

SIMON FRASER UNIVERSITY

Memorandum

To: Senate

From: Sarah Dench
Secretary, SCUS 

Date: September 14, 2000

Subject: Motion on Proposed New BC Grade 12 Admissions Requirements,
SCUS.00-28

Action undertaken by the Senate Committee on Undergraduate Studies at a meeting held September 12, 2000 gives rise to the following motion:

“that Senate approve the new BC Grade 12 admissions requirements as set forth in S.00-89

Rationale

See attached documentation.

Proposed changes to the admission requirements to Simon Fraser University from British Columbia Grade 12

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Summary

This is a proposal to expand the Grade 11 and Grade 12 required courses to include a broader range of disciplines, including fine and performing arts courses. It adds a fifth Grade 12 course to the set used to calculate the admission average. The courses are grouped to encourage breadth, but a student's ability to specialize remains unaffected.

This proposal has been under consideration for over two years. During this time, broad consultation occurred. The proposal received support from within the University and from educators in the school system.

The earliest acceptable implementation date is Spring semester 2002.

General requirements for all programs and faculties (changes in bold face)

Current

Proposed

Secondary school graduation

Secondary school graduation

67% (C+) minimum average

67% (C+) minimum average

Average calculated on English 12 and best three 'academic' Grade 12 courses as listed

Average calculated on either **English 12 or Français première langue 12** and **best four Grade 12 courses that satisfy the general entrance requirement**

Approved Programme Cadre and French Immersion courses equal to the above are acceptable, except that **Français première langue** is not accepted in place of English12.

Approved Programme Cadre and French Immersion courses equal to the above are acceptable, and **Français première langue is acceptable in place of English12.**

Locally developed courses are not accepted

Locally developed courses are not accepted

Course requirements - Grade 11

General requirements currently give entry to most disciplines and programs in the Faculty of Arts and to the Communication program in the Faculty of Applied Sciences. Entry requirements to other faculties and programs are set as additions to the general requirements. They are given later in this document.

Certain courses have Advanced Placement (AP) or International Baccalaureate (IB) near-equivalents which are also acceptable. To simplify the course listings, the acceptable AP and IB equivalencies are given separately in Appendix 3.

Current

Proposed

English 11
language 11 or introductory language 11
principles of mathematics 11
science 11 from:
applications of physics 11 &12
biology 11
chemistry 11
earth science 11
principles of physics 11

English 11
language 11 or introductory language 11
principles of mathematics 11 or applications of mathematics 11 &12
science 11 from:
applications of physics 11 &12
biology 11
chemistry 11
earth science 11
forests 11
IB environmental systems11
principles of physics 11

Course requirements - Grade 12 (changes in bold face)

Current

Proposed

English 12

From List 1 one course (4 credits)

List 1

English 12 or Français première langue 12

Three courses from:

AP art studio drawing 12
 AP art studio general 12
 AP calculus AB (or BC)
 AP comparative government & politics 12
 AP computer science A/AB
 AP economics 12
 AP environmental science 12
 AP psychology 12
 AP statistics 12
 AP US government & politics 12
 biology 12
 chemistry 12
 comparative civilizations 12
 English literature 12
 French 12 or 12A
 geography 12
 geology 12
 German 12
 history 12
 IB comp Science/Studies 12
 IB further mathematics 12
 IB Italian
 IB psychology 12
 IB Russian
 IB theatre arts 12
 IB theory of knowledge (philosophy) 12
 Japanese 12
 Latin 12
 Mandarin 12
 principles of mathematics 12
 principles of physics 12
 Punjabi 12
 Spanish
 writing 12

From list 2, two courses (8 credits)

