Defining characteristics and Learning outcomes – AAQA first edition and AHEP fourth edition

Taken from the Approval and Accreditation of Qualifications and Apprenticeships (AAQA), first edition and the Accreditation of Higher Education Programmes (AHEP) fourth edition

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These learning outcomes are taken from AAQA and AHEP, part of the Standard used by the UK engineering profession to assess the competence and commitment of individual engineers and technicians for professional registration. This Standard was developed collaboratively, in consultation with engineers representing the

breadth of the profession; from industry, academia and many different disciplines and specialisms.

To download the full AAQA and AHEP documents for free please visit the Engineering Council website: www.engc.org.uk/aaga

www.engc.org.uk/ahep

About the Engineering Council

The Engineering Council is the UK's regulatory body for the engineering profession. It sets the Standards which need to be met for

an individual to become professionally registered.

The Engineering Council licenses engineering institutions (Licensees) to assess individuals for professional registration and assess programmes of learning for approval or accreditation. Licensees carry these tasks out on behalf of the Engineering Council.

It operates under a Royal Charter and is governed by a Board that represents UK engineering institutions as well as individuals from industries and sectors with an interest in the regulation of the profession.

Defining characteristics of approved and accredited programmes

National Certificates/	Higher National	Foundation degrees and	Bachelors degrees and	Bachelors (Honours)	Masters degrees other	Integrated Masters (MEng)
Diplomas and equivalent	Certificate and equivalent	equivalent qualifications	Bachelors (Honours)	degrees accredited as	than the Integrated Masters	degrees accredited for
qualifications accredited or	qualifications accredited	accredited as partially	degrees accredited for	partially meeting the	(MEng) (accredited as	CEng registration
approved as fully meeting	as meeting the educational	meeting the educational	IEng registration (including	educational requirement	further learning to Masters	
the academic requirement	requirements for	requirement for IEng	Top-up degrees)	for CEng registration	level, partially meeting the	
for EngTech registration	progression towards	registration (further		(further learning to Masters	educational requirement	
	IEng registration (further	learning to Bachelors leve	1	level will be required)	for CEng)	
	learning to Bachelors level	will be required)				
	will be required)					
ISCED: Level 3	ISCED: Level 5	ISCED: Level 5	ISCED: Level 6	ISCED: Level 6	ISCED: Level 7	ISCED: Level 7
EQF: Level 4	EQF: Level 4/5	EQF: Level 5	EQF: Level 6	EQF: Level 6	EQF: Level 7	EQF: Level 7
National Certificates/	Higher National Certificates	Foundation degrees or	Bachelors degrees and	Bachelors (Honours)	Masters Degrees other	Integrated Masters degrees
Diplomas or equivalent	or equivalent qualifications	equivalent qualifications	Bachelors (Honours) degrees	degrees accredited for the	than the Integrated Masters	(often denoted MEng)
qualifications accredited	accredited for the purpose	accredited for the purpose o	f accredited for the purpose of	purpose of CEng registration	accredited as further learning	accredited for the purpose of
for the purpose of EngTech	of progression towards IEng	IEng registration will have a	h IEng registration will have an	will have an emphasis on	to Masters level for the	CEng registration will have
registration will have an	registration will have an	emphasis on the application	s emphasis on the applications	developing solutions to	purpose of CEng registration	an emphasis on developing
emphasis on the practical	emphasis on the practical	of current and developing	of current and developing	engineering problems using	vary in nature. Some offer	solutions to problems using
application of current and	application of current and	technology.	technology.	new or existing technologies,	the chance to study in	new or existing technologies,
developing technology.	developing technology.			through innovation, creativity	greater depth particular	through innovation, creativity
				and change.	aspects or applications	and change.
					of a broader discipline in	The Integrated Masters will
					which the graduate holds	go beyond the outcomes
					an Honours degree at	of accredited Bachelors
					Bachelors level. Others bring	(Honours) degrees to provide
					together different engineering	a greater range and depth of
					disciplines or subdisciplines	specialist knowledge, within
					in the study of a particular	an authentic environment, as
					topic, or engineering	well as a broader and more
					application.	general academic base.

