

**University of Toronto**  
**Faculty of Applied Science and Engineering**  
**APS1031 Autumn 2014**

**INFRASTRUCTURE PLANNING**

**Course Description**

Infrastructure enables economic and social development. It enables transportation, urbanisation and manufacturing. Yet, how do you design an oil refinery, plan the infrastructure network for a utility or craft government infrastructure development policy? While each is a specialist area of practice, all have a basis in strategic planning of infrastructure. Differing from the commitment based approach to strategic planning in a business context, strategic planning of infrastructure looks at the purpose of the infrastructure over its life and how to most efficiently realise the end state. This introductory infrastructure course looks at the concepts and tools of strategic planning for infrastructure, going into more detail around cost and risk and how to manage the financing and design processes. As the UN observed, resilience is the pre-requisite of sustainable development, and we look at how resilience can be built into our infrastructure plan. With case studies, expert guest presentations and the latest research and emerging thought, we explore how these concepts and processes are applied to cities, utilities and institutions, at home, in overseas development and in emergencies.

**Course Objectives**

This course provides you with a fundamental understanding of infrastructure planning, with an awareness of the various areas of specialisation and application. You will understand how the different specialisations contribute and where your skills, interests and further studies may best be directed.

**Instructor:**

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**Assistants:**

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**Contact:**

By appointment, arranged via email.

**Lectures:**

Monday, 15:10 – 18:00 GB117  
15 September – 15 December.  
The final lecture is the exam.

**Textbook:**

There are no required texts.

**Course Notes:**

These will be disseminated through the course.

**Additional Readings:**

Recommended further readings will be given in the class.

**Grading:**

30% of the total course marks will be awarded for a total of three syndicate presentations over the duration of the course.

The final exam will comprise of 45 multiple choice questions for a possible 30% of the total course marks and two essay questions for a possible 40% of the total course marks.