



ST PETER'S COLLEGE

Career Pathways Guide
for Year 10
2012

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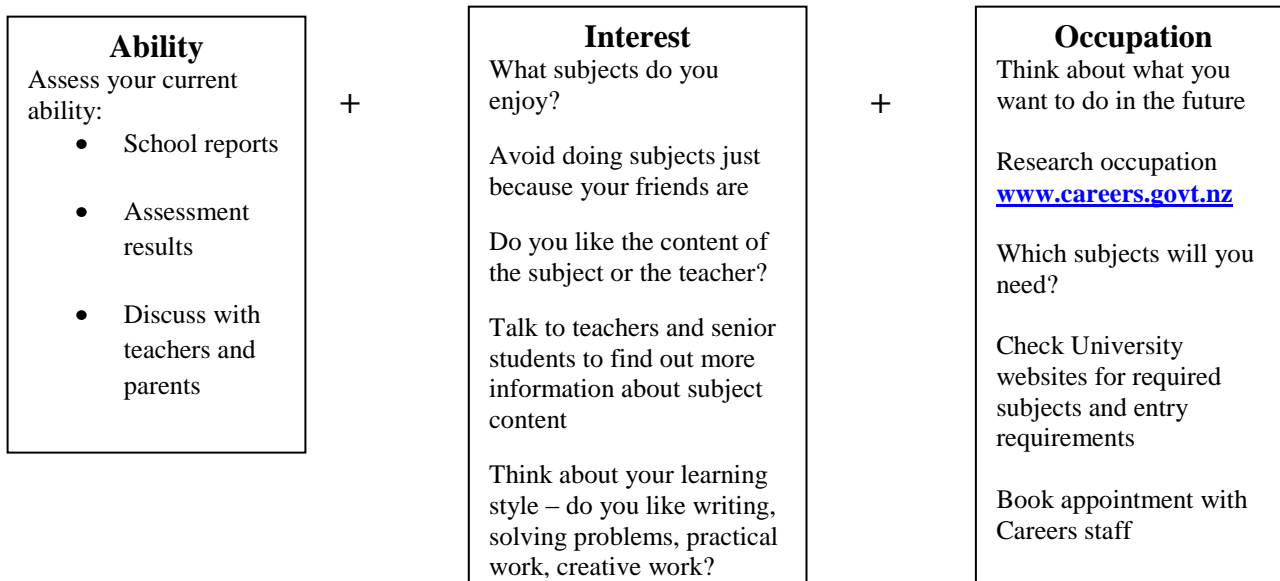
Selecting School Subjects

When you are selecting subjects, it is important to **keep your options open** for future career opportunities. Many tertiary courses have prerequisite subjects and specific entry requirements, and it is important that you are aware of this, when making subject choices.

As you make decisions about which subjects to take, consider the following:

- What subjects do you really enjoy?
- What is your current ability in each subject you are studying?
- Avoid selecting subjects just because your friends are taking them
- Consider what you want to do in the future and check out the entry requirements and recommended subjects for future tertiary courses and apprenticeships (see **Subject choice guide pages 3-9**)
- Talk to teachers and senior students to find out more information about the content of subjects
- Get further help by talking to staff in the Careers department or Deputy Principal (Curriculum)
- Think carefully before dropping core subjects like Mathematics, English and the Sciences, as this could limit future career choices
- Remember that some subjects cannot be picked up later and must be studied sequentially (e.g. languages).

Subject Choice = Ability + Interest + Occupation



SUBJECT CHOICE GUIDE

School Subjects and Entry Requirements for Career pathways

The summary on the following pages provides a brief outline of some career pathways beyond school, recommended subjects and current requirements for entry to tertiary courses or apprenticeships (updated August 2011). It is intended to assist students when selecting school subjects so that future career choices remain open.

