Often, an organisation will have separate initiatives in sustainability, security and protection. Each separated from the operations of the organisation. The problem is that all too often, when there is no integration and inadequate coordination, any one of these initiatives can substantially impede the effectiveness of the others. More importantly, a lack of integration reduces the overall effectiveness of the operation and impedes its recovery when catastrophe strikes. This is where the Resilience Plan and the Security Integration Scheme come in. Where the Infrastructure Resilience Planning course looked at defining the requirement and crafting a plan for developing resilient infrastructure, the Infrastructure Protection Course looks at the practical implementation of the Resilience Plan and the associated Security Integration Scheme. We will explore the various survey and integration tools, using a first principles approach. Each student will have the opportunity to practice these new skills on real issues for real clients in real time.

Course Designation: **APS1025H Infrastructure Protection**, starting Saturday, 16 Jan 16. The course will be full days, from 09:00 to 17:00 with 30mins for lunch. A foundation course of the CRCI; http://www.crci.utoronto.ca/education/academic/infrastructure-courses

Calendar:

16 Jan 16

Course introductions and administration
We begin with a brief exploration of strategy, the role of infrastructure and the purpose of protection, focussing on the need for protection and resilience to be in balance in order to deliver effective protection of the operation that the infrastructure facilitates. We will then explore the evolution of protection through a review of poliorcetics to modern day CIP leading to a series of principles and 'rules of thumb'. We then analyse the physical environment and broader risk context. We finish the day exploring the concept and practice of security integration, drawing together the different aspects discussed through the day.
Three references will be circulated for study before the next lecture. These references will provide the means to analyse site protection and security integration.

23 Jan 16

Picking up from the previous day's discussion and the assigned reading, we will investigate the site survey and the performance criteria we require of the different security systems.

Site Survey The class will break into syndicates for a tutored walk-through / talk-through of a site with particular security integration issues. The problems will be analysed as syndicates and solutions discussed in open forum.

Project Each syndicate will then be assigned a real client with a real-time security integration issue. The syndicates are to contact their client to conduct interviews and surveys and develop a concept solution based upon the sound application of first principles.

30 Jan 16

Tutorials Each syndicate will have the opportunity to arrange a tutorial with the professor to discuss their client's security issues and the developing concept for addressing the specific identified security requirement.

6 Feb 16

Group submissions of projects and presentations Each syndicate will present its project concept solution to the clients' representatives in class.
Exam.

Outcome. At the end of this intensive course, students will be able to analyse security integration requirements and develop a concept solution from first principles. This will suit them to coordinating a consultant security survey team or specifying security requirements for the client.

The client project represents 40% of the total course marks. This is a practical survey and research project that requires a first principles approach and critical assessment of the available information. Marks will be awarded separately for the project report, decision brief and presentation. A two-hour written examination comprising 3 essays selected from 12 possible titles represents 60% of the total course marks. Throughout, credit will be given for demonstrating a clear understanding of the concepts, principles and application over specific processes or formulae.

You are strongly advised to go through all the pre-reading material that will be provided on Blackboard. Also, familiarise yourselves with the organisation / agency websites shown in the references list, especially the two highlighted PSC websites, as these will prove useful when you need to research. You should consider familiarising yourselves with the poliorcetics (specifically Chapter 4 of Lepage) and the physical security references, Chapters 2-4 of Flynn and the Robinson paper. The textbook explaining resilience planning, 'Operational Survival: Putting Resilience at the core of Infrastructure Planning', is available from the UofT Bookstore (all proceeds of which go to a veterans' widows and orphans scholarships charity).

Address course questions to me at alec.hay@utoronto.ca