National Qualifications Framework
United Arab Emirates
QFEmirates (QFE)

Guide to Writing Learning Outcomes at Program and
Course Level that Align with QFEmirates

Commission for Academic Accreditation
United Arab Emirates
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1. Introduction

This booklet is intended to provide guidance to staff in universities in the United Arab Emirates (UAE) who are working to either develop new or align existing program and course learning outcomes (LO's) to the Qualifications Framework Emirates (QFE). This guidance sets out ways of approaching this task but is not the only or definitive way. It draws on experience from other countries, particularly the UK, which has already introduced such a framework.

It is important that institutions and their staff develop and embed a learning outcomes based approach not only in the writing of program documentation but as importantly to the development of curricula and within the teaching, learning and assessment activity used on these programs if QFE is to have maximum impact in improving student outcomes.
Part 1 – Writing Learning Outcomes at Program Level

2. The QFE and its relationship with program outcomes

The National Qualifications Authority (NQA) has established a national framework of qualifications in order to bring coherence to the award system and relate all education and training awards to each other. It has established clearly defined standards about the quality of qualifications and about what a learner can be expected to achieve for each award. The framework introduces a new approach to the meaning of a qualification in that it recognises learning outcomes – what a person with an award knows, can do and understands – rather than content or time spent on a programme.

The framework has a structure of ten levels with each level based on specified standards of knowledge, skills and competence. These standards define the outcomes to be achieved by learners seeking to gain awards at each level. Levels 5 to 10 are relevant to higher education in UAE. Each of these levels is defined by a set of learning outcomes which are categorised into three strands, knowledge & skill, and competence. QFE further divides competence into three sub-strands, autonomy and responsibility, self-development and role in context which make up the framework which program learning outcomes need to address. It is also useful to think of knowledge and skills using some substrands as this helps focus our efforts in aligning program learning outcomes to QFE.

The table below sets out a suggested way of looking at the strands to develop program level learning outcomes.
<table>
<thead>
<tr>
<th>Strand</th>
<th>Sub-strand</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Breadth</td>
<td>How broad is the learner’s knowledge?</td>
</tr>
<tr>
<td></td>
<td>Type</td>
<td>What characteristics and quality of knowing has the learner engaged in?</td>
</tr>
<tr>
<td>Skill</td>
<td>Range</td>
<td>What is the breadth of the physical, intellectual, social and other skills acquired by the learner?</td>
</tr>
<tr>
<td></td>
<td>Selectivity</td>
<td>How does the learner select the skills learned to address a range of problems? What is the nature of the complexity of the problems and how does the learner engage with them?</td>
</tr>
<tr>
<td>Competence</td>
<td>Autonomy and responsibility</td>
<td>How does the learner demonstrate the taking of responsibility personally and in groups? How does the learner deploy skills acquired in managing interactions with others and working on their own?</td>
</tr>
<tr>
<td></td>
<td>Self-development</td>
<td>To what extent can the learner operate in new environments, acquire new knowledge and skills; and assimilate these to their existing body of knowledge and skills?</td>
</tr>
<tr>
<td></td>
<td>Role in Context</td>
<td>Can the learner apply/deploy their knowledge and skills in a range of relevant contexts?</td>
</tr>
</tbody>
</table>

When designing or reviewing a program, it should be evident from the program learning outcomes in the program document that a successful graduate would achieve the required QF Emirates learning outcomes, therefore, when writing learning outcomes for a program it is advisable to organise them into these strands and where possible into the sub-strands.

In the future 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 QFE will be addressed. The balance of emphasis between the strands will vary between individual programs. 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 your program and be able to reflect
on why some strands have much less significance. It is recognised that few programs currently emphasise outcomes related to “competencies”.

3. Writing Program Outcomes

Program outcomes set out the outcomes expected across the entire program leading to the award. Thus a program outcome is a statement of what a learner is expected to know, the skills they will have and be able to use to underpin the competencies in the QFE.