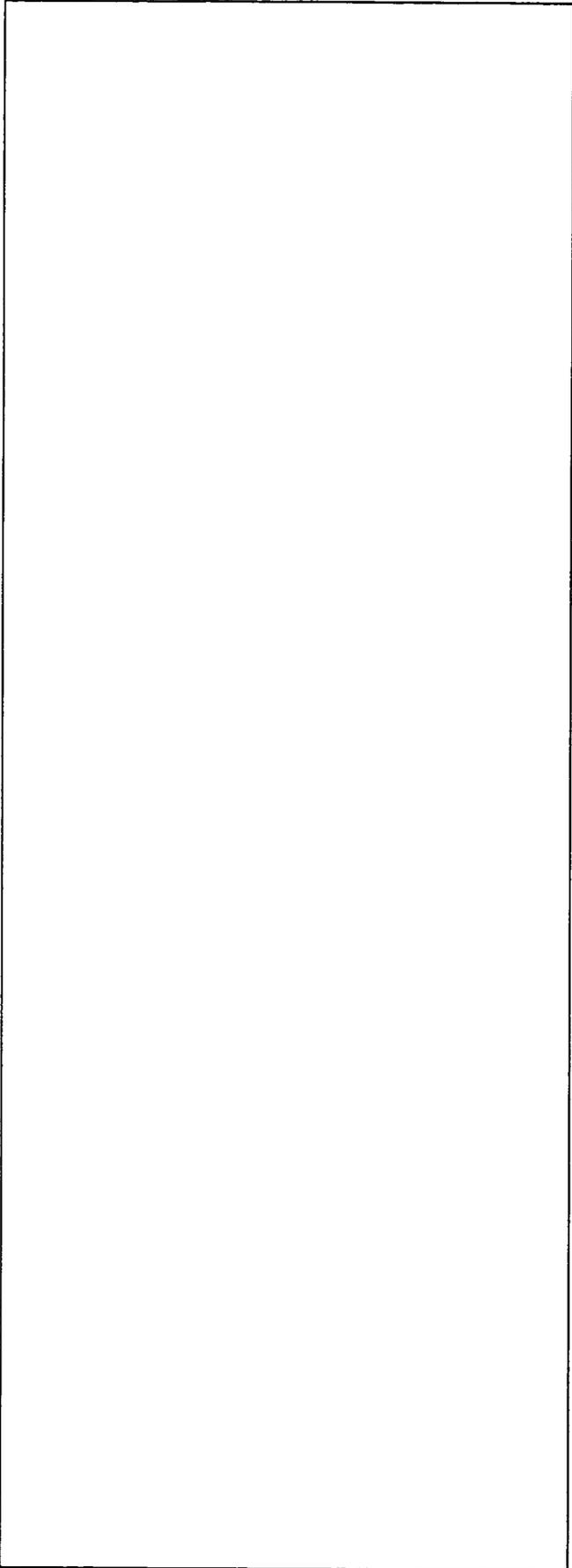
List 2

AP calculus AB (or BC)
 AP computer science A/AB
 AP environmental science 12
 AP statistics 12
 biology 12
 chemistry 12
 English literature 12
 geography 12
 geology 12
 history 12
 IB comp science/studies 12
 IB further mathematics 12
 principles of mathematics 12
 principles of physics 12

Two additional courses from List 2 or List 3 (8 credits). If both courses are chosen from List 3, they must be from different groups.

List 3

Fine and Performing Arts Group
 acting 12
 AP music theory 12
 art 12
 dance choreography 12
 dance performance 12
 directing and scriptwriting 12
 drama film & TV 12
 AP art studio general/drawing 12
 IB art & design 12
 IB music composition 12
 IB theatre arts 12
 music composition 12
 music composition & technology 12
 stagecraft 12
 visual arts 2D 12
 visual arts 3D 12
 visual arts media arts 12
 writing 12



List 3 Continued

Humanities Group

comparative civilizations 12

IB theory of knowledge (philosophy) 12

languages:

* **Arabic 12**

* French 12 or 12A

* German

* Russian 12

* Italian 12

* Japanese 12

* Latin 12

* Mandarin 12

* **Okanagan 12**

* Punjabi 12

* **Secwepemctsin 12**

* Spanish 12

* **Upper St'at'imcets 12**

Sciences Group

AP environmental science 12

forests 12

IB environmental systems 12

IB information technology in a global society 12

information technology 12

Social Sciences Group

AP comparative government & politics 12

AP economics 12

AP psychology 12

AP US government & politics 12

economics 12

IB business & organization 12

IB economics 12

IB psychology 12

IB social anthropology 12

journalism/media 12

law 12

Course requirements for other faculties/programs (changes in bold face)

Current

Business Administration

General requirement but must include principles of mathematics 12

Engineering Science

General requirement but must include principles of mathematics 12, chemistry 12 and principles of physics 12 (and both chemistry 11 and principles of physics 11)

