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

**Unit 5: MPI**

**Lesson 1: When Should You Use MPI?**

**Instructor Guide**

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**Common Pitfalls for Students and Instructors**

As programming for distributed memory parallelism and programming with MPI is far different from programming for shared memory parallelism is often a difficult process to grasp and program for, students might have a hard time grasping the concept of distributed memory parallelism and all of the intricate steps that are necessary in order to program with MPI. This is especially true for students who have had little to no programming experience. Similarly, finding new and innovative ways to explain the same concept differently might be difficult for instructors simply because it’s a difficult concept to grasp.



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*Browse and search the full curriculum at*[*http://shodor.org/petascale/materials/semester-curriculum*](http://shodor.org/petascale/materials/semester-curriculum)

*We welcome your improvements! You can submit your proposed changes to this material and the rest of the curriculum in our GitHub repository at*[*https://github.com/shodor-education/petascale-semester-curriculum*](https://github.com/shodor-education/petascale-semester-curriculum)

*We want to hear from you! Please let us know your experiences using this material by sending email to* [*petascale@shodor.org*](mailto:petascale@shodor.org)