**Writing Guidance:**
Start program learning outcomes with the phrase:
“On successful completion of this program the graduate will…”

This phrase can be followed with the program learning outcomes grouped under the strands of QFE.

Program outcomes are inherently broad as they recognise the learning outcomes of an entire program. They differ from course learning outcomes in that course learning outcomes are written to clearly indicate how the students will demonstrate their knowledge, skill or competence. Program learning outcomes are attained through the achievement of course learning outcomes across the program. It is at course level that the main assessment of learning outcomes takes place. Program outcomes can be assessed by different measures and instruments, such as capstone course assessments, and integrative exit examinations. Consequently, program outcomes can and should be broader to effectively capture the breadth and depth of student learning, skills acquisition and competencies developed across the program.

4. Alignment of program outcomes to QFEmirates

In order to ensure that the learning outcomes of existing programs align to QFE, they will need to be reviewed and changes to current learning outcomes are likely to
be required as well as a review of underlying teaching, learning and assessment practice. It is important that not only program documentation is aligned to QFE but that the teaching and assessment that students experience enable them to develop and demonstrate the knowledge skills and competencies required for the award of the qualification. **Alignment is more than a paper exercise.**

Steps to alignment of program learning outcomes with QFE
1. Identify the level of the qualification in the QFEmirates that you are dealing with
   • Ensure that the title of the qualification matches this level for example Bachelors degree = level 7

2. Identify the essential elements of each strand of QFE from the written text in the strand box. For example essential elements of the knowledge strand at level 7 would include specialised factual knowledge; knowledge of the boundaries in a field of work or learning; a broad and coherent body of knowledge and concepts; substantive depth in underlying principles and theoretical concepts and familiarity with sources of new research and knowledge with integration of concepts from outside fields
   • Interpret each essential element and develop it into a learning outcome at the appropriate level for your program

3. For each strand develop a summary of how teaching and learning practice will enable students to develop the knowledge, skills and competencies required and how the assessment practice will enable them to demonstrate achievement of the learning outcomes
   • You should ensure that this information is contained in your Program Specification/Syllabus.

5. Judging the level of learning outcomes
One of the more challenging aspects of writing learning outcomes is ensuring they are pitched at the right level for the qualification being awarded. There are two important factors that we should focus on when writing learning outcomes to ensure they are pitched at and communicate the level expected to be achieved by the students.

1. The verbs used to describe the learning outcome; and
2. The scope of the task and quality of the guidance given to the students

It is usually thought that the verb used will reveal to us the levels at which students are expected to perform in order to demonstrate the achievement of the learning outcome. In reality it is essential that both of the verb and the scope and guidance elements are addressed to ensure that the level is clear.

1. **Verbs used**
The verbs are used to describe what the learning outcome requires of the student. This will determine the verb to be used. Further guidance on verbs based on Blooms Taxonomy is set out in Appendix 1 of this Guide.

2. **Scope and guidance**
This scope of what a student is expected to know or be able to do relate to the detail, depth and breadth of their expected knowledge, the amount of complexity they are dealing with, the use and evaluation of different theories and approaches and the amount of uncertainty contained in the material they are using.
The quality of the guidance given to students relates to how much support they will be given by academic faculty and how much they will be expected to do on their own.

For example: a first year undergraduate on a bachelor’s degree will be dealing with basic concepts and knowledge, working with accepted theories and approaches and quite closely guided in their work by academic faculty.
A PhD student will be expected to display considerable depth of knowledge, deal with complex material and work with uncertain and incomplete material and data to develop their thesis with more limited guidance from academic faculty.

The following are examples of the two elements – verbs used and scope and guidance being used to differentiate level. You will notice that the verb used does not change as we move through the levels but the scope and guidance element changes considerably.

Level 5 – diploma level

- Analysis- the student will be able to analyse with guidance using given classifications and principles

Level 7 – bachelor’s degree

- Analysis- the student will be able to analyse new and/or abstract data and situations without guidance, using a range of techniques appropriate to the subject

Level 9 – master’s degree

- Analysis- the student will be able to analyse new and/or abstract data (including incomplete data) and situations using a range of advanced techniques relevant to the subject and demonstrate self-direction and originality in explaining and interpreting outcomes.
6. **Example of program outcomes**

An example at qualification Level 7 is provided here under the 5 QF Emirates learning outcome strands.