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ISCED:	Level 3	ISCED:	Level 5	ISCED:	Level 5	ISCED:	Level 6	ISCED:	Level 6	ISCED:	Level 7	ISCED:	Level 7
EQF:	Level 4	EQF:	Level 4/5		Level 5	EQF:	Level 6	EQF:	Level 6	EQF:	Level 7	EQF:	Level 7
An individu	ial who has	An individual v	vho has	An individual	who has	Graduates fro	m Bachelors	Graduates from	a Bachelors	These progra	mmes should	These progra	mmes should
completed	a National	completed a H	ligher	completed a l	oundation	degrees or Ba	achelors	(Honours) degre	ee must	provide a four	ndation for	provide a four	
Certificate/	Diploma or	National Certif	icate or	degree or equ	uivalent	(Honours) de	grees must	achieve the pres	scribed	leadership an	nd innovative	leadership an	d innovative
equivalent	qualification	equivalent qua	lification	qualification n	nust achieve the	achieve the p	rescribed	learning outcome	es and will	engineering p	oractice.	engineering p	ractice.
or apprenti	ceship must	or apprentices	hip must	prescribed lea	arning outcomes	learning outco	omes and will	possess a coher	rent body				
achieve the	e prescribed	achieve the pro	escribed	and will posse	ess a coherent	possess a co	herent body	of knowledge inc	cluding	Graduates fro	om a Masters	Graduates fro	m an Integrated
learning ou	utcomes and will	learning outco	mes and will	body of know	ledge including	of knowledge	including	mathematics, na	atural science	Degree other	than the	Masters degre	ee must achieve
possess a	coherent body	possess a coh	erent body	mathematics,	natural science	mathematics,	natural science	and engineering	principles,	Integrated Ma	asters must	the prescribed	d learning
of knowled	ge including	of knowledge i	ncluding	and engineer	ing principles,	and engineer	ing principles,	and a proven ab	ility to apply	achieve the p	orescribed	outcomes and	d will possess
mathemation	cs, natural science	mathematics, i	natural science	and a proven	ability to apply	and a proven	ability to apply	that knowledge t	to analyse	learning outco	omes and will	a broad and c	oherent body
and engine	ering principles,	and engineerir	ng principles,	that knowledg	je to analyse	that knowledg	ge to analyse	and solve compl	lex problems.	possess a co	herent body	of knowledge	including
and a prov	en ability to apply	and a proven a	ability to apply	and solve bro	adly-defined	and solve bro	adly-defined	Some of the kno	wledge will	of knowledge	including	mathematics,	natural science
that knowle	edge to analyse	that knowledge	e to analyse	problems usir	ng established	problems usir	ng established	be at the forefrom	nt of the	mathematics,	natural science	and engineeri	ng principles,
and solve v	well-defined	and solve well	-defined	principles and	l techniques.	principles and	techniques.	particular subjec	t of study.	and engineer	ing principles,	and a proven	ability to apply
programme	es of work and	programmes o	f work and			Some of the k	knowledge			and a proven	ability to apply	that knowledg	je to analyse
associated	problems using	associated pro	blems using	With an appre	eciation of	will be inform	ed by current	Graduates will b	e able to	that knowledg	ge to analyse	and solve con	nplex problems.
established	d principles and	established pri	inciples and	professional e	engineering	developments	s in the subject	select and apply	quantitative	and solve cor	mplex problems.	Much of the k	nowledge will
techniques	5.	techniques.		practice and e	ethics,	of study.		and computation	nal analysis	Much of the k	nowledge will	be at the fore	front of the
				graduates wil	l be able to			techniques, reco	ognising the	be at the fore	front of the	particular sub	ject of study.
				apply their kn	owledge and	With an appre	eciation of	limitations of the	methods	particular sub	ject of study.		
				skills to new s	situations.	professional e	engineering	employed.				Graduates wil	
						practice and e				Graduates wi	ll be able to		ply quantitative
						graduates wil		With an apprecia			ply quantitative	and computat	,
						-		professional eng	-		tional analysis	techniques in	
						to apply their	•	practice and ethi	-	techniques in			ata, discussing
						and skills to d	•	graduates will be			lata, discussing		of the methods
						deliver produc		commercially aw			s of the methods	employed.	
						and processe		to apply their kno	-	employed.			
							s using current	skills to design a				With an appre	
						technology.		new products or		With an appre		professional e	0 0
								meet defined ne	•	professional e		practice and e	
								new or existing t	technologies.	practice and		graduates will	
										graduates wil		-	aware and able
											aware and able	to apply their	°
										to apply their	•	and skills to d	-
											lesign, deliver		innovative new
											innovative new	1.	ervices to meet
										1.	ervices to meet		s using new or
											s using new or	existing techn	loiogies.
										existing techr	lologies.		

