

Graduate Profiles: Guidelines for Qualifications and Major Subjects

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1 INTRODUCTION

These guidelines are designed to assist staff in developing graduate profiles for qualifications and major subjects.

2 DEFINITIONS

There are many definitions of "Graduate Profile" (sometimes referred to as Graduate Attributes). The definitions most relevant to this context come from the New Zealand Qualifications Framework (NZQF) and the Committee on University Academic Programmes (CUAP) and are provided below.

Graduate profile: A statement of the generic and specific attributes and skills of graduates of the programme including the body of knowledge obtained. What is requested in the Graduate Profile section is that proposed graduate outcomes are described for a qualification and/or major subject.

Graduate profiles: identify the expected graduate outcomes of a qualification. This comprehensively describes what a person awarded the qualification must be able to collectively do, be and know. In developing graduate profiles, the qualification developer should consider the full range of capabilities and competencies.(NZQF).

The framework for graduate outcomes may well need to vary from degree to degree. For example, some degrees (e.g. engineering, law) additionally equip students with the practical skills and techniques needed to apply their knowledge. However, whatever the framework adopted, attention should be given to the development in graduates of lifelong learning skills so that graduates are prepared to go on learning after graduation.

For definitions go to the glossary of terms at **Definitions**

3 DESIGN

The purpose of a graduate profile is to communicate the overarching outcomes that all students will have achieved on successful completion of a qualification and/or major subject.

In addition

- there needs to be 'constructive alignment' between the graduate profile and the goals, learning outcomes and content of the curriculum;
- graduate profiles provide a focal point for developing, delivering and evaluating/reviewing the programme;
- individual graduate profiles need to align with national qualification descriptors and NZQF level descriptors, as well as with requirements of other relevant bodies e.g. Engineers New Zealand, Nursing Council of New Zealand, etc.
- individual graduate profiles need to align with the University's vision for Great Graduates as expressed as 'Care Question Act'.

What follows are the important factors in designing / evaluating your graduate profile.

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3.1 Types and Levels of qualifications

In the New Zealand tertiary environment, types and levels of qualifications are determined by the <u>qualifications framework (NZQF)</u> and reflected in the <u>CUAP requirements</u>. There are descriptors for each qualification type and level, and these provide the basis of your graduate profile. The level descriptors provide clarity around the knowledge, skills and application expected as outcomes of qualifications at each level and your graduate profile must be aligned to these. The qualification types provide a more general description of the capabilities and attributes expected of graduates of each type.

3.2 AUT Graduate Profile Model Development and Elements

The original graduate profile model draws on broad level outcome statements, benchmarked against international qualification frameworks, together with the outcomes of a thematic analysis of existing AUT graduate profiles conducted in preparation for this work. The common themes¹ that emerged from this analysis form the central element of interrelated attributes and capabilities within the AUT graduate profile model illustrated in *Figure 1* below. Each outcome statement within a graduate profile will reflect at least one of these attributes and/or capabilities, pitched at a level appropriate to the qualification concerned (see Appendix II).

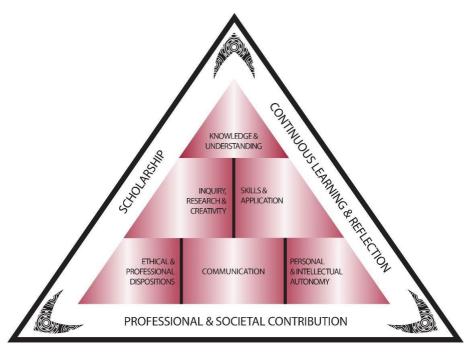


Figure 1: University Graduate Profile

Source: Adapted from Barrie, 2004.

Together the six themes: knowledge and understanding; inquiry, research and creativity; skills and application; ethical and professional dispositions; communication; and personal and intellectual autonomy contribute to three broader 'enabling' outcomes referred to as 'values and commitments': Scholarship, Professional and Societal Contribution, and Lifelong Learning, illustrated within the sides of the model above.

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¹ the common themes were consolidated into 6 broad themes

Scholarship Barrie et al. (2009) defines scholarship as 'an attitude or stance towards knowledge'. It involves the creation, integration and application of knowledge and aligns with Boyer's (1990) definition especially of the following three areas: the scholarship of discovery, the scholarship of integration, and the scholarship of application.

