

This is a school-by-school study based on final marks in December 2004 for the various UBC first year calculus courses for students who graduated from BC schools in 2004. There is also a comparison with results for students from Alberta and Ontario. **Comments are included at the end of this report.** The Term I UBC calculus courses include:

MATHEMATICS 100 (3 credits): Differential Calculus with Applications to Physical Sciences and Engineering (prerequisites: *High school calculus*, at least C+ in Principles of Math 12).

MATHEMATICS 102 (3): Differential Calculus with Applications to Life Sciences (prerequisites: *High school calculus*, at least C+ in Principles of Math 12).

MATHEMATICS 104 (3): Differential Calculus with Applications to Commerce and Social Sciences (prerequisites: *High school calculus*, at least C+ in Principles of Math 12).

MATHEMATICS 120 (4): (Honours) Differential Calculus. (Invitation based on excellence on the Euclid Contest or Principles of Mathematics 12 Scholarship result.)

MATHEMATICS 101 (3): Integral Calculus. For students who obtained a mark of 5 in AP Calculus AB or at least 75% in the UBC-SFU-UVIC-UNBC Calculus Challenge Examination (administered by SFU in 2004; by UBC in 2005). **This course will not be offered in the Fall semester of 2005.**

MATHEMATICS 180 (4): Differential Calculus with Physical Applications (prerequisite: at least C+ in Principles of Math 12). *Not for credit for those with high school calculus. Same final exam as Mathematics 100.*

MATHEMATICS 184 (4): Differential Calculus for Social Science and Commerce (prerequisite: at least C+ in Principles of Math 12). *Not for credit for those with high school calculus. Same final exam as Mathematics 104.*

Table of Results in Dec 2004 compares performances for each course. For the students of each course the average Principles of Math 12 and UBC course marks are given.

Table A compares schools by region and type. BC schools identified by region are public schools.

The school-by-school Tables (I, II) include all BC schools with at least 10 students in UBC calculus classes in the Fall of 2004.

The "ranking" of a school is determined by equally weighting its results in the categories of percentage passing, percentage with A standing, and the change of its students' average marks in Principles of Math 12 to UBC Math courses.

KUDOS:

JN Burnett (Richmond) has ranked in the top third for **five** consecutive years (2000-2004)!!!!

Carson Graham (North Vancouver) has ranked in the top third for **four** consecutive years (2001-2004)!!!!

University Hill and **Eric Hamber** (Vancouver west) and **Hugh McRoberts** (Richmond) have ranked in the top third for **three** consecutive years (2002-2004)!!!

Kitsilano and **Magee** (Vancouver west), **Sir Charles Tupper** (Vancouver east), **RC Palmer** (Richmond), and **Charles Best** (Coquitlam) have ranked in the top third for **two** consecutive (2003-2004)!!

Vancouver Technical and **Windermere** (Vancouver east), **Rockridge** and **Sentinel** (West Vancouver), **Southridge** (Independent), **Richmond** (Richmond), **Windsor** (North Vancouver), **North Delta** (Delta), **Seaquam** (Delta), **Johnston Heights** (Surrey), **Gleneagle** (Coquitlam), and **Burnaby Mountain** and **Burnaby North** (Burnaby) ranked in the top third in 2004!

TABLE OF RESULTS IN DEC 2004

(only includes students from the graduating classes of BC high schools)

(2003 results in brackets)

Math Course	Number of students taking course	Percentage with A standing	Percentage passing	Average school mark → Average UBC mark
100	839 (972)	37 (27)	93 (87)	91→73 (91→68)
102	351 (272)	27 (28)	86 (88)	91→68 (93→70)
104	473 (464)	31 (28)	90 (90)	89→69 (89→70)
120	43 (40)	60 (63)	98 (98)	96→79 (96→77)
101	14 (13)	64 (92)	93 (100)	94→78 (95→85)
180	460 (423)	18 (9)	76 (74)	87→62 (86→57)
184	469 (481)	11 (12)	74 (74)	86→59 (85→57)
ALL	2649 (2665)	27 (23)	85 (82)	89→68 (89→65)

Table A
2004 COMPARISON BY SCHOOL REGION AND TYPE
(2003 results in brackets)

