



Hillcrest School Council



"Encouraging Participation, Supporting Achievement, Promoting Community"

Thank You! to the organizers of our First Multicultural Gala and to **Nandos** who sponsored (and fed) the Multicultural Gala. Thanks also to Trevor Duncan for facilitating the Nandos arrangements.

Thank You and Congratulations to the many members of the Link Crew and Trevor Duncan for organizing the Charity Golf Tournament. In addition those Link Crew organizers, 64 golfers were on hand to participate, collecting approximately \$3000 for the Cancer Drive.

The new Arts **and Culture SHSM** has already signed up approximately 30 students. The program starts in September.

OSSLT results were released to this year's test takers this week (11 - 15 June). Parents who have not seen the results should ask their child. Students who have not received their results should ask Administration or Guidance.

Report Cards - Remember final report cards are not mailed out. They must be collected at the school, commencing from 05 July until school closes for the summer. Should you be unable to collect the report card in person, please contact Administration to discuss arrangements.

Welcome to a new Hillcrest program. Commencing September 2018 the school will be introducing a **Behavioural Intervention** Class, consisting initially of 8 students.

Upcoming Events

Hillcrest

June 20 - 26 - Final Semester Exams

Friday, June 29 - 10:00 - Commencement

Tuesday, 04 September - 1st day of School (tentative date)

OCDSB

Tuesday, 19 June, Committee of the Whole

Monday, 25 June - OCDSB Board meeting

Community News

John Marshall, President of the Canterbury Community Association will be leaving that position as of 02 July. On behalf of all members of our school a sincere thank you to John for all of his contributions, not just to Canterbury but to our broader community, its members, and its schools.

2018 OCDSB STUDENT RECOGNITION AWARD RECIPIENT

Annually the OCDSB recognizes a secondary student from each school who has demonstrated initiative, supported by the will to succeed, the dedication to finish what they started, and the commitment to achieve their personal best.

This year's winner for Hillcrest High School is Lori Fernandez Bosanac.

Congratulations to Lori for her energy, enthusiasm and caring. She leaves the school a better place, which ultimately is the best achievement of all.

Lori Fernandez Bosanac



Lori sees inequity in many places and does something about it. She works to bring fairness and acceptance into the classroom, into the school and into the community. She is making a positive difference!

Lori is respected for her generosity of spirit. She gives many students a voice and place where they can be themselves. When students' present challenging behaviour she tries to understand where the behaviour is coming from rather than focusing on the behaviour. Lori single handedly applied for a "Speak Up" grant to convert a bathroom to a gender neutral facility. The grant exceeded one thousand dollars. She has guided the student-led Gender and Sexuality Alliance in such a way students feel safe and supported. Lori believes all students have the right to feel comfortable and accepted within their school community. Lori does not judge – she listens and by listening she helps others build their self-confidence.

Staff Turnover

With the end of the school year comes time to say good bye to staff who will be leaving Hillcrest at the end of the school year. Those staff not returning in September include:

Tim Brock	Nicole Charron	Stephanie Crotty	Trevor Duncan
Karen Hamer	Lily King	Paul MacDonald	Amanda May

We thank all of the staff for the wonderful contribution they made to Hillcrest and wish them all the best for the future.

Additionally, Diane Choi, Meagan Comeau and Emily Sheehan will be on leave for part or all of next year.

While staff are departing, new staff will be arriving. Although the process of hiring continues the school can already confirm the following arrivals, who we offer a very sincere welcome:

