

SIMON FRASER UNIVERSITY

S.92-78

MEMORANDUM

TO: Senate

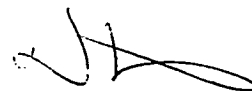
FROM: Nick Heath, Secretary
Senate Undergraduate
Admissions Board

SUBJECT: SUAB 239
Use of percent marks for
admission from BC12

DATE: October 23, 1992

Action undertaken by the Senate Undergraduate Admissions Board (SUAB) at its meeting of 22 October 1992, gives rise to the following motion:

MOTION: "that, for applicants to the 94-1 semester, seeking general admission to the Faculties of Applied Sciences, Arts, Business, Education, the admission average shall be calculated using percentage marks, where available, rather the current practice of calculating a g.p.a. derived from letter grades, and, where percentage grades are not available, that a percentage grade shall be assigned to each letter grade, according to the median grade achieved in that letter grade range, according to Ministry of Education statistical data.



SIMON FRASER UNIVERSITY
Office of the Registrar
Memorandum

From: Nick Heath, Director of Admissions & Liaison
To: SUAB
Date: 1992 10 15

Subject: Use of percent marks for admission from BC12

Proposed Motion

That SUAB approve and recommend to Senate for consideration and approval a change in the method of determining admissibility of B.C. Secondary School applicants as follows:

*General admission to the Faculties of Applied Sciences, Arts, Business, Education,
To calculate the admission average of each applicant using percentage marks, where
available, rather the current practice of calculating a g.p.a. derived from letter grades,
starting in the 94-1 semester. Where percentage grades are not available, to assign a
percentage grade to each letter grade, according to the median grade achieved in that
letter grade range, according to Ministry of Education statistical data.*

(Because most of the grades used to determine admissibility to the Faculty of Science are from Grade 11 courses, for which percentage grade data are unavailable, it is not proposed to change the method of calculating admission averages for entry to that Faculty.)

Background

The official Ministry of Education grading scheme is an unusual, coarse letter grade range, expressed as

A = 86% - 100%
B = 73% - 85%
C+ = 67% - 72%
C = 60% - 66%
P = 50% - 59%

Failures are not reported.

In spite of this official system, most Grade 12 course marks, at least most final marks, are given to us in percentage terms. In fact, for all provincially examinable subjects, we receive the final school mark, the final exam mark and the final blended mark, being a 60/40 mix of the first two marks.

The only courses which we currently use in our general admission average which are reported only as letter grades are:

Western Civilization 12
Writing 12
Survey Mathematics 12
certain Language 12 courses (e.g. Japanese 12)

International Baccalaureate courses - these are less important because students receive credit for both the Provincial course, and the IB equivalent (e.g. ENGL12 and IB ENGL 12.) We use the better of the two grades, which is usually the grade in the provincial course.

When we rank students by gpa, based on only four Grade 12 courses, we have a distribution such as the following (taken from 91-3 applicant data):

gpa	admitted		
4.00	400	3.25	502
3.75	438	3.13	172
3.63	46	3.00	567
3.50	395	2.88	461
3.38	62	2.75	381

(Numbers are unavailable for lower gpas as we did not admit students below 2.75 in 91-3).

In our enrollment management decisions, we are frequently faced with admitting all or none of a large block of equally-ranked applicants. Typically, these blocks each represent about 200 new students, after allowing for the 'no-shows' and 'did-not-registers'.

Rationale

The rationale for the change is based on perceived fairness and enrollment management requirements.

All institutions which use the letter grade system for determining BC12 admissions come under criticism from the public (parents, applicants, teachers) for admitting students whose overall percentage grades are lower than those of some students who were denied admission. An extreme example would be as follows:

Student A			Student B		
ENGL 12	B	73%	ENGL 12	B	85%
MATH 12	B	73%	MATH 12	B	85%
FREN 12	B	73%	FREN 12	B	85%
GEOG 12	B	73%	GEOG 12	C+	72%
ADMITTED: GPA = 3.00			DENIED (DEFERRED) GPA = 2.88		
Percent mean = 73%			Percent mean = 82%		

When these discrepancies are brought to the attention of the Ministry of Education, their response is that the post-secondary institutions have freedom to set admission policy and may select students on whatever basis they wish. It is not clear whether the Ministry of Education would be in favour of use of the percent marks by post-secondary institutions to determine admission, but it seems that they would not oppose this.

Real data on 92-3 applicants is attached in the table entitled "Comparison of GPA with percent rankings of random applicants". You will note that if only the best 10 students could have been admitted to SFU from the pool of 23 applicants, use of the percent grades would have changed two out of ten decisions (20%). One must be cautious in assuming that the 10 'best' students would be those with the 10 highest rankings on their percentage marks, rather than the 10 who would be selected on g.p.a., but this assumption is widespread among teachers and parents.

Drawbacks and Problems

Missing percent marks.

