A guide to writing learning outcomes in higher education

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Introduction

Identifying learning outcomes is key to planning courses and their constituent elements. Course and programme descriptors, module descriptors, and individual learning sessions or activities all attract the articulation of learning outcomes with a variety of needs to be met from the institutional through to the individual learner (Hussey and Smith, 2003). Curriculum designers identify the aim for a course (e.g. for an engineering degree that the course develops graduates who are professionally capable) and then the learning outcomes needed to meet that aim (e.g. these might relate to the knowledge base of engineering, the application of this knowledge and required personal skills, attitudes and ways of thinking) and provide a learner-centred basis for teaching and learning that is pedagogically meaningful for a student (Brooks et al., 2014; Lassnigg, 2012).

There are different expectations of learners at different stages of a course. These changing expectations are incremental in challenge and complexity should be reflected in the outcomes. As a course progresses the learner is expected to become less dependent and more able to deal with unstructured, complex, and ambiguous situations.

The state of learning outcomes has been described as poor, even in the leading global teaching universities (Schoepp, 2019). Research on the problems and impact of learning outcomes on higher education are plentiful in the peer reviewed higher education literature with a long history of research describing the benefits and challenges of learning outcomes (Allan, 1996; Havnes and Prøitz, 2016; Hussey and Smit, 2003; Prøitz, 2010).

What are learning outcomes?

For over 30 years, UK HEIs have aligned their programmes to the European Credit Transfer and Accumulation System (ECTS). The system ensures that education credits can be measured and therefore transferred across different European HEIs. As part of that clarification and consistency there is an agreed definition of what a learning outcome is:

"Learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification."
(ECTS, 2005)

Similarly, the UK Quality Assurance Agency (QAA, 2014) uses this definition for programme learning outcomes:

"Statement of what a learner is expected to know, understand outcomes and/or be able to demonstrate after completion of a designated programme of study (which leads to a qualification). These are statements of holistic outcomes and not simply the sum of the parts (the learning outcomes of individual modules)."

Implementation and shared understanding of the purpose of learning outcomes is therefore embedded into higher education and has the dual purpose of quality assurance and articulating what a learner should know, understand and be able to do because of learning (Havnes and Prøitz, 2016). Learning outcomes can also articulate a range of attitudes, behaviours, skills, values, and ethics.

Describing a course in terms of well written learning outcomes puts the focus on the development of the learner rather than on content. Indeed, they should communicate what is expected of a learner, particularly in higher education where learners are adults who are expected to take a role of critical thinker (Erikson and Erikson, 2019). The most effective learning outcomes are developed by considering the learning expected from students, the design of the curriculum, and the way in which the learning and teaching experience is planned (Myers and Nulty, 2009).

Discussing the learning outcomes at the beginning of the course, module and learning activity enables learners to learn more readily because they are clear about the expectations for what they should be learning (Brooks et al., 2014). Similarly, reviewing learning outcomes at the end of the course/module/learning activity gives clarity about what they should now know, do, or understand. Where the learning activity is a component of a course then connecting those specific learning outcomes to the course, and potentially the next stage in the learning journey can also help situate the learning for the student and help them to identify the next step in their learning (Brooks et al., 2014).

Learning Outcomes and Curriculum Design

Learning outcomes are key to designing the learning process and identifying the right learning outcomes is the starting point whether developing a course, a module, a class session, or an individual learning activity. Successful implementation during curriculum development will enable tutors to be more precise in planning, supporting, and assessing learning and enable effective linkages between learning, teaching, and assessment methods. Learning outcomes indicate what is expected by a learner and are the basis for developing assessment criteria. Module descriptors are often brief and do not contain a lot of detail, and therefore well written learning outcomes can help to make explicit any underpinning values, attitudes and skills that may not be reflected in descriptions of content, particularly the usually short lists of indicative content. To give coherence to a course, a curriculum planner may need to re-visit and modify learning outcomes during the development process; this iteration is necessary due to the complexity and interplay of learning activities, learners, and tutors (Maher, 2004). The most effective learning outcomes give structure and a framework to learning, but do not stifle opportunities driven by the learning experience (Havnes and Prøitz, 2016; Hussey and Smith, 2010).

