Extracts from the Qualifications

QFEmirates in Higher Education

Commission for Academic Accreditation
Ministry of Education
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PREFACE

The UAE National Qualifications Authority (NQA) has developed the *Qualifications Framework Emirates* (QF*Emirates* or *Framework*). All institutions providing higher education in the UAE will be expected to align their credentials (degrees) with the QF*Emirates*. By delegation from the NQA, the Commission for Academic Accreditation (CAA) is charged with providing guidance to institutions and will monitor compliance with the provisions of QF*Emirates*.

This guide is designed to assist External Review Teams (ERT) members in evaluating institutional alignment with the QF*Emirates,* and is intended to augment the *Standards for Institutional Licensure and Program Accreditation 2019* (the *Standards)*.

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STANDARDS 2019

Delegation of authority to the Commission for Academic Accreditation (CAA) from the NQA is in keeping with the *Standards*. Part ii of Standard 3 of the *Standards* states that *"Program learning outcomes and the volume of study are appropriate to the level of qualifications awarded and are consistent with the UAE National Qualifications Framework (QFEmirates). There is alignment of course/module learning outcomes and their assessment to the program learning outcomes, to demonstrate that achievement of program learning outcomes can be achieved and confirmed."* Further, Stipulation 3.4 of the *Standards* indicates that *"a) Qualifications are titled in terms that comply with the conventions articulated in the* QFEmirates; *b) The institution demonstrates how program learning outcomes are aligned with the appropriate Level Descriptors of the* QFEmirates *(see* https://www.nqa.gov.ae/en*); and c) Total program credit hour requirements are consistent with the requirements of the QFEmirates."*

RESPONSIBILITY OF THE ERT

In light of both the QF*Emirates* and the *Standards*, the basic question for an ERT is whether a new (Initial Accreditation) program, or an existing program (Renewal of Accreditation) demonstrably meets the level descriptors of the QFE*mirates*. As has historically been the case with learning outcomes or program objectives under the *Standards*, it is expected that the institution will demonstrate the way in which its program or programs meets the level descriptors. The institution, in keeping with quality assurance and continuous improvement processes that have long been part of the *Standards*, will also have to assess its programs as to whether they meet those descriptors. The institution will also have to indicate what it is doing or has done to rectify those instances where a program does not meet the descriptors.

Having addressed the basic question(s) outlined above, the ERT will, as with all of the *Standards*, make a judgment as to whether the program under review is in compliance with the level descriptors of the program. If the program is in compliance, no requirement is needed. If the ERT judgment is that the program is not in compliance, there will necessarily be a narrative explaining the thinking of the ERT and the rationale behind its judgment. Given the arrangement of the *Standards*, requirements, suggestions and narrative could be tied to the *Standards* referenced earlier in this document.

EXTRACTS FROM QF*EMIRATES*

The Commission has put together the following extracts from the QF*Emirates Handbook* (*https://www.nqa.gov.ae/en*) to assist members of an External Review Team in evaluating whether or not a specific program is in compliance with the *Standards* with regard to the Framework. This document is to augment the *Standards 2011*.

DEVELOPMENT BACKGROUND

The QF*Emirates Handbook* is the product of three years of research and development work by the QF Project Team. The initial research and development work investigated the benefits of various international qualifications frameworks in improving the skills levels, productivity and global competitiveness of nations. This work led to the issuing of a Federal Decree No. 1 'Establish and maintain the National Qualifications Authority' on the 23 August 2010.

The QF*Emirates Handbook* provides detailed information about the architecture of qualifications in the UAE and also defines the requirements that will enable UAE qualifications to be compared with and valued alongside foreign qualifications.

SCOPE AND PURPOSE OF THE QF*EMIRATES*

The QF*Emirates* has been designed to be the single structure through which all qualifications in the UAE can be described and compared, enabling the relationship between all qualifications to be defined.

The QF*Emirates* levels aim to accommodate qualifications awarded for learning achieved in schools; the workplace; the community; training centers; colleges; and universities, from the most basic to the most advanced levels of learning. Thus, the QF*Emirates* sets out to recognize all forms of learning, including that achieved through experiences in workplaces or other non-formal or informal settings.

While the QF*Emirates* provides a frame of reference for existing qualifications, it also provides the basis for the design of new types of qualifications, recognizing 'learning outcomes' defined in terms of knowledge, skills, and aspects of competence. In particular, the QF*Emirates* paves the way for a new system of qualifications and awards for vocational, technical and professional education and training (known as vocational education and training, or VET) in the UAE.

