progress (for example, through a progress report, or a proposal defence) and Research Presentation / Colloquium / Seminar / Workshop. 2.1.4. Summative assessment is used to assess all learning outcomes of a master's and doctoral programme, and must include: 　i. Successful completion of prescribed courses; 　ii. Thesis or dissertation or conspectus; and 　iii. viva voce.	**3.1 Assessment and Learning** **3.1.1 Basic Standards** i. Assessment of candidate must be consistent with the levels defined in the MQF and in the 7 domains of learning outcomes. ii. Assessment principles, methods and practices must be aligned to the learning outcomes and programme content through 2 types of assessment, that is, formative and summative assessment. iii. Formative assessment must include: 　1) Monitoring of research progress periodically (for example, through a progress report, or a proposal defence). This will assess candidate's knowledge, critical thinking, practical, technical, professional, scientific and problem solving skills. 　2) Research Presentation / Colloquium / Seminar / Workshop. This will enhance candidate's communication skills, teamwork, leadership, organisational skills, lifelong learning and professionalism. iv. Summative assessment is used to assess all learning outcomes of a master's programme, and must include: 　1) completion of prescribed courses; 　2) dissertation; and 　3) viva voce (if required by HEP).

NEW	STANDARD 2013
2.1.5. The department must monitor the progress of the candidate through the following means: i. regular consultation with supervisors (formal and informal); ii. proposal defence; iii. presentation / colloquium / seminar / workshop; and iv. other mechanisms. 2.1.6. The HEP must ensure that appropriate attitudes are inculcated, including the value of research ethics and integrity, and **sustainable development**. 2.1.7. The link between assessment and learning outcomes must be periodically reviewed and improved to ensure their continued effectiveness.	v. Summative assessment is used to assess all learning outcomes of a doctoral programme, and must include: i. completion of prescribed courses; ii. thesis; and iii. viva voce. iv. The department must monitor assessment of candidate to ensure candidate's satisfactory progress. This must be monitored through: 1) regular consultation (formal and informal); 2) proposal defence; 3) presentation / colloquium / seminar / workshop; and 4) research progress (using appropriate mechanisms). v. The HEP must ensure that appropriate attitudes are inculcated, including adherence to research ethics. **3.1.2 Enhanced Standards** i. The assessment and learning outcomes should be periodically reviewed to ensure their effectiveness.
2.2 Assessment Methods 2.2.1. The methods, processes and procedures of student assessment must be documented and communicated to the students and supervisors in a timely manner. 2.2.2. The HEP must ensure that assessments employed are comparable to good international practices. 2.2.3. A Dissertation / Thesis Examination Committee must be set up with clear guidelines on composition, roles and responsibilities, modus operandi, decision making and communication to ensure a transparent, systematic, rigorous, reliable and fair assessment of the dissertation/thesis or equivalent conspectus appropriate to the discipline. 2.2.4. The HEP must have a mechanism to review assessment processes and procedures and outcomes periodically, taking into consideration	**3.2 Assessment Methods** **3.2.1 Basic Standards** i. The methods of assessment of candidate must be described, documented and communicated to the candidates (for example, information about their duration, diversity, weighting and coverage). ii. The processes and procedures must be documented and made accessible to supervisors and candidates. iii. A Dissertation / Thesis Examination Committee must be set up to ensure validity, reliability and fairness in the assessment of the dissertation / thesis. iv. Assessment procedures must be reviewed periodically, taking into consideration feedback from internal stakeholders. **3.2.2 Enhanced Standards** i. The HEP should ensure that internal assessments are comparable to that of external best practices.

NEW	STANDARD 2013
feedback from internal and external stakeholders, and must involve an external assessor[2].	ii. External expertise (national and international) should be consulted in the review and provide feedback on the assessment procedures. iii. Assessment procedures must be reviewed periodically, taking into consideration feedback from external stakeholders. iv. The HEP must have a mechanism to review and implement new methods of assessment.
2.3 Management of Student Assessment 2.3.1. The HEP is responsible for assessment policy to ensure validity, reliability, integrity and fairness of all assessments carried out in the programme. 2.3.2. Supervisors must be supported and given sufficient autonomy to supervise the student's research to successful completion based on the study plan. 2.3.3. The HEP must have appropriate guidelines and mechanisms for students to appeal their results. 2.3.4. The HEP must ensure the confidentiality and security of student assessment and academic records. 2.3.5. The assessment outcomes must be provided to candidates through appropriate mechanisms in a timely manner and remedial assistance provided when significant gaps are identified. 2.3.6. The HEP must establish the criteria for the selection of examiners, their responsibilities and code of conduct. 2.3.7. The requirements of an examiner must be clearly stated to include the following:	**3.3 Management of Candidate Assessment** **3.3.1 Basic Standards** i. The HEP is responsible for assessment policy, and the terms of reference must be described. There must be committees and processes for: 1) verification and moderation of summative assessments; and 2) benchmarking of the academic standards of assessment. ii. Supervisors must be given sufficient autonomy to supervise and manage the candidates" research progress and assessment. iii. There must be procedures available for candidates to bring issues or concerns to the attention of the relevant authorities. iv. The HEP must be responsible for the confidentiality and security of candidate assessment processes and academic records. v. The performance and results of summative and formative assessments must be made available to candidates through appropriate mechanisms. vi. The HEP must provide feedback to the candidates on their academic performance and ensure that they have sufficient time to undertake remedial measures. Necessary measures must be undertaken to provide feedback to candidates on performance, review and corrective measures. vii. The HEP must establish and document procedures on the criteria and selection of examiners. viii. The qualification requirements of an examiner must be clearly stated:

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[2] In COPPA, the term external examiner is used. The use of External Assessor in this Standard is to avoid confusion with external examiners involved in the evaluation of dissertation, thesis or conspectus.

NEW	STANDARD 2013
i. Examiners must have the minimum qualification of no less than the supervisor. Where examiners are without the required qualification, they must have sufficient experience in relevant fields and the appointment must be subjected to the approval of the HEP Senate. ii. Examiners must be from the field/s related to the research of the candidate under evaluation. iii. Examiners have supervised candidates at the relevant level. iv. Examiners must be engaged in research and have produced credible publications or equivalent works. v. Examiners from the industry can be exempted from requirements in (iii) and (iv). 2.3.8. Composition of dissertation or thesis examiners is as follows: *Master's Degree by Research* The master's thesis or conspectus and other artefacts must be examined by at least 2 examiners,1 of whom is an external examiner. More than 2 examiners may be required in a multidisciplinary dissertation or conspectus. *Doctoral Degree by Research* For doctoral degrees, including those by prior or concurrent publication, the thesis or conspectus and other artefacts must be examined by at least 2 examiners, 1 of whom must be an external examiner. More than 2 examiners may be necessary in the case of multidisciplinary theses or conspectuses. 2.3.9. The department must provide information to the examiners on the structure, modes, format, outcomes, purposes, viva voce rules and the requirements for the examiner's pre-viva report.	1) An examiner must have a minimum qualification of no less than the supervisor. Where an examiner is without the required qualification, there must be sufficient experience in relevant field and the appointment must be subjected to the approval of the HEP Senate. 2) An external examiner appointed must be from a field related to the research made to ensure the quality of research. ix. Composition of dissertation / thesis examiners is as follows: *Master's Degree by Research* The master's dissertation must be examined by at least 2 examiners, 1 of whom is an external examiner. *Doctoral Degree by Research* For PhD, including PhD by published work, the thesis must be examined by at least 3 examiners, 2 of whom are external examiners. x. The department must advise the examiners to adhere to a stipulated time for the dissertation / thesis examination. xi. The HEP must provide a mechanism for candidates to appeal on the result of their dissertation / thesis examination / viva voce. **3.3.2 Enhanced Standards** i. Internal and external stakeholders should be involved in reviewing the system of assessment of candidate.

AREA 3: CANDIDATE SELECTION AND SUPPORT SERVICES

NEW	STANDARD 2013
In general, admission to a programme must comply with the prevailing policies of the Ministry of Higher Education (MOHE). HEP must establish a transparent and credible candidate selection system to ensure candidates with the required attributes are selected. The admission and selection of candidates have to be conducted based on up-to-date and accurate information, and according to published criteria and processes. The number of candidates to be admitted to a programme must be based on the capacity of the HEP and the number of qualified applicants. If a HEP operates geographically separated campuses or if the programme is a collaborative one, the selection of the candidates must be consistent with national policies. Candidate support services and co-curricular activities (where applicable) facilitate learning and wholesome personal development and contribute to the achievement of learning outcomes. Support services and co-curricular activities include physical amenities and services such as recreation, arts and culture, accommodation, counselling, transport, safety, food, health, finance and academic advice.	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 candidate selection. Whatever the method used, the HEP must be able to defend the consistency of the method it utilises. The number of candidates 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 an HEP operates geographically separated campuses or if the programme is a collaborative one, the selection and assignment of all candidates must be consistent with national policies.

3.1 Candidate Selection
 	
Master's Degree by Research
  i. A bachelor's degree in the field or related fields with a minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; or
  ii. A bachelor's degree in the field or related fields or equivalent with a minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment; or
  iii. A bachelor's degree in the field or related fields or equivalent with minimum CGPA of 2.00 and not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in the relevant field and rigorous internal assessment.
  iv. Candidates without a qualification in the related fields or relevant working experience must undergo appropriate prerequisite
	4.1 Admission and Selection
	
	4.1.1 Basic standards
	
	Master's Degree by Research
	  v. A bachelor's degree with minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; or
	  vi. A bachelor's degree or equivalent with minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment; or
	  vii. A bachelor's degree or equivalent not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in relevant field.
	
	Doctoral Degree by Research

NEW	STANDARD 2013
courses determined by the HEP and meet the minimum CGPA based on (i) to (iii). *Doctoral Degree by Research* i. A master's degree in the field or related fields accepted by the HEP Senate; or ii. Other qualifications equivalent to a master's degree recognised by the Government of Malaysia. iii. Candidates without a related qualification in the field/s or working experience in the relevant fields must undergo appropriate prerequisite courses determined by the HEP. A Bachelor's degree with the following conditions: i. a bachelor's degree in the field or related fields with first-class (CGPA of 3.67 or higher) or its equivalent from an academic or Technical and Vocational Education and Training (TVET) programme; ii. undergo internal assessment; and iii. any other requirements of the HEP. Bachelor's degree candidates who are registered for master's degree programmes may apply to convert to the doctoral degree programmes subjected to the following conditions: i. within 1 year for full time and within 2 years for part-time candidates; ii. having shown competency and capability in conducting research at doctoral-level through rigorous internal evaluation by the HEP; and iii. approval of the HEP Senate. *PhD by Retrospective or Prior Publications* The applicant must have publications that contribute to the scholarship of knowledge in the field and are acknowledged by academic peers. A formal application must be submitted to the HEP and must include:	iv. A master's degree accepted by the HEP Senate; or v. Other qualifications equivalent to a master's degree that are accepted by the HEP Senate. Note: i. There shall be no direct entry from bachelor's degree level to doctoral degree level (telah dipinda melalui Surat Pekeliling MQA Bil. 3/2019) ii. Candidates with bachelor's degree who are registered for master's degree programmes may apply to convert their candidacy to the doctoral degree programmes within ONE (1) year after master's degree registration, subjected to: 　a) Having shown competency and capability in conducting research at doctoral degree level 　b) Rigorous internal evaluation by the HEP 　c) Approval by the HEP Senate *PhD by Published Work* The applicant must have publications that contribute to the scholarship of knowledge in the field and are acknowledged by academic peers. A formal application must be submitted to the Office of the Registrar and must include:

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* *Applicable to all Doctoral programmes including Doctoral Degree by Retrospective or prior publication and TVET.*

NEW	STANDARD 2013
i. minimum of 5 publications or equivalent works in alignment with the theme of the specialization; ii. an executive summary of the above publications to demonstrate the applicant's contribution to knowledge in the field; and iii. a list of scholarly published work. A Selection Committee must be established to review the formal application for PhD by Retrospective or Prior Publication and recommend to the Senate on the admission. The minimum language proficiency of the candidates must be determined by the HEP consistent with applicable programme standards or based on the needs of the programme i.e., learning outcomes and the medium of instruction.	iv. minimum of 5 publications in alignment with the theme of the specialization; v. an executive summary of the above publications to demonstrate the applicant's contribution to knowledge in the field; and vi. a list of scholarly published work. A Selection Committee must be established to review the formal application of PhD by published work and recommend to the Senate the admission to candidature. For international candidates, the language proficiency requirement must be determined by the HEP Senate.
3.2. Articulation Regulations, Credit Transfer and Credit Exemption *Master's and Doctoral Degree* 3.2.1. Information on policies, regulations and processes of credit transfer, credit exemption and articulation practices must be documented in HEP policies and regulations for the programme. 3.2.2. The document must be made accessible to candidates and staff. 3.2.3. The HEP should continually update the processes of articulation, credit transfer and credit exemptions, including national and international collaborative provision.	**4.2 Articulation Regulations, Credit Transfer and Credit Exemption** **4.2.1 Basic Standards** *Master's and Doctoral Degree* i. Information on policies, regulations and processes of credit transfer, credit exemption and articulation practices must be documented in HEP policies and regulations for the programme. ii. The document must be made accessible to candidates and staff. **4.2.2 Enhanced Standards** *Master's and Doctoral Degree* i. The HEP should continually update the processes of articulation, credit transfer and credit exemptions, including national and international collaborative provision.
3.3 Candidate Transfer *Master's Degree* 3.3.1. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning:	**4.3 Candidate Transfer** **4.3.1 Basic Standards** *Master's Degree* The HEP must clearly define and effectively disseminate policies, regulations and processes concerning:

NEW	STANDARD 2013
i. articulation practices for transfer of candidates from one mode to another (e.g., coursework to mixed mode); ii. articulation practices for transfer of candidates from one programme to another; and iii. articulation practices for the transfer of candidates from one HEP to another.	1. articulation practices for transfer of candidature from one mode to another (e.g. coursework to mixed mode); 2. articulation practices for transfer of candidates from one programme to another; and 3. articulation practices for transfer of candidature from one HEP to another.
3.4 Candidate Support Services 3.4.1. The HEP* must have an organisational unit that manages support services and co-curricular activities. The following support services are essential for candidates' wellbeing: • Health services • Recreation and sports facilities • Security • Counselling services • Internet service • Health insurance for international candidates • Documentation services 3.4.2. The HEP must have policies and procedures in place for handling candidate grievances. *for Open and Distance Learning (ODL) institutions, refer COPPA: ODL, 2019	**4.4 Candidate Support Services and Co-Curricular Activities** **4.4.1 Basic Standards** i. The HEP must have an organisational structure that includes support services and co-curricular activities. The following support services are essential for candidate's wellbeing: • Health services • Recreation and sports facilities • Security • Counseling services • Internet service • Health insurance for international candidates • Documentation services **4.4.2 Enhanced Standards** i. The HEP should provide support services for candidate's wellbeing such as: • Accommodation • Health insurance • Financial aid • Transportation • Child care centre • Places of worship
3.5. Candidate Representation and Participation 3.5.1. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning candidate representation and participation.	**4.5 Candidate Representation and Participation** **4.5.1 Basic Standards** i. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning candidate representation and participation.

