CMPT 762 - G100 Computer Vision

**Instructor(s):** Yasutaka Furukawa

**SFU Burnaby**

**Calendar Objective/Description:**
Selected topics in computer vision including cameras, edge detection, feature matching, optical flow, alignment, epipolar geometry, stereo, structure-from-motion, recognition, segmentation, detection, and deep learning.

**Instructor's Objectives:**
Computer vision is the process of automatically extracting information from images and video. This course covers imaging geometry (camera calibration, stereo, and panoramic image stitching), and algorithms for video surveillance (motion detection and tracking), segmentation and object recognition.

**Prerequisites:**
None

**Grading:**
The grading will be based on 6 coding assignments (16% each). The last 2 coding assignments can be replaced by a final project if one chooses to.

**Recommended Books:**

**Academic Honesty Statement:**
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).