Computing Science

General requirement but must include principles of mathematics 12; one of biology 12, chemistry 12, principles of physics 12; one further course from biology 12, chemistry 12, AP computer science 12, IB computing science 12, geology 12, AP environmental science 12; one of comparative civilizations 12, geography 12, history 12, AP comparative gov't & politics 12, AP economics 12, AP psychology 12, IB psychology 12

Kinesiology

General requirement but must include principles of mathematics 12, biology 12 and either chemistry 12 or principles of physics 12

Science

General requirement but must include principles of mathematics 12; two of biology 12, chemistry 12, geography 12, geology 12; principles of physics 12 (and both chemistry 11 and principles of physics 11)

Proposed

Business Administration

General requirement but must include principles of mathematics 12 in list 2

Engineering Science

General requirement but must include principles of mathematics 12, chemistry 12 and principles of physics 12 in list 2 (and both chemistry 11 and principles of physics 11)

Computing Science

General requirement except that principles of mathematics and one of biology, chemistry, principles of physics must be included from list 2; one additional science course must be chosen from list 2 or list 3; and one further course must be chosen from either list 2 or list 3 as follows:

- geography, history
- a course in the social sciences group from list 3
- a course in the humanities group, except for a language course, from list 3

Kinesiology

General requirement but must include principles of mathematics 12, biology 12 and either chemistry 12 or principles of physics 12, from list 2 (**under review**)

Science

General requirement but must include principles of mathematics 12; two of biology 12, chemistry 12, geography 12, geology 12, principles of physics 12 from list 2 (and both chemistry 11 and principles of physics 11)

Rationale for changes

A good admission policy should:

- complement graduation requirements in terms of literacy and knowledge (scientific, humanistic and mathematical);
- complement SFU's course offerings, encouraging gifted/talented students to pursue their talents interests;
- ensure Grade 12 course content sufficient for first year university courses to be taught at an appropriate level;
- encourage breadth in secondary school program and allow for electives;
- encourage high academic standards and heavier-than-minimum course loads;
- be flexible enough to suit both large and small schools;
- fit within the graduation program without forcing excess course loads or scheduling problems;
- minimize overlap between subject matter learned in secondary school and in university.

However, our current admission policy:

- does not reflect the breadth of SFU's program, especially in Fine and Performing Arts but also in social sciences, mathematics, statistics and computer science (except through the AP and IB programs which are not available in most schools);
- in conjunction with the graduation requirements, succeeds in encouraging some breadth at Grade 11, but does little to encourage breadth at Grade 12;
- places heavy emphasis on only about half of the of Grade 12 credits of most students;
- discourages worthy additions to the academic subject list because our admission average is calculated on few courses, such that displacement of existing courses is an inevitable, but unwanted consequence;
- does not fully recognize graduation from the francophone program unless English 12 is taken in addition to Français Première Langue 12;
- does not encourage students to take full advantage of the secondary education program by taking a full course load - graduation requires 52 (13 courses) of a potential 64 or more credits (16 courses) in a full schedule, or even more credits if external credits are granted; (external courses are routinely given credit towards graduation – these include a wide range of courses and exams related to music theory, arts and performance (e.g. Royal Conservatory of Music Grade 7 and up), sports involvement as athlete, coach or official, youth development (e.g. Air Cadets Level 4 and up, Guides Canada Cord and up), first aid and lifesaving certification, driver education and private aircraft pilot's license and commercial computer certification).
- lacks a regular Grade 11 or Grade 12 computer/information technology course, except for AP or IB courses which are offered in a small number of schools. As far as is known, in all other jurisdictions in N. America, major universities recognize and encourage students to take high school computer science.

Features of this proposal

- increases the course requirements by one course (4 credits);
- allows a wider range of courses to be considered;
- allows Programme Cadre graduates to qualify for admission.
- allows a choice between the 'principles' and 'applied' streams in mathematics;

- allows Forests 11 as a science (primarily for non-science students);
- allows IB Environmental Systems 11 as a science (primarily for non-science students).

Advantages

- gives recognition to fine and performing arts and social studies courses;
- brings Information Technology 12 to recognized status, encouraging computer education;
- sets a more complete admission/graduation program, yet does not lengthen it;
- average is over 5 courses, broadening base and reducing effect of any individual course;
- sets SFU's admission policy as independent and well-considered;
- requirements become more similar to other Canadian universities.

