

### Resource Allocation and Process Improvement of Genetic Manufacturing Systems

#### SEMINAR SESSION INFORMATION

**DATE:** Wednesday, October 5

**TIME:** 12:15pm

**LOCATION:** Durham 260

**PROVIDED:** Pizza and Soda

#### SPEAKER INFORMATION

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PhD Candidate

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#### MEMBERSHIP INFORMATION

Fees are as follows and include all weekly seminars (22+) & workshops.

**FIRST MEETING: FREE**

**MEETING: \$5**

**SEMESTER: \$25**

**YEAR: \$40**

Breakthroughs in molecular and synthetic biology have been pivotal to understanding the function of cells and creating new pharmaceutical applications. These advances in biological processing present a new class of manufacturing systems, called genetic manufacturing systems, which produce a final product with a genetic construct. Traditional analysis techniques for manufacturing systems have been successful in providing valuable insights for complex manufacturing environments and have the potential to transform how genetic constructs are currently produced. This talk provides an introduction to the interdisciplinary field of genetic manufacturing systems and outlines the similarities and primary differences from traditional manufacturing systems. Simulation modeling is used to understand the inspection allocation problem for genetic manufacturing systems from a cost and time perspective. Finally, several future challenges and research opportunities are discussed for genetic manufacturing systems.