When used with the learner in mind, learning outcomes can allow students to make informed choices about the courses or modules that are appropriate for them. Learning outcomes can also provide a mechanism whereby learners might identify relevant previous learning for the recognition of prior learning (RPL) (Browning, 2020) and to connect their own previous learning to the next anticipated stage of learning (Brooks et al, 2014).

Writing learning outcomes

Learning outcomes should be based on the relevant national framework for higher education qualifications, in this case the Quality Assurance Agency's Framework for Higher Education Qualifications (2014). The generic learning outcomes in Tables 7-10 are aligned to the QAA framework for knowledge and understanding, intellectual skills, and subject specific/professional/key skills and are appropriate for level. These generic learning outcomes include the behaviour, values or attitudes required from the learner, and the learner's increasing ability to deal with complexity and ambiguity as the level of the course increases.

Learning outcomes should start with a consistent, short and learner-centred phrase (Schoepp, 2019) followed by an active verb (limited to one or two), an object of the verb, and a clause or phrase that provides the context or condition. The focus should be on what learners should know or do after engaging with and completing the unit of learning (Schoepp, 2019). Often it is the verb and object that show the behaviour/values/attitudes required from the learner, and the context or condition that shows the degree of autonomy required and the complexity and/or significance of the situation.

Table 1. Examples of the Construction of a Learning Outcome

Consistent short starting phrase	Active verb(s)	Object	Context/Condition
Students will be able to	explain and evaluate	the relationship	between the company directors and shareholders
By completion of the module a learner will be able to	describe and illustrate	the principles	of behaviourist psychology
By the end of the session, you will be able to	collect, analyse, and present	data	to a group of stakeholders

Learning outcomes should be expressed in clear and simple terms, to ensure that all involved (i.e., learners, tutors, employers) understand them (Table 2). The verb you use in a learning outcome is critical to its function as it indicates the level of and nature of the learning required (Table 3). Academic jargon and complex language usually lack clarity. Learning outcomes should relate to the aims of the course/module/learning activity and should represent what is needed to pass and not what is expected from the highest achiever. The requirements for other levels of achievement, including the highest levels of achievement can be articulated by developing assessment criteria in the appropriate grading bands.

The learning outcomes should reflect the totality of what the learner should achieve; what they should know, and what they should be able to do. Module learning outcomes should relate to the overall course learning outcomes. If developing a learning activity, the learning outcomes should connect to those in the module description.

Table 2. Language and Wording to Avoid in Learning Outcomes

Try to avoid:

- evaluative words e.g., "effective" and "adequate". Such words belong to the assessment criteria.
- ambiguous verbs such as "understand", "know", "be aware" and “appreciate”. What level of ‘understanding’ do you mean?
- being imprecise e.g., 'demonstrate the ability to ...'. Do you want the learner to do something or demonstrate that they could do it if needed? If you have 'demonstrate the ability to ...'. you should assess the demonstration, not the ability.
- educational jargon that learners will be unfamiliar with
- confusing the learning task and the outcome e.g., 'write an essay on post modernism'. This means you want the learners to learn how to write an essay on post modernism. It does not mean that you want them to be able to explain or explore or discuss post modernism.
- long lists of separate learning outcomes that are variations of the same outcome.
- learning outcomes that are not easily assessed e.g., 'improve your ability to...'. Here you would need to establish a learner's starting point to identify improvement. There is no indication of the level of performance needed.
- learning outcomes that are too broad as they will be un-assessable.
- learning outcomes that are too narrow as they can be restrictive and lead to over-detailed and cumbersome lists.

