



Ohio Supercomputer Center

An **OH·TECH** Consortium Member

Support for Educational activities

Brian Guilfoos

HPC Client Services Manager

OSC Service Catalog

Cluster Computing <ul style="list-style-type: none">• High Performance Computing• High Throughput Computing• Data-intensive Computing	Research Data Storage <ul style="list-style-type: none">• Project Storage• Archival Storage
Client Services <ul style="list-style-type: none">• 24x7 Call Center• Level 2 Engineering Support	Client Facilitation <ul style="list-style-type: none">• Consultation (in-person and online)• Training and Education• Classroom accounts
Scientific Software Development <ul style="list-style-type: none">• Software Development• Software Parallelization	Web Software Development <ul style="list-style-type: none">• Software Development• Software Consulting
Partner on Proposals <ul style="list-style-type: none">• Cyberinfrastructure solutions• Modeling & simulation for industry	Visualization & Virtual Environments <ul style="list-style-type: none">• Visualization Services• Virtual environments (DSL)



HPC Client Services

- Technical Assistance
 - Help desk and basic consulting
 - Contact by phone or email (oschelp@osc.edu)
- Facilitation
 - Meet with OSC staff to discuss your research needs
 - Get recommendations on services, connections to subject matter experts, and specialized projects initiated
- Project Administration
 - Manage allocations
 - Add/Remove authorized users
 - Utilization reports
- Training
 - Usually three workshops per semester on a variety of topics
- Advanced consulting
 - Code parallelization & optimization
 - Software development, algorithm research
- Website
 - www.osc.edu/supercomputing



Specific Services to support classroom use

- Accounts for students
- Hardware reservations for scheduled lab times
- Introduction to OSC's environment



Empowering Clients: Organizational Impact CY2015

Client Services



25 Ohio-based
universities



32 companies



1,267 clients



124 trainees



10 educational
opportunities



451 awards
made



459 projects
served



19 academic
courses
used OSC's
supercomputers

Production Capacity



161,000,000+
core-hours
consumed



4,000,000+
computational
jobs



842 TB
data stored



99.7% up-time
(target: 96%)



Course Awards:
19 Courses
403 Students



BIOL 6002C: Basic and Applied Bioinformatics

- Joshua Benoit, University of Cincinnati
- 31 students
- Basic and applied bioinformatics is an advanced elective for upper level biology majors and new graduate students that wish to understand the basic principles of bioinformatics as well as guided practice using the typical computational tools associated with the field.



PCS 7040 Part II: An Introduction to Computational Chemistry

- Massimo Olivucci, Bowling Green State University
- 14 Students
- Computer simulations are employed to study the **structure** and **reactivity** of single molecules and molecular systems (molecule in solution, in a macromolecular cavity or a crystal).



CSE 5441: Introduction to Parallel Computing

- Jeffery Jones, Ohio State University
- 80 students
- Parallel programming models; sequential and parallel performance issues; high performance computer architecture; design, analysis, implementation and performance evaluation of parallel algorithms
- Provided in-class lecture on OSC resources



Questions

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