Learning Outcomes – AAQA first edition and AHEP fourth edition

The table below presents the learning outcomes for AHEP 4 and AAQA with the addition of a note to indicate the level at which each learning outcome must be demonstrated. Note that when consideration is given to accreditation of programmes of further learning no consideration is needed of any 'learning outcome achieved at previous level of study' as accreditation will only apply for individuals who have completed a suitably accredited programme for which the programme serves as further learning.

Notes on learning outcomes

1. Well-defined problems involve several factors, but with few of these exerting conflicting constraints, and can be solved through the standardised application of engineering science.

2. Broadly-defined problems involve a variety of factors which may impose conflicting constraints, but can be solved by the application of engineering science and well-proven analysis techniques.

3. Complex problems have no obvious solution and may involve wide-ranging or conflicting technical issues and/or user needs that can be addressed through creativity and the resourceful application of engineering science.

4. These learning outcomes are minimum threshold standards and should be interpreted in the context of a particular disciplinary or multidisciplinary engineering practice, and the level of study.

5. An individual who has completed an approved or accredited programme must meet all of the identified learning outcomes, however student learning hours are likely to vary between the five key areas of learning.

6. It is recognised that an approved or accredited programme may develop learning outcome(s) beyond the threshold level, including where learning outcomes are met at the previous level of study, however such additional learning is not prescribed or required for academic accreditation.

7. The learning outcome level required to meet the required programme outcome/registration level is not necessarily that which corresponds with the final year/stage of the programme. Rather, it provides one indication of the earliest programme stage at which the required programme outcome could be met. (As extreme examples, Security (T10-M10) and Lifelong Learning (T18-M18) are defined identically for all registration levels, which implies that they could in principle be met in the first year of an undergraduate programme. These are however AHEP 4 minimum threshold standards, and HEIs may feel that the integrity of their academic programmes would require a more sophisticated approach to security or lifelong learning to be adopted for an MEng than for an EngTech or BEng programme.)

8. The learning outcomes in this document may be a useful reference point when assessing the knowledge and understanding of an individual who does not hold an accredited degree (for example those individuals following sector specific apprenticeships, in-company training programmes, IPD Schemes, etc.).

9. The Engineering Council defines security as 'the state of relative freedom from threat or harm caused by deliberate, unwanted, hostile or malicious acts. It operates on a number of levels ranging from national security issues to countering crime'. See the guidance note at: www.engc.org.uk/security

