

Mechanical and
Transportation Technology

ALGONQUIN
COLLEGE

Mech Talk, Fall 2012

The Newsletter of the Mechanical Engineering Technology Program

Get Involved. Have you ever thought that you would like to give back to the college but were worried about over-extending yourself? Why not offer tours of your facilities to our students; whether you can accommodate six or sixty, it will be appreciated.

Meet the part-timers. We pride ourselves in sourcing top-notch part-timers, and once again we have a stellar line up this year with Irene Casey, Andrew Greenhalgh, Jennifer Levy, and Bruno Rocha, who bring real world work experience to the classroom. These four are a great complement to the full-timers and are enthusiastically endorsed by students for creating an engaging learning environment. You might recall that last year Andrew modified pedagogy and introduced technology to deal with our highest attrition first year courses (Statics and Mechanics of Materials). I am happy to report that this experiment was a great success ... more students have mastered more learning outcomes than ever before. In other words, we improved both the effectiveness and efficiency of the teaching/learning process. This has resulted in our largest and best prepared second year cohort ever, and as is oft heard, "it is a good problem to have". While there are challenges, these part-timers are part of the solution. **Andrew, Bruno, and Irene** are

working as a team to enrich the learning of one of our most challenging and important second year courses, Strength of Materials. In the meantime, **Jennifer** has been working with Peter Casey and a continuous improvement philosophy for our Computer Aided Manufacturing course. Firstly, the bar was raised with the adoption of MasterCAM X6 (HLE). Secondly, the large cohort forced us to re-think our traditional approach. By embracing technology (CNC Simulator / Predator), pedagogy was modified which enabled a more engaging learning environment of the subject matter. Essentially, each student is able to run their own virtual CNC machine anytime, anywhere, providing them with more "hands-on" learning. These creative undertakings are satisfying because it reminds us that learning and improvement are not the sole domain of our students. Jennifer and Peter are already planning the enhancements for next year's roll-out of the simulators.

Did you know that our Strategic Plan includes the following goal? "Provide opportunities for every full-time student to have a work experience outside of the classroom". Look around your place of employment with an eye to help our students satisfy Service Learning course requirements, while at the same time, impress your boss with your initiative. This seems like a win-win to me. If you think you can help, we would be pleased to discuss ideas.

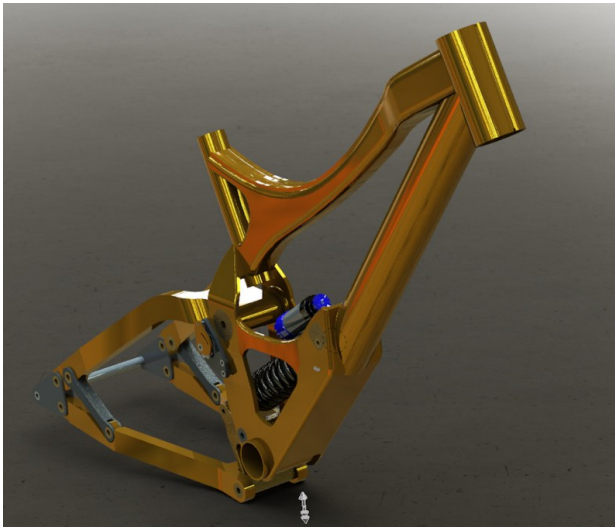
Whatever happened to so-and-so?

This is a question that professional educators often ask themselves. From time-to-time we run into one of you in the most unlikely places. Your anecdotes of success are delightful to hear and make us proud. It is even better

when you provide some feedback.

I encourage you to contact your favourite professor from days gone by (and if you don't have one, contact me) and give them an update; it is always a genuine pleasure to hear from former students.

Program Goes Mobile. Algonquin College has a vision of being a global leader in digitally connected applied education and training. One of the supporting initiatives being implemented in our program of study is mobility whereby each new student is expected to use their own personal laptop in class. **Peter Casey** has assumed the lead role for us. Peter has arranged for our students to have the latest versions of SolidWorks (CAD, FEA & CFD), MasterCAM X6 (HLE), CNC Simulator Pro, Predator and Graph installed on their laptop.



Extra-Curricular. A third year student, **Daniel Eagle** (also an Alstom award winner), has been making a name for himself. He recently won 2nd place in the 2012 Reality Redesigned by Edge Factor international design competition. As well, he has been commissioned by a local bicycle shop to design a product that will enable them to become a serious contender in the mountain bike market. Go, Dan, Go!

Here are three links to: his design page, the competition site & his design video

<http://edgefactor.pinkbike.com/blog/RR-Peoples-Choice-Award-DF-350.html>

<http://edgefactor.com/realityredesigned/winners>

<http://www.pinkbike.com/video/250823/>

More Awards. You will be interested to know that this month, ASM the Materials Information Society, will be recognizing the merits of three of our students with awards. The well-deserving students are **William Muth**, **John Stevens**, and **Daniel Thomas** (also a Stantec award winner).

Hindu Proverb: There is nothing noble in being superior to some other person. The true nobility is in being superior to your previous self.

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