**Blue Waters Petascale Semester Curriculum v1.0**

**Unit 1: Computation Across the Curriculum**

**Lesson 2: Parallel Programming and Performance**

**Exercise Instructions for Students**

*Developed by Nitin Sukhija for the Shodor Education Foundation, Inc.*

1. What is Flynn’s Taxonomy?
2. Describe Parallel Computer Memory Architectures.
3. What are the goals of parallel programming?
4. Name some factors that leads to performance degradation in parallel programs.
5. What is Amdahl’s Law?
6. What is Gustafson’s Law?
7. What is the difference between strong scaling and weak scaling?



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