Table 3. Verbs in Learning Outcomes

Type of Learning Outcome	Examples of what might be covered	Verbs		
Knowledge	• the terminology of the subject • criteria • specific facts • methodology • conventions • principles and generalisations • trends and sequences • theories and structures. • classifications and categories	• define • list • match • name	• outline • present • recall • record	• recount • repeat • reproduce • state
Comprehension	The ability to convey what is understood	• clarify • describe • discuss • explain • express	• identify • interpret • locate • recognise • report	• restate • review • tell • translate
Application	The ability to use a theory or information in a new situation.	• act a role • apply • dramatise • employ	• exemplify • illustrate • interpret • operate	• practise • schedule • sketch • use
Analysis	The ability to break down material/ideas into constituent parts, showing how they relate to each other and how they are organised.	• analyse • appraise • chart • calculate • compare • contrast • criticise	• debate • distinguish • differentiate • examine • experiment • inspect • investigate	• make inventory • question • relate • solve • test
Synthesis	The ability to work with elements, parts of something and combine them in a way which constitutes a pattern, plan or structure which was not there before.	• arrange • assemble • compose • develop • devise • design	• derive • create • construct • formulate • manage • modify	• plan • propose • redefine • set up • synthesise • teach
Evaluation	The ability to construct an argument, compare opposing arguments, make judgements etc.	• appraise • assess • criticise • choose • compare	• discriminate • estimate • evaluate • judge • measure	• rate • revise • score • select • value

Here is an example of how you might indicate differences in level for working in groups. The outcomes increase in range of aspects and contexts, amount of autonomy and discretion in how to operate, and cognitive level.

Table 4. Using Verbs to Indicate Level

Level 3 Foundation	Level 4 1st year UG	Level 5 2nd year UG	Level 6 3rd/final year UG	Level 7 Masters	Level 8 Doctoral
work in a group on a specified course task; meet the objectives given; follow guidance to meet own responsibilities	work in groups on specified course tasks to meet the objectives given; from guidance given, choose approaches to meet own responsibilities	work in groups on course and work tasks to meet the objectives given; choose and use approaches to meet own responsibilities	agree group objectives and own responsibilities for course and work tasks; identify, use, and evaluate strategies to meet objectives and responsibilities	develop, agree, and achieve group aims and outcomes; identify how group members will contribute; encourage ethical working practices; agree plans, identify resources, implement, monitor, evaluate and amend plans	identify and use ways of working in a professional way with others to achieve aims and outcomes and to implement plans; continually refer and respond to group members

Learning and teaching methods should be connected to assessment methods and should help learners achieve the learning outcomes and assessment objectives. Different learning outcomes will require different learning and teaching methods.

Assessment of learning outcomes

Learning outcomes are assessable and indicate the benchmark for what must be achieved to pass a module or course, in terms of the range of outcomes and their level. Therefore, they must be clear, capable of valid assessment, and be pitched at the level required to pass. Learning outcomes summarise various aspects of learning (knowledge and skills). Articulation of all the learning outcomes enables judgements to be made about the fitness for purpose or practice. The totality of the learning outcomes for an award provides the evidence for validation panels to confirm that outcomes are matched against national framework or Professional Statutory Regulatory Body (PSRB) requirements and that the student experience is consistent with expected approaches to learning, teaching, and assessment.

Monitoring, moderation, and evaluation of learning outcomes through assessment processes provide the quality assurance that the university is compliant with the validated statements. As well as internal benchmarking, learning outcomes should be aligned to expected national and international benchmarking. This guide aligns to the SEEC's Credit Level Descriptors (SEEC, 2016) which are widely used by higher education providers across the United Kingdom.

Designing clear and unambiguous learning outcomes makes it much easier to plan assessment (Havnes and Prøitz, 2016). All assessment methods must give feedback connected to the learning outcomes and give an indication of achievement in relation to the outcomes. The methods selected to

assess learning outcomes should be integral to the learning process and provide a basis to assist learners as they progress with their learning. Consider the example of a learning outcome for group work skills. Assessing a product such as a report produced by a group is a valid assessment of the ability to produce the product, not of the ability to work in a group as one group member may have produced it alone. Potentially more valid methods for assessing group work skills might include records of interactions (e.g., minutes of meetings, videos, tapes), observation of the group, peer feedback from group members or 'clients', or self-evaluations of group processes. The wording of learning outcomes has implications for assessment, as it often narrows or suggested the most appropriate assessment methods. For example:

Table 5. Examples of the connection of learning outcomes to assessment methods.