School Type or Region "ranking"	No. of students in UBC courses	Percentage Passing	Percentage with A standing	Avg. school mark→ Avg. UBC mark
1. Ontario (3)	94 (148)	88 (86)	34 (26)	86→67 (87→68)
2. Richmond (5)	331 (366)	89 (90)	34 (25)	89→69 (89→67)
3. Vancouver west (1)	362 (384)	88 (91)	29 (27)	87→69 (88→69)
4. Alberta (9)	84 (64)	89 (78)	32 (22)	88→68 (86→64)
5. West Vancouver (2)	76 (65)	88 (86)	39 (28)	89→70 (89→68)
6. Delta (8)	83 (93)	89 (83)	28 (24)	91→71 (90→68)
7. Burnaby (10)	209 (185)	87 (79)	33 (19)	91→69 (89→62)
8. Vancouver east (6)	268 (294)	85 (88)	29 (23)	88→67 (88→66)
9. North Vancouver (3)	100 (107)	82 (86)	33 (32)	89→68 (89→67)
10. Vancouver Island (12)	70 (101)	89 (80)	23 (17)	89→66 (89→61)
11. Coquitlam (7)	200 (179)	87 (83)	26 (27)	92→66 (90→66)
12. Catholic (13)	92 (95)	87 (78)	12 (18)	89→64 (88→60)
13. Surrey (10)	194 (216)	84 (80)	22 (22)	91→65 (91→63)
14. Independent (15)	128 (133)	82 (76)	19 (13)	88→65 (88→60)
15. BC Interior (14)	124 (200)	81 (78)	22 (12)	90→63 (89→61)
16. Langley	43	79	12	91→61

Table I
VANCOUVER SCHOOLS
2004 TABLE OF SCHOOL-BY-SCHOOL RESULTS
(2003 results in brackets)

School "ranking"	No. of students in UBC courses	Percentage Passing	Percentage with A standing	Avg. school mark→ Avg. UBC mark	Percentage with HS calculus
1. University Hill (6)	18 (24)	100 (96)	39 (25)	91→77 (90→71)	88
2. Sir Charles Tupper (5)	14 (17)	100 (94)	36 (29)	88→71 (90→71)	64
3. Kitsilano (1)	27 (25)	96 (96)	33 (36)	89→73 (89→70)	70
4. Eric Hamber (3)	66 (73)	86 (92)	39 (30)	87→71 (87→71)	64
5. Windermere (13)	24 (19)	88 (95)	38 (16)	88→70 (89→67)	46
6. Vancouver Tech (22)	29 (31)	90 (65)	31 (13)	88→70 (83→54)	45
7. Magee (2)	27 (50)	93 (94)	26 (34)	90→71 (88→70)	56
8. Sir W. Churchill (12)	96 (69)	88 (86)	27 (25)	85→68 (86→66)	44
9. John Oliver (16)	11 (15)	91 (87)	18 (20)	83→70 (90→66)	67
10. Templeton (7)	17 (21)	88 (90)	35 (38)	87→67 (91→71)	35
11. David Thompson (11)	49 (59)	88 (92)	30 (25)	89→69 (89→69)	52
12. Killarney (4)	45 (57)	87 (93)	31 (28)	89→69 (88→71)	33
13. York House	11	91	9	86→69	64
14. Gladstone (9)	31 (23)	87 (96)	26 (22)	86→66 (88→68)	74
15. Little Flower Acad (18)	30 (23)	93 (87)	20 (30)	90→67 (88→64)	83
16. Point Grey (17)	45 (46)	84 (87)	24 (17)	86→68 (88→65)	64
17. Lord Byng (14)	13 (30)	85 (87)	23 (23)	90→66 (89→65)	57
18. Prince of Wales (10)	69 (66)	81 (92)	22 (24)	87→64 (87→68)	52
19. St. George's (19)	16 (26)	81 (88)	25 (8)	88→62 (88→62)	81
20. Vancouver Adult (23)	10 (10)	70 (30)	20 (0)	86→58 (86→42)	40
21. Vancouver College (20)	22 (30)	78 (73)	5 (17)	86→56 (85→60)	77

Table II

SUBURBAN VANCOUVER SCHOOLS
2004 TABLE OF SCHOOL-BY-SCHOOL RESULTS

(2003 results in brackets)

