

ECE 1636F

CONTROL OF DISCRETE-EVENT SYSTEMS 1

- **Discrete-Event System:** Dynamical system on a discrete (usually finite) state set, driven by 'events' that may occur unpredictably at irregular time instants.
- **Examples:** Traffic, manufacturing, robotic,... systems at a 'logical' level of description. Events: cars arrive at, depart from, intersections; machines start work, break down; robots complete tasks, switch to new ones,... .
- **This course:** Develops a control theory for DES, in a framework of automata and formal languages.
- **Prerequisites:** Nothing special, usual undergraduate engineering. Basics of DES are developed from scratch.
- **Emphasis:** Modeling and design of DES controls, using computational tool *TCT* provided. Tradeoffs among centralized, decentralized, distributed and hierarchical architectures.
- **Questions?** Please contact instructor, Wonham@ece.utoronto.ca