Carly Hawke is returning from leave

Tricia Jones will be joining in our additional Vice-Principal position

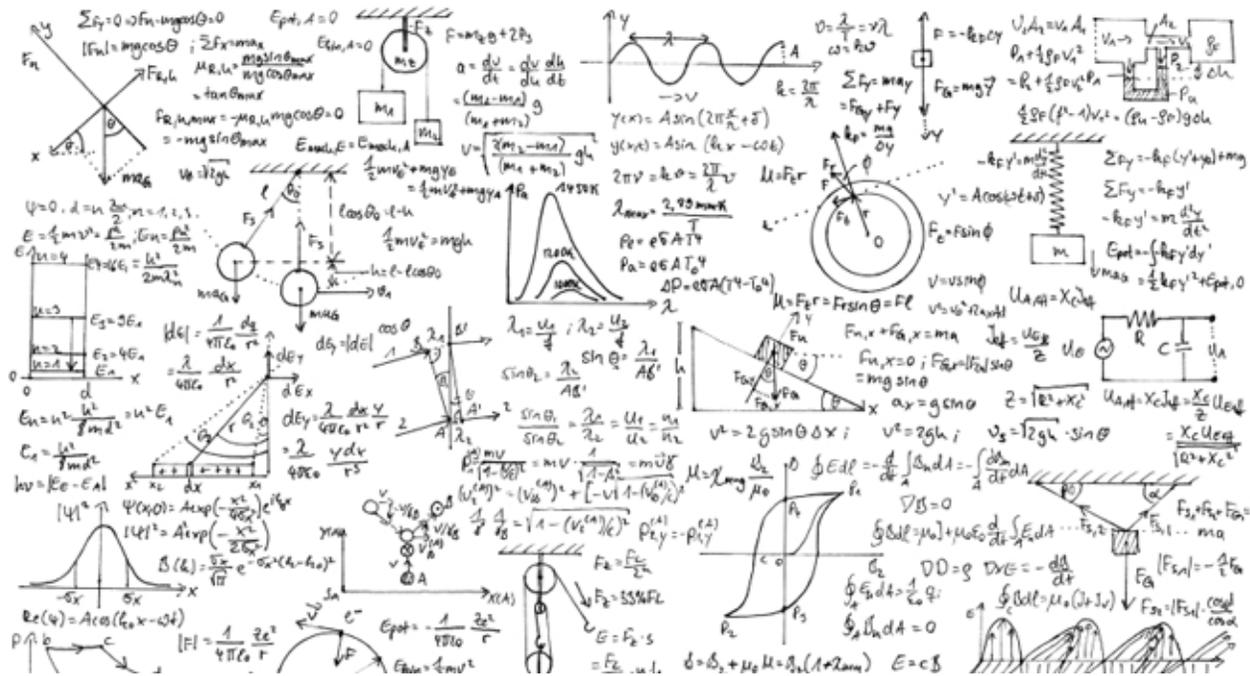
Natasha Lamb is joining the Mathematics department

Roseann Perry has joined the front office from Canterbury H.S.

Ashley Richards is joining the Student Success Team and Mathematics Department

David Thompson will become Head of Student Services

Mathematics



Certainly in modern society the study of mathematics is a necessity of life. No day passes by without our employing mathematics. Indeed the requirement to use the fundamentals of mathematics so permeates our life that we often calculate and solve mathematical problems sub-consciously when out shopping, telling time, cooking, or driving.

Yet, for time immemorial the study of mathematical concepts have driven students to ask "what do I need this for?" Clearly not everyone in society often finds a use for each branch of mathematics. But while not many of us regularly employ advanced mathematics, we do

constantly rely upon those who do. The breadth of use of complex mathematics is extremely wide - computer algorithms, meteorology, architecture, epidemiology, navigation, astronomy, physics, engineering, video game design and cartography each owe a considerable debt to mathematics.

Within language arts we are not satisfied to achieve the ability to complete a passport application or understand IKEA assembly instructions. We seek to advance further, knowing that greater literacy improves our ability to profitably participate in society. For the same reason we do not call it quits on mathematics at the end grade 8. Students need not follow a career in engineering, carpentry, architecture or construction to derive benefit from the further study of mathematics. Pursuing mathematics through high school facilitates development of both logical and abstract thinking. It also stimulates problem solving ability.

The issue of problem solving is central to an approach under trial at Hillcrest (and a few other District schools) within grade 9 mathematics. Educational terminology calls this new approach working with vertical surfaces. Common language may refer to it as getting kids out of their seats. Rather than sitting stationary at their desks each student is expected to work collaboratively on white boards on task oriented problem solving. Instead of being told how a problem is to be addressed, students work together to identify what information they need to process an equation and then select an appropriate method to arrive at a solution. Additionally, what Hillcrest is also doing with its grade 9 math program is de-streaming, where applied and academic program students study together.