NEW	STANDARD 2013
	4.5.2 Enhanced Standards i. Candidate activities should enhance soft skill attributes, such as management, leadership, and community engagement.
3.6. Alumni 3.6.1 The HEP must foster active linkages with alumni to develop, review and continually improve the programme.	**4.6 Alumni** **4.6.1 Basic Standards** i. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning development and operation of the alumni. **4.6.2 Enhanced Standards** i. The HEP should engage alumni in preparing candidates for their profession. ii. The HEP should engage alumni so that they can contribute to the development of the HEP. iii. The alumni should be involved in linking the HEP with the community.

AREA 4: ACADEMIC STAFF

NEW	STANDARD 2013
The quality of academic staff is one of the most important components in assuring the quality of higher education. Every effort must be made to establish proper and effective recruitment, service, development and appraisal policies that are conducive to supporting and enhancing staff quality and productivity. Every programme must have appropriately qualified and a sufficient number of academic staff. The HEP must provide a conducive work environment that encourages recruitment and retention of the best talent. Teaching, research, consultancy services and community engagement are core interrelated academic activities. It is recognised that the degree of engagement of academics in these areas varies from institution to institution. However, HEP must ensure that there is a fair and equitable distribution of work and that there is a robust and open system of recognition and reward that acknowledges and appreciates excellence, especially for the promotion, remuneration and other incentives. Sufficient mechanisms should be put in place to provide training for academic staff in supervision skills and to ensure supervisors are exposed to best practices.	The quality of academic staff is one of the most important components in assuring the quality of higher education. Every effort must be made to establish proper and effective recruitment, service, development and appraisal policies that are conducive to supporting and enhancing staff quality and productivity. Every programme must have appropriately qualified and a sufficient number of academic staff. It is important that the HEP provides a conducive work environment that encourages recruitment and retention of best talent. An academic staff member is expected to be actively involved in research and consultancy, in addition to supervising or advising research candidates. Sufficient mechanisms should be put in place to provide training for academic staff in supervision skills and to ensure supervisors are exposed to best practices. Workload and its equitable distribution is one of the ways that the HEP can acknowledge meritorious contribution for the purposes of promotion, salary determination or other incentives.
4.1. Recruitment and Management 4.1.1. The HEP must have a clearly defined plan for its academic staff needs that is consistent with institutional policies and programme requirements. 4.1.2. The HEP must have a clear and documented academic staff recruitment policy where the criteria for selection are based primarily on academic merit and/or relevant experience. 4.1.3. The terms and conditions of service must be clearly stated or referred to in the offer letter and reviewed periodically.	**5.1 Recruitment and Management** **5.1.1 Basic Standards** i. The HEP must have a policy and procedures for the recruitment of academic staff. ii. The terms and conditions of service must be clearly stated in the offer letter and reviewed periodically. iii. The HEP must establish a policy for the appointment of supervisors to ensure the quality and the sustainability of the programme.

NEW	STANDARD 2013

4.1.4. The HEP must establish the maximum ratio of candidates to supervisors taking into account the total responsibilities of the supervisors and the needs of the candidates guided by the applicable programme standard.
 	
4.1.5. The HEP must establish a policy for the appointment of academic staff to ensure the quality and sustainability of the programme.
 	
4.1.6. The HEP* must have adequate and qualified academic staff responsible for implementing the programme. The expected ratio of full-time and part-time academic staff is 60:40.
 	
*for ODL institutions, refer COPPA: ODL, 2019
 	
4.1.7. The qualification requirements of a supervisor must be clearly stated:
 	
Table 1: Master's Degree by Research - Supervisor and Co-supervisors
	iv. The qualification requirements of a supervisor must be clearly stated:
	
	Master's Degree by Research
	1) The principal supervisor must have a minimum qualification of one level higher than the degree level enrolled in by the candidate i.e. a doctoral degree.
	2) Where the principal supervisor is without the required qualification, a principal supervisor must have at least 5 years" experience:
	    a) in teaching and research; or
	    b) as a co-supervisor.
	3) The additional criteria are subjected to the approval of the HEP Senate.
	
	Doctoral Degree by Research
	1) The principal supervisor must have a minimum qualification of the equivalent degree level enrolled in by the candidate and at least 2 years' experience:
	    a) in teaching and research; or
	    b) as a co-supervisor.
	2) Where the principal supervisor is without the required qualification, extensive experience in research and supervision are additional criteria and are subjected to the approval of the HEP Senate.
	3) For candidates who choose to do research in critical and specific areas, HEP may appoint a co-supervisor from another HEP with expertise in these fields to supervise.
	
	v. When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP.

Research	
Principal Supervisor	**Co-supervisor**

i. The principal supervisor must have a doctoral degree.
 	
ii. Where the principal supervisor has a master's degree in the field, the principal supervisor must;
  a) Have at least 5 years' experience in teaching and research; **AND**
  b) Has co-supervised master's candidate.
 	
iii. The supervisors must go through structured supervisor training[3].
	i. Co-supervisor must have a doctoral degree.
	
	ii. Where the co-supervisor has only a master's degree in the field, the co-supervisor must have at least 1 year experience in teaching **AND** research.
	
	iii. A co-supervisor from the industry or practitioner must at least a bachelor's degree and have at least 5 years of experience in the field at a level appropriate for the dissertation.
	
	iv. The supervisors must go through structured supervisor training.

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[3] 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.

NEW	STANDARD 2013

NEW

iv. The HEP Senate may impose other criteria it deems necessary.	v. The HEP Senate may impose other criteria it deems necessary.

Table 2: Doctoral Degree by Research - Supervisor and Co-supervisors

Research	
Principal Supervisor	**Co-supervisor**

i. The principal supervisor must have a doctoral degree, **and**
 	
   a) have at least 2 years of teaching experience and research; **AND**
 	
   b) has supervised master's or doctoral research candidate to completion.
 	
ii. Where a principal supervisor has only a master's degree, extensive experience in research is required in addition to conditions in (i)(a) and (i)(b), and subject to approval by the Senate of the HEP.
 	
iii. The supervisors must go through structured supervisor training.
 	
iv. The HEP Senate may impose other criteria it deems necessary.
	i. Co-supervisor must have a doctoral degree.
	
	ii. Where a co-supervisor has only a master's degree, 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 at least a master's degree and at least 10 years of experience in the field at a level appropriate for the thesis.
	
	iv. The supervisors must go through structured supervisor training.
	
	v. The HEP Senate may impose other criteria it deems necessary.

4.1.8. When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP.

4.1.9. When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP.

4.1.10. The HEP must establish guidelines for supervisors including information about:
    i. delineating roles and responsibilities of supervisors;

STANDARD 2013

vi. When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP.

vii. For the industrial doctoral programme, in addition to academic supervisor(s), an industrial supervisor(s) must be appointed. The appointment of both supervisors must satisfy the HEP requirements.

viii. The HEP must establish guidelines for supervisors including information about:
1) delineating roles and responsibilities of supervisors;
2) prescribing ethical principles for the purpose of assisting supervisors in the identification and resolution of ethical issues which may arise in the course of their research;
3) ensuring supervisors conduct all activities with academic integrity and in compliance with the Code of Conduct, relevant laws, rules and regulations; and
4) ensuring an appropriate supervisor-to-candidate ratio for effective supervision.

ix. The research skills, experience and specialisations of a supervisor must align with the research area of the candidate.

x. The HEP must establish a mechanism for monitoring supervision process.

xi. Recognition, reward and remuneration must be commensurate with appropriate workload distribution and meritorious supervision, based on transparent policies and procedures.

5.1.2 Enhanced Standards

i. The HEP should establish a supervisory committee that guides the candidates in planning the research and preparing the dissertation / thesis.

ii. The HEP should promote national and international linkages in enhancing the quality of supervision.

NEW	STANDARD 2013
ii. prescribing ethical principles to assist supervisors in the identification and resolution of ethical issues which may arise in the course of their research; iii. ensuring supervisors conduct all activities with academic integrity and in compliance with the Code of Conduct, relevant laws, rules and regulations; and iv. the maximum ratio of candidates to supervisor taking into account the total responsibilities of the supervisors, the needs of the candidates guided by the applicable programme standards and good practices. 4.1.11. The research skills, experience and specialisations of a supervisor must be aligned with the research area of the candidate. 4.1.12. The HEP must establish a mechanism for monitoring the supervision process.	
4.2 Research Expertise Research expertise refers to staff who have been trained in their respective disciplines or with adequate knowledge and experience in the research areas, methodologies, and matters related to research activities. They advise and assist whenever there are problems and provide training in research processes and activities. Research expertise can be provided internally by the HEP or acquired from an external source. 4.2.1. The HEP must provide adequate research expertise to run the programme. 4.2.2. The HEP must have policy or guidelines on the roles of research experts. 4.2.3. The HEP must have policy or guidelines on the development and management of research expertise.	**6.2 Research Expertise** Research expertise refers to staff who have been trained in their respective disciplines or with adequate knowledge and experience in the research areas, methodologies, and matters related to research activities. They advise and assist whenever there are problems and provide training in research processes and activities. Research expertise can be provided internally by the HEP or acquired from an external source. **6.2.1 Basic Standard** i. The HEP must have policy or guidelines on the development and management of research expertise. **6.2.2 Enhanced Standard** i. The HEP should acknowledge the contribution of the research expertise towards the programme**.**
4.3 Service and Development 4.3.1. The HEP must encourage academic staff to engage in scholarly activities in order to attain national and international recognition.	**5.2 Service and Development** **5.2.1 Basic Standards**

NEW	STANDARD 2013
4.3.2. The HEP must provide opportunities for academic staff to focus on their respective areas of expertise. 4.3.3. The HEP must have clear policies on conflict of interest and professional conduct, including procedures for handling disciplinary cases among academic staff. 4.3.4. The HEP must provide opportunities for academic staff to participate in professional, academic and other relevant activities, at national and international levels to obtain professional qualifications to enhance the learning-teaching experience. 4.3.5. The HEP must encourage and facilitate its academic staff to play an active role in the community and industrial engagement activities.	i. The HEP must encourage academic staff to engage in scholarly activities in order to attain national and international recognition. ii. The HEP must facilitate the provision of training in supervision skills for the supervisor. **5.2.2 Enhanced Standards** i. The HEP should encourage participation in professional, academic and research communities at national or international level. ii. The HEP should encourage research activities beyond postgraduate research that will benefit the industry and the community. iii. The HEP should have in place a mentoring system for the enhancement of the quality of supervision. iv. The HEP should encourage industrial attachment.

AREA 5. RESEARCH RESOURCES

NEW	STANDARD 2013
A research-active and scholarly environment provides opportunities for candidates to learn and participate in research. Exposure to an environment of curiosity and inquiry encourages candidates to develop intellectual and leadership qualities and advanced skills in problem-solving, data analysis and continuous updating of knowledge. As part of the research-active environment, appropriate, safe and adequate research resources including care for the needs of persons with disabilities must be provided. These include physical and online facilities, technical and support staff, financial allocation, online and digital resources, and network and collaboration. Equally important, if not more so, is the quality, relevance, accessibility, availability, sustainability and delivery of such resources and services, and their actual utilisation by candidates. 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.	Appropriate research facilities must be included as part of educational resources. This is because a research-active environment improves the quality of higher education. Adequate research resources are essential to support research activities. These include physical facilities, human capital, financial allocation, online resources and network and collaboration. Equally important, if not more so, is the quality, relevance, accessibility, availability and delivery of such resources and services, and their actual utilisation by candidates. An excellent research culture attracts high calibre candidates and academics, and these foster critical thinking and enquiring minds, contributing to the advancement of knowledge. Active researchers also attract grants that increase the scope of research undertaken by staff, again enhancing their knowledge and experience. Interdisciplinary research has positive effects on academic programmes. A research-active environment thus provides opportunities for candidates to learn and participate in research. Exposure to an environment of curiosity and inquiry encourages candidates to develop lasting skills in problem-solving, data analysis and continuous updating of knowledge. A balanced and proportional increase in direct and indirect educational resources supports research.
5.1. Physical Facilities The physical facilities of a programme are largely guided by the needs of the programme and the specific field of research. These include appropriate space, equipment and support facilities for research activities and administration. 5.1.1. The programme must provide access to adequate and appropriate physical facilities to support research activities.	**6.1 Physical Facilities** The physical facilities of a programme are largely guided by the needs of the programme and specific field of research. These include appropriate space, equipment and support facilities for teaching and learning, research activities and administration.

NEW	STANDARD 2013
5.1.2. The physical facilities must comply with the relevant laws, including those pertaining to health and safety regulations.	**6.1.1. Basic Standards** i. The programme must provide access to adequate and appropriate physical facilities to support research activities. ii. The physical facilities must comply with the relevant laws, and with those pertaining to health and safety regulations. iii. The HEP must have guidelines regarding the allocation of physical facilities.
5.1.3. The HEP must have guidelines regarding the budget allocation of physical facilities.	
5.1.4. The HEP must have a policy for the effective use of information and communication technology (ICT) in the programme.	iv. The HEP must have a policy for effective use of information and communication technology (ICT) in the programme.
5.1.5. The library or resource centre must have adequate and up-to-date reference materials and qualified staff that meet the needs of the programme and research amongst academic staff and candidates.	v. The library or resource centre must have adequate space and up-to-date references. vi. Candidates must have access to relevant facilities within and outside the HEP when required. vii. For industrial and remote doctoral programmes, research facilities must be made available.
5.1.6. The physical facilities must be maintained and periodically reviewed to improve quality and appropriateness.	viii. The physical facilities must be continually maintained, improved or replaced.
5.1.7. The HEP must provide training in the usage of relevant research facilities to academic staff and candidates.	**6.1.2. Enhanced Standards** i. Candidates should have the opportunity to be trained in the usage of relevant research facilities.
5.1.8. The HEP must have a research policy[4] with adequate facilities and resources to sustain it.	ii. Physical facilities should include accredited laboratories based on national and international standards.
5.2. Financial Resources Financial resources refer to funds for the management and sustainability of the programme.	**6.3 Financial Allocation** Financial allocation refers to disbursement of funds for the management and sustainability of the programme.
5.2.1. The financial resources must be adequate to support the programme.	**6.3.1 Basic Standards** i. The HEP must have clear lines of responsibility and authority for budgeting and resource allocation that takes into account the specific needs of the programme.

