

Project Kaleidoscope



Facilities Workshop

2007 Planning Facilities for Undergraduate Science & Mathematics Workshop

March 16 - 18, 2007

- [Logistics \(#logistics\)](#)
- [Resources \(#resources\)](#)

Planning Facilities for Undergraduate Science & Mathematics

Westfields Marriott Washington Dulles

- near the Washington Dulles International Airport -

Chantilly, Virginia

March 16 - 18, 2007

As with past PKAL facilities workshops, this event is planned as a forum for academic leaders contemplating facilities renewal on their campus. Participants will examine the relationship between space and program and explore how new directions in science and technology call for new kinds of spaces for the learning and practice of science, technology, engineering and mathematics (STEM). Institutional teams are desired, with faculty from involved departments and administrators with responsibility for budget, facilities, information technologies, and other offices whose decisions affect the quality of new spaces. They will learn from and work with architects and with academics with recent experience in facilities planning; the objective is to work through the weekend to shape an action agenda for planning new spaces for science that will serve their institution with distinction over the long-term.

In plenary and break-out sessions, participating teams will consider some of the driving issues currently facing science faculty, their administrative colleagues, and design professionals in planning the STEM facility of the future.

Research— how to design spaces that:

- accommodate the continuing evolution of science, particularly the interdisciplinary collaboration that is becoming commonplace, which calls for new kinds of research clusters, for support infrastructure with minimal fixed physical elements, for communal social spaces for the serendipitous exchange of ideas; spaces that allow for such collaborations while maintaining traditional disciplinary groups as necessary
- facilitate the integration of research and education at the undergraduate level, and the building of a research community
- support the use of the sophisticated instrumentation required to do 21st century science, and the technologies that enable research communities to work, 24/7, with colleagues around the world.

Pedagogies— how to design spaces that:

- accommodate introductory courses designed around contemporary "inquiry-based" pedagogies
- reflect contemporary research in cognitive science- how students learn and how faculty teach
- allow the collaborative, problem-solving group work that characterizes the strong undergraduate STEM program of today
- enable teachers to make the most effective use of information technologies to strengthen student learning.

Institutional issues— how to design a facility that:

- incorporates sustainability in its concept, siting, orientation, design, construction and operation, that results in cost-effectiveness over the long-term, and that is itself a laboratory for science
- does not become obsolete as new directions in science and technology (and/or new pedagogies) emerge, but is rather itself a catalyst for continual renewal of program
- is a welcoming destination for members of their campus community, a place for recognizing and celebrating the role of

- science and technology in our world today
- signals the value that the college or university places on research, learning and teaching in STEM fields.

Logistics

- [Agenda \(http://www.pkal.org/documents/2007FacilitiesAgenda.cfm\)](http://www.pkal.org/documents/2007FacilitiesAgenda.cfm)
Draft, as of November 28, 2006
- [Application Process, Registration Fees & Cancellation Policy \(http://www.pkal.org/documents/2007ApplicationProcedures.cfm\)](http://www.pkal.org/documents/2007ApplicationProcedures.cfm)
Application Deadline: February 1, 2007
- [Event Housing & Travel \(http://www.pkal.org/documents/2007WorkshopHousingandTravel.cfm\)](http://www.pkal.org/documents/2007WorkshopHousingandTravel.cfm)

Resources

[Cranbrook Jigsaw Group C: The Science Building of the Future \(http://www.pkal.org/documents/JigsawGroupC.cfm\)](http://www.pkal.org/documents/JigsawGroupC.cfm)
[The Boston Conversation \(http://www.pkal.org/documents/BostonConversation.cfm\)](http://www.pkal.org/documents/BostonConversation.cfm)

In May 2005, a group of Boston area architects and academics met for an informal afternoon conversation to explore questions about the future of undergraduate STEM education.

Related information

Keywords

- [Facilities \(http://www.pkal.org/keywords/Facilities.cfm\)](http://www.pkal.org/keywords/Facilities.cfm)

Collections

- [Connecting How Students Learn to Where Students Learn \(http://www.pkal.org/collections/WhereStudentsLearn.cfm\)](http://www.pkal.org/collections/WhereStudentsLearn.cfm)
- [Recommendations for Science Facilities that Work \(http://www.pkal.org/collections/KeckFacilities.cfm\)](http://www.pkal.org/collections/KeckFacilities.cfm)
- [Volume III: Structures for Science \(http://www.pkal.org/collections/VolumeIII.cfm\)](http://www.pkal.org/collections/VolumeIII.cfm)

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