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	Engineering Techni	ician (EngTech)	Inco	rporated Engineer (I	Eng)	Cha	artered Engineer (CE	Eng)
Area of learning	Engineering Techni National Certificates and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for EngTech registration (EngTech)	Higher National Certificates and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for EngTech registration and partially meeting the academic	Foundation degrees, Higher National Diplomas and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for EngTech registration and partially meeting the	Bachelors Top-up Degrees and equivalent qualifications and apprenticeships accredited or	Eng) Bachelors degrees and Bachelors (Honours) and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for IEng registration (IEng)	Bachelors (Honours) degrees and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for IEng registration and partially meeting the academic	Masters degrees other than the Integrated Masters and Doctoral programmes and equivalent qualifications and apprenticeships accredited or approved as meeting the requirement for further learning for	Integrated Masters degrees and equivalent qualifications and apprenticeships accredited or approved as fully meeting the academic requirement for CEng registration (CEng)
Science and ma	completion of an accred thematics ineering requires a substa				ensurate with the level of s	requirement for CEng registration (Partial CEng)	CEng registration (CEng Further Learning)	
Science,	1	1	1	1	B1. Apply knowledge of		M1. Apply a	M1. Apply a
mathematics					mathematics, statistics,		comprehensive	comprehensive
and	natural science and	natural science and	natural science and	natural science and	natural science and	natural science	knowledge of	knowledge of
engineering	engineering principles	engineering principles	engineering principles	engineering principles	engineering principles	and engineering	mathematics, statistics,	mathematics, statistics,
principles	to well-defined problems. (ISCED L3/ EQF L4)	to well-defined problems. (ISCED L3/ EQF L4)	to broadly-defined problems. (ISCED L5/EQF L5)	to broadly-defined problems. Some of the knowledge will be informed by current developments in the subject of study. (ISCED L6/EQF L6)	to broadly-defined problems. Some of the knowledge will be informed by current developments in the subject of study. (ISCED L6/EQF L6)	principles to the solution of complex problems. Some of the knowledge will be at the forefront of the particular subject of study. (ISCED L6/EQF L6)	natural science and engineering principles to the solution of complex problems. Much of the knowledge will be at the forefront of the particular subject of study and informed by a critical awareness of new developments and the wider context of engineering. (ISCED L7/EQF L7)	will be at the forefront

Area of learning National Certificates Higher National Certificates (continued) Foundation degrees (continued) Bachelors d	rees Integrated Masters											
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Masters degrees	
(continued)	