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[4] Research policy includes but not limited to setting research priorities and objectives, funding arrangements, use of research facilities, publication and authorship policies, intellectual property rights, research ethics and commercialisation of research.

NEW	STANDARD 2013
5.2.2. The HEP must have budgetary and procurement procedures to ensure that its resources are sufficient and that it is capable of utilising its finances efficiently.	ii. The HEP must have budgetary and procurement procedures to ensure that its resources are sufficient and that it is capable of utilising its finances efficiently. iii. The financial allocation must be adequate to support the programme. iv. The HEP must have a system for disbursement of research funds to support the programme. **6.3.2 Enhanced Standard** i. Those responsible for the programme should be given sufficient autonomy to appropriately allocate resources to achieve the programme goals and to maintain high research standards.
5.3. Online Resources Online resources refer to resources such as e-journals, e-books, patent databases, support software, research repositories, and search engines to support research activities. 5.3.1. Online resources must be made available to support research activities. 5.3.2. The HEP must provide adequate, reliable, and credible online resources. 5.3.3. Candidates must have access to and be trained in the use of online resources. 5.3.4. The HEP must have a policy or guidelines on the usage of online resources. 5.3.5. The HEP must provide mechanisms for procuring, disseminating and monitoring the usage of online resources.	**6.4 Online Resources** Online resources refer to resources for self-access such as e-journals, e-books, patent databases and search engines to support research activities. **6.4.1. Basic Standards** i. Online resources must be made available to support research activities. ii. Candidates must have access and be trained in the use of online resources. iii. The HEP must provide mechanisms for procuring, disseminating and monitoring the usage of online resources. **6.4.2. Enhanced Standard** i. The HEP should facilitate collaboration to encourage knowledge sharing among national and / or international candidates.

NEW	STANDARD 2013
5.4 Networks and Collaborations Networks and collaborations refer to the participation in and sharing of intellectual knowledge, facilities and services among researchers, institutions and industries at national and international levels. 5.4.1. The HEP must facilitate networking and collaboration among academic staff, researchers, institutions and industries at national and international levels leading to possible resource sharing where applicable.	**6.5 Networks and Collaborations** Networks and collaborations refer to the participation in and sharing of intellectual knowledge, facilities and services among researchers and institutions at national and international levels. **6.5.1. Basic Standard** i. The HEP must facilitate networking and collaboration among researchers and institutions at national and international levels. **6.5.2. Enhanced Standards** i. The HEP should have a policy and future plan for networking and collaboration with national and international institutions. ii. The HEP should provide appropriate facilities and adequate financial allocation for networking and collaboration among researchers.

AREA 6: PROGRAMME MANAGEMENT

NEW	STANDARD 2013
Although ways of administering an educational institution and the methods of management differ between HEPs, the government should reflect effective leadership emphasizing excellence and scholarship. At the departmental level, the leadership provides clear direction, builds relationships based on collegiality and transparency, manages finances and resources with accountability and fosters partnerships with stakeholders in educational delivery, research and consultancy.	At the departmental level, the leadership provides clear direction, builds relationships based on collegiality and transparency, manages finances and resources with accountability and fosters partnerships with stakeholders in educational delivery, research and consultancy.
6.1. Programme Management 6.1.1. The programme must have an appropriate programme leader who has responsibility for planning, implementing, monitoring, evaluating and improving the programme. 6.1.2. The HEP must provide candidates with a conducive learning environment in which a culture of research is nurtured and supported. 6.1.3. Candidates must be provided with current and up-to-date information on the objectives, learning outcomes, design and structure, and assessment in the programme. 6.1.4. The programme must be regularly reviewed with feedback from related stakeholders and involve an external assessor with experience in the design and structure of the programme implemented (to be read together with 2.2.4). 6.1.5. The HEP must have linkages with external stakeholders for programme development, research support and placement. 6.1.6. The department* must clarify its management structure and function, and the relationships between them, and these must be communicated to all parties involved based on the principles of responsibility, accountability and transparency.	**2.4 Programme Management** **2.4.1 Basic Standards** i. Candidates must be provided with current written information about the aims, learning outcomes, and methods of assessment of the programme. ii. The programme must have an appropriate coordinator who has authority for planning, implementing, monitoring, evaluating and improving the programme through established procedures. iii. The programme must be regularly reviewed and evaluated in order to ensure attainment of MQF Level 7 for Master's and MQF Level 8 for Doctoral degrees. The review must involve an external assessor. iv. The department must provide candidates with a conducive learning environment in which a culture of research is nurtured. v. For the industrial doctoral programme, the learning environment must include the industry. vi. The HEP must have policies and procedures in place for candidates' grievances. **2.4.2 Enhanced Standards** i. Innovations to improve supervision should be developed, supported, and evaluated. ii. The review and evaluation of the programme should involve stakeholders as well as national and international external expertise.

NEW	STANDARD 2013
6.1.7. The academic board of the department must be an effective decision-making body with an adequate degree of autonomy. 6.1.8. The HEP must establish mechanisms to ensure functional integration and comparability of research quality for programmes conducted in campuses that are geographically separated. *HEP	**2.5 Linkages with External Stakeholders** **2.5.1 Basic Standards** i. The department must have linkages with external stakeholders for the purposes of programme planning, implementation and review. **2.5.2 Enhanced Standards** i. The department should collect feedback from employers for programme improvement (for example, for candidates' placement, training and workplace exposure). ii. Candidates should be encouraged and supported to develop linkages with external stakeholders.
	8.1 Governance **8.1.1 Basic Standards** i. The HEP must clarify its governance structures and functions, the relationships with internal and external stakeholders, and their impact on the programme. These structures, functions and relationships must be documented and disseminated to all parties involved. ii. The HEP must state clearly its academic authority. iii. The HEP committees must be actively involved in policy development. iv. The HEP must establish mechanisms to ensure functional integration and comparability of research quality for programmes conducted in campuses that are geographically separated. v. The policies and practices of the department must be in tandem with the purpose of the HEP. **8.1.2 Enhanced Standards** i. The HEP should have a comprehensive, interconnected and institutionalised committee system responsible for programmes, taking into consideration, among other points, internal and external consultation, feedback, current issues, networking and collaboration. ii. The governance principles should reflect the representation and participation of academic staff, candidates and other stakeholders.

NEW	STANDARD 2013
6.2 Programme Leadership 6.2.1 The criteria for the appointment and the responsibilities of the programme leader must be clearly stated. 6.2.2 The programme leader must have appropriate qualification, knowledge and experience related to the programme. 6.2.3 There must be mechanisms and processes for communication between the programme leader, department and HEP on matters such as staff recruitment and training, candidate admission, allocation of resources and decision-making processes.	**8.2 Programme Leadership** **8.2.1 Basic Standards** i. The HEP must clearly state the criteria for the structure, appointment, roles and responsibilities of the leadership of the programme. ii. The leadership of the programme must be held by those with appropriate qualifications and research experience. iii. The HEP must establish processes for communication between departments and leaders in matters related to human resource management, graduate candidate management, allocation of research resources and decision making. **8.2.2 Enhanced Standard** i. The HEP should ensure that the leadership takes on the responsibility of creating a research environment that generates innovation and creativity.
6.3 Administrative Staff 6.3.1 The department must have a sufficient number of qualified administrative staff to support the implementation of the programme and related activities. 6.3.2 There must be a regular performance review of the administrative staff. 6.3.3 The department must have an appropriate training scheme for the advancement of the administrative staff as well as to fulfil the specific needs of the programme.	**8.3 Programme Administration** **8.3.1 Basic Standards** i. The administrative staff of the department must be qualified, appropriate and adequate to support the implementation of the programme and related activities. ii. The procedures and related documents must be made available for the administration of the programme. iii. The department must conduct regular performance review of the programme's administration. **8.3.2 Enhanced Standard** i. The HEP should have training schemes for the management of administrative staff for the specific needs of the programme, including, for example, risk management, maintenance of specialised equipment and technical skills.

NEW	STANDARD 2013
6.4 Academic Records	**8.4 Academic and Research Records**
6.4.1 The department must have appropriate policies and practices concerning the nature, content and security of candidate, academic staff and other academic records.	**8.4.1 Basic Standards** i. The departmental policies and practices concerning the nature and security of records related to the programme must be consistent with that of the HEP and fund provider and also comply with the relevant laws and regulations.
6.4.2 The department must maintain records relating to the admission, performance, completion and graduation of the candidates in such form as is practical and preserve these records for future reference.	ii. The department must implement policies that have been established by the HEP on the rights of individual privacy and the confidentiality of records.
6.4.3 The department must implement policies on the rights of individual privacy and the confidentiality of records.	**8.4.2 Enhanced Standard** i. The department should continually review policies on security and efficient retrieval of records, including increased use of electronic technology and its security systems.
6.4.4 The department must continually review policies on the security of records, including the increased use of electronic technologies and safety systems.	

STANDARDS: MASTER'S AND DOCTORAL DEGREE | 2021 vs 2013

AREA 7: PROGRAMME MONITORING, REVIEW AND CONTINUAL QUALITY IMPROVEMENT

NEW	STANDARD 2013
Quality is the responsibility of the HEP. It must have in place an effective and robust internal quality assurance mechanism to ensure and sustain a quality culture. This requires the department to monitor, review and evaluate the structures and processes, curriculum components as well as candidate progress, employability and performance using feedback from all stakeholders.	The HEP has a responsibility to ensure that the quality and standards of its research programmes are continually maintained and are subject to monitoring, evaluation and review. Monitoring of research programmes provides a mechanism to improve the programme delivery, in order to meet the aims and objectives of the programme and the candidates" successful completion of the degree. It is important to be able to identify issues or concerns that are relevant to the programme and to take appropriate actions to remedy these. The HEPs must ensure that the master's and doctoral degree graduates are world class researchers and knowledge workers with the capability to provide solutions to future problems and issues. Hence, HEPs are responsible for ensuring the quality of their postgraduate programmes. As such, HEPs must be continuously engaged in continual quality improvements of their postgraduate programmes, amidst a dynamic environment.

7.1 Mechanisms for Programme Monitoring, Review and Continual Quality Improvement
 	
7.1.1. The department must have clear policies and appropriate mechanisms for regular programme monitoring and review.
 	
7.1.2. The department must have a Quality Assurance (QA) unit for internal quality assurance of the department to work hand-in-hand with the QA unit of the HEP.
 	
7.1.3. The department must have an internal programme monitoring and review committee with a designated head responsible for continual review of the programme to ensure its currency and relevancy.
 	
7.1.4. Various aspects of candidate performance, progression, attrition, graduation and employment must be analysed for the purpose of continual quality improvement.
	7.1 Monitoring and Review
	
	7.1.1 Basic Standards
	i. Each programme at the HEP must be monitored by the department, as authorised by the Senate.
	ii. The HEP must have a mechanism to manage and coordinate programmes so as to meet all requirements, especially with regard to quality assurance. The department, in turn, must monitor the running of the programmes in the interest of the stakeholders.
	iii. For monitoring and evaluation, the following data must be analysed to enhance the quality of the programme:
	  1) Candidate performance
	  2) Achievement of programme objectives
	  3) Feedback from candidates
	iv. The HEP must continually monitor the overall performance of the programme, including, for example, completion rates and the ratio of candidates who graduate on time.

38

NEW	STANDARD 2013
7.1.5. The findings of a programme review must be presented to the HEP for its attention and further action. 7.1.6. The HEP must analyse and review the overall attainment of the programme learning outcomes and objectives (to be read together with 1.2.2).	v. Feedback from external assessors must be used to enhance the quality of the programme. vi. Research must be conducted independently and in compliance with a set of programme guidelines, ethics and code of conduct, including, for example, guidelines on plagiarism. vii. Any changes or new proposals for the procedures and processes for the research programme must be approved by the HEP. viii. The HEP must ensure the attainment of the learning outcomes as stated in Area 1 of this document. ix. The HEP must ensure the attainment of graduate attributes as listed in the Malaysian Qualifications Framework (MQF). x. The HEP must establish review committee(s) with defined terms of reference. xi. The HEP must review and analyse the overall attainment of the programme objectives. xii. For the industrial doctoral programme, there must be an MOU or a MOA existing between the HEP and the industry partner on intellectual property rights. **7.1.2 Enhanced Standards** i. The HEP should monitor research output such as publications, copyright, prototypes, patents and commercialization. ii. Post-graduation performance should be monitored through longitudinal and / or tracer studies.
	7.2 Stakeholder Involvement **7.2.1 Basic Standard** i. Stakeholders must be consulted in the programme review process. **7.2.2 Enhanced standard** i. The HEP should establish a Programme Advisory Panel, which may include representatives from professional bodies.
	9.1 Quality Improvement **9.1.1 Basic Standards** i. The HEP must establish a policy for continual quality improvement.

NEW	STANDARD 2013
	ii. The department must have a strategic plan in alignment with the HEP goals for the year and mechanisms to achieve the targets.
	iii. The department must engage staff for continual quality improvement.
	iv. The department must engage internal and external stakeholders in activities that can contribute towards the continual improvement of the programme.
	9.1.2 Enhanced Standards
	i. The HEP should have a quality unit to facilitate the compliance of stated policies, processes and procedures.
	ii. The HEP should have a rewards-and-recognition system to promote a culture of quality.
	iii. The HEP should have periodical reviews for continual quality improvement of the programme.