Important:

- Entry into many courses is dependent on grades/level of achievement as well as subject choice
- There are numerous occupations not on this list. You are advised to visit the Careers Centre to obtain specific details
- You should also check current entry requirements and prerequisites from the websites and prospectuses of the tertiary institution you are interested in.
- The minimum entry listed in the table below refers to the minimum academic requirements that need to be achieved in order to be considered for entry to the course. Meeting these minimum entry requirements does not guarantee a place on the course.
- For minimum entry standards, we have tried to list both NCEA and Cambridge requirements. In cases where CIE standards are not listed, please see Careers Department.

SUBJECT CHOICE GUIDE

UE = University entrance

Career	Qualification	Recommended subjects	Minimum entry
Agriculture	Diploma	Level 2 or AS Chemistry, Mathematics, English, Biology, Physics	40 credits at Level 2 over 4 subjects + numeracy and literacy
	Degree	Level 3 or AS Chemistry, Mathematics, Biology, Physics	University Entrance (UE)
Apprenticeships (many including building, plumbing, electrical)	National Certificate	Mathematics, English, General Science, Carpentry, Furniture-making, Graphics Physics Level 2 for Electrical	Completion of Year 11/12. Level 2 Mathematics, English, Physics required for electrical apprenticeship Pre-apprenticeship courses: 4 years at Secondary School + 12 credits at Level 1 in each of 2 subjects
Architecture	Masters degree (total 5 years)	Highly recommended: level 3 Visual Arts subjects, level 3 or AS Mathematics, English (or other English-rich subject), Physics. Useful: Graphics	<u>Auckland Uni</u> : UE + must take one Table A humanities subject and one Table B subject (and under NCEA gain 16 credits in both table A and B subject). Portfolio. <u>UNITEC</u> : UE + portfolio <u>Victoria</u> : 170 UCAS (CIE) or 180 rank score (NCEA) + UE. Entry after intermediate year (no portfolio)
Architectural Technology	Diploma	Level 2 or AS Mathematics, Physics, English, Graphics, Design	Min 35 credits at Level 2. Level 2 Mathematics. Level 1 English 8 credits.
Automotive Engineering (Mechanic)	Certificate	Level 1 English, Mathematics	Completion of Year 11/12 with 8 credits in Level 1 English + 10 credits in Level 1 Mathematics Pre-apprenticeship courses: completion of 4 years at Secondary school + 12 Level 1 credits in each of 2 subjects (including English)
Aviation (1) Airforce	Pilot/Navigator	English, Mathematics and Science subjects (preferably Physics)	Min 18 credits in Level 2 English, Maths and Science subjects (pref Physics). Eyesight restrictions.
(2) Massey	B Aviation	Year 13 or AS Physics, Mathematics, English	UE. Rank score of 120 (NCEA) or 140 (CIE). Aptitude test, simulator assessment, selection interview + written assessments. Class 1 Medical certificate.
(3) Flying school		Year 12 or AS Physics, Mathematics, English	Pre-selection process. 18 years of age.