Area of	National Cartificates	Higher National	Foundation degrees	Bachalara Tan un	Pachalara dagrada	Bachalara (Hanaura)	Maatara dagraaa	Integrated Masters					
	National Certificates	Higher National		Bachelors Top-up	Bachelors degrees	Bachelors (Honours)	Masters degrees	Integrated Masters					
learning	(continued)	Certificates (continued)	· · · ·	(continued)	(continued)	(continued)	(continued)	(continued)					
On successful completion of an accredited or approved programme, an individual will be able to: Design and innovation													
-	Design is the creation and development of an economically viable product, process or system to meet a defined need. It involves significant technical and intellectual challenges commensurate with the level of study.												
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Design	T5. Contribute to	H5. Design solutions	F5. Design solutions	B5. Design solutions	B5. Design solutions	C5. Design solutions	M5. Design solutions	M5. Design solutions					
	design solutions for	for well-defined	for broadly-defined	for broadly-defined	for broadly-defined	for complex	for complex problems	for complex problems					
	well-defined technical	technical problems	problems that meet	problems that meet	problems that meet	problems that meet	that evidence some	that evidence some					
	problems and assist	and assist with the	a combination of	a combination of	a combination of	a combination of	originality and meet	originality and meet					
	with the design of	design of systems,	user, business and	societal, user, business	societal, user, business	societal, user, business	a combination of	a combination of					
	systems, components	components or	customer needs as	and customer needs as	and customer needs as	and customer needs as	societal, user, business	societal, user, business					
	or processes to meet	processes to meet	appropriate. This will	appropriate. This will	appropriate. This will	appropriate. This will	and customer needs as	and customer needs as					
	business, customer	business, customer	involve consideration	involve consideration	involve consideration	involve consideration	appropriate. This will	appropriate. This will					
	or user needs as	or user needs as	of applicable	of applicable health	of applicable health	of applicable health	involve consideration	involve consideration					
	appropriate. This will	appropriate. This will	health and safety,	and safety, diversity,	and safety, diversity,	and safety, diversity,	of applicable health	of applicable health					
	involve consideration	involve consideration	diversity, inclusion,	inclusion, cultural,	inclusion, cultural,	inclusion, cultural,	and safety, diversity,	and safety, diversity,					
	of applicable	of applicable	cultural, societal and	societal, environmental	societal, environmental	societal, environmental	inclusion, cultural,	inclusion, cultural,					
	health and safety,	health and safety,	environmental matters,	and commercial	and commercial	and commercial	societal, environmental	societal, environmental					
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Image: security(ISCED L5/ EQF L4/5)(ISCED L5/EQF L5)particular project or activity. (ISCED L6/EQF L6)particular project or activity.particular project or activity.particular project or activity.particular project or activity.particular project or activity.particular proj						5,	
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SecurityT10. Adopt a holistic and proportionate approach to the mitigation of security risks.H10. Adopt a holistic and proportionate approach to the mitigation of security risks.F10. Adopt a holistic and proportionate risks.B10. Adopt a holistic and proportionate approach to the mitigation of security risks.Interview risks.			(ISCED L5/ EQF L4/5)	(ISCED L5/EQF L5)	particular project or	particular project or	particular project or
SecurityT10. Adopt a holistic and proportionate approach to the mitigation of security risks.H10. Adopt a holistic and proportionate approach to the mitigation of security risks.F10. Adopt a holistic and proportionate approach to the mitigation of security risks.B10. Adopt a holistic and proportionate approach to the mitigation of security risks.C10. Adopt a holistic and proportionate approach to the mitigation of security risks.B10. Adopt a holistic and proportionate approach to the mitigation of security risks.C10. Adopt a holistic and proportionate approach to the mitigation of security risks.					activity.	activity.	activity.
and proportionate approach to the mitigation of security risks.and proportionate approach to the mitigation of security risks.					(ISCED L6/EQF L6)	· · · · · · · · · · · · · · · · · · ·	, , ,
approach to the mitigation of security risks.approach to the mitigation of security risks.	Security	T10. Adopt a holistic	H10. Adopt a holistic	F10. Adopt a holistic		B10. Adopt a holistic	C10. Adopt a holistic
mitigation of security risks.mitigation of security risks.mitigation of security risks.level of study (N.A.)mitigation of security risks.mitigation of security risks.					, v	1	· · ·
risks. risks. (N.A.) risks. risks.					achieved at previous	1	1
		mitigation of security	mitigation of security	mitigation of security	level of study	mitigation of security	mitigation of security
(ISCED L3/ EQF L4)		risks.	risks.	risks.	(N.A.)	risks.	risks.
		(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)		(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)

Masters degrees	
(continued)	

d help ensure that the benefits of innovation and

	M7. Evaluate the	M7. Evaluate the
	environmental and	environmental and
	societal impact of	societal impact of
	solutions to complex	solutions to complex
e	problems (to include	problems (to include
	the entire life-cycle of	the entire life-cycle of
	a product or process)	a product or process)
	and minimise adverse	and minimise adverse
	impacts.	impacts.
	(ISCED L7/EQF L7)	(ISCED L7/EQF L7)
		M8. Identify and
		analyse ethical
	Loorning outcome	concerns and make
	Learning outcome	reasoned ethical
	achieved at previous	choices informed by
	level of study	professional codes of
	(N.A.)	conduct.
		(ISCED L6/EQF L6)
		M9. Use a risk
		management process
	Learning outcome	to identify, evaluate
	Learning outcome	and mitigate risks (the
	achieved at previous	effects of uncertainty)
	level of study	associated with a
	(N.A.)	particular project or
		activity.
		(ISCED L6/EQF L6)
		M10. Adopt a holistic
	Learning outcome	and proportionate
	achieved at previous	approach to the
	level of study	mitigation of security
	(N.A.)	risks.
		(ISCED L3/ EQF L4)