STANDARDS: MASTER'S AND DOCTORAL DEGREE BY COURSEWORK AND MIXED MODE (COURSEWORK AND RESEARCH)

AREA 1: PROGRAMME DEVELOPMENT AND DELIVERY

NEW	STANDARD 2013
The vision, mission and educational goals of the Higher Education Provider (HEP) guide the development of postgraduates of calibre. The general goal is to develop postgraduates with in-depth knowledge at the frontier of a specialized field through: • development of knowledge, research, skills and competencies based on scientific and systematic inquiry; • enhancement of leadership, communication, interpersonal, personal and entrepreneurial skills, and integrity for individual and collective advancement within the framework of the national vision; • use of analytical and creative problem-solving skills to make decisions based on research evidence and/or experience; • the quest for knowledge through lifelong learning in line with the changes in the field of studies/practice; • research outcomes that are relevant to the national and international development; and • dissemination of research outcomes through publications and/or products. Postgraduate programmes are the key building blocks that support the larger vision, mission and goals of the HEP. Hence, institutional goals should be considered in the design and delivery of postgraduate programmes. For greater socio-economic impact, these programmes should challenge the candidates and graduates to contribute to the achievement of **Sustainable Development Goals**. The quality of the postgraduate programme is ultimately determined by the capability of graduates to carry out their expected roles and responsibilities as described in the MQF.	The vision, mission and educational goals of the higher education provider (HEP) guide postgraduate programmes to produce graduates of excellence. The general goal is to develop broadly-trained graduates through the: • development of knowledge, research and communication skills and competency based on the scientific / enquiry process and its outcomes; • enhancement of generic skills such as attitudes, ethics, sense of professionalism and leadership skills for societal advancement within the framework of the national vision; • utilisation of analytical and problem solving skills in order to evaluate and make decisions critically and creatively based on research evidence and / or experience; • enhancement of the quest for knowledge and lifelong learning skills in line with the advancement of global development; • research outcomes that are relevant to the national and international context; and • dissemination of research outcomes through publications. Postgraduate programmes are the building blocks that support the larger vision and mission of the HEP. Hence, these larger institutional goals must be considered in the design of postgraduate programmes. The quality of the postgraduate programmes is ultimately determined by the capability of graduates to carry out their roles and responsibilities in national and international developments.
1.1. Statement of Educational Objectives of Academic Programme and Learning Outcomes	**1.1 Statement of Educational Objectives of Academic Programme and Learning Outcomes**

NEW	STANDARD 2013
A programme's stated objectives and learning outcomes guide what it wants the graduates to achieve. These objectives and learning outcomes must be stated explicitly and communicated to the candidates as well as to the internal and external stakeholders.	A programme's stated aims, objectives and learning outcomes guide what it wants the candidates to achieve. It is crucial for these aims, objectives and learning outcomes to be expressed explicitly and to be made known to the candidates as well as to the internal and external stakeholders.
1.1.1. The programme must be consistent with, and supportive of, the vision, mission and goals of the HEP.	**1.1.1 Basic Standards**
1.1.2. The department must formulate the programme, objectives and learning outcomes in consultation with relevant internal and external stakeholders.	i. The programme must define its aims, objectives and learning outcomes and identify its internal and external stakeholders. ii. The department must consult and discuss with relevant internal and external stakeholders when formulating programme aims and objectives.
1.1.3. The HEP must state its programme educational objectives, learning outcomes, learning and teaching strategies, and assessment methods, and ensure constructive alignment between them.	iii. The programme objectives must reflect the key elements of the outcomes of higher education that are in line with national and international practices. iv. The programme aims, objectives and learning outcomes must be consistent with and supportive of the HEP's vision and mission.
1.1.4. The programme's objectives and learning outcomes must be periodically reviewed in consultation with internal and external stakeholders.	v. The programme aims, objectives and learning outcomes must encompass provision for training or support to enable postgraduate candidates to acquire skills in problem identification, analytical problem solving and publication of research outcomes. vi. The aims, objectives and learning outcomes of the master's programme, must encompass research and research training skills in addressing problems of concern. vii. The aims, objectives and learning outcomes of the doctoral programme must encompass knowledge creation, novelty and innovation.
	1.1.2 Enhanced Standards i. The internal and external stakeholders should include national and international researchers. ii. The programme's aims, objectives and learning outcomes should be periodically reviewed in consultation with internal and external stakeholders, including international peers.

NEW	STANDARD 2013
1.2. Learning Outcomes The quality of the coursework and mixed-mode programmes is ultimately assessed by the capability of the graduates to carry out their expected roles and responsibilities in society. This requires the programme to have clear statements of the learning outcomes to be achieved. These statements should collectively reflect the appropriate MQF Level descriptor encompassing the five (5) clusters of learning outcomes and other needs of the HEP.	**1.2 Learning Outcomes** The quality of the postgraduate programme is ultimately assessed by the capability of the candidates to carry out their expected roles and responsibilities in society. This requires the programme to have clear statements of the learning outcomes to be achieved. These statements should cumulatively reflect the five clusters of MQF learning outcomes:

NEW table (Clusters):

No	Clusters		
1	Knowledge and Understanding		
2	Cognitive Skills		
3	Functional Work Skills	3.1	Practical Skills
		3.2	Interpersonal Skills
		3.3	Communication Skills
		3.4	Digital Skills
		3.5	Numerical Skills
		3.6	Leadership, Autonomy & Responsibility
4	Personal and Entrepreneurial Skills		
5	Ethics and Professionalism.		

STANDARD 2013:

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

NEW (continued):

1.2.1. The scope of learning outcomes must reflect the knowledge, skills, abilities, and attitudes outlined in the appropriate MQF Level descriptors that candidates should achieve upon completion of the programme and other needs of the HEP.

Master's Degree (Level 7, MQF)

At the end of the programme, graduates must be able to:
i. Demonstrate in-depth and frontier knowledge and understanding in the relevant field/s or practice;
ii. Critically and creatively apply knowledge in one or more fields to resolve complex disciplinary and practical problems;
iii. Conduct credible problem solving or investigation to resolve complex issues and questions in the field or practice;

STANDARD 2013 (continued):

1.2.1 Basic Standards

i. The scope of learning outcomes must reflect the competencies that the candidates should have upon completion of the programme:

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

At the end of the programme, graduates must be able to:
1. demonstrate mastery of knowledge in the relevant field;
2. apply practical skills in the relevant field;
3. relate ideas to societal issues in the relevant field;
4. conduct research with minimal supervision and adhere to legal, ethical and professional codes of practice;

NEW	STANDARD 2013
iv. Conduct research or investigation with minimal supervision adhering to legal, ethical, professional and **sustainable** practice; v. Demonstrate leadership qualities through collaboration with peers and others; vi. Communicate and interact effectively with peers in the field/s as well as general audience; vii. Select and use suitable digital and analytical tool techniques to resolve problems; and viii. Demonstrate commitment to lifelong learning and personal development.	5. demonstrate leadership qualities through communicating and working effectively with peers and stakeholders; 6. generate solutions to problems using scientific and critical thinking skills; and 7. manage information for lifelong learning
Doctoral Degree (Level 8, MQF) At the end of the programme, graduates should be able to: i. Demonstrate a critical and in-depth understanding of frontier knowledge by generating substantial and original contributions to a field and/or practice; ii. Synthesise existing and new knowledge in one or more discipline areas to develop new concepts or interpretations or applications; iii. Conduct rigorous and independent research or investigation with minimal supervision adhering to ethical, professional and **sustainable** practices; iv. Demonstrate intellectual leadership qualities and management skills; v. Communicate cogently in the field/s and interact with specialist and general audience; vi. Select and use suitable digital and analytical tool techniques to resolve problems; and vii. Demonstrate commitment to lifelong learning and personal development.	**DOCTORAL DEGREE by RESEARCH (LEVEL 8, MQF)** At the end of the programme, graduates should be able to: 1. synthesise knowledge and contribute to original research that broadens the frontier of knowledge in the relevant field; 2. adapt practical skills leading to innovative ideas in the relevant field; 3. provide expert advice to society in the relevant field; 4. conduct research independently and adhere to legal, ethical and professional codes of practice; 5. display leadership qualities through communicating and working effectively with peers and stakeholders; 6. appraise problems in the relevant field critically using scientific skills; and 7. integrate information for lifelong learning. ii. The programme must demonstrate how the defined research components contribute to the fulfillment of the programme's learning outcomes. iii. The attainment of the learning outcomes must be continuously assessed throughout the programme.
1.2.2. The HEP is responsible for the effective delivery and achievement of the programme learning outcomes (to be read together with 7.16).	**1.2.2 Enhanced Standards** i. At the end of the programme, graduates should be able to publish in peer reviewed publications.

NEW	STANDARD 2013
1.2.3. The programme must demonstrate how the dissertation or thesis components and the courses[5] contribute to the fulfilment of the programme learning outcomes. Appendices 2 and 3 must be used to describe the activities and evidence of learning outcomes relating to the dissertation or thesis or conspectus components. 1.2.4. The programme should specify the link between learning outcomes expected on completion of studies and those required for careers in research, education and industry-related field/s. 1.2.5. There must be appropriate learning and teaching supervision relevant to the programme educational objectives and learning outcomes.	ii. The programme should specify the link between research competencies expected on completion of studies and those required for career enhancement and future research.
1.3. Programme Design and Delivery For the accreditation of programmes offered by HEPs, the term "Programme" refers to courses and research components that are structured for a specified duration and volume of learning for the award of a master or doctoral degree by coursework or mixed mode. **Academic Autonomy** An academic institution is expected to have sufficient autonomy over academic matters. Such autonomy should be reflected at the departmental level where the programme is being offered. 1.3.1. The department must have sufficient autonomy to design the programme (structure) and to allocate the resources necessary for the attainment of the learning outcomes. Where applicable, the provision must also cover programmes conducted in geographically separated campuses or in collaboration with other HEPs within and outside the country.	**2.0 Programme Design and Delivery (Area 2)** For the purpose of these standards in the accreditation of programmes offered by HEPs, the term "Programme" refers to research that is structured for a specified duration of time and volume of learning. This is required to attain the stated learning outcomes for the award of a master's or doctoral degree by coursework or mixed mode. **2.1 Academic Autonomy** An academic institution is expected to have sufficient autonomy over academic matters. Such autonomy should be reflected at the departmental level where the programme is being offered. Recommended nomenclature of postgraduate degrees awarded is as shown in Table 1.

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[5] Courses are also referred to as modules and subjects.

NEW	STANDARD 2013
1.3.2. The academic staff must be given sufficient autonomy to focus on their areas of expertise in taught courses, supervision of candidates, research and writing, scholarly activities, academic administration duties, and community engagement.	*(see below)*

STANDARD 2013 (continued)

Table 1: Nomenclature of Postgraduate Degrees Awarded

Qualification	Mode		
	Research	Mixed Mode	Coursework
Master's	MPhil	MPhil	Master's degree according to field of specialisation
Doctorate	PhD or Professional Doctorate	PhD	Doctoral degree according to field of specialisation e.g. DBA, DEd, DEng
Post Doctorate	DSc, DEngSc	Not applicable	Not applicable

2.1.1   Basic Standards

i. The department must have sufficient autonomy to design the programme structure and to allocate the resources necessary for its implementation, so as to ensure the attainment of the learning outcomes. Where applicable, the provision must also cover programmes conducted on campuses that are geographically separated.

ii. The academic staff must be given sufficient autonomy to focus on areas of his / her expertise, such as academic supervision of candidates, research and writing, scholarly activities, academically-related administrative duties, and community engagement.

iii. The HEP must have clearly-stated rules and regulations on conflict of interest, particularly in the areas of appointment of supervisors and examiners, to ensure that candidates" best interests are addressed.

iv. The HEP must have clearly-stated policies on intellectual property.

2.1.2   Enhanced Standards

i. The HEP should have clearly-stated policies on conflict of interest, such as in the areas of private practice, part time employment and consultancy services.

ii. The HEP should have a policy on academic autonomy for the department and the academic staff, reflecting the intellectual maturity of the HEP.

iii. The HEP should have clearly-stated policies on indemnity insurance.

NEW	STANDARD 2013
Programme Design Learning-Teaching and Supervision	**2.2 Programme Design Learning-Teaching and Supervision**
1.3.3. The department must have a defined process by which the programme is established, reviewed, and improved with the involvement of the academic staff and other stakeholders.	**2.2.1 Basic Standards** i. The department must have a defined process by which the programme structure is established, reviewed and evaluated with the involvement of the academic staff and stakeholders. ii. The programme must be considered after the resources and / or access to resources to support the programme have been identified.
1.3.4. A needs analysis for the programme must be carried out to obtain information from stakeholders, whose feedback should be considered in the design and improvement of the programme.	iii. The programme structure and supervision must support the attainment of the programme learning outcomes.
1.3.5. The programme must be only considered after the resources to support the programme have been identified and allocated.	iv. There must be a variety of academic activities to attain the learning outcomes and to ensure that candidates take responsibility for their own learning.
1.3.6. The programme structure and supervision system must support the attainment of the programme learning outcomes.	**2.2.2 Enhanced Standards** i. The programme structure should encourage multi-disciplinary approaches through a variety of activities to enhance the personal and professional development of the candidate.
1.3.7. The programme must include a variety of academic activities and community engagement to support the attainment of the learning outcomes and personal development of the candidates (see Appendix 3).	ii. The needs analysis for the programme should involve feedback from external sources including stakeholders, whose comments should be considered for the purposes of programme improvement. iii. There should be community engagement activities that will enrichen candidates' experiences and foster their personal and professional development. iv. There should be collaborative participation with national and international HEPs and / or research centres (for example, through joint supervision, candidate exchange, joint degrees and split programmes). v. There should be provision of group supervision in order to manage and minimise risk.
Programme Structure	**2.3 Programme Structure**
Typically, the coursework and mixed-mode programmes have a substantial research component and taught courses. The minimum programme requirements for coursework and mixed-mode are provided below. It allows HEPs to design the structure, content and delivery consistent with its vision, mission and goals, and applicable programme standards. It is, however,	The supervision environment can only be effective if the programme structure is continually kept up-to-date with current developments in the field of study.