Professional and Societal Contribution reflects the idea of employability and more generally a contribution to the profession and broader community. The notion of engaged citizenship and appreciation of the broader concerns of society is encapsulated in this expression. Bowden et al. (2002) proposes that graduate attributes prepare students to be 'agents of social good' as does Barrie (Barrie & Prosser, 2004).

Continuous Learning and Reflection may also be referred to as lifelong learning and includes the concept of considered and structured self-evaluation. The European Commission (2001) found that lifelong learning has "four broad and mutually supporting objectives: personal fulfilment, active citizenship, social inclusion and employability/adaptability". Thus, graduates may renew and revitalise their attributes, capabilities and commitments continuously.

While the broader enabling outcomes (commitments and values) are achieved by the interrelated themes (attributes and capabilities), they are not distinct or separate outcomes in themselves, rather they are the expected result of graduates working on thematic attributes in context and achieving integrated outcomes.

In 2018, Academic Board endorsed the mission of 'Great Graduate' as expressed as: Care Question and Act. While not exhaustive some expressions might include:

Care: culturally intelligent; communicate and collaborate across boundaries; far reaching aspirations to create a better world; engage in social impact; advocate and initiate change; contribute positively

Question: intellectually curious; critically consider ideas, texts and research; think reflectively and reflexively; challenge and propose 'dangerous ideas'

Act: knowledgeable; confident; work ready; apply knowledge and technical skills in practice; engage in diverse ways of thinking

Following the University Learning and Teaching Committee [Nov 2019], several recommendations were endorsed in order to assist programme teams to align with and operationalise the existing University Graduate Profile model as articulated above, and the Great Graduate aspirations of Care, Question, Act.

The overarching intent is that each programme is responsible for articulating what Care Question Act means for their respective graduates. Colleagues are asked to note the following specific recommendations when developing their Graduate Profile:

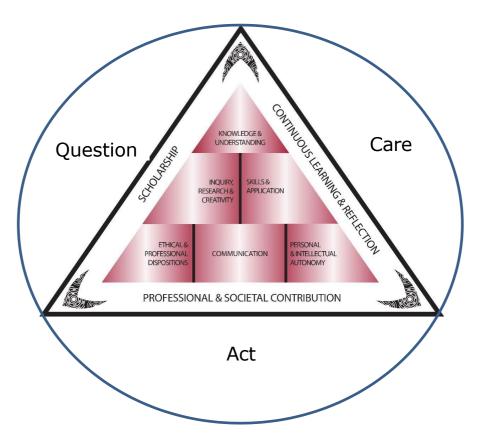
Recommendation 2: That all programmes include one graduate profile learning outcome integrating 'Care, Question, Act' to be developed and assessed in the final programme capstone or equivalent:

Undergraduate: Apply 'Care, Question, Act' in practice

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Postgraduate: Critically reflect on the significance of 'Care, Question, Act' in their professional practice.

Recommendation 3: That all programmes ensure that Care, Question and Act are also **scaffolded** throughout the curricula. This means that the other graduate profile learning outcomes either explicitly or implicitly incorporate Care, Question and/or Act, which are developed and assessed separately and/or integrated.



3.3 Alignment (mapping)

A vital element in the purpose of a graduate profile is to anchor the "constructive alignment" of the programme (Biggs & Tang, 2011). The graduate profile is the statement of programme values to students and other stakeholders, it describes the commitment the organisation makes to the students it enrols. Thus, it is expected that there will be alignment between the graduate profile and the cumulative learning of the students; what they "know, understand and can do" when they have graduated. In the practice of programme development this means overt linkages are described, showing the alignment between the learning outcomes of the papers within a programme and the graduate profile.

To ensure that this is transparent and accessible, every paper in a qualification or major in a qualification must have a clear statement of learning outcomes mapped to the graduate profile using a graduate profile matrix.

(See Appendix I for an example).

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3.4 Assessment of Students

The effectiveness of the graduate profile can be tested in several ways including graduate and employer satisfaction surveys, moderation and benchmarking and on a more regular basis through the delivery and critique of assessment. If a graduate profile element or group of elements is to be accounted for as delivered, this can be seen in the programme's assessments. This approach fits with the alignment discussion above. Learning outcomes of papers are not just linked to the graduate profile, they must also be assessable and assessed to demonstrate their actual contribution to the graduate outcomes of the programme.