Disadvantages

- requirements will be less similar to UBC and UVIC
(but at UBC there are indications that a broader-based admission policy is contemplated).

Observations

The minimum credit or course requirement can be increased without imposing excessive workloads and without adversely affecting either depth or breadth.

The actual preparation, qualifications and skills of SFU students vary considerably, depending on whether they enter as secondary school graduates, transfer students or on some other basis, such as Mature Students. Probably, only about half to two-thirds of our students have fulfilled the depth and breadth requirements stipulated in our entrance requirements from secondary school.

The University's admission requirements for direct entry from secondary school have more effect on the secondary schools than they have on this University. University entrance requirements have had a major effect on the popularity of some secondary school courses. Consequently, a large number of teaching jobs in some disciplines (e.g. French) depend on the entrance requirements of the provincial universities.

Other Issues

Many issues were raised in discussing this proposal, including:

- second language 11 - is it necessary when the many new admits entering under other bases of admission are not required to have it?

SCUS members favour keeping it for BC Grade 12 graduates.

- should the second language, mathematics and English requirements be applied universally rather than only to applicants from BC Grade 12?

SCUS members think this is impractical.

- Information Technology 11 and 12 - are these courses equivalent in standard to courses in other disciplines and should we encourage students to take them?

SCUS members consider that IT11 should not be a requirement for entry but favour using IT12 as an 'academic' course (see List 3 below).

- is it feasible to develop criteria or required characteristics for those Grade 12 courses we use for university admission?

SCUS members believe that this is unnecessary. Each course can be considered on its merits.

- is there sufficient confidence that assessment standards are comparable among the wide range of secondary school courses?

SCUS members have no way to determine this.

Notes on the Grade 11 requirements used for admission

- English 11

Required prerequisite for English 12. This course has both a writing and literature component.

- Principles of Mathematics 11

Mathematical (algebraic) principles - necessary knowledge for science disciplines which require Principles of Mathematics 12 and subsequently Calculus and for social sciences where statistics are part of the curriculum. Generally accepted to be a good academic predictor and good training in abstract reasoning. Some believe that Applications of Mathematics 11 and 12 are more suitable math courses for students who will not proceed to take Calculus.

- a Language 11 or beginners Language 11

This requirement is peculiar to the largest three BC universities and arises historically directly out of UBC's Faculty of Arts degree requirements. A second language is compulsory from Grade 5 to 8. Ontario has a minimum French requirement for graduation but this is mostly completed by Grade 10 and no Ontario university has compulsory French or other language requirement. The prevailing view at SFU favours retaining this language requirement to promote humanistic values and to encourage national unity (applies only to French), retention of First Nations' languages (applies to First Nations' languages) and internationalization (applies to French and other foreign languages).

- a science 11 from chemistry, physics, earth science, biology.

These make up the experimental sciences and it has been suggested that they are present to ensure that a student has exposure to scientific method.

Notes on Grade 12 courses used for admission

- Grade 12 'Academic' Courses

Our policies for admitting students from secondary school give special status to certain courses (which we loosely call the 'academic' courses). Some of these courses are required and some are used to determine the admission average. A few courses are important prerequisites for SFU courses. The only criteria for selecting these courses, is that they are 'Ministry-authorized' rather than 'locally developed'. 'Ministry-authorized' courses have a published curriculum that applies Province-wide. 'Locally-developed' courses are designed at a school or school district level to satisfy local needs.

- AP and IB courses

Those AP and IB courses which had already been assessed and for which transfer credit is granted, but for which there is no equivalent BC Grade 12 'academic' course (e.g. AP Environmental

Science 12), were accepted in 1999 as 'academic' Grade 12 courses. Previously, these courses were not used to determine admission.

- Provincial exams

Some 'academic' courses and a few other Grade 12 courses have provincial exams. The provincial exam is worth 40% of the final grade and aggregate results are public, so there is additional accountability for grading standards in examined courses. When the provincial exams were established, they were mostly set for the more prestigious 'academic' courses. However, in general, there is no link between the quality or content of a course and its examination status. It is worth mention that in the early 1990s, UBC's Senate decided that acceptable Grade 12 'academic' courses must have a provincial exam. The reason given was to promote a 'level playing field'

i.e. more consistent grading standards, hence more fairness in the ranking of applicants.