Learning Outcomes: The learner should be able to…	Assessment Method(s):
…make policy recommendations to managers on staff development	Oral presentation or report
…work co-operatively as a team member	Reflective individual log of a group task
…design and implement [discipline specific] strategies for a client	Needs analysis and intervention plan for a client
…collect, analyse, and present data using established procedures in [discipline]	Discipline specific report, i.e., laboratory report

It is a requirement for most programme and course approval (validation) documentation to include matrices which show the mapping of learning outcomes and how they appear in which modules at which level of the course, together with an indication of assessment methods. Such an approach is common as it helps to avoid over-replication of learning outcomes across modules, ensure a balance of the skills/knowledge/attributes being developed and/or assessed across modules, and ensure a balance of assessment methods across modules (Arafeh, 2015). Once learning outcomes have been identified, assessment criteria need to be developed to determine if learners have achieved the learning outcome and to what extent. Assessment criteria should be clear to learners and relevant stakeholders (i.e., workplace supervisors if relevant) and in being clear they should indicate how work will be judged assure that grades and marks are awarded fairly (Moon and Gosling, 2001).

Summary

There are many elements in generating and using learning outcomes effectively and these have been considered within this paper. The following checklist for writing learning outcomes will help curriculum designers and planners to effectively consider learning outcomes and take into consideration all the elements considered in this paper.

Table 6. Checklist for Writing Learning Outcomes

Checklist	✓
Does the learning outcome (LO) relate to the aims (of the course/module/learning activity)?	
Does the learning outcome relate to the overall course/module outcomes?	
Is the learning outcome specific and measurable with tangible actions, behaviours, or cognition?	
Is the learning outcome clear about what learners will be able to do after the course/module/learning activity is complete?	
Is the learning outcome at an appropriate level?	
Is the wording used unambiguous and in plain language? If terminology is used, is it familiar to learners?	
Is the learning outcome assessable?	
Have you avoided writing a learning outcome that would be more effective as an assessment criterion?	
Have you discussed the learning outcome(s) with relevant colleagues, learners, or other stakeholders?	
Is the balance of types of learning outcomes appropriate for the course/ module/activity?	
Are the number of learning outcomes reasonable to assess (for you and the learners)?	
Have you avoided repetition (such as different terms which may mean the same thing)?	
Are the learning outcomes achievable within the timescale?	
Are any of the learning outcomes too broad to be easily assessed?	
Are any of the learning outcomes too narrow, as to be too restrictive?	

Tables of generic indicative learning outcomes by level.

The levels are based on UK Higher Education. Level 3 is foundation year and further education qualifications that often act as entry qualifications into higher education. Level 4 is the first year of an undergraduate programme. In the UK, most undergraduate programmes are 3 years. Level 5 and 6 are the second and third years with L6 being the final year. Level 7 is masters level (MSc, MA, MBA, MSci etc.) and level 8 is doctoral level study.

Table 7. Generic indicative learning outcomes by level for knowledge and understanding.

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional/work area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
1. describe given • facts • principles • concepts • theories • values • beliefs • ethics • aesthetics	1. describe the essential • facts • principles • concepts • theories • values • beliefs • ethics • aesthetics	1. identify and explain the essential • facts • principles • concepts • theories • values • beliefs • ethics • aesthetics and the way in which they are developed	1. identify and explain, in sufficient detail for the purpose, essential and other important • facts • principles • concepts • theories • values • beliefs • ethics • aesthetics some of which are at the forefront of those areas	1. select and explain those appropriate from the range of • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • current problems and issues • current research and advanced scholarship • new insights many of which are at the forefront of those areas and are complex and conceptually challenging	1. identify, explore, and interpret aspects at the forefront of a substantial body of knowledge, including any ethical dilemmas