> *The vocational qualifications associated with programs of one year or longer are currently under the regulation of the CAA.*

The QF*Emirates* introduces a general understanding of the meaning of a qualification, defining it as: "*a formally approved parcel of learning outcomes to standards set by the relevant accreditation/awarding body, which can be achieved by a learner.*" This understanding differs from the existing common approach that a qualification is based on participation and time-spent on a course or program.

The QF*Emirates* of ten (10) levels also provides the basis for comparisons of UAE qualifications with other national and international qualifications. It includes alignments between qualifications systems in the UAE and the qualifications and certification systems of other countries as well as between the QF*Emirates* and meta-frameworks such as the European Qualifications Framework (EQF), the emerging Arab Qualifications Framework and the Framework of Qualifications of the European Higher Education Area (EHEA, or 'Bologna' Framework).

The key drivers underpinning the introduction of a national qualifications framework and related systems are as follows:

KEY DRIVERS OF THE QF*EMIRATES* AND RELATED SYSTEMS

A Single Framework
All educational institutions in the UAE benefit from the establishment of a unified and singular system and reference point for all national qualifications. The establishment of a single framework facilitates the work of the country's decision makers in developing relevant strategic educational and training policies and directions.

A Common Benchmark
Formulating a single set of outcomes-based criteria and adopting common nomenclature adds structure and order to the previous system that was comprised of a wide variety of varied qualifications offered by educational institutions in the UAE. This is achieved by developing a common language to designate levels of learning

enhances communication among educational institutions and the communities they serve.

Qualifications Flexibility

One of the goals of the NQA in establishing the framework was to ensure that the qualifications have the flexibility to accommodate changing technologies and changing workplace environments.

Labor Market

A focus on establishing commonly understood language to designate levels of learning can better enable representatives of industry, government, and educational institutions to plan programs that prepare individuals for employment in areas where there are shortages of skilled employees.

Quality and Consistency

A well-developed framework addresses the need for improved and transparent mechanisms for assuring the quality, consistency and rigor in the delivery of educational programs.

Mobility and Portability

The qualifications are also designed to enhance learner mobility, not only in the UAE, but internationally by ensuring that qualifications are portable.

Lifelong Learning

We live in a knowledge-based society that requires all people to engage in lifelong learning. A qualifications framework enables the government, industry, and educational institutions to develop more transparent mechanisms for recognizing and awarding credit for both formal and non-formal learning.

> *The CAA has collaborated with the NQA in the development of the 'Recognition of Prior Learning' (RPL) guidelines for institutions. CAA Standards require institutions seeking to award credit for prior learning to have policies and procedures approved by the Commission (See Stipulation 6.5 and Annex 20: Recognition of Prior Learning of the Standards).*

DESIGN OF THE QF*EMIRATES*

Design of the QF*Emirates* is based on three features:

1. **Number of levels**

   Each level represents a hierarchy of relative difficulty, complexity and depth. The higher the qualifications framework level, the greater the challenge and the demand expected of a learner in order to be awarded the relevant qualification.

2. **Range of learning outcomes at each level with learning outcomes being described in terms of knowledge, skill and competence**

   Using learning outcomes as the common language in the design of qualifications frameworks makes it easier for international alignments, and also enhances portability and mobility of individual qualification holders. Each of these unique learning outcome terms is defined in statements of knowledge, skill and competence. They are assembled in vertical strands for each framework level. The use of strands of learning outcomes and levels in a qualifications framework helps improve the hierarchical and distinguishing characteristics applicable between levels as well as within a level. It provides those designing qualifications with a finely drawn vertical and horizontal structure (grid) to facilitate easy alignment.

   A set of learning outcome statements for each level is called 'Level Descriptors'. They distinguish the levels within a qualifications framework.

   Level Descriptors form the foundation for specific qualifications design and development, *i.e.* qualifications are developed for specific needs and aligned to the appropriate level.

   > *The QFEmirates grid comprises six levels above the point of graduation from High School at Level 4, i.e. levels 5 – 10. These are the levels and associated qualifications that are of principal interest to higher education providers.*

3. **A qualifications structure - classification (type), titles and profiles**

   The types of qualifications that are to be used in the QF*Emirates* are defined, as is the convention for titling qualifications at each level. More than one qualification may be established at the same level. Titles are assigned to each relevant qualification to be used.

