CMPT 742 - G100 Practices in Visual Computing I

**Instructor(s):** Ali Mahdavi-Amiri

**SFU Burnaby**

**Calendar Objective/Description:**
Lab practices, combined with instructional offerings, for students to acquire the hands-on experience necessary for a successful career in Visual Computing in the information technology sector. Topics covered will include fundamental and prevalent problems from application domains in the fields of computer graphics, computer vision, human-computer interaction, medical image analysis, as well as visualization.

**Instructor’s Objectives:**
To give students hands-on experience in vision, image processing, and graphics, including image inpaiting, 3D reconstruction, computational fabrication, and AR/VR. Guided labs teach students to exploit these algorithms to build prototype programs for real industrial applications.

**Prerequisites:**
This course is only available to students enrolled into the Visual Computing Specialization of the Professional Master’s program in Computer Science.

**Topics:**
- Image Inpainting, AR/VR, Computational Fabrication, 3D reconstruction

**Grading:**
- Programming projects (60%), final project report (20%), and Quizzes (20%)

**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).