		2. Apply the • facts • principles • concepts • theories • values/beliefs/ • ethics/aesthetics between specified contexts such as topics or professional areas	2. identify where the • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics is appropriate for a new/different context and apply appropriately	2. apply • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • current problems/issues • current research and advanced scholarship • new insights to the area of study, evaluate their appropriateness and justify their selection. Apply some aspects in an original way.	2. evaluate the appropriateness of • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • current problems/issues • current research and advanced scholarship • new insights, justify their selection, and apply them to create new insights
			3. identify in what was aspects of the topic/subject are uncertain, ambiguous, contradictory, or limited	3. explore the implications of the uncertain, ambiguous, limited, or contradictory nature of the • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • current problems/issues • current research and advanced scholarship	3. evaluate the implications of the complex, unpredictable/uncertain, ambiguous/ contradictory, or incomplete/deficient nature of the • facts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • current problems/issues

				• new insights	• current research and advanced scholarship • new insights
					4. create new knowledge/outcomes through original research/advanced scholarship

Table 8. Generic Indicative Learning Outcomes by Level for Cognitive/Intellectual Skills

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional/work area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
1. explain, give reasons for, and analyse essential • facts • objects/artefacts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • information/data • using given classifications/ principles	1. explain, give reasons for, analyse, and evaluate essential • facts • objects/artefacts • principles • concepts • theories • values/beliefs/ • ethics/aesthetics • information/data • using given classifications/ principles	1. critically analyse, evaluate, and identify the relevance and significance of • facts • objects/artefacts • principles • concepts • theories • values/beliefs/ ethics/aesthetics • information/data • processes and approaches	1. making judgements by critically analysing, evaluating, and identifying the relevance and significance of • facts • objects/artefacts • principles • concepts • theories • assumptions • values/beliefs/ethics / aesthetics • arguments • information/data (which may be incomplete) • processes and approaches	1. make informed judgements by critically evaluating • facts • objects/artefacts • principles • concepts • theories • assumptions • arguments • values/beliefs/ ethics / aesthetics • problems/issues • current research and advanced scholarship • new insights • information/data (which may be incomplete) • processes and approaches	1. make informed judgements by critically evaluating relevant complex issues in specialist fields, aspects which may be new, uncertain, unpredictable, incomplete, deficient, ambiguous, or contradictory

2. identify the essential aspects of a topic/ subject/object/ artefact, using given procedures/ formats	2. summarise the essential aspects of a topic/ subject/object/ artefact, using given procedures/ formats	2. summarise the essential aspects of a topic/ subject/object/ artefact. Coherently, pull information together	2. summarise the essential and other important aspects of a topic/ subject/object/ artefact. Coherently, pull information together. Make and justify links.	2. set studies within a context. Synthesise information/data, create and justify links between aspects	2. set studies within a context, synthesise information/data, create and justify links between aspects to develop models/ theories/ objects/ artefacts
3. pull together essential information which is • specified • routine • predictable • complete • using given procedures or formats	3. draw conclusions about information/ situations/ objects/ artefacts which are • specified • routine • predictable • complete • using given procedures/ formats	3. make and justify decisions about information/ situations/ objects/ artefacts which are • specified • routine • predictable • complete	3. make and justify decisions about information/ situations/ objects/ artefacts which are complex, and may be unpredictable	3. make and justify decisions about information/ situations/ objects/ artefacts which are • complex • specialised • unpredictable • incomplete • ambiguous	3. make and justify decisions about information/ situations/ objects/ artefacts which are • complex • specialised • unpredictable/ uncertain • incomplete • ambiguous/ contradictory
4. present aspects of the subject in an order which enables understanding, using given procedures and formats	4. sort and order aspects of the subject into a logical line of argument	4. produce a line of argument supported by relevant evidence	4. devise and sustain an argument, supported by evidence	4. devise and sustain an argument, supported by evidence. Include elements which are original or new and may offer new insights or hypotheses	4. meet the standards set by peers in the discipline, in terms of devising and sustaining a new or original argument

Table 9. Generic Indicative Learning Outcomes by Level for Subject Specific Skills