School "ranking"	No. of students in UBC courses	Percentage Passing	Percentage with A standing	Avg. school mark → Avg. UBC mark	Percentage with HS calculus
1. Carson Graham (2)	17 (25)	94 (92)	47 (40)	91→74 (90→72)	72
2. Richmond (20)	75 (51)	92 (86)	41 (18)	87→73 (86→63)	83
3. Hugh McRoberts (3)	29 (15)	93 (93)	45 (33)	91→73 (90→70)	62
4. Burnaby Mountain	21	95	42	94→75	81
5. Rockridge	10	90	40	85→71	80
6. Seaquam (15)	27 (35)	92 (80)	41 (31)	93→74 (92→71)	89
7. Charles Best (13)	14 (13)	93 (92)	50 (31)	94→73 (93→65)	71
8. Windsor (41)	17 (11)	88 (73)	41 (18)	87→70 (88→59)	67
9. RC Palmer (6)	31 (32)	90 (91)	39 (31)	89→72 (88→69)	42
10. Gleneagle (34)	19 (18)	95 (89)	37 (6)	92→72 (91→63)	95
11. JN Burnett (3)	52 (54)	88 (91)	56 (33)	91→72 (89→71)	90
12. Johnston Heights (43)	19 (30)	89 (73)	42 (17)	93→74 (89→57)	85
13. Sentinel (16)	33 (39)	85 (79)	42 (31)	90→73 (89→68)	85
14. Burnaby North (32)	55 (60)	91 (75)	41 (27)	93→73 (90→63)	85
15. Southridge	14	100	21	91→72	93
16. North Delta (14)	29 (24)	96 (92)	17 (17)	87→70 (90→70)	79
17. South Delta (29)	11 (22)	91 (77)	36 (27)	92→72 (90→63)	100
18. Port Moody (18)	55 (32)	95 (84)	29 (25)	92→70 (91→67)	68
19. Semiahmoo (36)	30 (25)	93 (84)	27 (16)	91→70 (89→62)	67
20. Robert McMath (35)	25 (41)	92 (83)	28 (15)	89→68 (89→63)	32
21. HJ Cambie (11)	25 (31)	100 (97)	20 (23)	92→70 (90→67)	52
22. West Vancouver (10)	33 (26)	82 (96)	36 (23)	88→66 (89→68)	42
23. Burnaby Central (30)	31 (16)	84 (94)	39 (6)	93→68 (90→61)	77
24. Moscrop (37)	23 (28)	96 (75)	13 (18)	90→65 (89→63)	66
25. Riverside (33)	17 (13)	94 (69)	18 (31)	92→67 (89→60)	65
26. Argyle (8)	24 (25)	75 (92)	33 (36)	88→65 (90→68)	40
27. Alpha (44)	19 (24)	83 (63)	26 (4)	87→63 (86→55)	90
28. Matthew McNair (1)	15 (27)	87 (100)	20 (48)	89→65 (92→74)	87
29. Enver Creek (12)	24 (20)	92 (85)	8 (45)	90→65 (92→69)	21
30. Burnaby South (24)	49 (42)	84 (86)	22 (19)	91→66 (89→64)	68
31. Terry Fox (9)	17 (21)	76 (90)	29 (48)	93→68 (92→71)	71
32. Princess Margaret (31)	16 (14)	81 (86)	25 (21)	90→65 (93→65)	38
32. Collingwood	16	82	18	88→66	71
34. Tamanawis (40)	23 (36)	91 (78)	9 (19)	90→63 (92→63)	8
35. Hugh Boyd (21)	14 (16)	79 (94)	29 (13)	88→60 (90→63)	50
36. Queen Elizabeth	10	70	20	88→64	60
37. Charles London (38)	34 (37)	82 (78)	18 (16)	89→63 (90→64)	69
38. Handsworth (5)	24 (21)	75 (86)	25 (38)	89→66 (87→70)	63
38. Pinetree (19)	35 (35)	80 (83)	20 (26)	91→64 (88→63)	58
40. New Westminster (42)	20 (22)	85 (77)	10 (14)	90→62 (92→61)	60
41. Steveston (17)	26 (59)	85 (90)	8 (25)	88→58 (92→68)	46
42. Delta (23)	16 (12)	69 (92)	19 (14)	92→66 (88→63)	44
43. Centennial (22)	41 (43)	78 (81)	15 (28)	91→60 (92→66)	49
44. Elgin Park (7)	13 (14)	77 (93)	8 (29)	90→62 (88→68)	69
45. Walnut Grove	11	56	9	90→50	36
46. Fleetwood Park (39)	14 (20)	86 (75)	0 (25)	89→57 (91→57)	46
47. Guildford Park	12	67	8	90→56	83

COMMENTS:

*The average Principles of Math 12 mark of 89 tied for the highest ever. This year the relative standards in the UBC calculus courses were essentially the same as in the previous year except for the pair Math 100/180.

*For the first time, this year no school outside the metropolitan Vancouver area had 10 or more students taking a calculus course. In all previous years, there have been at least five such schools!

*The relative results of students from Alberta and Ontario returned to being significantly superior to those from BC. Delta again improved to its best ever result. Students from Independent schools continue to perform very poorly compared to those from public schools. For the first time, Langley is included in the regional Table.

*Richmond (Richmond), Gleneagle (Coquitlam), Burnaby North (Burnaby), Vancouver Technical (Vancouver east) improved very much from the previous year. Overall, this year suburban Vancouver schools improved significantly in comparison with city of Vancouver schools.

*Over the last five years, the relative performances of the following regions and types should be noted (BC regions only include students from public schools):

Excellent: Ontario

Very Good: Alberta, Vancouver west

Good: West Vancouver, Richmond

*Over the last five years, the relative performances of the following schools should be noted (each school had at least 10 students in UBC calculus classes in each of the last five years):

Excellent: Carson Graham (North Vancouver), JN Burnett and Hugh McRoberts (Richmond)

Very Good: Sir Charles Tupper (Vancouver east), Sentinel (West Vancouver)

Good: Kitsilano, University Hill, Eric Hamber, and Magee (Vancouver west), David Thompson and Killarney (Vancouver east), RC Palmer and HJ Cambie (Richmond), Handsworth (North Vancouver)