CS 5334/4390 Spring 2017
Exam 2 Review Guide

For exam 2, you should be able to

1. Describe and explain the concept of heterogeneous computing.
2. Explain GPU architecture and the mapping and indexing of blocks and threads.
3. Complete a simple CUDA program example.
4. Explain the concept of distributed memory programming.
5. Use point-to-point MPI communication correctly, including avoiding deadlock.
6. Analyze communication costs of point-to-point and collective communication.
7. Use MPI collective communication operations correctly.
8. Explain the concept of asynchronous communication; use asynchronous communication to overlap computation and communication.
9. Use MPI 2-dimensional Cartesian topologies correctly.
10. Describe the Knights Landing architecture, including vectorization capability and the memory system.
11. Use parallel math libraries correctly.