4 APPROVAL AND REVIEW

4.1 Approval

- New graduate profiles (for new programmes or major subjects) and their related matrices are approved as part of the external approval process.
- Changes to existing graduate profiles must be approved by the relevant board of studies and forwarded to the AQO. Any significant changes often reflect a change to core or compulsory requirements and these types of change along with an updated graduate profile are also subject to external approval.

4.2 Communication and availability

- All approved versions of graduate profiles for qualifications and major subjects are held in relevant CUAP proposals.
- Faculties are responsible for publishing the approved graduate profile for each programme in relevant documents so that they are available to both potential and enrolled students.
- Faculties are also responsible for ensuring that both the approved graduate profile and
 its associated mapping to papers in the programme (the graduate profile matrix) are
 published in programme handbook information for enrolled students and teaching staff.

5 REFERENCES

Biggs, J and Tang C. (2011): Teaching for Quality Learning at University, McGraw-Hill and Open University Press, Maidenhead

CUAP (2013). Committee of University Academic Programmes Handbook 2013 – 2014. Retrieved May 22, 2014 from http://www.universitiesnz.ac.nz/aboutus/sc/cuap/cuap-handbook

NZQF (2014). *Understanding New Zealand qualifications*. Retrieved May 21, 2014 from http://www.nzqa.govt.nz/studying-in-new-zealand/nzqf/understand-nz-quals/

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6 APPENDICES

Appendix I: Sample Graduate Profile and Matrix (Bachelor of Arts).

Appendix II: National Descriptor Statements at level 7 and level 9

Appendix III: Sample degree graduate profile

Appendix IV: Publication of Graduate Profiles on the AUT Website

Appendix V: Bloom's Expanded Taxonomy

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APPENDIX I: SAMPLE GRADUATE PROFILE AND MATRIX

GRADUATE PROFILE OR THE BACHELOR OF ARTS

A graduate of the Bachelor of Arts will:

- 1. Demonstrate deep knowledge and understanding of the major concepts and theoretical perspectives in their chosen discipline (*Knowledge/Understanding*)
- 2. Appreciate a broad, interdisciplinary perspective of the Humanities and Social Sciences (Knowledge/Understanding)
- 3. Use oral, written and digital literacies to communicate effectively with others, to build and maintain relationships and to participate in diverse professional and social contexts (Communication)
- 4. Be curious and creative in using critical thinking skills and strategies that facilitate problem-solving, innovation, and reflection (Application/Skills) (Inquiry, Research, Creativity)
- 5. Self-manage and self-direct as an autonomous learner, yet be able to collaborate effectively with others in group and teamwork (Personal and Intellectual Autonomy,)
- 6. Demonstrate an understanding of Aotearoa/NZ culture and society from the perspective of Te Tiriti o Waitangi, biculturalism, interculturalism, and multiculturalism. (Ethical and Professional Dispositions)
- 7. Apply knowledge and skill in professional and other social settings, demonstrating ethical behaviours and sensitivity to the community of practice (Ethical and Professional Dispositions) (Application/Skills)
- 8. Care enough about the socio-cultural, economic and environmental challenges evidenced locally, nationally and globally, to question, inquire and act for social justice outcomes (Ethical and Professional Dispositions) (Inquiry, Research and Creativity).

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Graduate Profile Matrix of Core courses

Rather than attempt to include all the Courses on the Bachelor of Arts Table in the Graduate Matrix, these are subsumed within the three identified themes of Academic Communication, Culture and Society, and Knowledge and Inquiry, Work-Integrated Learning, and the Foundations of Research are reflected as separate columns. The discipline focus of the major and minor subjects is indicated in the final columns.