While the trial is only in its first year and no decision has yet been taken on its future, the benefits are already evident. Getting students out of their seats has improved engagement and participation. Without an option of remaining silent and preferably invisible at one's desk, students are actively involved in learning. Some of those who previously would have shunned participation out of embarrassment or risk of failure, find they really did not have much to fear. They do possess the capacity to participate, contribute and learn. Similarly, some Applied students are discovering that Academic mathematics is not as difficult as they had imagined. They can do more than cope, they can succeed. Not surprisingly, upon this discovery their confidence and attitude towards the subject improves. What teachers also realize is that by focusing upon participatory collaborative problem solving, mathematics becomes less theoretical or distant. A mathematical problem defined in terms of water rates or hydro usage has a foundation in the real world. With a more substantive connection between the curriculum and the real world the "why do I need to learn this?" question is less commonly voiced.

Generally a student who displays discipline, a penchant to be open minded and a willingness to take a risk/give it a try/work it out, will show an affinity towards mathematics. Yet, for some students mathematics can present a challenge. As parents we often desire to help. But let's be honest, when it comes to HS math our reach often exceeds our grasp. Sadly, my personal limitation was reached quite early into the grade 10 curriculum. But for those of us unable to be of personal assistance, to whom do we turn? In the first instance, it's up to our child to ask the teacher. A student who does not enquire directly to the "tutor" at the front of the classroom is

unlikely to enquire from a hired tutor. So, encourage your child to ask. Beyond that, on-line help is readily available. All mathematics students upon entry to grade 9 are registered in a Board sponsored on-line tutor program. Additionally they are also enrolled automatically into the Khan Academy (which I personally find quite fantastic).

For a percentage of students, mathematics will eventually offer diminishing returns. The Province requires all high school students to take 3 mathematics credits, which effectively means a requirement to take mathematics through grade 11. In grade 12 the program becomes optional. While many parents may feel an inherent desire to see their child taking grade 12 Advanced Functions, this enthusiasm sometimes needs to be tempered. If a student struggled through grade 11 Functions and shows little propensity to enter a field of higher learning/career dependent upon complex mathematics, other programs of study may prove of greater value. Approximately one-third of current Hillcrest seniors are taking Advanced Functions. The remainder have built upon their functional mathematical literacy from grades 9 through 11. That should prove more than sufficient to support viable and successful future careers.

Hillcrest students who relish the challenge of mathematics may be presented with outside-classroom opportunities to pursue their interest. Each grade, from 9 through 12 form teams annually for entry in the U. of Waterloo mathematics contest. Students may also enroll in a one week mini course at the U. of Ottawa.

...And since mathematicians are known for nothing if not their humour, we leave you with:

A mathematician and an engineer are on a desert island. They find two palm trees with one coconut each. The engineer climbs up one tree, gets the coconut, eats. The mathematician climbs up the other tree, gets the coconut, then climbs the other tree and puts it there. "Now we've reduced it to a problem we know how to solve."

*A mathematician is asked to design a table. He first designs a table with no legs. Then he designs a table with infinitely many legs. He spends the rest of his life generalizing the results for the table with **N** legs (where **N** is not necessarily a natural number).*

Business

Hillcrest offers a limited array of "Business" courses, covering areas such as retail, marketing and international business. The school also offers a course in Business software. This course bears at least a passing resemblance to a course from my day. My personal high school era may not have been Pre-Cambrian but was most definitely Pre-Computer. In that era, we the frugal, took a HS course in typing to avoid paying exorbitant sums for the transcription of university papers. Similarly, this Business course offers an intro to standard software packages encountered in most office settings - Word, Excel, Power Point, Web site construction, etc. The course also sharpens on-line research skills.

As with my typing adventure, the course content is simple, to the point, and of significant forward value.

Co-Operative Education

Co-operative Education is a joint effort between a school and its community to provide an educational program for students. Students will spend part of their time in class and the remainder in experiential learning in the workplace. The out-of-school component is designed to complement any in-school course in which the student has a particular interest or aptitude.