**BA Business Strategy**

**Knowledge**
On successful completion of this program the graduate will be able to:

- Develop and apply a range of relevant principles and theoretical knowledge to develop strategies and solutions to current business problems
- Apply relevant principles and theories to a national and global business context to develop strategies for the organisation
- Demonstrate how financial and market information drives business strategy making
- Demonstrate a knowledge of mathematics and statistics and their application to business contexts

**Skill**
On successful completion of this program the graduate will be able to:

- Analyse problems, formulate solutions and identify risks associated with the solutions in order to develop effective business strategy
- Select and deploy a range of information retrieval techniques
- Communicate effectively orally and in writing and deploy a range of presentation techniques within workplace settings
- Demonstrate successful project management skills

**Competence**
On successful completion of this programme the graduate will be able to:
Autonomy and responsibility

- Work independently as well as part of a team in a range of contexts
- Take and defend positions to formulate creative solutions to problems

Self-development

- Take responsibility for his/her own future learning needs in new situations
- Learn from experiences gained in different contexts and assimilate new knowledge and skills into their practice

Role in context

- Demonstrate professional attributes relevant to their role
- Set team objectives and take responsibility for team performance in the workplace
- Interact with professional colleagues in a range of settings
- Demonstrate the ability to comprehend multiple perspectives and formulate effective actions.
Part 2 – Writing Learning Outcomes at Course Level

7. Differences between program and course learning outcomes

As we have already seen outcomes at program level are broad. This is in contrast to course learning outcomes. Course learning outcomes need to be specific in describing what a student will know and be able to do at the end of the course – in short they need to be capable of being assessed. If course learning outcomes are not capable of being assessed they cannot fulfil one of their core purposes.

Additionally, course learning outcomes establish course content and the range and type of teaching and learning activity that students will experience.

Course learning outcomes serve the following core purposes:

- Establish course content
- Influence the range and type of teaching and learning activity on the course
- Form the basis of assessment activity
- Inform students what is expected of them
- Contribute to the achievement of one or more program outcomes

Program: BA On-Line Retail Marketing

Example of a Program Learning Outcome

“On successful completion of this programme the graduate will be able to evaluate critically and develop solutions to a range of ICT problems facing on-line retail businesses.”

Example of a Course Learning Outcome

“On successful completion of this course the learner will be able to evaluate alternative...”
software packages for web site development and design and upload a front page for a live site

8. **Writing course learning outcomes**

Learning outcomes at course level state the knowledge, skills and competencies that the typical learner will be able to demonstrate through the assessment process for that course. The learning outcomes for the course must contribute to the achievement of the knowledge, skills and competencies set for the overall program and each course will do this to a different degree and in a different way.

For example, a course in the first year of a program is likely to have a higher knowledge component and less emphasis on skills and competencies but as the student progresses through the program there is increased emphasis on how the student is able to use and apply the knowledge and develop associated skills and competencies. Thus individual courses serve different purposes and it is the collective learning across all courses that enable the student to achieve the overall program learning outcomes.

Course learning outcomes should contain the following features:

1. **Begin with an action verb and describe something (knowledge, skill or competence) that is observable and measurable.**

   **Common problems and tips**

   Too many verbs in one learning outcome- this will be confusing to staff and students. It will be unclear what students are expected to focus on and the how the assessment will test whether they are able to demonstrate they have achieved the learning outcome. Ensure that you are clear what it really is you want the student to be able to demonstrate and at the same time envisage how you will assess this. Doing this will lead you to the best solution.