Career	Qualification	Recommended subjects	Minimum entry
(4) Air New Zealand Certificate in Aeronautical Engineering	National Certificate	Year 12 or AS English, Mathematics and Science subject (pref. Physics)	Pre-enrolment assessment
Business/Commerce	Degree	Level 3 or AS Mathematics. Accounting, Economics recommended. Calculus if majoring in Economics or Finance.	UE <u>Auckland Uni</u> : 16 credits in 3 table A and B subjects. Rank score: 180 (NCEA) or 160 (CIE)
Computing/IT	Degree	AS Mathematics or Level 3 Mathematics with Calculus, Statistics, Physics, Economics, English	UE and 14+ credits in Level 2 Mathematics or D grade in AS Mathematics
	Certificate	Level 2 Mathematics	NCEA: 48 credits at Level 2 + 8 Level 1 credits in language-rich subject CIE: 60 UCAS pts
Construction Management/Quantity Surveying	Degree	Level 3 or AS Mathematics. Economics, Physics recommended	UE and 12 credits in Level 2 Mathematics
	Diploma	Level 2 Mathematics, Economics	35+ credits at Level 2 in best 3 subjects with 12 credits from algebra/trigonometry + 8 credits in Level 1 English.
Dentistry	Degree (Otago)	AS or Level 3 Biology, Chemistry, English, Mathematics, Physics	<u>Otago</u> : UE + ranking system, then entry after Health Sciences First Year (HSFY).
Design	Degree	Level 3 Art subjects. English, Graphics useful.	UE. Art portfolio (and interview at some universities including AUT and UNITEC)
Engineering	Degree (4 years)	A level or Level 3 Physics. A level Mathematics or Level 3 Mathematics with Calculus. AS or Level 3 Chemistry required for some programmes.	<u>Auckland</u> : UE. Rank score 280 (CIE) or 240 (NCEA). CIE: full A levels for Maths and Physics NCEA: 18+ credits in Level 3 Physics and Calculus <u>Canterbury</u> : UE Suggested: 18 credits in Level 3 Calculus, 14 credits in Level 3 Physics, 9 credits in Level 3 Chemistry. Selection after intermediate year. <u>Massey</u> : UE, 16 credits in Level 3 Physics and Calculus + 14 credits in L3 Chemistry. D grade in AS Physics, Mathematics, Chemistry. <u>AUT</u> : 14 credits in Physics and Calculus. Full A levels for Maths and Physics in CIE.

Career	Qualification	Recommended subjects	Minimum entry
Fine Arts	Degree	Level 3 visual arts subjects	UE <u>Auckland</u> : Portfolio, interview, written application <u>Canterbury</u> : Portfolio + strong marks in two Level 3 Art subjects + 14 credits in each of 2 non-Art subjects in Level 3.
Food Science, Nutrition	Degrees at Otago, Massey, Auckland	AS or Level 3 Biology, Chemistry, Mathematics, English, Physics	UE <u>Auckland</u> : rank score 150 (NCEA), 140 (CIE) <u>Massey</u> : Rank score 120 (NCEA), 140 (CIE)
Food Technology	Massey (4 years)	AS or Level 3 Chemistry, Biology, Physics, Calculus	UE, 16 credits Level 3 Calculus, Physics + 14 credits Chemistry or D grade in AS Physics, Mathematics and Chemistry. Rank score: 120 (NCEA), 140 (CIE)
Horticulture	Degree	Level 3 or AS Biology, Chemistry, Mathematics	UE
Hospitality	Degree	AS or Level 3 English, Mathematics, Commerce subjects	UE + interview. Work experience recommended
Journalism, Communications	Diploma	AS or Level 2 English, Hospitality	48+ credits in Level 2 subjects with 8 Level 2 credits in language-rich subject. CIE : 60 pts on UCAS, incl. language-rich subject.
	Degree	AS or Level 3 English, History	<u>AUT</u> : UE NCEA: 60 credits at Level 3 in 4 subjects incl 18 credits in English-rich subject (with Merit/Excellence credits). CIE: 150pts on UCAS, C grade at AS level in English-rich subject. Curriculum vitae, letter of application, latest school report, interview
Law	Degree (4 years)	AS or Level 3 English, Classics, History, Economics, Languages	UE, then competitive entry after 1 st yr. <u>AUT</u> : UE NCEA: 60 credits at Level 3 over 4 subjects, with 18 credits at merit or excellence in Classics, English, Geography, History, Art History, or Te Reo Maori. CIE: 3-5 AS subjects with min. C grade at AS level in Classics, English, Geography, History or Art History.