NEW	STANDARD 2013
imperative that the HEP articulate a clear rationale for the specific design and structure of the programme it offers. To ensure comparability of the award as MQF Level 7 or Level 8 qualifications, it is critical that despite the differences and variations, the candidates are assessed to satisfy similar learning outcomes. Therefore, within HEPs these modes or variations must be articulated through a unitary master and doctoral framework. Separate masters and doctoral frameworks will raise concerns about the comparability of outcomes inconsistent with the MQF. 1.3.8. The programme must satisfy the following minimum requirements: *Master's Degree by Coursework and Mixed Mode** i. Minimum credit for a master's degree by coursework and mixed-mode is 40 credits[6]. ii. Minimum duration for full-time and a part-time candidate is 1 and 2 years, respectively. iii. Coursework component must include a course in research methodology. iv. The following requirements must be decided by the HEP: a) Relevant prerequisite courses for candidates without related qualifications and relevant working experience or require updating of knowledge in specified areas before enrolling in the programme. b) Maximum period of study considering good practices. c) A dissertation or equivalent conspectus guideline or manual must be provided to describe a common structure and format for submission. d) The HEP must establish the minimum word limit subject to the guidance in the relevant programme standards or	**2.3.1 Basic Standards** i. The programme must satisfy the following requirements: *Master's Degree by Coursework, and Mixed Mode** 1) Minimum credit for master's degree by coursework, and mixed mode is 40 credits. 2) For fulltime candidature, the conventional period is 1 year, whereas for part time candidature, the conventional period is 2 years. 3) Coursework component must include a course in research methodology. 4) The following requirements must be decided by the HEP: a) Maximum period of candidature b) Format of the research project / dissertation *Master's Degree by Mixed Mode** *Ratio of coursework to research is within the range of 50:50 or 40:60 or 30:70 *Doctoral Degree by Coursework and PhD by Mixed Mode** 1) Minimum credit for doctoral degree by coursework and PhD by mixed mode is 80 credits. 2) For fulltime candidature, the conventional period is 3 years, whereas for part time candidature, the conventional period is 4 years. However, the HEP Senate may allow exemptions for outstanding candidates who completed their studies within a short period. 3) Coursework component must include a course in research methodology. 4) The following requirements must be decided by the HEP: a) Maximum period of candidature b) Format of the research project / thesis

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[6] Equivalent to 1600 notional hours of learning (1 credit = 40 notional hours)

NEW	STANDARD 2013

discipline. The Senate or the equivalent body of the HEP can use its discretion in cases where a dissertation or conspectus is not within the word limit but meets all other requirements.
 	
Master's Degree by Mixed-Mode*
*Ratio of coursework to dissertation or equivalent conspectus with associated artefacts is within the range of 50:50, 40:60 or 30:70.
 	
Doctoral Degree by Coursework and Mixed-Mode*
i. Minimum credit for the doctoral degree by coursework and PhD by mixed-mode is 80 credits.
 	
ii. The typical duration for full time and a part-time candidate is 3 and 4 years, respectively.
 	
iii. Coursework component must include a course in research methodology.
 	
iv. The following requirements must be decided by the HEP:
  a) Relevant prerequisite courses for candidates without related qualifications and relevant working experience or require updating of knowledge in specified areas before enrolling in the programme.
  b) Maximum period of study considering good practices.
  c) A dissertation or conspectus guideline or manual must be provided to describe a common structure and format for submission.
  d) The HEP must establish the minimum word limit subject to the guidance in the relevant programme standards or discipline. The Senate or the equivalent body of the HEP can use its discretion in cases where a thesis or conspectus does not comply with the word limit but meets all other requirements.
	PhD by Mixed mode*
	*Ratio of coursework to research is within the range of 50:50 or 40:60 or 30:70
	
	ii. The programme must incorporate the appropriate research skills essential for understanding of the concepts, principles and methods that support the programme outcomes.
	iii. The programme must be periodically reviewed to keep abreast of knowledge developments in the discipline, and with the needs of the society.
	iv. The department must provide the technology and global networking for candidates to access real-time information and identify areas of importance.
	
	2.3.2 Enhanced Standards
	
	i. The programme should fulfill the requirements of the discipline, taking into account the appropriate discipline standards and best practices.
	ii. HEPs should identify new areas of research and research strengths.

NEW	STANDARD 2013
Doctoral Degree by Mixed mode* *Ratio of coursework to dissertation or equivalent conspectus with associated artefacts is within the range of 50:50 or 40:60 or 30:70. 1.3.9. The programme must incorporate the appropriate knowledge, skills and abilities essential for the programme outcomes. 1.3.10. The programme must fulfil the requirements of the discipline, taking into account the appropriate programme or discipline standards and good practices. 1.3.11. The programme must be periodically reviewed and improved to keep abreast of developments in the discipline, and with the needs of the candidates, industry and society.	

AREA 2: ASSESSMENT OF CANDIDATE LEARNING

NEW	STANDARD 2013
Assessment of 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, appropriate assessment methods and mechanisms must be in place. Qualifications are awarded based on the results of the assessment. The methods of assessment must be clear, consistent, effective, reliable and in line with current and good practices. It must reliably measure the achievement of the learning outcomes. The management of the assessment system is the HEP's responsibility as a body that confers the qualification. The robustness and security of the processes and procedures related to assessment as well as appropriate documentation of learning achievement are important in inspiring confidence in the qualifications awarded by the HEP.	Assessment of candidate is a crucial aspect of quality assurance because it drives candidate's learning. It is one of the most important measures to show the attainment of learning outcomes. The results of assessment are also the basis of the award of postgraduate degrees. Hence, the methods of assessment of candidate must be clear, consistent, effective, reliable, in line with current practices, and supportive of the attainment of the learning outcomes.
2.1 Relationship between assessment and learning outcomes 2.1.1. Assessment principles, methods and practices must be constructively aligned to the learning outcomes of the programme, consistent with the levels defined in the MQF. 2.1.2. A variety of assessment methods must be used consistent with the learning outcomes and programme content. 2.1.3. Formative and summative assessments must be stated for the courses and research components. 2.1.4. Summative assessment for research outcomes must include, among others: *Master's / Doctoral Degree by Coursework* • Project report/dissertation/conspectus which demonstrates research or applied capabilities.	**3.1 Assessment and Learning** **3.1.1 Basic Standards** i. Assessment of candidate must be consistent with the levels defined in the MQF and in the 7 domains of learning outcomes. ii. Assessment principles, methods and practices must be aligned to the learning outcomes and programme content through 2 types of assessment, that is, formative and summative assessment. iii. Formative assessment must include: *Master's / Doctoral Degree by Coursework* • Written assessment • Presentations • Research project *Master's Degree by Mixed Mode* • Written assessment • Presentations

NEW	STANDARD 2013

Master's / Doctoral Degree by Mixed-Mode
• Dissertation or thesis or conspectus appropriate to the discipline.
 	
2.1.5. For a mixed-mode programme, the department must monitor the student's progress in research or equivalent conspectus appropriate to the discipline through:
   i.   Regular consultation;
   ii.   Proposal defence;
   iii.   Presentation / colloquium / seminar / workshop; and
   iv.   Progress reports.
 	
2.1.6. The HEP must ensure that appropriate attitudes are inculcated, including the value of research ethics and integrity, and **sustainable development.**
 	
2.1.7. The link between assessment and learning outcomes must be periodically reviewed and improved to ensure their continued effectiveness.
	• Dissertation
	
	PhD by Mixed Mode
	• Written assessment
	• Presentations
	• Thesis
	
	iv. For mixed mode programme, the department must monitor candidate assessment to ensure candidates" satisfactory progress. This must be monitored through:
	   1) Regular consultation (formal and informal)
	   2) Proposal defense
	   3) Presentation / colloquium / seminar / workshop
	   4) Research progress (using appropriate mechanisms)
	v. The HEP must ensure that appropriate attitudes are inculcated, including adherence to research ethics.
	
	3.1.2 Enhanced Standards
	
	The link between assessment and learning outcomes should be periodically reviewed to ensure their effectiveness.

2.2 Assessment Methods 2.2.1. The assessment methods and the processes and procedures involved must be documented and made accessible to supervisors and academic staff, and candidates. 2.2.2. The methods of assessment must be documented, and communicated to the candidates in a timely manner. 2.2.3. The HEP must ensure that assessments methods employed are comparable to good international practices. 2.2.4. For mixed-mode, a Dissertation / Thesis Examination Committee must be set up with clear guidelines on composition, roles and responsibilities, modus operandi, decision making and	**3.2 Assessment Methods** **3.2.1 Basic Standards** i. The methods of assessment of candidate must be described, documented and communicated to the candidates (for example, information about their duration, diversity, weighting and coverage). ii. The processes and procedures must be documented and made accessible to staff and candidates. iii. A Dissertation / Thesis Examination Committee must be set up to ensure validity, reliability and fairness in the assessment of the dissertation / thesis. iv. Assessment procedures must be reviewed periodically, taking into consideration feedback from internal stakeholders.

NEW	STANDARD 2013
communication to ensure a transparent, systematic, rigorous, reliable and fair assessment of the dissertation/thesis or equivalent conspectus appropriate for the discipline. 2.2.5. The HEP must have a mechanism to review assessment processes and procedures and outcomes periodically, taking into consideration feedback from internal and external stakeholders, and must involve an external assessor[7].	**3.2.2 Enhanced Standards** i. The HEP should ensure that internal assessments are comparable to that of external best practices. ii. External expertise (national and international) should be consulted in the review and provide feedback on the assessment procedures. iii. Assessment procedures must be reviewed periodically, taking into consideration feedback from external stakeholders. iv. The HEP must have a mechanism to review and implement new methods of assessment.

2.3 Management of Student Assessment
 	
2.3.1. The HEP is responsible for assessment policy to ensure validity, reliability, integrity and fairness of all assessments carried out in the programme.
 	
2.3.2. Supervisors / Academic staffs must be given sufficient autonomy to supervise and manage the courses and candidates' research.
 	
2.3.3. The HEP must have appropriate guidelines and mechanisms for candidates to appeal their results.
 	
2.3.4. The HEP must ensure the confidentiality and security of assessment artefacts and academic records.
 	
2.3.5. The assessment outcomes must be provided to candidates through appropriate mechanisms in a timely manner and remedial assistance provided when significant gaps are identified.
 	
2.3.6. The HEP must establish and document procedures on the criteria and selection of examiners, their responsibilities and their code of conduct.
	3.3 Management of Candidate Assessment
	
	3.3.1 Basic Standards
	
	i. The HEP is responsible for assessment policy, and the terms of reference must be described. There must be committees and processes for:
	   1) verification and moderation of summative assessments; and
	   2) benchmarking of the academic standards of assessment.
	ii. Supervisors must be given sufficient autonomy to supervise and manage the candidates' research progress and assessment.
	iii. There must be procedures available for candidates to bring issues or concerns to the attention of the relevant authorities.
	iv. The HEP must be responsible for the confidentiality and security of candidate assessment processes and academic records.
	v. The performance and results of summative and formative assessments must be made available to candidates through appropriate mechanisms.
	vi. The HEP must provide feedback to the candidates on their academic performance and ensure that they have sufficient time to undertake remedial measures. Necessary measures must be undertaken to

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[7] In COPPA, the term external examiner is used. The use of External Assessor in this Standard is to avoid confusion with external examiners involved in the evaluation of dissertation, thesis or conspectus.

NEW	STANDARD 2013

2.3.7. The requirements of an examiner must be clearly stated to include the following:
 	
   i. Examiners must have a minimum qualification of no less than the supervisor / academic staff. Where an examiner is without the required qualification, there must be sufficient experience in the relevant field and the appointment must be subjected to the approval of the HEP Senate.
 	
   ii. Examiners must be from the field or related fields of study to ensure rigorous evaluation of the candidate and dissertation or thesis.
 	
   iii. Examiners have supervised candidates at the relevant level.
 	
   iv. Examiners must be engaged in research and have produced credible publications or equivalent works.
 	
   v. Examiners from the industry can be exempted from requirements in (iii) and (iv).
 	
2.3.8. Composition of ~~research~~ project/dissertation/thesis or equivalent conspectus examiners is as follows:
 	
Master's by Coursework
The research report or equivalent conspectus must be examined by at least 2 examiners including the supervisor.
 	
Master's Degree by Mixed Mode
The dissertation or conspectus and other artefacts must be examined by at least 2 examiners. More than 2 examiners may be necessary in the case of a multidisciplinary dissertation or conspectus.
	provide feedback to candidates on performance, review and corrective measures.
	vii. The HEP must establish and document procedures on the criteria and selection of examiners.
	
	viii. The qualification requirements of an examiner must be clearly stated:
	   1) An examiner must have a minimum qualification of no less than the supervisor. Where an examiner is without the required qualification, there must be sufficient experience in relevant field and the appointment must be subjected to the approval of the HEP Senate.
	   2) An external examiner appointed must be from a field related to the research made to ensure the quality of research.
	ix. Composition of dissertation / thesis examiners is as follows:
	
	Master's Degree by Mixed Mode
	The dissertation must be examined by at least 2 examiners.
	
	PhD by Mixed Mode
	The thesis must be examined by at least 2 examiners, 1 of whom is an external examiner.
	
	x. The department must advise the examiners to adhere to a stipulated time for the dissertation / thesis examination.
	xi. The HEP must provide a mechanism for candidates to appeal on the result of their dissertation / thesis examination and / or viva voce.
	
	3.3.2 Enhanced Standards
	
	i. Internal and external stakeholders should be involved in reviewing the system of candidate assessment.

NEW	STANDARD 2013
Doctoral Degree by Coursework and Mixed Mode The thesis or conspectus and other artefacts must be examined by at least 2 examiners, 1 of whom must be an external examiner. More than 2 examiners may be necessary in the case of multidisciplinary theses or conspectuses. 2.3.9 The department must provide information to the examiners on the structure, modes, format, outcomes, purposes, viva voce rules and the requirements for the examiner's pre-viva report.	

AREA 3: CANDIDATE SELECTION AND SUPPORT SERVICES

NEW	STANDARD 2013
In general, admission to a programme must comply with the prevailing policies of the Ministry of Higher Education (MOHE). HEP must establish a transparent and credible candidate selection system to ensure candidates with the required attributes are selected. The admission and selection of candidates have to be conducted based on up-to-date and accurate information, and according to published criteria and processes. The number of candidates to be admitted to a programme must be based on the capacity of the HEP and the number of qualified applicants. If a HEP operates geographically separated campuses or if the programme is a collaborative one, the selection of the candidates must be consistent with national policies. Candidate support services and co-curricular activities (where applicable) facilitate learning and wholesome personal development and contribute to the achievement of learning outcomes. Support services and co-curricular activities include physical amenities and services such as recreation, arts and culture, accommodation, counselling, transport, safety, food, health, finance and academic advice.	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 candidate selection. Whatever the method used, the HEP must be able to defend the consistency of the method it utilises. The number of candidates 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 an HEP operates geographically separated campuses or if the programme is a collaborative one, the selection and assignment of all candidates must be consistent with national policies.

