

Point Grey Secondary PAC General Meeting January 24th, 2012

Special Presentation by Ms. Janet Letourneau, head of the Math Department

Notes

Ms. Letourneau gave a very thorough presentation tonight, and I can't do justice to it. However, here are some of her main points. I've attached copies of her handouts, including the math requirements for different programs at BC universities. However, you should check the requirements before applying, as they change frequently.

Different Math Strands: Please see the accompanying flow chart that shows the different math strands that students can take, and their pre-requisites. Students should try to decide by Gr. 10 what kind of math they will need for the program they go into in university, because some programs require Pre-Calculus 12 while others will accept any Math 11 or Foundations 11. Pre-Calculus 12 is acceptable for all programs but it is not required by all of them. It is not possible to go from Foundations 11 to Pre-Calculus 12 without taking Pre-Calculus 11 because the math topics are different, and so that's why it's important to choose carefully. The strands are:

- **Apprenticeship and Workplace Math:** Algebra, geometry, measurement, statistics, probability. This math is designed for students entering the trades. Few students at Point Grey take this math and so they may enrol in VLN (online). This year, the school provided a math teacher to support these students at the school even though they were enrolled at VLN.
- **Foundations of Mathematics** – This path is designed for students who want to go on to post-secondary programs that don't require theoretical calculus. Topics include financial mathematics, geometry, measurement, statistics and probability.
- **Pre-Calculus:** This path is for students who plan to enter a program that requires the study of theoretical calculus (Faculty of Science, for example). Topics include algebra, measurement, relations and functions, trigonometry, and permutations, combinations and binomial theorem.

AP Calculus 12: Students may take AP Calculus 12 at Point Grey in the same year that they take Pre-Calculus 12. However, this will be a heavy math load. Some students choose to take Math 10 online or in summer school so that they can finish Math 12 in Gr. 11 and then take Calculus in Gr. 12. Students who take AP Calculus at Point Grey can write the optional AP exam at the school in May. If they do well, they can get a first year university credit for this course. However, the AP exam is optional and if students don't take it, they will still get a graduation credit for AP Calculus 12. No university in BC requires AP Calculus at this time, but it is recommended for Science students.

Honours and Accelerated Math: Grade 7 students who have an A average in math and are recommended by their teachers, may write the Accelerated Math exam at Point Grey in May. The Accelerated Math 8/9 class covers Math 8 and 9 in one year, and students who are successful can enter Math 10 the next year. Honours math 9 is another option: it covers the same curriculum but in more depth and with enrichment such as fuzzy logic, contests, critical thinking, projects researching

mathematicians, etc. Accelerated Math 8/9 and Honours Math 9 and 10 are only offered if there are enough students.

For students who need extra support:

- **Skills Block:** The school offers a skills block for students who are struggling. Talk to the school counsellor about this option.
- **Homework Club:** UBC students who have had security checks run this after-school club, which is well-attended and very much enjoyed by students.
- **Double-block Math 11:** Students who have passed Math 10 but have less than 55% may be eligible for an extra block of math if they are motivated. This means that they would have math every day and be able to cover the material slowly and carefully, with more time for explanation.
- **Peer tutoring:** Some students sign up as peer tutors, a course that they receive credit for and train for. They can tutor other students. Talk to the counsellor about this option.
- **Apprenticeship Math** (for trades) is not taught at Point Grey but students who enrol in it through Vancouver Learning Network (VLN) may attend a support class with a Point Grey teacher.
- **Free tutoring and educational resources** are available online at the government's website: www.learnnowbc.ca

For students who would like enrichment and extra challenge:

- **Competitions:** There are a number of math competitions offered in Grades 8 through 12 at the school. An information sheet is attached. For Gauss, Pascal, Cayley, Fermat and Euclid exam information and sample exams: <http://www.cemc.uwaterloo.ca/contests/euclid.html>. For AMC exams: <http://amc.maa.org/>
- **AP Calculus:** Students who take AP Calculus 12 and write the optional AP exam in May can get credit for first year university calculus.
- **Other opportunities:** There are many summer camps locally and in the States and there are also some enrichment opportunities in town during the school year. A list of examples is attached.
- **UBC Workshops at Point Grey:** UBC sometimes offers workshops at Point Grey, which are very much enjoyed by students. Ask Ms. Letourneau for information.
- **Concurrent Studies** at SFU or UBC. Students who have finished AP Calculus may take courses from SFU or UBC for credit towards their graduation as well as for university credit.

Thank you very much to Ms. Letourneau for this detailed and informative presentation. Any errors in these notes are mine!

~Maureen Bayless, PAC co-chair