Career	Qualification	Recommended subjects	Minimum entry
Medical Laboratory Science	Degree(4 years) at AUT, Otago, Massey	Level 3 Mathematics with Statistics or AS Mathematics. Level 3 or AS Biology, Chemistry, English, Physics	<u>AUT</u> : UE NCEA: 14 credits in Level 3 Maths with Statistics, Biology, Chemistry; CIE: AS Maths, Biology, Chemistry <u>Massey</u> :UE. Rank score of 120 (NCEA) or 140 (CIE). 14 credits in Level 3 Chemistry. <u>Otago</u> : UE + ranking system for entry into Health Science First Year. Entry into degree dependent on marks in 1 st yr.
Medical radiation therapy (Otago University @Wellington)	Degree	AS or Level 3 English, Mathematics, Biology, Physics	UE + completion of suitable subjects (see recommended subjects). Interview. Initial selection from Year 12 results
Medicine	Degree (6 years); entry after 1 st year	AS or Level 3 Biology, Chemistry, Physics, Mathematics, English	<u>Auckland</u> : UE. Intermediate year of either BSc (BioMedSci) or BHSc. Both limited entry into 1 st year. NCEA: BHSc requires 18 credits from 1 table A and 1 table B subject + rank score of 210 CIE: BHSc requires rank score of 210 with 1 table A and 1 table B subject. Full A levels in 1 table B subject preferred. BSc (BioMedSci): rank score of 239 (NCEA) or 269 (CIE) <u>Otago</u> : UE + ranking system into Health Sciences First Year. Entry into Medicine dependent on 1 st yr marks + UMAT.
Music	Degree	Music Grade 5 theory recommended	UE + audition for performance majors. Statement of musical background and experience. <u>Auckland</u> : rank scores for Composition and History/Literature of Music are 140 (NCEA) and 130 (CIE)
Optometry	Degree (5 years)	AS or Level 3 Chemistry, Biology, Physics, Mathematics	UE + limited entry into BSc (Biomed Sci) with rank score of 239 (NCEA) or 269 (CIE), then competitive entry into optometry after 1 st yr

Career	Qualification	Recommended subjects	Minimum entry
Pharmacy	Degree (4 years + 1 yr internship)	AS or Level 3 Biology, Chemistry, Physics, Mathematics, English Full A levels in Biology and Chemistry preferred.	<u>Auckland</u> : UE + 18 credits in Level 3 Biology and Chemistry + rank score 220 (NCEA). Full A levels in Biology and Chemistry preferred with rank score of 230 (CIE). Interview. <u>Otago</u> : UE + ranking system for entry into Health Sciences first yr (HSFY). Entry into degree dependent on marks in HSFY.
Physical Education	Degree (4 years)	Biology, English, Academic PE highly recommended. Chemistry and Physics helpful.	<u>Auckland</u> : UE + interview + rank score of 140 (NCEA) or 130 (CIE). Referees reports. Numeracy + literacy assessment. <u>Otago</u> : initial selection from Year 12 results; 80 credits at Level 2 with 16 credits in each of 4 subjects + UE
Physiotherapy	Degree (4 years)	AS or Level 3 Biology, Chemistry, Physics, English, Mathematics	<u>AUT</u> : UE with 56 credits Level 3 credits in 3 approved subjects (NCEA) or 180 pts on UCAS (full A levels preferred) <u>Otago</u> : UE + ranking system for entry into Health sciences first year. Entry into degree dependent on marks in HSFY.
Planning	Degree	Level 3 or AS Geography, Economics useful	UE. <u>Auckland</u> : Rank score 230 for NCEA and 240 for CIE
Police		Level 2 English, Mathematics	Academic and Physical tests Swimming, first aid and defensive driving certificates.
Science	Degree	AS or Level 3 Biology, Chemistry, Physics, Mathematics, Geography	UE. <u>Auckland</u> : rank score of 150-239 (NCEA) or 140-269 (CIE), depending on major
Social Work	Degree	English, Classics, History, Geography, Economics, Mathematics with Statistics	UE <u>Auckland</u> : rank score 140 (NCEA), 130 (CIE), Interview + referees reports. <u>Massey</u> : rank score 120 (NCEA), 140 (CIE)
Sport and Recreation Sports Science	Degree	Biology, English, Geography, Physical Education	UE <u>Auckland</u> : (Sports and Ex Science): Rank score of 190 (NCEA) or 180 (CIE) <u>AUT</u> 14 credits from Level 3 Academic PE, Maths or Science subjects (NCEA) + 12 credits in L2 English