My own assumption had been that co-op programs were intended as a means for the less academically inclined to get through school and graduate with a diploma. If that was ever true, it is no longer the case. The program is of increasing interest to students from all pathways and all academic levels who are looking to gain exposure to the world of work.

Beyond offering students an opportunity to understand the working world, co-op allows students to "test drive" a career. For students who will pursue higher education, a co-op placement may also open the door to summer or part-time work. It also offers unique experience which can attract attention on university or college applications.

Hillcrest has been adept at securing placements for its co-op students. While some placements are in the trades such as auto repair, hardware store, or hairdressing, other current placements are linked to professional career paths such as at law offices, office of elected officials, athletic club, as chefs, or in the computer industry.



Food & Nutrition Class at the Ottawa Mission

In an earlier newsletter we featured Food and Nutrition courses. As indicated then, the classes are about more than what food we eat. They are also about the importance of food for sustaining physical and mental health.

On May 11th, the grade 10 Food and Nutrition class, accompanied by Ottawa community police constable Percival, toured the Byward Market. They visited several facilities which aid the disadvantaged through services such as the provision of healthy meals.

On the 16th the class returned to the Ottawa Mission to prepare sandwiches and serve lunch to Mission clients.

The students received a briefing and participated in a Q&A session on homelessness - the causes and how organizations such as the Mission seek to ameliorate its impact....and then proceeded in assembly line fashion to prepare 300 sandwiches!



Abrar Taher, Baha Altamimi, Aicha Mostefa, Razia Shahzada,

The Mission relies heavily upon volunteer support to deliver its services. Those services include:

Client Services

- education (achieving high school diplomas, literacy, ESL)
- job training (food services, custodial skills)
- removing barriers to societal participation (obtaining identification)
- mental health support
- finding affordable housing

Addiction & Trauma Services

- Day programming (in-house group counseling)
- Hope program (residential opportunities for those in the day program)
- Stabilization program (clients seeking to achieve abstinence)
- Life House residential program (long-term therapy and reintegration)

Health Services

- dental and health clinic
- Hospice centre (only hospice for the homeless in North America)

Housing Services

- operating the Holland Properties Association which owns a 36 unit apartment building

Food, Clothing and Shelter

- Throughout 2017 the Mission averaged 233 overnight clients
- each day they prepare an average of 1300 meals

Congratulations to the entire class for sharing their time effort to help those in need.

Science and Mathematics - Post Graduation

The April newsletter featured the Hillcrest Science program. This newsletter featured Hillcrest Mathematics. By coincidence, an article appeared in the Ottawa Citizen on the 18th of May concerning a Hillcrest Alumni, Emily Gleeson. Following graduation from Hillcrest Emily went on to study applied mathematics and mechanical engineering at Queens. As the following article explains, Emily is now gaining renown as an aerospace engineer.

The following article is reprinted with the kind agreement of the author, Wayne Scanlon/Post Media.



Emily Gleeson has recently won a 2018 Amelia Earhart Fellowship.

The best teachers encourage their students to aim for the moon and stars.

Emily Gleeson does that every day in her work as a second-year PhD student in aerospace engineering at Ryerson University.

Gleeson, who grew up in south Ottawa and attended Hillcrest High School, recently learned she has won a 2018 Amelia Earhart Fellowship, part of the Zonta International Foundation advocating for women in science, business and public life.

The Earhart Fellowship honours up to 30 women around the globe for their PhD/doctoral work in aerospace science or aerospace engineering. Gleeson is the lone Canadian to be honoured this year and there were no Canadians on last year's list. One 2018 recipient, Cornell student Sarah Elizabeth Morris, has dual citizenship from Australia and Canada.

Gleeson is humbled to win an award so close to her own heart. A passionate voice for women in science, Gleeson dreamed of being an astronaut when she was 10 years old.

"I kind of put it to the back of my mind because it was similar to saying I wanted to be a movie star or a pop singer," Gleeson says. "I wish I hadn't disregarded it. Now I realize, while I still want to become an astronaut – I can also work on space exploration here on earth."



Emily Gleeson peers into a thermal vacuum system, used to test satellite components for temperature and pressure conditions in outer space. Gleeson has recently won a 2018 Amelia Earhart Fellowship.