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional/work area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
1. carry out restricted and specified methods of enquiry and production, with guidance	1. use specified methods of enquiry and production	1. identify and explain the main, specified methods of enquiry and production, and use them appropriately	1. identify, justify, and use methods of analysis, enquiry and production which are appropriate to tasks, including self-initiated tasks	1. critically evaluate methodologies and methods which create and interpret knowledge/ outcomes, to select and use those most appropriate. Identify appropriate good practice	1. conceptualise and design a project to generate new knowledge/ outcomes, identify and justify methodologies and use/ develop/ adapt advanced methods of academic enquiry/production. Record work in a way which enables use and facilitates auditing
2. carry out restricted and specified technology/ techniques/ processes/ terminology, with guidance	2. use specified technology/ techniques/ processes/ terminology	2. use specific technology/ techniques/ processes/ terminology	2. select and use appropriate technology/ techniques/ processes/ terminology	2. use and adapt technology/ techniques/ processes/ terminology	2. adapt, develop, and master technology/ techniques/ processes/ terminology
			3. extend and improve knowledge, learning and performance and outcomes by applying methods and techniques learnt e.g., in a new situation	3. extend and improve knowledge/ outcomes by applying and adapting methods and techniques, some of which are new, original, or unusual	3. create new knowledge/ outcomes by developing, applying, and adapting methods and techniques

Table 10. Generic Indicative Learning Outcomes by Level for Professional or Key Skills

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional/work area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
Solving problems					
1. to solve given, defined problems, carry out specified approaches and check the solution has solved the problem	1. to solve given, defined problems, use specified approaches, and evaluate the approaches and solutions	1. to solve straightforward problems (e.g., course/ professional/ work/ career related), identify, explain, and use approaches. Evaluate the approaches and solutions	1. to identify problems (e.g., course/ professional/ career related), including complex ones, and their features. Select, justify, and use approaches, including some at the forefront of the subject/ profession. Evaluate the approaches and solutions	1. identify and deal with complex problems related to aims and desired outcomes, identifying possibilities for originality or creativity e.g. • identify the features of the problem, including risk. • select/ use/ adapt approaches, including those at the forefront of the subject/ profession • evaluate approaches and solutions	1. identify and anticipate problems (which may re-define existing knowledge). Plan for their resolution and implement those plans, being innovator and taking a lead in the formulation of solutions. Continually monitor and evaluate progress and adjust strategies in the light of unforeseen difficulties/ new problems
Gathering and using information					
2. for a given purpose: access specified sources, • use and explain information/data, • check the relevance and accuracy of the information	2. for a given purpose: access specified sources, • use and explain information/data, • evaluate appropriateness of the information	2. for a suggested purpose (e.g., course/ professional/ work/ career related): • identify, access, use and explain information/data which is relevant for a purpose	2. for a purpose (e.g., course/ professional/ career related): • identify, access, select, use, and comment on information/data which is relevant for the purpose • include current research/ academic	2. to enable the achievement of aims and desired outcome: • identify/ access/ select/ use/ collect/ evaluate information/ data • draw heavily on current research and academic publications	2. to enable the achievement of aims and desired outcomes: • identify/ access/ select/ use/ collect/ evaluate information/ data

		• evaluate the sources and the information/data	publications/ appropriate primary sources • evaluate the sources and the information/ data	and appropriate primary sources • evaluate the sources, collection methods and information/ data	• use current research and academic publications • identify new sources of information • use primary sources • evaluate sources, collection methods and information/ data
Communication					
3. accurately present ideas/ information/ arguments/ results in a specified written, verbal, or visual format for a given purpose, topic, situation an audience	3. to enable understanding, communicate ideas/ information/ arguments/ results in a specified written, verbal, or visual format for a given purpose, topic, situation an audience	3. to enable understanding by academic, specialist and non-specialist audiences communicate ideas/ information/ arguments/ results in a variety of specified written, verbal, or visual formats appropriately for a purpose, topic, and situation	3. to enable understanding and engagement, select and use a format and style to communicate ideas/ information/ arguments/ results when faced with a variety of purposes, topics, situations, and audiences	3. to enhance understanding and engagement by academic/ professional audiences identify desired communication outcomes adapt the appropriate format and select and use a style to meet those outcomes	3. communicate aims, processes, and outcomes to a publishable standard
Information Technology					
4. carry out specified IT applications and strategies for a restricted range of given purposes and tasks, with guidance	4. use specified IT applications and strategies for given purposes and tasks	4. use specified IT applications and strategies, as appropriate for various purposes and tasks	4. select, use, and evaluate IT applications and strategies which are appropriate for various purposes and tasks	4. identify, select, plan for (including resource planning), use and evaluate IT applications and strategies to enhance the achievement of aims and desired outcomes	4. identify, select, plan for (including resource planning), use and evaluate IT applications and strategies to enhance the achievement of aims and desired outcomes
Working with Numbers					
5. for given tasks carry out restricted and specified	5. for given tasks, use specified numerical	5. use specified numerical approaches and techniques	5. select numerical approaches and	5. where appropriate, identify, select, plan for	5. where appropriate, identify, select, plan for