Area of	National Certificates	Higher National	Foundation degrees	Bachelors Top-up	Bachelors degrees	Bachelors (Honours)	Masters degrees	Integrated Masters
learning	(continued)	Certificates (continued)	(continued)	(continued)	(continued)	(continued)	(continued)	(continued)
On successful o	completion of an accred	ited or approved progra	mme, an individual will	be able to:	•	•		
Equality,	T11. Recognise the	H11. Recognise the	F11. Recognise		B11. Recognise	C11. Adopt an		M11. Adopt an
diversity and	importance of equality,	importance of equality,	the responsibilities,		the responsibilities,	inclusive approach to		inclusive approach to
inclusion	diversity and inclusion	diversity and inclusion	benefits and		benefits and	engineering practice		engineering practice
	in the workplace.	in the workplace.	importance of	Learning outcome	importance of	and recognise the	Learning outcome	and recognise the
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	supporting equality,	achieved at previous	supporting equality,	responsibilities,	achieved at previous	responsibilities,
			diversity and inclusion.	level of study	diversity and inclusion.	benefits and	level of study	benefits and
			(ISCED L5/EQF L5)	(N.A.)	(ISCED L5/EQF L5)	importance of	(N.A.)	importance of
						supporting equality,		supporting equality,
						diversity and inclusion.		diversity and inclusion.
						(ISCED L6/EQF L6)		(ISCED L6/EQF L6)
Engineering pra	actice							
The practical app	plication of engineering co	oncepts and tools, engine	ering and project manage	ement, teamwork and cor	nmunication skills. Engine	eers also require a sound	grasp of the commercial	context of their work,
specifically the w	ays an organisation creat	es, delivers and captures	value in economic, socia	al, cultural or other contex	kts.			
Practical and	T12. Use practical	H12. Use practical	F12. Use practical		B12. Use practical	C12. Use practical		M12. Use practical
workshop	laboratory and	laboratory and	laboratory and	Learning outcome	laboratory and	laboratory and	Learning outcome	laboratory and
skills	workshop skills to	workshop skills to	workshop skills to	achieved at previous	workshop skills to	workshop skills to	achieved at previous	workshop skills to
	investigate well-defined	investigate well-defined	investigate broadly-	level of study	investigate broadly-	investigate complex	level of study	investigate complex
	problems.	problems.	defined problems.	(N.A.)	defined problems.	problems.	(N.A.)	problems.
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	(ISCED L5/EQF L5)		(ISCED L5/EQF L5)	(ISCED L6/EQF L6)		(ISCED L6/EQF L6)
Materials,	T13. Select and apply	H13. Select and apply	F13. Select and apply		B13. Select and apply	C13. Select and apply		M13. Select and apply
equipment,	appropriate materials,	appropriate materials,	appropriate materials,		appropriate materials,	appropriate materials,		appropriate materials,
technologies	equipment, engineering	equipment, engineering	equipment, engineering	Learning outcome	equipment, engineering	equipment, engineering	Learning outcome	equipment, engineering
and processes	technologies and	technologies and	technologies and	achieved at previous	technologies and	technologies and	achieved at previous	technologies and
	processes to plan and	processes to plan and	processes.	level of study	processes.	processes, recognising	level of study	processes, recognising
	undertake well-defined	undertake well-defined	(ISCED L5/EQF L5)	(N.A.)	(ISCED L5/EQF L5)	their limitations.	(N.A.)	their limitations.
	programmes of work.	programmes of work.				(ISCED L6/EQF L6)		(ISCED L6/EQF L6)
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)						
Quality	T14. Recognise	H14. Recognise	F14. Recognise		B14. Recognise	C14. Discuss the		M14. Discuss
management	the need for quality	the need for quality	the need for quality		the need for quality	role of quality		the role of quality
	management systems	management systems	management systems	Learning outcome	management systems	management systems	Learning outcome	management systems
	and continuous	and continuous	and continuous	achieved at previous	and continuous	and continuous	achieved at previous	and continuous
	improvement in the	improvement in the	improvement in the	level of study	improvement in the	improvement in the	level of study	improvement in the
	context of well-defined	context of well-defined	context of broadly-	(N.A.)	context of broadly-	context of complex	(N.A.)	context of complex
	l in na h-la inna	nrohlomo	defined problems.		defined problems.	problems.		problems.
	problems.	problems.	denned problems.		l denned problems.	problems.		