For each qualification an individual 'profile' (specification) is produced using the Level Descriptors. Each qualification profile thus denotes the parcel of learning outcomes to be achieved for the given qualification outcome. They become the ready reference tool for qualifications development, assessment, alignment and comparability.

KEY DEFINITIONS OF TERMINOLOGY IN THE QF*EMIRATES*

It is important to include key definitions of terminology to enhance consistency of understanding and communication for developers, users and the community. These definitions have been included in *Annexure B of the* QF*Emirates Handbook – Key definitions of terminology in the* QF*Emirates,* available in the NQA website (*https://www.nqa.gov.ae/en*).

STRUCTURE OF QF*Emirates*

The QF*Emirates* Level Descriptors are comprised of:

1. **Number of Levels**
   Ten [10] levels have been adopted for the QF*Emirates*.

2. **Learning Outcomes**
   Learning outcomes expressed in terms of strands:
   - Knowledge
   - Skill
   - Aspects of competence (comprising three sub-strands).

3. **Definition of the Strands**
   These strands of learning outcomes reflect what is expected to be achieved at the respective level, for each qualification. A qualification is defined, benchmarked and aligned to the requisite level.

   The 10 levels encompass the widest possible spread of learning: Level 1 can recognize the ability to perform practical and elementary tasks, while Level 10 qualifications recognize the ability to discover and develop new knowledge and skills required at the frontiers of research and scholarship.

The strands of learning outcomes comprise knowledge, skill, and aspects of competence in terms of:

- Autonomy and responsibility
- Role in context
- Self-development.

There is an expectation that all programs delivered in the UAE will be designed and delivered in a way that ensures that all strands in the Framework will be addressed. The balance of emphasis between the strands will vary between individual programs (see related document[1]). For example, some will place a stronger emphasis on knowledge and skills and less on competencies while others will have a greater focus on competencies and a narrower knowledge base. It will be important to demonstrate how significant each strand is to the program and be able to reflect on why some strands have much less significance.

Strands of Learning Outcomes

LEVEL X	STRAND 1	STRAND 2	SUB-STRAND 3	SUB-STRAND 4	SUB-STRAND 5
	Knowledge	Skill	Autonomy and responsibility	Role in context	Self-development
			Aspects of Competence		

Principal Qualifications 'Generic' Titles

The adopted titles for all Principal Qualifications by education sector are detailed as follows:

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[1] *Additional guidance on alignment of program outcomes with level descriptors is provided in the document: Guide to Writing Learning Outcomes at Program and Course Level that Align with QFEmirates. This document is available on the CAA website.*

Level	Generic Nomenclature	Principal Qualification titles used in the QF*Emirates* (each with its own profile)		
		Vocational Education and Training (VET)	Higher Education (HE)	General Education (G12-GE)
10	Doctoral Degree	-	Doctoral	-
9	Master Degree	Applied Master	Master	-
8	Graduate Diploma	Applied Graduate Diploma	Postgraduate Diploma	-
7	Bachelor Degree	Applied Bachelor	Bachelor	-
6	Diploma	Advanced Diploma	Higher Diploma	-
5	Diploma / Associate Degree	Diploma	Associate Degree	-
4	Certificate	Certificate 4	-	Secondary School Certificate (G 12)
3	Certificate	Certificate 3	-	TBA
2	Certificate	Certificate 2	-	-
1	Certificate	Certificate 1	-	-

The 'specific' qualifications are supplemented by a common and unique coding system to improve national education and training information management. The approved coding system is used for recording the outcomes on a formal national register, to be known as the Qualifications Register and Information System (QRIS). This is discussed in more detail in Section 4.5 of the QF*Emirates Handbook.*

ENTRY REQUIREMENTS

Qualification entry requirements vary according to sector, qualification type and level.

Higher Education Sector

The NQA recognizes that the CAA manages the formal entry criteria requirements for the Higher Education sector, encompassed in the *Standards*. Typically, entry to courses/programs in this sector requires students to have attained the General Education Secondary School Certificate or approved equivalent level upon entry.