	A graduate of the BA will:	Academic Communication	Culture & Society	Knowledge & Inquiry	Work-Integrate Learning	CLSY719 Foundations of Research	BA major subject	BA minor subject
Knowledge/ Understanding	Demonstrate deep knowledge and understanding of the major concepts and theoretical perspectives in their chosen discipline						•	•
	Appreciate a broad, interdisciplinary perspective of the Humanities and Social Sciences		•	•				
Application/ Skills	Be curious and creative in using critical thinking skills and strategies that facilitate problem-solving, innovation, and reflection		•	•	•	•	•	•
	Apply knowledge and skill in professional and other social settings, demonstrating ethical behaviours and sensitivity to the community of practice	•			•		•	•
Ethical and Professional Dispositions	Demonstrate an understanding of Aotearoa/NZ culture and society from the perspective of Te Tiriti o Waitangi, biculturalism, interculturalism, and multiculturalism		•	•	•		•	•
	Care enough about the socio-cultural, economic and environmental challenges evidenced locally, nationally and globally, to question, inquire and act for social justice outcomes		•	•	•		•	•
Communication	Use oral, written and digital literacies to communicate effectively with others, to build and maintain relationships and to participate in diverse professional and social contexts	•			•		•	•
Inquiry, Research, Creativity	Be curious and creative in using critical thinking skills and strategies that facilitate problem-solving, innovation, and reflection		•	•		•	•	•
	Care enough about the socio-cultural, economic and environmental challenges evidenced locally, nationally and globally, to question, inquire and act for social justice outcomes			•		•	•	•
Personal and Intellectual Autonomy	Self-manage and self-direct as an autonomous learner, yet be able to collaborate effectively with others in group and teamwork	•			•		•	•

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APPENDIX II: NATIONAL DESCRIPTOR STATEMENTS AT LEVEL 7 AND LEVEL 9

Attributes and Capabilities Level 7

Attribute/Capability	Scope: Examples from AUT Graduate Profiles	Key concepts for Level 7
		Completion of a bachelor's degree denotes a mark of proficiency in scholarship and is a foundation for higher studies (CUAP Handbook)
Knowledge/ Understanding	"Body of knowledge" in academic field; theory/theoretical constructs; discipline knowledge; progressive understanding of key ideas, concepts, theories and literature; complex knowledge and understanding; the concept of enculturation – the process of becoming knowledgeable and competent in a discipline or field of learning, (induction into the discourse environment).	Broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice. Broad understanding of the discipline with depth in the underlying principles and concepts in one or more disciplines/fields e.g. significant literature or ideas are progressively studied.
Personal /Intellectual Autonomy	Independence, self-direction, adaptability/flexibility; leadership; independent thinking/judgement; decision-making; working autonomously and confidently; reflection.	Basic techniques of self-directed work and learning. Intellectual independence/accountability for own learning.
Ethical and Professional Dispositions	Ethical and societal awareness; sustainability; cultural awareness.	Knowledge and analysis of issues.
Inquiry/ Research/Creativity	Including analysis and interpretation; evaluation; problem solving; critical thinking; creativity; design (all the cognitive and creative processes); higher order thinking; creative thinking; innovation.	Problem solving/academic skills and attitudes needed to comprehend and evaluate new information, concepts and evidence from a range of sources; cognitive and creative skills to review critically, analyse, consolidate and synthesise knowledge.
Application /Skills	Application of knowledge; practice; technology-related skills, including technical tools or specialised applications; the process of becoming competent in the professional context; professional development.	Technical skills; Competent users adapt knowledge and skills in diverse contexts with responsibility and accountability. Select and apply a range of processes relevant to the field of work/study. Generate solutions to unfamiliar and sometime complex problems. Advanced generic skills or specialist skills.
Communication/ collaboration	Including leadership, management, team skills, presentations, dissemination, reading/writing/speaking/listening, project management; collaboration/teamwork.	Communication skills to present a clear, coherent and independent exposition of knowledge and ideas. Demonstrate communication and collaborative skills.