Area of	National Certificates	Higher National	Foundation degrees	Bachelors Top-up	Bachelors degrees	Bachelors (Honours)	Masters degrees	Integrated Masters
learning	(continued)	Certificates (continued)	(continued)	(continued)	(continued)	(continued)	(continued)	(continued)
On successful c	ompletion of an accred	ited or approved progra	amme, an individual will	be able to:		• • • •		
Engineering	T15. Demonstrate	H15. Apply knowledge	F15. Apply knowledge	B15. Apply knowledge	B15. Apply knowledge	C15. Apply knowledge		M15. Apply knowledge
and project	awareness of	of engineering	of engineering	of engineering	of engineering	of engineering		of engineering
management	engineering	management	management	management	management	management		management
	management	principles, commercial	principles, commercial	principles, commercial	principles, commercial	principles, commercial		principles, commercial
	principles, commercial	context and project	context and project	context, project	context, project	context, project and	Learning outcome	context, project and
	context and project	management to	management.	management and	management and	change management,	achieved at previous	change management,
	management.	well-defined problems.	(ISCED L5/EQF L5)	relevant legal matters.	relevant legal matters.	and relevant legal	level of study	and relevant legal
	(ISCED L3/ EQF L4)	(ISCED L5/ EQF L4/5)		(ISCED L6/EQF L6)	(ISCED L6/EQF L6)	matters including	(N.A.)	matters including
						intellectual property		intellectual property
						rights.		rights.
						(ISCED L6/EQF L6)		(ISCED L6/EQF L6)
Teamwork	T16. Function	H16. Function	F16. Function		B16. Function	C16. Function	M16. Function	M16. Function
	effectively as an	effectively as an	effectively as an		effectively as an	effectively as an	effectively as an	effectively as an
	individual and as a	individual and as a	individual, and as a	Learning outcome	individual, and as a			
	member of a team.	member of a team.	member or leader of a	achieved at previous	member or leader of a	member or leader of a	member or leader	member or leader
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	team.	level of study	team.	team.	of a team. Evaluate	of a team. Evaluate
			(ISCED L5/EQF L5)	(N.A.)	(ISCED L5/EQF L5)	(ISCED L5/EQF L5)	effectiveness of own	effectiveness of own
							and team performance.	and team performance.
							(ISCED L7/EQF L7)	(ISCED L7/EQF L7)
Communication	T17. Communicate	H17. Communicate	F17. Communicate		B17. Communicate	C17. Communicate	M17. Communicate	M17. Communicate
	effectively with	effectively with	effectively with		effectively with	effectively on complex	effectively on complex	effectively on complex
	technical and non-	technical and non-	technical and non-		technical and non-	engineering matters	engineering matters	engineering matters
	technical audiences.	technical audiences.	technical audiences.	Learning outcome	technical audiences.	with technical and non-	with technical and non-	with technical and non-
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	achieved at previous	(ISCED L3/ EQF L4)	technical audiences.	technical audiences,	technical audiences,
				level of study		(ISCED L6/EQF L6)	evaluating the	evaluating the
				(N.A.)			effectiveness of the	effectiveness of the
							methods used.	methods used.
							(ISCED L7/EQF L7)	(ISCED L7/EQF L7)
Lifelong	T18. Plan and record	H18. Plan and record	F18. Plan and record		B18. Plan and record	C18. Plan and record		M18. Plan and record
learning	self-learning and	self-learning and	self-learning and	Learning outcome	self-learning and	self-learning and	Learning outcome	self-learning and
	improve performance,	improve performance,	development as the	achieved at previous	development as the	development as the	achieved at previous	development as the
	as the foundation for	as the foundation for	foundation for lifelong	level of study	foundation for lifelong	foundation for lifelong	level of study	foundation for lifelong
	lifelong learning/CPD.	lifelong learning/CPD.	learning/CPD.	(N.A.)	learning/CPD.	learning/CPD.	(N.A.)	learning/CPD.
	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)		(ISCED L3/ EQF L4)	(ISCED L3/ EQF L4)		(ISCED L3/ EQF L4)