> *The minimum admissions criteria required for entry into undergraduate and graduate programs are detailed in Stipulations 6.2 and 6.3 of the Standards. This includes the requirement for CAA-approved English language test scores in relation to programs delivered in both Arabic and English.*

Bachelor Degree Entry

Learners on entry typically hold a General Education Secondary School Certificate (G 12) or its equivalent, including any approved special provisions for entry or bridging or foundation programs. Learners may sometimes also enter from a recognized Higher Diploma or Diploma/Associate Degree as transfer students. Other post-secondary qualifications may be considered appropriate to attain entry into Bachelor Degree programs.

Postgraduate Diploma Entry

Entry to Postgraduate Diplomas is typically based on evidence of a capacity to undertake higher studies in a proposed field. It requires an appropriate Bachelor Degree, with a specified threshold for the GPA score, but other post-Bachelor qualifications may also be recognized as appropriate entry requirements.

Master Degree Entry

Entry to Master Degrees is typically based on evidence of a capacity to undertake higher degree studies in a proposed field. There is a wide range of entry pathways which will vary according to the program methodology and the discipline involved. Predominantly research-based programs normally have a research pre-requisite whereas predominantly course work based programs may be accessed more broadly. The normal entry requirement is an appropriate Bachelor Degree, with a specified threshold for the GPA score.

Doctoral Degree Entry

Entry to Doctoral Degrees is typically based on evidence of a capacity to undertake work that contributes to the creation and interpretation of new knowledge through original research to satisfy peer review, and extend the forefront of knowledge in the discipline. Typically, entry to a Doctoral program requires a Master Degree that incorporates a period of research or other appropriate qualifications Post-Master Degree.

APPENDIX A: GRID OF LEVEL DESCRIPTORS

Level Descriptors are sets of learning outcomes statements that define levels in a framework of qualifications. This grid sets out descriptor statements for a framework of ten (10) levels for the UAE. The strands describe knowledge and skill and three describing aspects of competence (autonomy and responsibility, role in context, and self-development). These Level Descriptors form the foundation for the QF*Emirates*.

Note on reading Level Descriptors:
- The descriptor statements defining any particular level should be read concurrently across all strands of learning outcomes to affirm a level.
- The Level Descriptors are cumulative, *e.g.* the descriptor for Level 5 assumes the inclusion of all of the outcomes in the preceding levels.
- For academic programs in Higher Education it is recognized that not all aspects of "competence" will be satisfied by the program outcomes. A balanced view should be taken across the 3 sub-strands of competency.

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
10	comprehensive, deep and overarching knowledge at the frontier of a professional field of work or discipline and at the interface between different fields or disciplines new knowledge, as judged by independent experts applying international standards, created through research or scholarship, that contributes to the development of a field of work or discipline	a range of mastered skills and techniques, including synthesis, evaluation, planning and reflection, required to extend and redefine existing knowledge or professional practice or to produce original knowledge advanced skills in developing innovative solutions to critical problems in research using highly developed cognitive and creative expert skills and intellectual independence highly developed expert communication and information technology skills to present, explain and/or critique highly complex and diverse matters to specialist academic, peer specialists/experts and/or professional audiences	can act with substantial authority, creativity, autonomy, independence, scholarly and professional integrity in a sustained commitment to the development of new ideas or processes or systems in challenging and novel work or learning contexts can account for overall governance of processes and systems can lead action to build and transform socio-cultural norms and relationships	can originate and manage complex professional processes can lead and take full responsibility for the development and strategic deployment of professional teams and self can initiate and deploy qualities associated with professional leadership of peer groups and teams	can analyze and critique the state of learning in a specialized field and contribute to its advancement can self-evaluate and lead contributions to professional knowledge, ethics and practice including in unfamiliar and unpredictable learning contexts can consistently and sensitively manage highly complex and diverse ethical issues leading to informed, fair and valid judgements