3.1 Candidate Selection
 	
Master's by Coursework
   i. A bachelor's degree in the field or related fields with a minimum CGPA of 2.50 or equivalent, as accepted by the HEP Senate; or
  ii. A bachelor's degree in the field or related fields 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.
 iii. Candidates without a qualification in the related fields or working experience in the relevant fields must undergo appropriate prerequisite courses determined by the HEP and meet the minimum CGPA based on (i) to (ii).
	4.1 Admission and Selection
	
	4.1.1 Basic standards
	
	Master's by Coursework
	  iv. A bachelor's degree with minimum CGPA of 2.50 or equivalent, as accepted by the HEP Senate; or
	   v. A bachelor's degree or equivalent not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in relevant field.
	
	Master's by Mixed Mode
	   i. A bachelor's degree with minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; or

NEW	STANDARD 2013

Master's by Mixed Mode
  i. A bachelor's degree in the field or related fields with a minimum CGPA of 2.75 or equivalent, as accepted by the HEP Senate; or
  ii. A bachelor's degree in the field or related fields or equivalent with a minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment; or
  iii. A bachelor's degree in the field or related fields or equivalent with minimum CGPA of 2.00 and not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in the relevant field and rigorous internal assessment.
  iv. Candidates without a related qualification in the field/s or working experience in the relevant fields must undergo appropriate prerequisite courses determined by the HEP and meet the minimum CGPA based on (i) to (iii).
 	
Doctoral Degree by Coursework and by Mixed Mode
  i. A master's degree in the field or related fields accepted by the HEP Senate; or
  ii. Other qualifications equivalent to a master's degree recognised by the Government of Malaysia.
 	
The HEP must determine the minimum language proficiency requirements consistent with the programme standard or based on the needs of the programme i.e., learning outcomes and the medium of instruction.
	ii. A bachelor's degree or equivalent with minimum CGPA of 2.50 and not meeting CGPA of 2.75, can be accepted subject to rigorous internal assessment; or
	  iii. A bachelor's degree or equivalent not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in relevant field.
	
	Doctoral Degree by Coursework, and PhD by Mixed Mode
	  i. A master's degree accepted by the HEP Senate; or
	  ii. Other qualifications equivalent to a master's degree that are accepted by the HEP Senate.
	
	For international candidates, the language proficiency requirement must be determined by the HEP Senate.

3.2 Articulation Regulations, Credit Transfer and Credit Exemption
 	
Master's and Doctoral Degree
3.2.1. Information on policies, regulations and processes of credit transfer, credit exemption and articulation practices must be documented in HEP policies and regulations for the programme.
 	
3.2.2. The document must be made accessible to candidates and staff.
	4.2 Articulation Regulations, Credit Transfer and Credit Exemption
	
	4.2.1 Basic Standards
	
	Master's and Doctoral Degree
	  i. Information on policies, regulations and processes of credit transfer, credit exemption and articulation practices must be documented in HEP policies and regulations for the programme.
	  ii. The document must be made accessible to candidates and staff.

NEW	STANDARD 2013
3.2.3. The HEP should continually update the processes of articulation, credit transfer and credit exemptions, including national and international collaborative provision.	**4.2.2 Enhanced Standards** *Master's and Doctoral Degree* i. The HEP should continually update the processes of articulation, credit transfer and credit exemptions, including national and international collaborative provision.

3.3   Candidate Transfer
 	
Master's Degree
3.3.1   The HEP must clearly define and effectively disseminate policies, regulations and processes concerning:
   i.   articulation practices for transfer of candidature from one mode to another (e.g. coursework to mixed mode);
   ii.   articulation practices for transfer of candidates from one programme to another; and
   iii.   articulation practices for transfer of candidature from one HEP to another.
	4.3 Candidate Transfer
	
	4.3.1 Basic Standards
	
	Master's Degree
	i. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning:
	1) articulation practices for transfer of candidature from one mode to another (e.g. coursework to mixed mode);
	2) articulation practices for transfer of candidature from one programme to another; and
	3) articulation practices for transfer of candidature from one HEP to another.

3.4 Candidate Support Services 3.4.1. The HEP* must have an organisational unit that includes support services and co-curricular activities. The following support services are essential for candidates wellbeing: • Health services • Recreation and sports facilities • Security • Counselling services • Internet service • Health insurance for international candidates • Documentation services 3.4.2. The HEP must have policies and procedures in place for handling candidate grievances.	**4.4 Candidate Support Services and Co-Curricular Activities** **4.4.1 Basic Standards** i. The HEP must have an organisational structure that includes support services and co-curricular activities. The following support services are essential for candidate's wellbeing: • Health services • Recreation and sports facilities • Security • Counselling services • Internet service • Health insurance for international candidates • Documentation services

NEW	STANDARD 2013

*for Open and Distance Learning (ODL) institutions, refer COPPA: ODL, 2019	**4.4.2 Enhanced Standards**
	
	i. The HEP should provide support services for candidate's wellbeing such as:
	      • Accommodation
	      • Health insurance
	      • Financial aid
	      • Transportation
	      • Child care centre
	      • Places of worship

3.5 Candidates Representation and Participation 3.5.1 The HEP must clearly define and effectively disseminate policies, regulations and processes concerning candidate representation and participation.	**4.5 Candidate Representation and Participation** **4.5.1 Basic Standards** i. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning candidate representation and participation. **4.5.2 Enhanced Standards** i. Candidate activities should enhance soft skill attributes, such as management, leadership, and community engagement.
3.6 Alumni 3.6.1. The HEP must foster active linkages with alumni to develop, review and continually improve the programme.	**4.6 Alumni** **4.6.1 Basic Standards** i. The HEP must clearly define and effectively disseminate policies, regulations and processes concerning development and operation of the alumni. **4.6.2 Enhanced Standards** i. The HEP should engage alumni in preparing candidates for their profession. ii. The HEP should engage alumni so that they can contribute to the development of the HEP. iii. The alumni should be involved in linking the HEP with the community.

AREA 4: ACADEMIC STAFF

NEW	STANDARD 2013
The quality of academic staff is one of the most important components in assuring the quality of higher education. Every effort must be made to establish proper and effective recruitment, service, development and appraisal policies that are conducive to supporting and enhancing staff quality and productivity. Every programme must have appropriately qualified and a sufficient number of academic staff. The HEP must provide a conducive work environment that encourages recruitment and retention of the best talent. Teaching, research, consultancy services and community engagement are core interrelated academic activities. It is recognised that the degree of engagement of academics in these areas varies from institution to institution. However, HEP must ensure that there is a fair and equitable distribution of work and that there is a robust and open system of recognition and reward that acknowledges and appreciates excellence, especially in the promotion, remuneration and other incentives. Sufficient mechanisms should be put in place to provide training for academic staff in supervision skills and to ensure supervisors are exposed to best practices.	The quality of academic staff is one of the most important components in assuring the quality of higher education. Every effort must be made to establish proper and effective recruitment, service, development and appraisal policies that are conducive to supporting and enhancing staff quality and productivity. Every programme must have appropriately qualified and a sufficient number of academic staff. It is important that the HEP provides a conducive work environment that encourages recruitment and retention of best talent. An academic staff member is expected to be actively involved in research and consultancy, in addition to supervising or advising research candidates. Sufficient mechanisms should be put in place to provide training for academic staff in supervision skills and to ensure supervisors are exposed to best practices. Workload and its equitable distribution is one of the ways that the HEP can acknowledge meritorious contribution for the purposes of promotion, salary determination or other incentives.
4.1 Recruitment and Management 4.1.1 The HEP must have a clearly defined plan for its academic staff needs that is consistent with institutional policies and programme requirements. 4.1.2 The HEP must have a clear and documented academic staff recruitment policy where the criteria for selection are based primarily on academic merit and/or relevant experience.	**5.1 Recruitment and Management** **5.1.1 Basic Standards** i. The HEP must have a policy and procedures for the recruitment of academic staff.

NEW	STANDARD 2013

4.1.3 The terms and conditions of service must be clearly stated or referred to in the offer letter and reviewed periodically.
 	
4.1.4 The HEP must establish the maximum ratio of candidates to supervisors taking into account the total responsibilities of the supervisors and the needs of the candidates guided by the applicable programme standard (refer to 2.3.4).
 	
4.1.5 The HEP must establish a policy for the appointment of academic staff to ensure the quality and the sustainability of the programme.
 	
4.1.6 The HEP* must have adequate and qualified academic staff responsible for implementing the programme. The expected ratio of full-time and part-time academic staff is 60:40.
 	
*for ODL institutions, refer COPPA: ODL, 2019
4.1.7 The qualification and experience requirements of supervisors and teaching staff[8] are stated for masters and doctoral degrees by coursework and mixed-mode:
 	
Table 3: Master's by Mixed Mode and Coursework – Supervisors, Co-supervisors and Teaching Staff
	ii. The terms and conditions of service must be clearly stated in the offer letter and reviewed periodically.
	iii. The HEP must establish a policy for the appointment of supervisors to ensure the quality and the sustainability of the programme.
	iv. The qualification requirements of a supervisor must be clearly stated:
	
	Master's Degree by Coursework, and Mixed Mode
	    1) A teaching staff / principal supervisor must have a minimum qualification of one level higher than the degree level enrolled in by the candidate i.e. a doctoral degree.
	    2) Where a teaching staff / principal supervisor is without the required qualification, a teaching staff / principal supervisor must have at least 5 years experience:
	        a) in teaching and research; or
	        b) as a co-supervisor.
	    3) The additional criteria are subjected to the approval of the HEP Senate.
	
	Doctoral Degree by Coursework and PhD by Mixed Mode

Mixed Mode			Coursework	
Principal Supervisor	**Co-supervisor**	**Teaching Staff**	**Supervisor**	**Teaching Staff**
i. The principal supervisor must have a doctoral degree. ii. Where the principal supervisor has a master's degree in the field, the	i. Co-supervisor must have a doctoral degree. ii. Where the co-supervisor has only a master's degree in the field, the co-supervisor must have at least 1 year experience	i. The teaching staff must have a doctoral degree. ii. Where the teaching staff has a master's degree in the field, the teaching staff must have at	i. The supervisor must have a doctoral degree. ii. Where the supervisor has a master's degree in the field, the supervisor must have at least 5 years'	i. The teaching staff must have a doctoral degree. ii. Where the teaching staff has a master's degree in the field, the teaching staff must have at

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[8] Teaching staff are staff assigned to teach the coursework part of the programme

NEW					STANDARD 2013
principal supervisor must: a) Have at least 5 years' experience in teaching and research; **AND** b) Has co-supervised master's candidate. iii. The supervisors must go through structured supervisor training. iv. HEP may impose other criteria as it deems necessary.	in teaching **AND** research. iii. A co-supervisor from the industry or practitioner must have at least a bachelor's degree and at least 5 years of experience in the field at a level appropriate for the dissertation. iv. The supervisors must go through structured supervisor training. v. HEP may impose other criteria as it deems necessary.	least 5 years' experience in teaching. iii. Teaching staff from the industry or practitioner must have at least a bachelor's degree **and** at least 5 years of experience in the field at a level appropriate for courses to teach practical/ professional/ hands-on components.	experience in teaching. iii. Supervisor from the industry or practitioner must have at least a bachelor's degree and at least 5 years of experience in the field at a level appropriate for the dissertation **AND** be appointed only as a co-supervisor. iv. The supervisors must go through structured supervisor training. v. HEP may impose other criteria as it deems necessary.	least 5 years' experience in teaching. iii. Teaching staff from the industry or practitioner must have at least a bachelor's degree **and** at least 5 years of experience in the field at a level appropriate for courses to teach practical/ professional/ hands-on components.	1) A teaching staff / principal supervisor must have a minimum qualification of the equivalent degree level enrolled in by the candidate and at least 2 years experience: a) in teaching and research; or b) as a co-supervisor. 2) Where a teaching staff / principal supervisor is without the required qualification, extensive experience in research and supervision are additional criteria and are subjected to the approval of the HEP Senate. 3) For candidates who choose to do research in critical and specific areas, HEP may appoint a co-supervisor from another HEP with expertise in these fields to supervise. v. When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP. vi. When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP. vii. The HEP must establish guidelines for teaching staff / supervisors including information about: 1) delineating roles and responsibilities of supervisors; 2) prescribing ethical principles for the purpose of assisting supervisors in the identification and resolution of ethical issues

Table 4: Doctoral Degree by Mixed Mode and Coursework – Supervisors, Co-supervisors and Teaching Staff

Mixed Mode			Coursework	
Principal Supervisor	**Co-Supervisor**	**Teaching Staff**	**Principal/ Supervisor**	**Teaching Staff**
i. The principal supervisor must	i. Co-supervisor must have a	i. The teaching staff must have	i. The supervisor must have a	i. The teaching staff must have

NEW					STANDARD 2013
have a doctoral degree, **and** a) have at least 2 years' teaching experience and research; **AND** b) has supervised masters or doctoral research candidate to completion. ii. Where a principal supervisor has only a master's degree, extensive experience in research is required in addition to conditions in (i)(a) and (i)(b), and subject to approval by the Senate of the HEP. vi. The supervisors must go through structured supervisor training. vii. HEP may impose other criteria as it deems necessary.	doctoral degree **and** at least 2 years' teaching experience and research. ii. Where a co-supervisor has only a master's degree, 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 **and** at least 10 years of experience in the field at a level appropriate for the thesis. iv. The supervisors must go through structured supervisor training. v. HEP may impose other	a doctoral degree AND at least 2 years' teaching experience. ii. Teaching staff from the industry or practitioners must have at least a masters and <u>at least 10 years of experience in the field at a level appropriate for courses </u>to teach practical/professional/hands-on components.	doctoral degree, **and** a) have at least 2 years teaching experience and research; **AND** b) has supervised masters or doctoral research candidate to completion. ii. Where a supervisor has only a master's degree, 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. Supervisor from the industry or a practitioner must have at least a master's degree **and** at least 10 years of	a doctoral degree **and** at least 2 years of teaching experience. ii. Teaching staff from the industry or practitioners must have at least a master's **and** at least 10 years of experience in the field at a level appropriate for courses to teach practical/professional/hands-on components.	which may arise in the course of their research; 3) ensuring teaching staff / supervisors conduct all activities with academic integrity and in compliance with the Code of Conduct, relevant laws, rules and regulations; and 4) ensuring an appropriate teaching staff / supervisor-to-candidate ratio for effective teaching and supervision. viii. The research skills, experience and specialisations of a supervisor must align with the research area of the candidate. ix. The HEP must establish a mechanism for monitoring teaching and supervision processes. x. Recognition, reward and remuneration must be commensurate with appropriate workload distribution and meritorious teaching and supervision, based on transparent policies and procedures. **5.1.2 Enhanced Standards** i. The HEP should establish a supervisory committee that guides the candidates in planning the research and preparing the dissertation / thesis. ii. The HEP should promote national and international linkages in enhancing the quality of supervision.