Controversy arose when the Ministry of Education introduced Mandarin 12 without an exam.

Following pressure from community groups, Mandarin 12 now has a provincial exam but, subsequently, the Ministry dropped the exam in Latin 12 and has hinted about doing the same for other courses, in an effort to control costs. At SFU, we have not linked the presence or absence of a provincial examination to the list status of any course.

- Changes approved to Computing Science direct entry

In anticipation of these changes, the Faculty of Applied Sciences already initiated broader admission requirements for direct entry to Computing Science. These changes were approved by Senate 2000 01 10 and come into effect in Fall semester 2001.

- Changes contemplated for direct entry to other programs

Other direct entry programs (e.g. Kinesiology) have reviewed or are reviewing their requirements for direct entry and will likely propose further minor adjustments, if the general entry requirements are changed as a result of this proposal.

Consultation

SCUS first received this proposal as a discussion paper SCUS 98-19 in summer 1998 and considered it on 1999 10 19. It was circulated to faculties for comment, returning to the SCUS agenda on 1999 05 28. Comment from faculties was positive, except that the Faculty of Arts was strongly in favour of retaining the Grade 11 language requirement without allowing students an option to substitute another course in a discipline such as Information Technology. However, the Faculty of Arts appeared not to favour requiring all SFU new students to have a second language at the Grade 11 level (i.e. college transfers, degree holders, university transfers, grade 12 graduates from other provinces etc).. It was then tabled for almost a year while we held informal discussions with UBC on the possibility of developing a common admission policy. Those discussions were inconclusive, so the proposal was revised and updated. SCUS felt that wide consultation was necessary so the draft proposal was posted on the SFU web site, starting Spring 2000. Attention was drawn to it through widespread e-mails to the SFU community, the BC Principals' and Vice-Principals' Association, the BC School Counsellors' Association, BC Federation of Independent Schools and both related ministries. Paper copies were made available to those who did not have web access.

Feedback received on the proposal

17 written responses were received from SFU faculty, SFU staff, school principals, school counsellors, and from a representative of the Ministry of Education. SCUS reviewed their comments, which were mostly positive and encouraging. They are available on request.

Implementation

The proposal liberalizes rather than restricts students' choices. Hence rapid implementation was suggested. However, schools responded that they were apprehensive about rapid implementation because many students might seek mid-year course changes, disrupting traditional enrolment patterns and playing havoc with course advising that had already been concluded. The earliest acceptable implementation date is therefore Spring semester 2002.

Appendix 1 - Graduation Requirements

For BC applicants, the graduation requirements are currently:

Students must earn a minimum of 52 credits (i.e. 13 full courses worth 4 credits each), including Foundation Studies and Selected Studies.

Foundation Studies - students must earn a minimum of 28 credits in the following subject areas: (each course is normally worth 4 credits)

- Language Arts 11 (4 credits)
 - communications 11 Français Langue Première11
 - English 11
- Language Arts 12 (4 credits)
 - communications 12 Français Langue Première 12
 - English 12 technical and prof. communications 12
- Social Studies (4 credits)
 - social studies 11 first nations studies 12
- Mathematics (4 credits)
 - accounting 11 principles of mathematics 11
 - introductory mathematics 11 mathematics 11A
 - applications of mathematics 11
- Science (4 credits)
 - biology 11 agriculture 11
 - chemistry 11 technology 11
 - earth science 11 forests 11
 - physics 11 information technology 11
 - science and technology 11
- Fine Arts (2 credits)
 - art 11 choral music 11
 - visual art 2D 11 music composition 11
 - visual art 3D 11 strings 11
 - visual art 11: multimedia & technology music 11: composition and technology
 - acting 11 dance 11: performance
 - stagecraft 11 dance 11: choreography
 - drama 11: film and television fine arts 11
 - band 11
- Applied Skills (2 credits)
 - accounting 11 intro. clothing & textiles 11
 - data processing 11 intro. foods/nutrition 11
 - information management 11 textile arts and crafts 11
 - keyboarding 11 tourism 11
 - marketing 11 carpentry 11
 - speed writing 11 construction 11
 - Clothing and Textiles 11 drafting 11
 - Cook Training 11 electronics 11
 - Family Management 11 mechanics 11
 - Foods & Nutrition 11 metal 11

technology 11
welding 11

physical education 11
information technology 11

- Career and Personal Planning (4 credits)
career and personal planning 11 (2 cr.) career and personal planning 12 (2 cr.)

