



# CoCo Seminar Series Spring 2017

## Why Is 'Systems Thinking' So Rare?

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**Thursday April 27th, 2017 3:00-4:00pm**  
**Engineering Building R-3 (SSIE**  
**Department Conference Room)**  
**(note the irregular time & location)**



Although the nature, complexity and impact of systems have been studied since the early part of last century, systems awareness or 'systems thinking', a new disciplined approach to thinking to utilize this knowledge, even among the well-educated in engineering and business, is rare. Systems thinking is a broad, complicated process. In this thesis, systems thinking is examined by first contrasting it with the traditional disciplined thinking taught as the 'scientific method'. Next, the scope and details of systems thinking is derived from the complex set of interrelated methods, paradigms, rules-of-thumb and perspectives of several published researchers. To capture the concept of systems thinking, this thesis will draw a composite from the ideas in the surveyed literature combined and structured with this author's proposals. Some barriers to systems thinking are explored. Finally, theories are presented as to why systems thinking is so rare. It is anticipated these insights will guide future research into the measurement and expansion of systems thinking.

Mark Sellers is a Master's student in the Systems Science program at Binghamton University, and an Advisory Systems Engineer at Northrop Grumman Laser Systems. His research interests include systems thinking, systems science, general systems problem solving, and their applications to engineering practice. This seminar is also his Master's thesis defense.

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