NEW			STANDARD 2013
criteria as it deems necessary.		experience in the field at a level appropriate for thesis, **and** be appointed only as a co-supervisor. iv. The supervisors must go through structured supervisor training. v. HEP may impose other criteria as it deems necessary.	

4.1.8 When there is only one supervisor, the supervisor must be a full-time staff of the conferring HEP.

4.1.9 When there is more than one supervisor, the principal supervisor must be a full-time staff of the conferring HEP.

4.1.10 The HEP must establish guidelines for teaching staff/supervisors including information about:

   i. delineating roles and responsibilities of supervisors;

   ii. prescribing ethical principles to assist supervisors in the identification and resolution of ethical issues which may arise in the course of their research;

   iii. ensuring teaching staff/supervisors conduct all activities with academic integrity and in compliance with the Code of Conduct, relevant laws, rules and regulations; and

   iv. the maximum ratio of students to supervisors taking into account the total responsibilities of the supervisors and the needs of the students guided by the applicable programme standards and good practices.

NEW	STANDARD 2013
4.1.11 The research skills, experience and specialisations of a supervisor must align with the research area of the candidate. 4.1.12 The HEP must establish a mechanism for monitoring teaching and supervision processes. 4.1.13 Recognition, reward and remuneration must be commensurate with appropriate workload distribution and meritorious teaching and supervision, based on transparent policies and procedures. 4.1.14 The HEP should establish a supervisory committee that guides the candidates in planning the research and preparing the dissertation/thesis. 4.1.15 The HEP should promote national and international linkages in enhancing the quality of supervision.	
4.2 Teaching and Research Expertise Teaching and research expertise refers to staff who have been trained in their respective disciplines or with adequate knowledge and experience in the research areas, methodologies, and matters related to learning and research activities. They advise and assist whenever there are problems and provide training in learning and research processes and activities. Teaching and research expertise can be provided internally by the HEP or acquired from an external source. 4.2.1. The HEP must provide adequate teaching and research expertise to run the programme. 4.2.2. The HEP must have policy or guidelines on the roles of teaching and research expertise. 4.2.3. The HEP must have policy or guidelines on the development and management of teaching and research expertise.	**6.2 Teaching and Research Expertise** Teaching and research expertise refers to staff who have been trained in their respective disciplines or with adequate knowledge and experience in the research areas, methodologies, and matters related to learning and research activities. They advise and assist whenever there are problems and provide training in learning and research processes and activities. Teaching and research expertise can be provided internally by the HEP or acquired from an external source. **6.2.1 Basic Standard** i. The HEP must have policy or guidelines on the development and management of teaching and research expertise. **6.2.2 Enhanced Standard**

NEW	STANDARD 2013
	i. The HEP should acknowledge the contribution of the teaching and research expertise towards the programme.

4.3   Service and Development
 	
4.3.1. The HEP must encourage academic staff to engage in scholarly activities in order to attain national and international recognition.
 	
4.3.2. The HEP must provide opportunities for academic staff to focus on their respective areas of expertise.
 	
4.3.3. The HEP must have clear policies on conflict of interest and professional conduct, including procedures for handling disciplinary cases among academic staff.
 	
4.3.4. The HEP must provide opportunities for academic staff to participate in professional, academic and other relevant activities, at national and international levels to obtain professional qualifications to enhance the learning-teaching experience.
 	
4.3.5. The HEP must encourage and facilitate its academic staff to play an active role in the community and industrial engagement activities.
	5.2 Service and Development
	
	5.2.1 Basic Standards
	  i. The HEP must encourage academic staff to engage in scholarly activities in order to attain national and international recognition.
	  ii. The HEP must facilitate the provision of training in teaching and supervision skills for the academic staff.
	
	5.2.2 Enhanced Standards
	  i. The HEP should encourage participation in professional, academic and research communities at national or international level.
	  ii. The HEP should encourage research activities beyond postgraduate research that will benefit the industry and the community.
	  iii. The HEP should have in place a mentoring system for the enhancement of the quality of teaching and supervision.
	  iv. The HEP should encourage industrial attachment.

AREA 5. EDUCATIONAL RESOURCES

NEW	STANDARD 2013
A research-active and intellectual environment provide opportunities for candidates to learn and participate in learning and research. Exposure to an environment of curiosity and inquiry encourages candidates to develop intellectual and leadership qualities and advanced skills in problem-solving, data analysis and continuous updating of knowledge. Appropriate, safe and adequate teaching and research resources including care for the needs of persons with disabilities must be provided. These include physical and online facilities, technical and support staff, financial allocation, online and digital resources, and network and collaboration. Equally important, if not more so, is the quality, relevance, accessibility, availability, sustainability and delivery of such resources and services, and their actual utilisation by candidates. 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.	Appropriate teaching and research facilities must be included as part of educational resources. This is because a research-active environment improves the quality of higher education. Adequate teaching and research resources are essential to support learning activities. These include physical facilities, human capital, financial allocation, online resources and network and collaboration. Equally important, if not more so, is the quality, relevance, accessibility, availability and delivery of such resources and services, and their actual utilisation by candidates. An excellent learning and research culture attracts high calibre candidates and academics, and these foster critical thinking and enquiring minds, contributing to the advancement of knowledge. Active researchers also attract grants that increase the scope of research undertaken by staff, again enhancing their knowledge and experience. Interdisciplinary research has positive effects on academic programmes. A research-active environment thus provides opportunities for candidates to learn and participate in learning and research. Exposure to an environment of curiosity and inquiry encourages candidates to develop lasting skills in problem-solving, data analysis and continuous updating of knowledge. A balanced and proportional increase in direct and indirect educational resources supports learning and research.
5.1. Physical Facilities The physical facilities of a programme are largely guided by the needs of the programme and the specific field of research. These include appropriate space, equipment and support facilities for teaching and learning, research activities and administration. 5.1.1. The programme must provide access to adequate and appropriate physical facilities to support learning and research activities.	**6.1 Physical Facilities** The physical facilities of a programme are largely guided by the needs of the programme and specific field of research. These include appropriate space, equipment and support facilities for teaching and learning, research activities and administration.

NEW	STANDARD 2013
5.1.2. The physical facilities must comply with the relevant laws including those pertaining to health and safety regulations. 5.1.3. The HEP must have guidelines regarding the budget allocation of physical facilities. 5.1.4. The HEP must have a policy for the effective use of information and communication technology (ICT) in the programme. 5.1.5. The library or resource centre must have adequate and up-to-date reference materials and qualified staff that meet the needs of the programme and research amongst academic staff and candidates. 5.1.6. The physical facilities must be maintained and periodically reviewed to improve quality and appropriateness. 5.1.7. The HEP must provide training in the usage of relevant teaching, learning, and research facilities to academic staff and candidates. 5.1.8. The HEP must have teaching, learning and research[9] policy with adequate facilities and resources to sustain it.	**6.1.1. Basic Standards** i. The programme must have adequate and appropriate physical facilities to support learning and research activities. ii. The physical facilities must comply with the relevant laws, and with those pertaining to health and safety regulations. iii. The HEP must have guidelines regarding the allocation of physical facilities. iv. The HEP must have a policy for effective use of information and communication technology (ICT) in the programme. v. The library or resource centre must have adequate space and up-to-date references. vi. Candidates must have access to relevant facilities within and outside the HEP when required. vii. The physical facilities must be continually maintained, improved or replaced. **6.1.2. Enhanced Standards** i. Candidates should have the opportunity to be trained in the usage of relevant learning and research facilities. ii. Physical facilities should include accredited laboratories based on national and international standards.
5.2. Financial Resources Financial resources refer to funds for the management and sustainability of the programme. 5.2.1 The financial resources must be adequate to support the programme. 5.2.2 The HEP must have budgetary and procurement procedures to ensure that its resources are sufficient and that it is capable of utilising its finances efficiently.	**6.3 Financial Allocation** Financial allocation refers to disbursement of funds for the management and sustainability of the programme. **6.3.1 Basic Standards** i. The HEP must have clear lines of responsibility and authority for budgeting and resource allocation that takes into account the specific needs of the programme.

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[9] Research policy includes but not limited to setting research priorities and objectives, funding arrangements, use of research facilities, publication and authorship policies, intellectual property rights, research ethics and commercialisation of research.

NEW	STANDARD 2013
	ii. The HEP must have budgetary and procurement procedures to ensure that its resources are sufficient and that it is capable of utilising its finances efficiently. iii. The financial allocation must be adequate to support the programme. iv. The HEP must have a system for disbursement of teaching and research funds to support the programme. **6.3.2 Enhanced Standard** i. Those responsible for the programme should be given sufficient autonomy to appropriately allocate resources to achieve the programme goals and to maintain high teaching and research standards.
5.3 Online Resources Online resources refer to resources such as e-journals, e-books, patent databases, support software, research repositories, and search engines to support learning and research activities. 5.3.1. Online resources must be made available to support research activities. 5.3.2. The HEP must provide adequate, reliable, and credible online resources. 5.3.3. Candidates must have access to and be trained in the use of online resources. 5.3.4. The HEP must have a policy or guidelines on the usage of online resources. 5.3.5. The HEP must provide mechanisms for procuring, disseminating and monitoring the usage of online resources.	**6.4 Online Resources** Online resources refer to resources for self-access such as e-journals, e-books, patent databases and search engines to support learning and research activities. **6.4.1. Basic Standards** i. Online resources must be made available to support learning and research activities. ii. Candidates must have access and be trained in the use of online resources. iii. The HEP must provide mechanisms for procuring, disseminating and monitoring the usage of online resources. **6.4.2. Enhanced Standard** i. The HEP should facilitate collaboration to encourage knowledge sharing among national and / or international candidates.

NEW	STANDARD 2013
5.4 Networks and Collaborations Networks and collaborations refer to the participation in and sharing of intellectual knowledge, facilities and services among academic staff, researchers, institutions and industries at national and international levels. 5.4.1 The HEP must facilitate networking and collaboration among academic staff, researchers, institutions and industries at national and international levels leading to possible resource sharing where applicable.	**6.5 Networks and Collaborations** Networks and collaborations refer to the participation in and sharing of intellectual knowledge, facilities and services among academic staff, researchers and institutions at national and international levels. **6.5.1. Basic Standard** i. The HEP must facilitate networking and collaboration among academic staff, researchers and institutions at national and international levels. **6.5.2. Enhanced Standards** i. The HEP should have a policy and future plan for networking and collaboration with national and international institutions. ii. The HEP should provide appropriate facilities and adequate financial allocation for networking and collaboration among academic staff and researchers.

AREA 6: PROGRAMME MANAGEMENT

NEW	STANDARD 2013
Although ways of administering an educational institution and the methods of management differ between HEPs, the governance should reflect effective leadership emphasizing excellence and scholarship. At the departmental level, the leadership provides clear direction, builds relationships based on collegiality and transparency, manages finances and resources with accountability and fosters partnerships with stakeholders in educational delivery, research and consultancy.	At the departmental level, the leadership provides clear direction, builds relationships based on collegiality and transparency, manages finances and resources with accountability and fosters partnerships with stakeholders in educational delivery, research and consultancy.
6.1. Programme Management 6.1.1. The programme must have an appropriate programme leader who has responsibility for planning, implementing, monitoring, evaluating and improving the programme. 6.1.2. The HEP must provide candidates with a conducive learning environment in which a culture of critical reflection and research is nurtured and supported. 6.1.3. Candidates must be provided with current and up-to-date information on the objectives, learning outcomes, design and structure, and assessment in the programme. 6.1.4. The programme must be regularly reviewed with feedback from related stakeholders and involve an external assessor with experience in the design and structure of the programme implemented (to be read together with 2.2.5). 6.1.5. The HEP must have linkages with external stakeholders for programme planning, implementation and review. 6.1.6. The department* must clarify its management structure and function, and the relationships between them, and these must be	**2.4 Programme Management** **2.4.1 Basic Standards** i. Candidates must be provided with current written information about the aims, learning outcomes, and methods of assessment of the programme. ii. The programme must have an appropriate coordinator who has authority for planning, implementing, monitoring, evaluating and improving the programme through established procedures. iii. The programme must be regularly reviewed and evaluated in order to ensure attainment of MQF Level 7 for Master's and MQF Level 8 for Doctoral degrees. The review must involve an external assessor. iv. The department must provide candidates with a conducive learning environment in which a culture of scholarly learning is nurtured. v. The HEP must have policies and procedures in place for candidates' grievances. **2.4.2 Enhanced Standards** i. Innovations to improve learning and teaching should be developed, supported, and evaluated. **2.5 Linkages with External Stakeholders** **2.5.1 Basic Standards**

NEW	STANDARD 2013
communicated to all parties involved based on the principles of responsibility, accountability and transparency. 6.1.7. The academic board of the department must be an effective decision-making body with an adequate degree of autonomy. 6.1.8. The HEP must establish mechanisms to ensure functional integration and comparability of teaching and research quality for programmes conducted in campuses that are geographically separated. *HEP	i. The department must have linkages with external stakeholders for the purposes of programme planning, implementation and review. **2.5.2 Enhanced Standards** i. The department should collect feedback from employers for programme improvement (for example, for candidates' placement, training and workplace exposure). ii. Candidates should be encouraged and supported to develop linkages with external stakeholders.
	8.1 Governance **8.1.1 Basic Standards** i. The HEP must clarify its governance structures and functions, the relationships with internal and external stakeholders, and their impact on the programme. These structures, functions and relationships must be documented and disseminated to all parties involved. ii. The HEP must state clearly its academic authority. iii. The HEP committees must be actively involved in policy development. iv. The HEP must establish mechanisms to ensure functional integration and comparability of teaching and research quality for programmes conducted in campuses that are geographically separated. v. The policies and practices of the department must be in tandem with the purpose of the HEP. **8.1.2 Enhanced Standards** i. The HEP should have a comprehensive, interconnected and institutionalised committee system responsible for programmes, taking into consideration, among other points, internal and external consultation, feedback, current issues, networking and collaboration. ii. The governance principles should reflect the representation and participation of academic staff, candidates and other stakeholders.