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
9	comprehensive, highly specialized knowledge in a field of work, discipline and/or professional practice, and at the interface between different fields, including frontier concepts and recent developments advanced knowledge of applicable research principles and methods critical awareness of knowledge issues, as the basis for original thinking; encompassing appropriate processes of enquiry and current processes of knowledge production detailed body of knowledge of recent developments in a field of work, and/or discipline	advanced skills required in research, analysis, evaluation and/or innovation of complex ideas, information, concepts and/or activities skills to develop new knowledge and procedures and to integrate knowledge from different fields using highly developed cognitive and creative skills and intellectual independence to the field of work or discipline advanced problem-solving skills to analyze highly complex issues with incomplete data and develop innovative solutions and proposals relevant to an academic/ professional field, field of work or discipline planning skills to develop and execute a major project or comparable activities (that includes a significant range of variables and complexity) with appropriately selected research methodologies producing sound conclusions highly developed specialist communication and information technology skills to present, explain and/or critique highly complex matters	can function autonomously and/ or take responsibility for managing professional practices, work, processes or systems, or learning contexts that are highly complex, unpredictable and unfamiliar, and require new strategic approaches and/or intervention or conceptual abstract solutions can account for high level governance of processes and systems can analyze and reflect on socio-cultural norms and relationships and act to build and transform them	can initiate and manage professional activities that may include a highly complex environment can take responsibility for leading the strategic performance and development of professional teams and self	can self-evaluate and take responsibility for contributing to professional knowledge and practice including unfamiliar learning contexts can develop and implement further learning consistently and sensitively can consistently and sensitively manage highly complex ethical issues leading to informed, fair and valid decisions

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
8	advanced specialized knowledge and critical understanding in a specialized field of work or discipline and at the interface between fields

comprehensive understanding of critical approaches to creating a systematic and coherent body of knowledge and concepts gained from a range of sources

comprehensive knowledge of current research and innovations in a field of work, discipline or professional practice and impact of these developments on accepted theory and practice | problem-solving skills applied to a specialist field and the integration of knowledge from different fields of work or disciplines to solve complex unpredictable and/or abstract problems with intellectual independence

identify appropriate sources of information or analytical techniques in investigations that lead to conclusions and solutions to problems

critical selection of appropriate research instruments and strategies associated with the field of work or discipline

highly developed advanced communication and information technology skills to present, explain and/or critique substantively complex matters | can take responsibility for designing and developing creative approaches to managing and evaluating complex work processes and organization, resources or learning, including leading and managing teams within a technical or professional activity or working effectively as an individual

can express a comprehensive, internalized, personal world view, while accepting responsibility to society at large and to sociocultural norms and relationships | can manage professional activity that may be in a complex environment

can take responsibility for leading the strategic performance of professional teams and self

can coordinate peer relationships with qualified practitioners and lead multiple, complex groups

can initiate and support the management of professional development mentoring activities | can self-evaluate and take responsibility for contributing to professional practice in complex and sometimes unfamiliar learning contexts

can self-evaluate and take responsibility for maintaining and enhancing currency in the profession or discipline

can lead, contribute and implement ethical standards |

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
7	specialized factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts

an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions

understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources

a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques

familiarity with sources of current and new research and knowledge with integration of concepts from outside fields | technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline

evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline

highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters | can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning

can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts

can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities

can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships | can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance

can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline

can participate in peer relationships with qualified practitioners and lead multiple, complex groups

can take responsibility for managing the professional development and direct mentoring of individuals and groups | can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/ or further learning can manage learning

can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts

can contribute to and observe ethical standard |

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
6	specialized factual knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with depth in the underlying understanding of the principles and concepts an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of para-professional respective discipline including related regulations, standards, codes, conventions an understanding of critical approach and analysis, research approaches and methods and analytical problem-solving techniques from a range of sources familiarity with sources of current and existing knowledge and the integration of concepts from related fields literacy to comprehend and/or produce coherent texts, covering complex and/or diverse relations from a wide-range of information numeracy covering a wide-range of mathematical procedures and representations used across a broad-range of contexts	specialist technical, creative and conceptual skills appropriate to solving complex problems associated with a field of work or discipline a comprehensive range of specialist cognitive and practical skills appropriate to planning and implementing solutions to varied, unpredictable and unfamiliar problems within a field of work or discipline selection and use of appropriate research tools and strategies associated with the field of work or discipline advanced communication and information technology skills to present, explain and/or critique interdependent complex matters literacy skills to comprehend and/or produce, from a wide-range of information, coherent texts covering complex and/or diverse relations numeracy skills to select, apply, assess and communicate a wide range of mathematical procedures and representations in a broad-range of contexts	can take responsibility for developing appropriate approaches to managing complex work procedures and processes, resources or learning, including leading teams within a technical or professional activity with little support can supervise technical, supervisory or design processes in varied, unpredictable, unfamiliar and a broad-range of contexts can work effectively as a specialist or in team leadership roles can express an internalized, personal world view, reflecting engagement in society at large and in socio-cultural relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles under guidance can take responsibility for the setting and achievement of group outcomes and for the supervision of the work of others can take responsibility for supervising the development of individuals and groups can participate in peer relationships with qualified practitioners and lead multiple groups	can evaluate own learning and identify learning weaknesses and needs, in a familiar and unfamiliar environment can take initiative to address learning needs and function independently and within learning groups can support and observe ethical standards

