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

**Unit 5: MPI**

**Lesson 6: MPI Applications**

**Sample Assessment**

*Developed by Hyacinthe Aboudja for the Shodor Education Foundation, Inc.*

Student will be tested on the following skills:

Given the code to be downloaded, students are to perform the following tasks:

* Edit, Compile, and run a simple MPI code in a high level language such as C, C++ or python with the adequate command depending on the supercomputer platform with a jobscript (myJobScript\_BW) created .
* Example:
* Compile: % mpicc -o progExe mpi\_porg.c
  + Run: on Workload manager and scheduler:

% qsub myJobScript\_BW

* Analyze and debug a code depending of the error and output files obtained
* If there is any error, location the error and fix it.
* Modify, Rescale, and go through the first 2 steps above
* This scenario can be performed with a set of 3 different codes. (mpi\_hello.c, mpi\_Area\_curve.c,



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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)

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*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)