2. **Focus on what you expect students to be able to demonstrate on completion of the course**

   **Common problems and tips**

   Do not set too many learning outcomes. It is important to identify the essential things...
students will know and be able to do at the end of the course. If you have too many learning outcomes this will cause problems with assessment as you will either not be able to assess all of them or you will overload the students with too much assessment. Try to ensure each course has between 4-6 learning outcomes. If you have more than this consider whether they are really too detailed and are really the outcomes at lecture or workshop level or too broad and are really the outcomes at program level.

3. **Be capable of being assessed and addressed by the assessment strategy in the course**

**Common problems and tips**

The main reason that learning outcomes are not capable of being assessed is because they are written too broadly and are pitched more at program level, or written using vague terms. Vague terms would include “appreciate, understand, be familiar with”. It is very difficult to assess these outcomes. Instead focus on what the student will actually be able to demonstrate. For example *students will be familiar with* the functions of marketing within an organisation CHANGE TO *students will be able to explain* the functions of marketing within an organisation.

4. **Be capable of being understood by students, faculty and external agencies and stakeholders**

**Common problems and tips**

The language used to write learning outcomes needs to be clear unambiguous and written in a way that communicates what a student will know and be able to do at the end of the course. This will ensure that all internal and external stakeholders are clear on what they can expect of students at the end of a course.

5. **Be pitched at the correct level for the award which is aligned with QFE**

**Common problems and tips**

The verbs used to describe the learning outcomes need to be active verbs and relate to what the learning outcome requires the student to demonstrate. In addition to ensure the outcome is pitched at the right level, the scope of what a student is expected to know or be able to do in relation to the detail, depth and breadth of their expected knowledge, the amount of complexity they are dealing with, the use and evaluation of different theories and approaches and the amount of uncertainty contained in the material they are using will need to be clearly set out. The quality of the guidance given to students and how much support they will be given by faculty and how much they will be expected to do on their own will complete the picture and clearly signal the level at which students are achieving learning outcomes.
9. **How course learning outcomes contribute to the achievement of program outcomes.**

A student’s program is made up of a range of courses that collectively will provide them with the teaching and learning opportunities to learn and develop the relevant knowledge, skills and competencies and the assessment opportunities to demonstrate these and show achievement of the overall program outcomes. The task of the program team (this is you and your colleagues who will deliver the courses on the program) is to decide upon the range and mix of courses that will develop the breadth and depth of knowledge, skills and competencies to ensure the overall program outcomes (that are aligned to QFE) are achieved. When designing learning outcomes for a course it is essential that the teaching, learning and assessment activity is planned at the same time to ensure the learning experience enables students to achieve and demonstrate the achievement of the outcomes.

In order to ensure that each of the strands of QFE is properly addressed within the program across the range and mix of courses it is helpful to develop a curriculum map or matrix.

An example of such a template curriculum map and a sample completed version is set out in Appendix 2.

**Thus alignment of course learning outcomes to program outcomes is as important as aligning the program outcomes to QFE.**

**Remember that students need to achieve the SET of program outcomes at the correct level that comprise the qualification descriptor in QFE.**
The following overall stages should be followed.
1. Match your award with the correct qualification level in the QFE.
   Identify the essential elements of each strand of QFE at the correct level for your award, interpret what these mean for your program and write your draft program outcomes.

2. Working with the curriculum team, plan the courses that will form the curriculum for the program and write the individual course learning outcomes.
   Complete the curriculum matrix to map the courses against the program outcomes to ensure that all program outcomes are adequately addressed.
   (Commentary text)

3. Plan and produce the teaching, learning and assessment strategies for each course to ensure that students have the learning and assessment opportunities to acquire and demonstrate the required learning outcomes.
   Review the fit between program outcomes the course outcomes and the teaching, learning and assessment opportunities - taken together do they add up to a coherent program which is aligned to QFE?
   (Commentary text)
10. Critique Exercise

i) Review the following extract from a set of outcomes that have been written as Program level outcomes for a Master’s degree which the program team are presenting as aligned to QFE at level 9.