Level	Knowledge	Skill	Aspects of Competence		
			Autonomy and responsibility	Role in context	Self-development
5	comprehensive, specialized knowledge within a broad field of work or discipline, including an understanding of the underlying theoretical and abstract concepts with significant depth in some areas

a broad understanding of allied knowledge and theories in related fields of work or disciplines including related regulations, standards, codes, conventions and procedures

an understanding of information assembly, retrieval methods and logical problem-solving techniques from a range of sources

recognition of sources of current knowledge and the integration of concepts from related fields literacy to comprehend and/or produce coherent texts covering complex relations from an array of information and contexts

numeracy covering an array of mathematical procedures and representations and contexts | technical, creative and conceptual skills appropriate to solving a wide-range of problems associated with a field of work or discipline that include a comprehensive range of specialist cognitive and practical skills appropriate to diagnosing and implementing solutions to abstract, familiar and non-routine problems within a field of work or discipline

use of appropriate information retrieval methods and tools and techniques associated with the field of work or discipline

comprehensive communication and information technology skills to present, explain and/or critique complex matters literacy skills to comprehend and/or produce, from array of information, coherent texts covering complex relations

numeracy skills to select, apply, reflect and communicate an array of mathematical procedures and representations and contexts | can take responsibility for coordinating the implementation of appropriate approaches to complex work procedures and processes, resources or learning, including leading teams within a technical or para-professional activity

can exercise coordination and/ or supervision in routine, familiar and some non-routine work or learning contexts can coordinate technical, design processes in routine, familiar, nonroutine and an array of contexts with support available, if required

can express an internalized, personal world view, in the context of an understanding of socio-cultural relationships | can function with autonomy in technical and coordination contexts and support paraprofessional roles under guidance

can function both independently and in a coordination role with multiple groups

can take responsibility for coordinating the development of individuals and groups

can review and develop the performance of self and others | can evaluate own learning and identify learning needs in a familiar environment

can take responsibility for and plan own learning within a managed and non-routine environment

can comprehend and observe ethical standards |

APPENDIX B: SUMMARY LEVEL DESCRIPTORS

These brief Summary Level Descriptors are indicative and are provided as a support to the interpretation of the overall meaning of the level.

Note: They are not definitive of the levels and should not be used for referencing.

Level	Summary Level Descriptors
10	Learning outcomes at Level 10 indicate a systematic mastery of a highly specialized field of knowledge that is comprehensive, deep and overarching and at the frontier of a professional field of work or discipline, with the capacity for critical analysis, evaluation and synthesis of new and complex ideas. It also includes: ■ conceptualizing, designing, implementing and adapting substantial research processes using highly developed cognitive and creative expert skills and intellectual independence ■ leadership experience and expertise in the development of new and creative approaches that extend or redefine existing knowledge or professional practice, encompassing responding with substantial authority and autonomy to the development of new ideas or processes or systems in challenging and novel work or learning contexts ■ accounting for overall governance of processes and systems ■ analyzing and critiquing the state of learning in a specialized field and contribute to its advancement ■ self-evaluating and leading contributions to professional knowledge, ethics and practice including in unfamiliar and unpredictable learning contexts ■ leading and managing complex professional processes ■ consistently and sensitively managing highly complex and diverse ethical issues leading to informed, fair and valid judgements.

Level	Summary Level Descriptors
9	Learning outcomes at Level 9 indicate self-directed, comprehensive, highly specialized knowledge and practical learning, some of which is at the forefront of knowledge in a specialized field that provides a basis for originality and advanced knowledge and skills in research, analysis, evaluation and/or innovation encompassing complex ideas, information, concepts and/or activities and developing and/or applying ideas, often within a research context. It also includes: ■ advanced problem-solving skills ■ the integration of and formulation of judgments ■ taking account of social and ethical issues and responsibilities and reflecting experience of managing change in a highly complex, unpredictable and unfamiliar context that requires new strategic approaches and/or intervention or conceptual abstract solutions ■ planning skills to develop and execute a major project/activity outcome with appropriately selected research methodologies to produce sound conclusions ■ presenting, explaining and/or critiquing highly complex matters ■ managing professional activities in such context ■ self-evaluating and taking responsibility for contributing to professional knowledge and practice including unfamiliar learning contexts ■ developing and implementing further learning consistently and sensitively ■ consistently and sensitively managing highly complex ethical issues leading to informed, fair and valid decisions.

