



# Curriculum Review – PUBLIC Report

Department of Geomatics  
Engineering

Schulich School of Engineering

<http://schulich.ucalgary.ca/>

May, 2017

## 1. Context

Created in 1979, the Department of Geomatics Engineering in the Schulich School of Engineering at the University of Calgary is the only Geomatics engineering department in Western Canada



### 3. Guiding Questions

The curriculum review team met with students and faculty members and drew upon the past experiences of these groups to identify several areas for possible improvement within the curriculum. Many of these were deemed to be covered by the following questions, which were used to focus the curriculum review process:

1. Are students getting opportunities to acquire fundamental knowledge in the field?
2. How are the content and theories in the core courses built upon in subsequent courses?  
How are we scaffolding student learning throughout the program?
3. Where are the bottlenecks in the program and how do we resolve them?
4. Do we have the right prerequisite courses for courses in our program?
5. How do we attract and retain students in our program?

The last question above is not related to curriculum *per se*, but is critical to the success of our curriculum because having students that are engaged and interested in the program/material makes for a richer learning environment that benefits everyone.



Recommendation	Action Item	Timeline for Implementation
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Review feedback from student (see Rec-B) and refine critical paths as appropriate

3 years

Department Undergraduate Commit (d)2.3 e

Recommendation		Action Item	Timeline for Implementation	Lead Responsibility
	Assess student performance on different aspects of bottleneck course (e.g., labs vs. exams) to determine if the evaluation methods may be impacting DFW rates	Compile statistics on how students perform on different aspects of bottleneck courses	2 years	Admin support
		Analyze statistics to determine if there are problem areas; seek feedback from undergraduate students if appropriate	3 years	Department Undergraduate Committee
	Identify options for facilitating student success, especially in bottleneck courses but also within the program as a whole	Implement methods to improve student success over the period of 1–2 years	2 years	Department Undergraduate Committee in conjunction with Elena Rangelova, Quazi Hassan and Kyle O'Keefe as part of a Taylor Institute sponsored project.
		Develop a mechanism for tracking the impact of each methods within a given course and in follow-on courses	3 years	Admin help

Recommendation	Action Item	Timeline for Implementation	Lead Responsibility
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Better support and/or facilitate students who do not "clear" a bottleneck course (i.e., who receive a grade of D+ or lower)

Identify short-term methods of allowing student to continue progressing within their program, for example, by allowing them to take a supplemental exam or remove

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Recommendation	Action Item	Timeline for Implementation	Lead Responsibility
<p>Work to attract more 1<sup>st</sup>-year students to our program and reduce 2<sup>nd</sup>-year attrition</p>	<p>Provide information sessions to better inform 1<sup>st</sup>-year students about our program and to dispel any negative perceptions</p>	<p>Ongoing</p>	<p>Department Undergraduate Committee with buy-in from all Faculty members</p>
	<p>Work with industry to promote the application of Geomatics Engineering to a wide range of industries</p>	<p>Ongoing</p>	<p>Head with GEAC and GELC Industry committee members</p>
	<p>Work with SSE Communications to create and maintain an up-to-date website as well as brochures that can be used to advertise the department</p>	<p>1 year</p>	<p>Head and Associate Head - Undergraduate</p>
	<p>Work with Dean's office and the SEE undergraduate studies committee to provide 1<sup>st</sup>-year students with a more comprehensive, self-driven understanding of each department</p>	<p>3 years</p>	<p>Head and Associate Head – Undergraduate</p>