- Work Experience

In either Grade 11 or 12, students must earn one credit (30 hours) of work experience.

- Selected Studies - students must earn a minimum of 24 credits. Students select courses of varying credit value to support their career plans (e.g., apprenticeship, vocational, technical, university or college studies, entry to workforce).

Of the minimum 24 credits:

- 10 credits must be in Ministry-approved Grade 12 courses.
- up to 8 credits can be in locally-developed courses, unless part of an approved Career Program.

Accounting 11 may satisfy the mathematics or applied skills requirement, but not both.
Information Technology 11 may satisfy the science or applied skills requirement, but not both.
Technology 11 may satisfy the science or applied skills requirement, but not both.

The vast majority of BC graduates complete the English language program but a small minority graduate under a parallel francophone version "Programme Cadre" - not to be confused with French Immersion.

The Secondary School Graduation Program has a number of breadth requirements (see above). These are currently modified by SFU's own requirements:

- * Language Arts 11 is restricted to English 11;
- * Mathematics 11 is restricted to Principles of Mathematics 11;
- * Language 11 or Introductory Language 11 - a language course is not required to graduate but a minimum number of 4 years of language instruction is part of the pre-graduation program. In addition to this minimum, SFU requires a grade 11 language or introductory language – for most student this amounts to 6 years of language education;
- * Science 11 - is restricted to one of: Biology, Chemistry, Earth Science or Physics;
- * For certain SFU programs and faculties, there are additional Grade 11 requirements:
 - Science - at least one further Gr 11 science course
 - Engineering Science - must include Chemistry 11 and Physics 11
 - Kinesiology - must include Biology 11 and either Chemistry 11 or Physics 11

Appendix 2 - Typical (minimal) program under current regulations

e.g. an intending Business Administration major might take:

Foundation Studies - minimum of 28 credits:

Language Arts 11 (4 credits)	English 11
Language Arts 12 (4 credits)	English 12
Social Studies (4 credits)	social studies 11
Mathematics (4 credits)	principles of mathematics 11
Science (4 credits)	earth science 11
Fine Arts (2 credits)	band 11
Applied Skills (2 credits)	marketing 11
Career and Personal Planning (4 credits)	career and personal planning 11
	career and personal planning 12
Selected Studies - (24 credits)	principles of mathematics 12 (4 credits)
	geography 12 (4 credits)
	history 12 (4 credits)
	French 11 (4 credits)
elective	foods & nutrition 11 (4 cr.)
elective	physical education 11 (4 credits)
Total: 52 credits	

This student has 'room' for 3 more courses (12 credits). S/he could readily take an additional 'academic' Grade 12 course, and most applicants already do so.

Appendix 3 – AP and IB course equivalents

A number of Advanced Placement (AP) and International Baccalaureate (IB) courses may be used in place of equivalent provincially-approved BC Grade 12 courses. Here are the BC Grade 12 courses suitable for calculating your admission average, along with their AP and IB equivalents.

BC Grade 12 course	AP course (or equivalent to BC 12)	IB course (or equivalent to BC 12)
	Art Studio (gen'l or drawing portfolio)	
Biology	Biology	General Biology
	Calculus AB or BC	
Chemistry	General Chemistry	Chemistry
Comparative Civilizations	History of Art	Western Civilization
	Comparative Gov't & Politics	
	Computer Science A (or AB)	Computing Studies
	Economics	
English	English (Language or Composition)	English Language A
English Literature	English Literature and Composition	English Literature
	Environmental Science	
French or Français Langue 12	French Language or Literature	French Language A or B
Geography	Human Geography	Geography
Geology		
German	German Language	German A or B
History	History (European, US or World)	History (Asian or European)
		Italian A or B
Japanese		Japanese A or B
Latin	Vergil (Latin) I or II	Classical Language
Mandarin		Mandarin
Principles of Mathematics		Further Math or Mathematical Methods
Principles of Physics	Physics (B or C)	Physics
	Psychology	Psychology
Punjabi		
		Russian A or B
Spanish	Spanish (Language or Literature)	Spanish A or B
	Statistics	
		Theatre Arts
		Theory of Knowledge (Philosophy)
Writing		