Level	Summary Level Descriptors
8	Learning outcomes at Level 8 indicate advanced specialized knowledge and critical understanding in a specialized field of work or discipline and at the interface between fields as well as a comprehensive understanding of critical approaches to creating a systematic and coherent body of knowledge and concepts gained from a range of sources. It also covers: ■ acquiring comprehensive knowledge of current research and innovations in a field of work, discipline or professional practice ■ specialist field and integration of knowledge from different fields of work or disciplines ■ skills in solving complex unpredictable and/or abstract problems with intellectual independence and making judgments that take into account social or ethical issues ■ skills to adopt a professional approach to operating in a complex environment including the design and development of creative approaches to the management of complex work processes and organization, resources or learning ■ leading and managing teams within a technical or professional activity or working effectively as an individual ■ leading the strategic performance of professional teams and self ■ presenting, explaining and/or critiquing substantively complex matters ■ taking responsibility for contributing to professional practice in complex and sometimes unfamiliar learning contexts ■ leading, contributing and implementing ethical standards.

Level	Summary Level Descriptors
7	Learning outcomes at Level 7 indicate knowledge and critical understanding of the well-established principles and practice in a field of work or discipline and is specialized factual and theoretical. It includes an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts. It also covers: ■ allied knowledge and theories in related fields of work or disciplines and in the case of professional respective discipline ■ using methods of enquiry, critically analysis and selection of different approaches to solving problems ■ an understanding of the limits of the knowledge and skill acquired ■ technical, creative and analytical skills to solve specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline ■ evaluating and implementing appropriate research tools and strategies ■ evaluating and managing complex and unpredictable work procedures and processes, resources or learning ■ managing technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts ■ presenting, explaining and/or critiquing complex and unpredictable matters ■ self-evaluating and responsibility for contributing to professional practice ■ undertaking regular professional development ■ contributing to and observing ethical standards.

Level	Summary Level Descriptors
6	Learning outcomes at Level 6 indicate specialized factual knowledge and an understanding of the boundaries in a field of work or discipline and an understanding of allied knowledge and theories in related fields of work or disciplines. In the case of the para-professional respective discipline, it also covers: ■ applying specialist technical, creative and conceptual skills in planning and developing strategic solutions to varied, unpredictable and unfamiliar problems, be they abstract and/or concrete ■ using appropriate research tools and strategies ■ managing with autonomy complex work procedures and processes, resources or learning, including leading or supervising teams within a technical or professional activity with little support and adopting, and where appropriate, para-professional roles under guidance ■ presenting, explaining and/or critiquing interdependent complex matters ■ producing from a wide-range of information, coherent texts covering complex and/or diverse relations ■ selecting, applying, assessing and communicating a wide-range mathematical procedures and representations in a broad-range of contexts ■ drawing on experience of operational interaction in work or learning including supervision of people and projects ■ addressing own learning needs and function independently and within learning groups ■ supporting and observing ethical standards.

Level	Summary Level Descriptors
5	Learning outcomes at Level 5 indicate knowledge is comprehensive and specialized within a field of work or discipline and encompasses the underlying theoretical and abstract concepts with significant depth in some areas as well as a broad understanding of allied knowledge and theories. It also covers: ■ technical, creative and conceptual skills appropriate to solving a wide-range of problems including diagnosing and implementing solutions to abstract, familiar and non-routine problems within a field of work or discipline and using appropriate information retrieval methods, tools and techniques independently with autonomy ■ supervising others or coordinating subordinates and peer groups ■ supporting para-professional roles under guidance ■ presenting, explaining and/or critiquing complex matters ■ producing from information, coherent texts covering complex relations ■ applying, reflecting and communicating an array of mathematical procedures and representations and contexts ■ self-direction in learning and have experience of practice in both common and exceptional situations ■ comprehending and observing ethical standards.