If we are to use percent marks to determine admission, we must be able to assign a percent mark where only a letter grade is given. It would be statistically invalid to assign the mid-point mark in the range, because we would expect the actual distribution of grades to follow a normal distribution curve. Suggested percent marks are given below:

Grade	Range	Mid point	Suggested percent equiv.
A =	86% - 100%	93%	90%
B =	73% - 85%	79%	77%
C+ =	67% - 72%	69.5/70%	69%
C =	60% - 66%	63%	63%
P =	50% - 59%	54.5/55%	55%

Data will be obtained from the Ministry of Education on the actual distribution of percent marks, to validate the suggestions made above.

Faculty of Science Admission Requirements

The Science requirements call for an average based on 9 courses, including 5 Grade 11 courses for which percent grades are unavailable. Alternatives are to revise the method of calculating the Science average or continue to use the gpa method for Science students. Of these, the former would be preferred by the Admissions Office because:

- it is simpler to use only the Grade 12 courses in the average;
- there will be no distinction between Gr 11 and Gr 12 courses if the Graduation Working

Paper changes go through;

- UBC is moving to a four course average from a nine course average (see attached)
- the second average is confusing and unnecessary - the courses can be required at the

Grade 11 level as currently specified, but need not be included in the average

Nevertheless, no change is currently suggested, as this is the responsibility of the Faculty.

Graduation Program Working Paper

The Ministry of Education's planning document, the 'Graduation Working Paper', refers to a future grading scheme which is even coarser than currently used, namely

A = 86% - 100%

B = 70% - 85%

C = 50% - 69%

If these changes are implemented, it will be even more important for us to use the percent grades, provided that they continue to be available; otherwise, admission selection and ranking will become virtually impossible.

Implementation

These changes in our admission processing can be made for admission to 94-1, provided that action is taken in 92-3 to obtain the necessary SUAB and Senate approvals. Implementation for a Spring semester is preferred over that for Fall, because of overlapping entry cohorts and higher volumes of applications in the spring/summer semesters.

Significant computer system redesign will be required, but all necessary data are already collected.

This proposal has been discussed within the Office of the Registrar, with senior administration, with selected school counsellors and with the Ministry of Education. There seems to be general agreement on its merit (see attached letter from J. McConnell).

If approved, notice of the change will be published in Spring 92, with the bulk of the effort to advise the secondary school being made in the 93/94 application publications and visits, starting September 93.

nh Oct 92

COMPARISON OF GPA WITH PERCENT RANKINGS OF RANDOM APPLICANTS

	GRADE 12	GRADE 12	GRADE 12	GRADE 12	GRADE 12	GRADE 12	GRADE 12					PANK	PANK
STUID	#1	#1	#2	#2	#3	#3	#4	#4				BY GPA	BY %
	GP	% GP		% GP		% GP		%	GPA	%			
92301-1928	BISC B	83	CHEMB	75	ENGL B	81	LIT B	82	3.00	80.25	1 =	2 =	
92301-1676	BISC B	74	FRENB	73	ENGL B	81	GEOGB	80	3.00	77.00	1 =	11	
92301-6149	BISC B	75	CHEMB	74	ENGL B	80	FRENB	83	3.00	78.00	1 =	7 =	
92301-9003	BISC B	82	FRENB	73	ENGL B	84	MATH B	73	3.00	78.00	1 =	7 =	
92301-2253	BISC B	75	CHEMB	73	ENGL B	82	MATH B	82	3.00	78.00	1 =	7 =	
92301-2686	PHYSB	76	GEOGB	81	ENGL B	82	MATH B	74	3.00	78.25	1 =	6	
92301-5043	PHYSB	73	FRENB	79	ENGL B	84	HIST B	82	3.00	79.50	1 =	4	
92301-5163	PHYSB	84	CHEMB	84	ENGL B	81	MATH B	80	3.00	82.25	1 =	1	
92301-3678	CHEMB	73	HIST B	75	ENGL B	77	MATH B	73	3.00	74.50	1 =	20 =	
92301-4235	CHEMB	84	MATH B	77	ENGL B	81	FRENB	79	3.00	80.25	1 =	2 =	
92301-6614	BISC B	81	CHEMC+	69	ENGL B	81	MATH B	80	2.88	77.75	11 =	10	
92301-1695	BISC B	80	CHEMC+	69	ENGL B	84	FFENB	81	2.88	78.50	11 =	5	
92301-6323	CMPT B*	77	MATH B	84	ENGL B	76	CHEMC+	69	2.88	76.50	11 =	14 =	
92301-3072	WCIV B*	77	BISC B	75	ENGL B	73	CHEMC+	69	2.88	73.50	11 =	22 =	
92301-3295	FRENB	75	LIT B	78	ENGL B	82	CHEMC+	71	2.88	76.50	11 =	14 =	
92301-0550	BISC B	78	CHEMC+	71	ENGL B	81	FRENB	77	2.88	76.75	11 =	12 =	
92301-1304	BISC C+	67	GEOGB	79	ENGL B	78	GEOGB	79	2.88	75.75	11 =	18	
92301-4094	FRENB	73	HIST B	75	ENGL B	75	LIT C+	71	2.88	73.50	11 =	22 =	
92301-1186	FRENB	84	WRT B*	77	ENGL B	74	FRANC+	71	2.88	76.50	11 =	14 =	
92301-2941	CHEMB	73	GEOGB	82	ENGL C+	70	MATH B	75	2.88	75.00	11 =	19	
92301-1593	CHEMB	73	WCIV B*	77	ENGL B	81	MATH C+	67	2.88	74.50	11 =	20 =	
92301-1716	BISC B	81	CHEMB	76	ENGL C+	71	MATH B	77	2.88	76.25	11 =	17	
92301-0857	BISC B	81	CHEMB	75	ENGL B	82	MATH C+	69	2.88	76.75	11 =	12 =	
* ASSIGNING VALUE OF 77% FOR LETTER GRADE B													
* ASSIGNING VALUE OF 69% FOR LETTER GRADE C+													



