agenda

Academic Board Standing Committee
Electronic Meeting 29-31 August 2018

1. Programme Approval – Bachelor of Geospatial Science (Level 7, 360 credits)

memo

To	Academic Board Standing Committee	Date	29/08/2018
From	Manpreet Malhotra, Te Korowai Kahurangi	Phone No.	ext. 8144
Subject	Approval of Bachelor of Geospatial Science for submission to NZQA		

Recommendation:

That Academic Board Standing Committee approves the programme documentation for the following degree, effective from Semester 1 2019, for submission to NZQA:

- **Bachelor of Geospatial Science (with a major in Surveying) (Level 7, 360 Credits)**

Rationale

The proposed Bachelor of Geospatial Science sits within the Engineering Practice Pathway.

Currently, geospatial science is supported in the following ways at Unitec:

- the New Zealand Diploma in Surveying and the Bachelor of Natural Sciences offer courses in GIS;
- relevant information technology (IT) subjects are offered as part of the Bachelor of Computing Systems and the Bachelor of Engineering Technology; and
- the Bachelor of Construction, Bachelor of Architectural Studies, and Bachelor of Landscape Architecture provide experience in related areas (for example, 3D representation or laser-scanning).

To address the growth in demand and the breadth of applications covered by geospatial science, Unitec is proposing to introduce a Bachelor of Geospatial Science (BGEO). This programme will initially be available with a major in Surveying.

The programme documentation has been reviewed by the Academic Approvals Committee (AAC) to ensure that it meets Unitec and NZQA regulatory and compliance requirements. The recommendations made by the AAC were addressed as appropriate and approved at the Committee meeting of 27 August 2018. The AAC now recommend that Academic Board approve this programme for submission to NZQA.

The Programme Factual Summary Sheet is attached.

PROGRAMME FACTUAL SUMMARY

Programme Details

Title of programme:	Bachelor of Geospatial Science
With endorsements in:	Surveying
Level:	7
Total credits:	360
NQF credits:	-
Unitec credits:	360
Programme abbreviation:	BGEO
Programme number:	N/A
Programme owner:	Unitec
Qualification:	Unitec Qualification
Titles of any national or NZ qualifications completed as part of the programme:	N/A
Nature of approval sought:	Approval and Accreditation SAC funding
Proposed start date:	25 February 2019
New programme or existing:	New programme
Brief summary of changes made:	N/A

Qualification Details

Qualification title:	Bachelor of Geospatial Science
With strands in (if applicable):	Surveying
Version:	1
Qualification type:	Bachelor's Degree
Qualification award category:	20
Level:	7
Credits:	360
NZSCED subject classification:	040305
Qualification developer:	UNITEC
Next review:	TBA
Approval date:	TBA

Outcome Statements

Strategic Purpose Statement	The *Bachelor of Geospatial Science* aims to produce graduates who possess specialist knowledge and skills in surveying. Graduates will have the necessary scientific, technological, and practical knowledge and skills needed for employment and/or further study in the local or international surveying and/or spatial science fields.
Graduate Profile:	Students will receive instruction in, and will have opportunities to develop, research; critical-thinking; problem-solving; cultural-competence; and professional skills needed for modern work-places and communities in the geospatial science sector. Consequently, *Bachelor of Geospatial Science* graduates will be able to: 1. Apply discipline-specific knowledge, skills, and/or techniques. 2. Demonstrate an ability to integrate workplace cultural, professional, legal, commercial, industrial, technical, and/or safety requirements in the practice of geospatial science. 3. Demonstrate high-level problem-solving, critical-thinking, and reflection skills in the practice of geospatial science. 4. Adapt to change and engage with emerging technologies in the field of geospatial science.

	5. Demonstrate high-level communication skills with all stakeholders. 6. Apply principles of mātauranga Māori, particularly in the context of their practice in Aotearoa/New Zealand. 7. Apply and promote relevant ethical standards and principles.
Education pathway:	*Bachelor of Geospatial Science* graduates will be able to pursue further studies at Level 8 or above.
Employment and/or community pathway:	Graduates of the *Bachelor of Geospatial Science* are expected to gain employment in the broad surveying sector; this includes cadastral; engineering; hydrographic; geodetic surveying; land development and urban design; and spatial sectors.

Programme Specifications

Network:	Engineering Network
Practice pathway:	Engineering Practice Pathway
Content:	Throughout the programme, students undertake 300-credits of core geospatial technology and practice subjects (including a 30-credit, Level 7 research project); the remaining 60 credits are taken from elective courses at Level 6 or 7.
Delivery mode:	Blended
Delivery methods:	The following teaching and learning methods are used: • field-trips; • group work; • lectures (including guest/specialist lectures); • online learning (including computer simulations and web technologies); • self-directed learning; and • tutorials.
Delivery sites:	Mt Albert
Assessment methods:	This programme makes use of formative and summative assessments; methods of the latter include: • assignments; • exams; • practical assessments; • projects; • tests
Assessment standards included:	N/A
Entry requirements for KIS	42 credits at Level 3 or higher including 14 credits in each of two subjects from an approved list and 14 credits at Level 1 or higher in mathematics, including 12 credits at Level 2 or higher and 8 credits at Level 2 or higher in English/Te Reo
Entry requirements:	**General Admission Requirements** a) All applicants must be at least 16 years of age on the date the programme begins for the semester in which they wish to enrol (or provide a completed Early Release Exemption Form which can be obtained from the Ministry of Education). AND b) A minimum of 42 credits at NCEA Level 3 or higher on the New Zealand Qualifications Framework, with 14 credits at Level 3 or higher in each of two subjects from an approved subject list, with a further 14 credits at Level 3 or higher taken from no more than two additional domains on the National Qualifications Framework or approved subjects. AND

	c) A minimum of 14 credits at NCEA Level 1 or higher in mathematics or pangarau on the New Zealand Qualifications Framework. AND d) A minimum of eight credits at NCEA Level 2 or higher in English or Te Reo Maori; a minimum of four credits must be in reading and a minimum of four credits must be in writing. AND e) A minimum of 12 credits at NCEA Level 2 or higher in mathematics. **English-language Admission Requirements** Applicants must have achieved a minimum standard of English as demonstrated by a minimum of eight credits at NCEA Level 2 in English (four in reading; four in writing). International applicants must also meet the English-language entry requirements, as stated in Unitec's Admission Requirements Policy.
Student profile:	☒ Domestic & International
Student destination:	☒ More occupationally-oriented
Eligibility for student loans and allowances:	☒ Access to loans ☒ Access to allowances
Nature of funding sought:	☒ SAC
Expected student intake:	56 for the first 3 years (10 in 2019, 20 in 2020, and 26 in 2021)
EFTS	3.0
Programme duration (full-time):	3 years
Programme duration (part-time):	6 years
Programme duration (maximum):	10 years
Total programme weeks per year (including holiday weeks):	36 weeks
Total teaching weeks per year (excluding holiday weeks):	32 weeks
Average teaching hours per week:	15 hours
Average self-directed study hours per week:	22.5 hours
Work experience hours per week:	N/A
Total study hours per week:	37.5 hours
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Date: 29/August/2018