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Attributes and Capabilities Level 9

Attribute/ Capability	Scope: Examples AUT Graduate Profiles	Key concepts for Level 9
Knowledge/ Understanding	"Body of knowledge" in academic field; theory/ theoretical constructs; discipline knowledge; progressive understanding of key ideas, concepts, theories and literature; complex knowledge and understanding; the concept of enculturation - the process of becoming knowledgeable and competent in a discipline or field of learning, (induction into the discourse environment).	Advanced knowledge/in depth understanding of a defined/own field of expertise.
Personal /Intellectual Autonomy	Independence; self-direction; adaptability/flexibility; leadership; independent thinking/judgement; decision-making; working autonomously and confidently; reflection.	Fully self-directed, autonomous.
Ethical and Professional Dispositions	Ethical awareness/understanding/responsibility; sustainability; cultural awareness; Treaty of Waitangi.	Understanding of the ethical implications/ social and ethical responsibility linked to application of knowledge and judgements.
Inquiry/ Research/Creativity	Including analysis and interpretation; evaluation; problem solving; critical thinking; creativity; design (all the cognitive and creative processes); higher order thinking; creative thinking; innovation.	Evaluate critically. Rigorous intellectual analysis, criticism, problem solving. Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problems, concepts and theories and to apply established theories to different bodies of knowledge or practice cognitive, technical and creative skills to generate and evaluate complex ideas and concepts at an abstract level. Advanced knowledge of research principles and methods applicable to the field of work or learning. Cognitive and technical skills to design, use and evaluate research and research methods.
Application /Skills	Application of knowledge; practice; technology- related skills, including technical tools or specialised applications; the process of becoming competent in the professional context.	Innovators. Experts. Can apply their knowledge and
	Professional development.	understanding, and problem solving abilities in new or unfamiliar environments.
Communication/ collaboration	Including leadership, management, team skills, presentations, dissemination, reading/writing/speaking/listening, project management; collaboration/teamwork.	With external expert audiences and others. Contribution to knowledge and/or professional practice. Collaboration with others.

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APPENDIX III SAMPLE BACHELOR'S DEGREE GRADUATE PROFILE

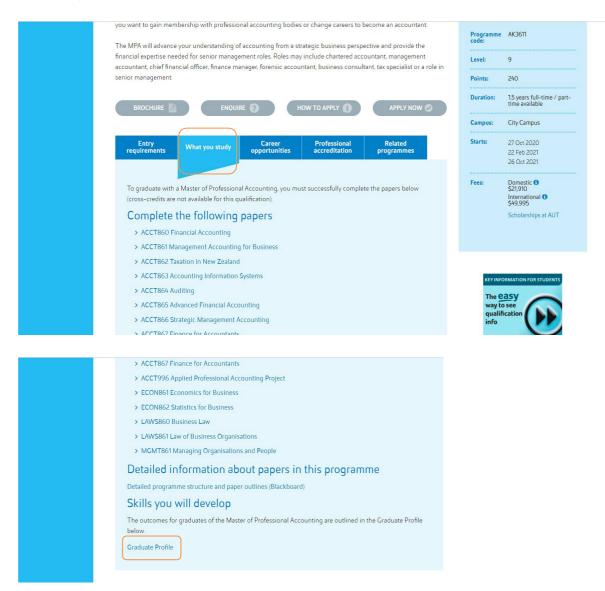
BSc, Values and Commitments	
Scholarship Professional and Societal Contribution	Graduates from this programme will have developed the ability to approach problems in a logical and scientific manner utilising fundamental knowledge and available literature.
Troicssional and Societal Contribution	Tundamental knowledge and available literature.
Continuous Learning and Reflection	The most desirable characteristic of graduates of this programme is that they should appreciate the need to be receptive to new knowledge and theories so that they stay current in their discipline and are able to contribute to the enhancement of society and undertake further study and research.
BSc, Attributes and Capabilities	
Knowledge and Understanding	Demonstrate knowledge of the theories, concepts and methodologies in their chosen field of science.
Personal and Intellectual Autonomy	Work autonomously, prioritise and appropriately schedule tasks, demonstrate independent and reflective judgement and flexibility.
Ethical and Professional Dispositions	Show awareness of the continuing need to acquire new knowledge and develop new skills; show an understanding of and have an appreciation of the implications and observance of the Treaty of Waitangi; display an awareness of the need for accountability in his/her work; and
	demonstrate understanding of their professional and ethical responsibilities to wider society
Inquiry/ Research/Creativity	Demonstrate the ability to source and evaluate information. Demonstrate the ability to analyse and solve theoretical and practical problems; display effective judgement in the selection and use of different scientific approaches and techniques to solve problems.
Application /Skills	Demonstrate a range of computer and ICT techniques.
Communication/Collaboration	Communicate effectively; work effectively within multi- disciplinary project teams and understand the requirements of leadership.