numerical approaches and techniques to processes/ explain/ evaluate data, with guidance	approaches and techniques to processes/ explain/ evaluate data	to processes/ explain/ evaluate data	techniques, which are appropriate for purposes and tasks, and use them to process/ explain/ evaluate data	(including resource planning), use and evaluate numerical approaches and techniques to enhance the achievement of aims and desired outcomes	(including resource planning), use and evaluate numerical approaches and techniques to enhance the achievement of aims and desired outcomes
Working with Others					
6. operate with others in restricted and given situations, to meet given objectives and own responsibilities, using given approaches/ techniques	6. operate with others in given situations, to meet specified objectives and own responsibilities, using given approaches/ techniques	6. operate with others in various situations (e.g., course/ professional/ work/ career related), to meet specified objectives and own responsibilities, using appropriate approaches/ techniques	6. identify objectives and own responsibility in operating with others (e.g., course/ professional/ work/ career related), use and evaluate strategies to meet them	6. identify who and how others may help in achieving aims and desired outcomes and put plans into action, e.g. • clarify roles and responsibilities • agree resources and support • identify and use ethical working practices • use others to challenge thinking/ explore alternatives/ obtain information/ data/ obtain advice	6. identify ways to make professional use of others to achieve aims and desired outcomes and put plans into action. Continually refer to and respond appropriately to peer expectations.
Reflection					
7. reflect on own strengths, limitations, and performance, in given situations using given approaches/ techniques, including feedback	7. reflect on own strengths, limitations, and performance, in given situations using suggested approaches/ techniques, including feedback	7. reflect on and evaluate own strengths, limitations and performance and identify the impact of them in relation to: own knowledge learning methods values/ beliefs/ ethics/ own employability	7. reflect on and evaluate own strengths, limitations and performance and the impact of them in relation to: the Awards Learning Outcomes own knowledge learning methods	7. reflect on and evaluate factors which have an impact on the achievement of the aims and desired outcomes, e.g. own performance contextual factors processes, outcomes, and findings	7. continually reflect in and on action, evaluating factors which impact on the study, its aims, and desired outcomes. Seek, evaluate, and use feedback

		Seek, evaluate, and use feedback	values/ beliefs/ ethics/ own employability Seek, evaluate, and use feedback	own skills and attributes Seek, evaluate, and use feedback	
Setting goals					
8. accept responsibility for implementing plans for given targets and tasks	8. take responsibility for setting targets and implementing plans for specified tasks	8. take responsibility for setting targets, initiating, and implementing plans and activities for various specified contexts or goals (e.g., course/ professional/ work/ career related)	8. take responsibility for identifying goals, setting targets, initiating, and implementing plans and activities (e.g., course/ professional/ career related)	8. take full responsibility for initiating, identifying, amending, and achieving aims and desired outcomes, using new skills/ techniques as required e.g. implementing plans and activities, within a timescale monitor and review progress, making appropriate adaptations and amendments Identify opportunities to improve. Use strategies appropriate for self and the subject/ profession to advance own knowledge and provide a basis for Continuing Professional Development	8. take full responsibility for a research project from inception to completion. Operate autonomously, identifying and using strategies/ techniques/ skills (including new ones) appropriate for self and the study, to advance knowledge and provide a basis for own Continuing Professional Development

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