NEW	STANDARD 2013
6.2 Programme Leadership 6.2.1. The criteria for the appointment and the responsibilities of the programme leader must be clearly stated. 6.2.2. The programme leader must have appropriate qualification, knowledge and experiences related to the programme. 6.2.3. There must be mechanisms and processes for communication between the programme leader, department and HEP on matters such as staff recruitment and training, candidate admission, allocation of resources and decision-making processes.	**8.2 Programme Leadership** **8.2.1 Basic Standards** i. The HEP must clearly state the criteria for the structure, appointment, roles and responsibilities of the leadership of the programme. ii. The leadership of the programme must be held by those with appropriate qualifications, teaching and research experience. iii. The HEP must establish processes for communication between departments and leaders in matters related to human resource management, graduate candidate management, allocation of learning and research resources and decision making. **8.2.2 Enhanced Standard** i. The HEP should ensure that the leadership takes on the responsibility of creating a learning and research environment that generates innovation and creativity.
6.3 Administrative Staff 6.3.1. The department must have a sufficient number of qualified administrative staff to support the implementation of the programme and related activities. 6.3.4 The HEP must conduct a regular performance review of the programme administrative staff. 6.3.2. The department must have an appropriate training scheme for the advancement of the administrative staff as well as to fulfil the specific needs of the programme.	**8.3 Programme Administration** **8.3.1 Basic Standards** i. The administrative staff of the department must be qualified, appropriate and adequate to support the implementation of the programme and related activities. ii. The procedures and related documents must be made available for the administration of the programme. iii. The department must conduct regular performance review of the programme's administration. **8.3.2 Enhanced Standard** i. The HEP should have training schemes for the management of administrative staff for the specific needs of the programme, including, for example, risk management, maintenance of specialised equipment and technical skills.

NEW	STANDARD 2013
6.4 Academic Records	**8.4 Academic and Research Records**
6.4.1 The department must have appropriate policies and practices concerning the nature, content and security of candidate, academic staff and other academic records.	**8.4.1 Basic Standards** i. The departmental policies and practices concerning the nature and security of records related to the programme must be consistent with that of the HEP and fund provider and also comply with the relevant laws and regulations.
6.4.2 The department must maintain records relating to the admission, performance, completion and graduation of candidates in such form as is practical and preserve these records for future reference.	ii. The department must implement policies that have been established by the HEP on the rights of individual privacy and the confidentiality of records.
6.4.3 The department must implement policies on the rights of individual privacy and the confidentiality of records.	**8.4.2 Enhanced Standard** i. The department should continually review policies on security and efficient retrieval of records, including increased use of electronic technology and its security systems.
6.4.4 The department must continually review policies on the security of records, including the increased use of electronic technologies and safety systems.	

AREA 7: PROGRAMME MONITORING, REVIEW AND CONTINUAL QUALITY IMPROVEMENT

NEW	STANDARD 2013
Quality is the responsibility of the HEP. It must have in place an effective and strong internal quality assurance mechanism to ensure and sustain a quality culture. This requires the department to monitor, review and evaluate the structures and processes, curriculum components as well as candidate progress, employability and performance using feedback from all stakeholders.	The HEP has a responsibility to ensure that the quality and standards of its postgraduate programmes are continually maintained and are subject to monitoring, evaluation and review. Monitoring of postgraduate programmes provides a mechanism to improve the programme delivery, in order to meet the aims and objectives of the programme and the candidates" successful completion of the degree. It is important to be able to identify issues or concerns that are relevant to the programme and to take appropriate actions to remedy these. The HEPs must ensure that the master's and doctoral degree graduates are world class knowledge workers and researchers with the capability to provide solutions to future problems and issues. Hence, HEPs are responsible for ensuring the quality of their postgraduate programmes. As such, HEPs must be continuously engaged in continual quality improvements of their postgraduate programmes, amidst a dynamic environment.

7.1 Mechanisms for Programme Monitoring, Review and Continual Quality Improvement
 	
7.1.1. The department must have clear policies and appropriate mechanisms for regular programme monitoring and review.
 	
7.1.2. The department must have a Quality Assurance (QA) unit for internal quality assurance of the department to work hand-in-hand with the QA unit of the HEP.
 	
7.1.3. The department must have an internal programme monitoring and review committee with a designated head responsible for continual review of the programme to ensure its currency and relevancy.
	7.1 Monitoring and Review
	
	7.1.1 Basic Standards
	 i. Each programme at the HEP must be monitored by the department, as authorised by the Senate.
	 ii. The HEP must have a mechanism to manage and coordinate programmes so as to meet all requirements, especially with regard to quality assurance. The department, in turn, must monitor the running of the programmes in the interest of the stakeholders.
	 iii. For monitoring and evaluation, the following data must be analysed to enhance the quality of the programme:
	  1) Candidate performance
	  2) Achievement of programme objectives
	  3) Feedback from candidates

NEW	STANDARD 2013
7.1.4. Various aspects of candidate performance, progression, attrition, graduation and employment must be analysed for continual quality improvement. 7.1.5. The findings of a programme review must be presented to the HEP for its attention and further action. 7.1.6. The HEP must analyse and review the overall attainment of the programme learning outcomes and objectives (to be read together with 1.2.2).	iv. The HEP must continually monitor the overall performance of the programme, including, for example, completion rates and the ratio of candidates who graduate on time. v. Feedback from external assessors must be used to enhance the quality of the programme. vi. Research must be conducted independently and in compliance with a set of programme guidelines, ethics and code of conduct, including, for example, guidelines on plagiarism. vii. Any changes or new proposals for the procedures and processes for the programme must be approved by the HEP. viii. The HEP must ensure the attainment of the learning outcomes as stated in Area 1 of this document. ix. The HEP must ensure the attainment of graduate attributes as listed in the Malaysian Qualifications Framework (MQF). x. The HEP must establish review committee(s) with defined terms of reference. xi. The HEP must review and analyse the overall attainment of the programme objectives. **7.1.2 Enhanced Standards** i. The HEP should monitor research output such as publications, copyright, prototypes, patents and commercialisation. ii. Post-graduation performance should be monitored through longitudinal and / or tracer studies.
	7.2 Stakeholder Involvement **7.2.1 Basic Standard** i. Stakeholders must be consulted in the programme review process. **7.2.2 Enhanced standard** i. The HEP should establish a Programme Advisory Panel, which may include representatives from professional bodies.
	9.1 Quality Improvement **9.1.1 Basic Standards** i. The HEP must establish a policy for continual quality improvement.

NEW	STANDARD 2013
	ii. The department must have a strategic plan in alignment with the HEP goals for the year and mechanisms to achieve the targets. iii. The department must engage staff for continual quality improvement. iv. The department must engage internal and external stakeholders in activities that can contribute towards the continual improvement of the programme. **9.1.2 Enhanced Standards** i. The HEP should have a quality unit to facilitate the compliance of stated policies, processes and procedures. ii. The HEP should have a rewards-and-recognition system to promote a culture of quality. iii. The HEP should have periodical reviews for continual quality improvement of the programme.

Appendix 2

Table 3 for Master's and Doctoral programmes by Research

No	MQF Learning Outcomes	No	Programme Learning Outcomes[10]	Evidence of Learning Outcomes Attainment
1	Knowledge and Understanding			
2	Cognitive Skills			
3	Functional Work Skills			
	i. Practical Skills			
	ii. Interpersonal Skills			
	iii. Communication Skills			
	iv. Digital Skills			
	v. Numerical Skills			
	vi. Leadership, Autonomy & Responsibility			
4	Personal and Entrepreneurial Skills			
5	Ethics and Professionalism			

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[10] The PLOs must address all the outcomes in the 5 clusters in MQF in as many PLOs as is deemed necessary.

Appendix 3

The attached list indicates possible activities which candidates may undertake to demonstrate the attributes/outcomes. The activities undertaken will vary according to the discipline, institution, the student's personal goals and career aspirations. Other activities not listed here could also provide evidence.

PL01[11]	PL02	PL03	PL04	PL05	PL06	PL07	PL..n	Activities[12]
								Meeting candidature milestones
								Preparation of confirmation of candidature documents and seminar presentation and response to feedback
								Preparation of mid candidature review documents and seminar presentation (if required) and response to feedback
								Seminar presentation and response to feedback α Participation in Three Minute Thesis or similar faculty/school events
								Preparation of thesis chapters and response to feedback
								Writing and editing manuscripts for publication and response to feedback
								Contribution to preparation of research tenders and grant applications
								Preparation of applications to ethics committees
								Applying for travel scholarships and other grants
								Working with professionals and peers
								Supervision and mentoring by supervisory team α α α Conference attendance and presentation (oral and poster)
								Participating in and presenting at seminars and/or journal clubs
								Providing feedback to the oral presentations of others
								Opportunities to perform and display work and receive feedback
								Participation in teamwork and collaborative projects
								Assisting supervisors in reviewing journal articles

[11] As many PLOs as applicable to a masters or doctoral programme. Add or remove column, as necessary.

[12] This is an indicative list of activities the candidates may be involved in. HEP must list activities which typically occur and are open to their candidates. Assessors can review these activities as evidence of opportunities to achieve the learning outcomes.

PL01[11]	PL02	PL03	PL04	PL05	PL06	PL07	PL..n	Activities[12]
								Co-supervision/associate supervision for undergraduate, honours and postgraduate coursework students)
								Co-teaching or contribution to teaching especially with members of the supervisory team
								Opportunities to network with international experts in the discipline (for example, conference attendance, interacting with international visitors, international thesis assessors, publishing in international journals)
								Industry/organisational placements or part-time employment
								Membership of and participation in professional organizations, committees
								Training opportunities
								Completion of graduate certificate or graduate diploma in higher education teaching and/ or commercialisation
								Participation in research skills program and other training courses/workshops/seminars/debates/case studies, for example • Use of audio-visual technology skills • Report writing skills • Oral presentation skills • Preparation of publications • Tutoring skills • Lecturing/teaching skills • Supervision skills • Media presentation skills • Advanced library and information search skills • Research skills • Data analytic techniques • Specific technical skills related to thesis area • Commercialisation boot camps • Ethical and professional issues in the discipline • Career planning, CV writing, job applications and interviews. • Occupational health and safety training

GLOSSARY

1)	Academic staff	Personnel engaged by Higher Education Providers who are involved in teaching and research supervision (including research fellows).
2)	Administrative staff	Non-academic personnel engaged by Higher Education Providers.
3)	Alumni	Graduates of a Higher Education Provider.
4)	Candidate	refers to full-time or part-time individuals undertaking postgraduate programme by coursework/mixed-mode/ research.
5)	Collaborator	refers to an external entity involved in the programme and/or with the candidates.
6)	Conspectus	A critical review report submitted by a masters or doctoral candidate which includes and integrates creative works or artefacts as evidence of advanced knowledge and scholarship to address all aspects of masters or doctoral outcomes.
7)	Coursework	refers to identifiable units of study in a field and or practice undertaken by a candidate within a given period, which is assessed as an integral part of the programme.
8)	Coursework programme	refers to postgraduate programmes with a research component of less than 50 percent.
9)	Department	The entity of Higher Education Providers responsible for the programme. Examples are college, faculty, school, institute, centre and unit.
10)	Dissertation	refers to the documentation of the original research prepared and submitted by the candidate in a master's programme by research, and mixed-mode.
11)	Dissertation / Thesis Examination Committee	Comprises a chairperson and examiner(s) responsible for the evaluation of the thesis/dissertation or equivalent submission by a candidate.
12)	Doctoral degree by research	refers to a Level 8 MQF programme where candidates carry out an original research which to contributes significantly to new knowledge and/or practice in a field of study.

13)	External Assessor	An expert in a field of study from outside the HEP who is required to evaluate the assessment system (2.2.4/2.2.5) or the effectiveness of a programme (6.1.4).
14)	External examiner	An acknowledged expert in the relevant field of study and/or practice external to the HEP appointed to evaluate a candidate's dissertation/thesis/conspectus.
15)	External stakeholder	Parties external to the HEP who have an interest in the programme. Examples are alumni, employers, parents, collaborators, fund providers and professional associations.
16)	Formal consultation	refers to organised meetings or discussions with records of the parties in attendance and the proceedings.
17)	Fund provider	refers to financial contributors to the programme and/or candidates.
18)	Industrial doctoral degree	The industrial doctoral degree is typically a research degree carried out by a candidate where the industry partners i.e., employers or a consortium of employers codetermine the objects of the doctoral study which are normally applied in nature.
19)	Industrial supervisor	refers to someone from the industry or practitioner who has substantial experience or expertise in the relevant areas of the research topic who is appointed to supervise candidates for the industrial doctoral programme.
20)	Internal examiner	an acknowledged expert/s in a field who is appointed by the HEP to evaluate/ the dissertation/thesis/conspectus from among its staff.
21)	Internal Quality Audit	A self-review exercise conducted internally by a Higher Education Provider to determine whether it is achieving its goals, to identify strengths and areas of concern, and to enhance quality. The internal quality audit generates a self-review report.
22)	Mixed-mode programme	refers to postgraduate programmes with at least a 50 percent research component.
23)	Networking and collaboration	refers to Memoranda of Agreement, Memoranda of Understanding, Letters of Collaboration and Letters of Intention signed between two or more collaborating parties.

24)	Principal author	refers to the author with the most substantive contribution to the publication or equivalent works.
25)	Programme	An arrangement of courses/ subjects/ modules that is structured for a specified duration and learning volume to achieve the stated learning outcomes, which usually leads to an award of a qualification.
26)	Programme Leader	A qualified staff in the field or related fields of study who is responsible for managing the staff, students and resources within the framework of the structures systems, policies and procedures established by a HEP and consistent with this and other standards to achieve the goals of the programme.
27)	Programme structure	refers to the composition and classification of courses in a coursework/mixed-mode.
28)	Progress report	refers to the periodic submission to the department of a report regarding a candidate's progress.
29)	Research project	refers to the documentation of the research component prepared and submitted by the candidate in a coursework programme.
30)	Supervisor(s)	refers to a person(s) or the committee that provides supervision for the research conducted by the candidates. They can be categorised as main supervisor, co-supervisor, field supervisor, industrial supervisor and a panel of supervisors of research candidates
31)	Thesis	refers to the documentation of the original research prepared and submitted by the candidate in a doctoral programme by research or mixed-mode.
32)	Viva voce	refers to the oral defence of the dissertation/thesis/conspectus by a candidate.