Robotics

☐ Aerial Robotics

- Introduction to Aerial Robotics
- Geometry and Mechanics
- Planning and Control
- Advanced Topics

☐ Computational Motion Planning

- Introduction and Graph-based Plan Methods
- Configuration Space
- Sampling-based Planning Methods
- Artificial Potential Field Methods

☐ Mobility

- Introduction: Motivation and Background
- Behavioral (Templates) & Physical (Bodies)
- Anchors: Embodied Behaviors
- Composition (Programming Work

☐ Perception

- Geometry of Image Formation
- Projective Transformations
- Pose Estimation
- Multi-View Geometry

☐ Estimation and Learning

- Gaussian Model Learning
- Bayesian Estimation - Target Tracking Mapping
- Bayesian Estimation – Localization

☐ Capstone