Career	Qualification	Recommended subjects	Minimum entry
Surveying (land)	Degree	Level 3 Statistics, Calculus or AS Maths. Physics, Geography, English.	<u>Otago</u> : UE, then competitive entry after 1 st yr
Teaching	Diploma	Level 2 Mathematics, Science (pref. Physics), Graphics	<u>Unitec</u> : 36 credits at Level 2 including 12 credits from Level 2 Mathematics (Algebra, Trigonometry, Geometry) and 12 credits from Level 2 Science subject
	Degree	AS or Level 3 approved subjects	UE + interview <u>Auckland</u> : rank scores of 140 (NCEA) and 130 (CIE) (Note: for secondary teaching, do undergraduate degree then Graduate Diploma of Teaching or 4-year teaching degree)
Veterinary Science	Degree	AS or Level 3 Biology, Chemistry, Maths, Physics, English	UE with rank score of 120 (NCEA) or 140 (CIE) for entry to semester 1, then competitive entry after 1 st semester at Massey

Useful Websites

To assist with Subject Selection:

Otago University: Recommended Background subjects

<http://www.otago.ac.nz/prodcons/groups/public/documents/webcontent/otago005271.pdf>

Canterbury University: Best preparation from School

http://www.canterbury.ac.nz/liaison/best_prep.shtml

Victoria University: Planning ahead – choosing your subjects

<http://www.victoria.ac.nz/srca/downloads/course-planning-aids/Planning%20ahead%20-%20choosing%20your%20subjects%20for%202011.pdf>

Careers NZ website

www.careers.govt.nz

University and Polytechnic Websites:

University of Auckland	www.auckland.ac.nz
AUT University	www.aut.ac.nz
Manukau Institute of Technology	www.manukau.ac.nz
Massey University	www.massey.ac.nz
Unitec	www.unitec.ac.nz
Lincoln University	www.lincoln.ac.nz
University of Canterbury	www.canterbury.ac.nz
University of Otago	www.otago.ac.nz
University of Waikato	www.waikato.ac.nz
Victoria University	www.victoria.ac.nz

Apprenticeships

Modern Apprenticeships	www.modern-apprenticeships.govt.nz
Building	www.bcito.org.nz
Electrical	www.etco.co.nz

Industry-specific websites

NZ Skills Connect (Connecting people to careers in Aviation, Hospitality and Tourism)	www.nzskillsconnect.co.nz
ATTTO (Careers in Aviation, Museums, Travel and Tourism)	www.attto.org.nz/tourism
BCITO (Building and Construction Industry Training Organisation)	www.bcito.org.nz
Dairy Industry Careers (Farming, Agribusiness)	www.getfresh.co.nz
Geology Careers	www.geol.canterbury.ac.nz
Auckland Health Careers	www.aucklandhealthjobs.co.nz
Nursing in NZ	www.moh.govt.nz/nursing
Retail Careers	www.rwr.co.nz/for-candidates/career-map/
Air NZ Aircraft Maintenance	www.plane-training.com
	Forces
Airforce, Army, Navy	www.defencecareers.mil.nz
Police	www.newcops.co.nz

Other useful websites

Information on planning financial future	www.sorted.org.nz
Student loans and allowances	www.studylink.govt.nz
Careers in Technology, Engineering, Science	www.futureintech.com
Approved NZQA courses	www.kiwiquals.govt.nz
Tertiary study in USA	www.fulbright.org.nz