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APPENDIX IV: GRADUATE PROFILES ON THE AUT WEBSITE

Links to approved graduate profiles are posted on the relevant programme pages on the AUT website, in the tab "What you study" and under the heading "Skills you will develop", as in the example below:



APPENDIX V: BLOOM'S EXPANDED TAXONOMY







Bloom's Expanded Taxonomy (Revised and Adapted)

Here are some active, public and observable verbs that you can use to communicate expectations at each level of Bloom's Revised Taxonomy, which we've adapted and changed to suit our needs. The first column indicates the likely level of complexity, from least to most. The second column suggests some verbs associated with each level of complexity. You don't need to use the verbs we've included; if you know better synonyms, go ahead and use them!

NOTES: Each level subsumes the ones beneath it. So, for instance, an outcome at the level of application presupposes that students can remember and comprehend the relevant information.

Although the verbs listed pertain specifically to the cognitive domain, some can be used for the affective domain – and all of them are expressed in performative terms! That's because cognitive and affective knowledge is often impossible to assess unless it's integrated with some sort of behaviour!

Recollection	Recall, identify, recognize, acquire, distinguish, state, define, name, list, label, reproduce, order, indicate,			
Recalling items of information	record, relate, repeat, select, tell, describe, match, locate, report, choose, cite, define, outline, complete, draw, find, give, isolate, pick, put, show			
Comprehension / Interpretation	Translate, extrapolate, convert, interpret, abstract, transform, select, indicate, illustrate, represent, formulate, explain (who/what/when/where/that/how), classify, describe, discuss, express, identify, locate, paraphrase, recognize, report, restate, review, summarize, find, relate, define, clarify, diagram, outline, compare, contrast, derive, arrange, estimate, extend, generalize, give examples, ask, distinguish			
Constructing meaning from information				
Application	Apply, sequence, carry out, solve, prepare, operate, generalize, plan, repair, explain, predict, instruct,			
Using information in new situations	compute, use, perform, implement, employ, solve, construct, demonstrate, give examples, illustrate, interpret, investigate, practice, measure, operate, adjust, show, report, paint, draw, collect, dramatize, classify, order, change, write, manipulate, modify, organize, produce, schedule, translate, complete, examine, advocate, persuade, resolve			
Analysis	Analyze, estimate, detect, classify, discover, discriminate, explore, distinguish, catalogue, investigate, break down, order, determine, differentiate, dissect, examine, interpret, calculate, categorize, debate, diagram, experiment, question, solve, test, dissect, deconstruct, focus, find coherence, survey, compare, contrast, classify, investigate, outline, separate, structure, categorize, determine evidence/premises and conclusions, appraise, criticize, debate, illustrate, infer, inspect, inventory, select, deduce, induce, argue, balance, moderate, identify, explain (how/why), challenge, question			
Distilling and/or organizing information into its components; solving problems				
Synthesis / Creation	Write, plan, integrate, formulate, propose, specify, produce, organize, theorize, design, build, systematize, combine, summarize, restate, discuss, derive, relate, generalize, conclude, produce, arrange, assemble,			
Relating items of information to each other, integrating them, and generating something new	collect, compose, construct, create, perform, prepare, propose, strategize, compare, contrast, hypothesize, invent, discover, present, write, deduce, induce, bring together, pretend, predict, strategize, modify, improve, set up, adapt, solve, categorize, devise, explain (why), generate, manage, rearrange, reconstruct, relate, reorganize, revise, argue, extend, project, advocate, persuade, resolve			
Evaluation	Evaluate, argue, verify, assess, test, judge, rank, measure, appraise, select, check, justify, determine,			
Using standards, criteria, theories or processes to judge value	support, defend, criticize, critique, weigh, assess, choose, compare, contrast, decide, estimate, grade, rate, revise, score, coordinate, select, choose, debate, deduce, induce, recommend, monitor, compare, contrast, conclude, discriminate, explain (why), interpret, relate, summarize, challenge, question, advocate, persuade			

8

Course Design for Constructive Alignment (Winter 2012) Michael K. Potter and Erika Kustra Centre for Teaching and Learning, University of Windsor

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