COLLINGWOOD SCHOOL

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CC NH
DM

October 15, 1992

Mr. Rick Smith
Admissions and Liaison Office
Office of the Registrar
Simon Fraser University
Burnaby, B.C.
V5A 1S6

Dear Rick;

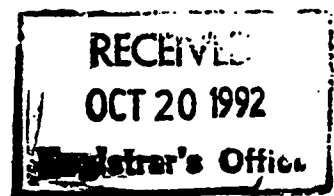
Please add my name to those individuals who have expressed support for your proposed changes to the S.F.U. admission requirements.

Collingwood School is a B.C. Group 2 Independent School. Each year approximately 85-90% of our 50 or so Grade 12 students transfer directly from Collingwood to post-secondary institutions. Many of the students wish to attend S.F.U. but must choose a university outside of British Columbia because of the inequities of the B.C. grade point system. I have just returned this week from Ontario and Quebec where I toured seven universities with 11 of our Grade 12 students. Many of these young people are very solid "B" students, achieving in the low 80%'s in their academic courses. They are seriously considering eastern schools because their grades will gain them admission to some of the best schools in the country when the same marks equate to a "B" or 3.0 gpa in B.C. Not enough for SFU's 1992 early admission - hence, the serious interest elsewhere. Last year, one-third of Collingwood graduates left B.C. for Ontario and Quebec. I am sure that some of them would have remained in B.C. if the admission policies were different.

Our institutions are losing out! Our province is losing out!

Respectfully submitted,

Joseph Lunn
Assistant Headmaster (Academics)





Crofton House School

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(604) 263-3255

Oct. 13, 1992

Rick Smith
Director of Liaison
Simon Fraser University
Burnaby, B.C.

Dear Rick:

I am sorry that this letter has taken so long to get to you, but I have been occasionally sidetracked. As we discussed earlier, I have some concerns with the use of letter grades for admission to Simon Fraser University.

First, like you, I come from an environment which does not use letter grades. I understand the pedagogical advantages of the generalized grouping which results from the use of letters rather than exact percentages; in fact, in many ways a letter grade reflects more honestly the "margin of error" of the marks.

However, the use of letters creates an unfair admission system. First, there are only so many permutations to GPAs which you can use, and I suspect that the pool at each GPA is sometimes large enough to detract from any discrimination on your part. For example, if you have room for 300 additional students, and the next increment down on your GPA listing has 500 students, how do you decide? In fact, how do you discriminate when an admission grade of greater than 4.0 is required, as is the case with Engineering and may be the case with other successful programs in the future. In addition, you must fall back to use number grades when you are determining scholarships; why not make the whole process consistent?

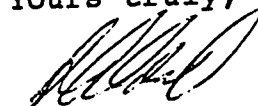
I have a second, more major concern. With the present system, if a 3.0 or B average is required, it implies an average of approximately 75%. However, a student who has four subjects of 83% still ends up with a 3.0 average, as does a student who has two marks of 74, one of 86 and one of 60, for an average of 74%. But a student with three marks of 84 and one of 72, for an average of 81% has a GPA of 2.75, and with a 3.0 cutoff would be refused admission. The examples of such situations are plentiful, and I am sure that you have languished over them. And let us not kid ourselves: students have figured this out and are peaking with some subjects in order to get a higher letter grade, and letting others slide until they are at the minimum within the letter grade bracket. What motivates a student

to get four 84% marks, when getting four 74% marks places
her in the same pool?

I heartily encourage SFU to use actual percentage grades for admission. Such a change will put SFU into step with the rest of the country, eliminate confusion on the part of students, and will create a much more fair way for you to determine who is qualified for admission.

I would gladly discuss this point with you or others at Simon Fraser University. Thank you for the opportunity to make this input.

Yours truly,


Jim McConnell
Director of the Senior School