Her calling in science sparked a gutsy move back to academia at the ripe old age of 28, after killing it in the real world. Gleeson had graduated from Queen's University with a BSc in applied math and mechanical engineering and spent six years as a working professional: two years as a

project manager for a mechanical contractor and then four as a manager in logistics and business operations planning at Procter and Gamble.

She was set for life in a management position with a global company, earning more money than she'd ever imagined, and possibly more (here she laughs) than she ever will again. Yet, something was missing.

"My passion wasn't there ... I thought I could contribute something to the world – to space exploration," she says.

Returning to school was "terrifying," Gleeson admits. The only thing more frightening? The pang of regret she felt would be there if she didn't take a shot.

The Earhart Fellowship – and accompanying \$10,000 US cheque – are indicators she did the right thing, and as a married student with a Toronto mortgage she is beyond grateful for the financial boost. Packing a reward of its own is Gleeson's research, which examines ways to improve navigation and control techniques needed to explore Mars and other far-flung space destinations.

This includes robotic technologies because humans face great challenges in longer space travel.

"There is a need to develop technologies so spacecraft can go and assemble themselves, build an international space station closer to the moon or Mars so that once humans do get there something will be set up for them," Gleeson says.

In October, Gleeson will be presenting a paper at the International Astronautical Congress in Bremen, Germany, discussing a co-ordinated capture between two spacecraft.

There isn't a lot of literature on deeper space travel, so Gleeson has to build on current technologies and established theories regarding lower orbit exploration.

So passionate is Gleeson about space travel she gets moved to tears at the sight of a space launch, although seeing all those men in the control room of the SpaceX Falcon Heavy launch on Feb. 6 quickly brought her back to earth. Where were the female scientists?

Gleeson explores this issue as part of a first blog on her new website, spacebroaddity.com.

At 30, Gleeson is already a leader in her field, directing more women toward STEM subjects (science, technology, engineering and mathematics). In her blog, she posted job options at SpaceX along with the educational path a woman would need to get there. Only a fraction of working aerospace engineers are women.

"We need more women in STEM so they can get into the workforce, but we also need employers to offer equal opportunities," Gleeson says. "It's definitely not an equal place to be – yet."

Don't be surprised if SpaceX or some new Canadian space company scoops Gleeson in the future. Meanwhile she continues to advocate for women while working on a doctorate that could take another two to four years to complete.

Gleeson still gets goofy comments when people first hear she is working on a PhD in aerospace engineering.

"Oh, you are way too pretty to be doing that," she has been told.

"People think it's a compliment, but I really hate it," Gleeson says.

Not much gets in her way, and never did. When her younger brother, Dean, started playing minor hockey (he was a competitive goaltender), Emily told her parents, Donna and Ed Shepherdson, she deserved ice time, too.

Soon, soccer and swimming became her favourite activities, when she wasn't dreaming of earning flight wings, like the iconic Earhart or modern astronaut Julie Payette. Earhart was herself a Zonta club member and the Earhart award was created in 1938 after the pilot disappeared over the Pacific Ocean in 1937.

"Why not go to space?" the little girl in Emily always wondered.

Gleeson may get there yet. And if not, she will surely help others negotiate their way to Mars and beyond.

OCDSB Committees

Committee of the Whole - Please note that the agenda for COW meetings is published in advance on the OCDSB website. If an agenda item is of interest but you are unable to attend in person, the meetings are live streamed via the Board website.

Ottawa Carleton Assembly of School Councils - click on the link for detailed committee information

Parent Involvement Committee - click on the link for detailed committee information.

Advisory Committee on Equity - meets monthly, usually from 6:00-8:30 pm at Greenbank. Committee members include individuals drawn from the public.

Useful Links

Hillcrest School - <https://hillcresths.ocdsb.ca/>

OCDSB - <http://www.ocdsb.ca/>

School Board Trustee Chris Ellis - <http://schoolzone6.org/>

Contact Us - Suggestions for, or comments about, this newsletter can be submitted at any time to hillcrestcouncilnews@gmail.com.