MA Education

On completion of this Program students will be able to:

- demonstrate an in depth understanding of the policy context for school education in the UAE
- demonstrate increased proficiency in developing plans for whole school improvement

ii) Review the following outcomes that have been written as Course level learning outcomes for a Bachelor’s degree aligned to the QFE at level 7.

BA Education

On completion of this Course students will:

- have worked in small groups to develop presentations relating to teaching mathematics within the 5-7 year age range
- be able to recognise issues and formulate solutions relating to classroom behaviour and how certain behaviours effect learning
- have increased understanding of a range of mathematical techniques

Please see Appendix 3 for suggested alternatives.
Appendix 1

Useful information on active verbs to support the writing of learning outcomes.


http://uwf.edu/cutla/slo/actionwords.pdf
## Appendix 2

### Curriculum Matrix Example:

#### Learning Outcomes Matrix – **ADD COURSE**

<table>
<thead>
<tr>
<th>Program title</th>
<th>Course code</th>
<th>Course title</th>
<th>Program Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A1   A2  A3  B1  B2  B3  C1  C2  C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A1   A2  A3  B1  B2  B3  C1  C2  C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A1   A2  A3  B1  B2  B3  C1  C2  C3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A1   A2  A3  B1  B2  B3  C1  C2  C3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occurrence across the course</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
</table>

A – KNOWLEDGE
B - SKILLS
C – COMPETENCIES
C1 Autonomy and responsibility
C2 Self development
C3 Role in context

Decide how much a course contributes to the overall program outcomes

- Fully (F)
- Partly (P)
Example:
Learning Outcomes Matrix – Masters in Law Level 9

<table>
<thead>
<tr>
<th>Program</th>
<th>Code</th>
<th>Course Title</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>Research Methods</td>
<td>F</td>
<td>P</td>
<td></td>
<td>F</td>
<td>P</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>Dissertation</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
<td>P</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>Rights, Obligations and Remedies</td>
<td>F</td>
<td>P</td>
<td></td>
<td>F</td>
<td>P</td>
<td></td>
<td></td>
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<tr>
<td>Law</td>
<td>LC4S033</td>
<td>Private International Law</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td></td>
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<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>International Trade</td>
<td>F</td>
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<td>F</td>
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<td>P</td>
<td>P</td>
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<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>Commercial Law and Practice</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
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<tr>
<td>Law</td>
<td>LC4S077</td>
<td>Corporate Law</td>
<td>F</td>
<td>P</td>
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<td>P</td>
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<tr>
<td>Law</td>
<td>LC4S026</td>
<td>Patent Law</td>
<td>F</td>
<td>P</td>
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<tr>
<td>Law</td>
<td>LC4S025</td>
<td>Information Technology Law</td>
<td>P</td>
<td>F</td>
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<td>F</td>
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<tr>
<td>Law</td>
<td>LC4SXXX</td>
<td>Employment Law</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
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<tr>
<td>Law</td>
<td>LC4S003</td>
<td>Computer Law</td>
<td></td>
<td>P</td>
<td>P</td>
<td>F</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Law</td>
<td>LC4S037</td>
<td>Copyright and Designs Law</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td></td>
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<tr>
<td>Law</td>
<td>LC4S022</td>
<td>Film Copyright and Intellectual Property</td>
<td>F</td>
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<td>P</td>
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<td>Law</td>
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<td>Law</td>
<td>LC4SXXX</td>
<td>Independent Study</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3

Suggested alternative outcomes

MA Education

On completion of this program students will be able to:

- evaluate and analyse policy issues and gaps that impact on the implementation of current government policy for education in the UAE
- demonstrate proficiency in developing effective plans for whole school improvement with a scheme of implementation

BA Education

Course title: Teaching mathematics to 5-7 year olds

On completion of this course students will be able to:

- develop and present effective and appropriate lesson plans for teaching mathematical concepts to 5-7 year olds
- recognise issues and formulate solutions relating to disruptive classroom behaviour that adversely affects learning
- demonstrate and practice a range of mathematical teaching techniques in the classroom
- work effectively with other teaching professionals to formulate teaching schemes for mathematics