# Lab 2: 1D Stencil

## 1. Objective

The purpose of this lab is to get you familiar with using the shared memory in CUDA to reduce the unnecessary global memory access. 1D stencil application should be implemented based on the slides discussed in class a simple vector addition kernel and its associated setup code.

## 2. Procedure

**Step 1:** Edit the file lab1/stencil\_student.cu to implement the kernel function and main.cu as indicated inside the student code.

**Step 2:** Write a makefile similar to lab1. Compile and test your code.

**Step 3:** Submit your assignment. You only need to submit the following files:

* Stencil\_student.cu

**3. Grading:**

This lab will be graded out of a possible 100 points.