XSEDE Resources and Opportunities

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XSEDE Programs and Services

• Introduction to XSEDE, XSEDE Education Program
• Overview of XSEDE Resources for Education and Research
• XSEDE Portal
  – Training classes and materials
  – Science gateways
  – Opportunities for faculty and students
• Getting HPC Accounts
XSEDE Education Program Services

• Campus Visits
• Assistance with program creation
• Workshops for faculty and students
• Repository of shared materials
• Other resources
Initiating Services to Facilitate Change

• Campus visits
  – First discussions about integrating computational science into the curriculum
  – Discussion of formal programs
  – Opportunities for faculty professional development
  – Overview of related XSEDE services
Promoting Formal Academic Programs

• XSEDE Education program is focused on assisting with the initiation and enhancement of formal computational science and engineering programs
  – Both undergraduate and graduate programs
  – Most sustainable way to help achieve the long-term project goals by producing a savvy workforce
  – Reduce the barriers to program adoption by
    • Providing program models
    • Solidifying a virtual community to share experiences
    • Providing faculty professional development
Developing Faculty Expertise

• Faculty professional development workshops
  – Two to six day workshops on a variety of topics
    • Computational thinking
    • Computational science education in science and engineering domains
  – Focus on local/regional audiences to reduce travel costs
  – Subsidies for faculty to travel to workshops at other sites
XSEDE Portal

• Go to XSEDE.org
  – Click on login
  – Create an account
• Overview of training and education resources
• List of science gateways
• Access to hardware and software
Getting an Account

• Start-up
• Education
• Research
Special Workshops for Faculty and Students

• Development of synchronous and asynchronous education and training sessions
  – Multi-site broadcasts of workshops
  – Online training and education modules
  – Experimenting with full courses that can be widely shared for credit and non-credit inclusion in curricula (e.g. https://www.xsede.org/xsede-offers-free-online-parallel-computing-course)
Repository of Shared Materials

- Developing a repository of computational science education materials
  - Reviewed by professional staff and faculty
  - Indexed by subject and a detailed competency-based ontology
  - Goal: trusted, comprehensive source of information for computational science educators
  - [http://hpcuniversity.org/resources/search/](http://hpcuniversity.org/resources/search/)
Some Other Opportunities

• Journal of Computational Science Education
  – www.jocse.org
  – Peer reviewed article on computational science education experiences

• Become a reviewer or contributor to the online repository

• Use the XSEDE online materials
  – www.xsede.org
Questions and Discussion