



Faculty of Engineering and Applied Science  
Chemical Engineering Seminar Series



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## Complex Morphologies in Multiphase Polymers : A Route to Next-Generation Materials

Dr. Basil D. Favis/ École Polytechnique de Montréal  
Thursday, November 19, 2015, 2:30pm  
Dupuis Hall, Room 215



### **ABSTRACT**

In this presentation it will be shown that a wide range of new materials can be obtained via morphology control from binary, ternary and quaternary immiscible polymer blends. Multiple percolated morphologies, droplet-in-droplet structures, partially wet systems and other stable complex microstructures will be discussed. Microstructural control can be achieved over four orders of magnitude ranging from the nanoscale to hundreds of microns and the central role of interfacial dynamics on the formation of these morphologies will be addressed. The sophisticated morphological manipulation of these microstructures could have important implications in a variety of applications ranging from new high performance materials to scaffolds for tissue engineering and recycling.