Innovation and the Design Process
LEED-accredited professionals and contractors guided our efforts to achieve LEED certification for the building. The design for the Wister Center was developed by Archer & Buchanan Architecture, Ltd. of West Chester, PA; the engineering firm of Bruce E. Brooks & Associates designed the Wister Center’s energy-saving heating and cooling systems; Gilmore & Associates, Inc. developed the Center’s stormwater management systems; our general contractor for the project, W. S. Cumby Inc., oversaw project logistics and managed all aspects of LEED compliance. This talented team of professionals helped us bring innovative ideas to life and made our dream of a truly “green” greenhouse a reality!

To learn more about green design at Swarthmore College, visit the Science Center, the first undergraduate science facility in the nation to achieve LEED certification in 2005.

About the Scott Arboretum
The Scott Arboretum is a green oasis uniquely situated on the Swarthmore College campus. Over 300 acres create the College landscape and provide a display of the best ornamental plants recommended for Delaware Valley gardens.

Established in 1929 as a living memorial to Arthur Hoyt Scott, Class of 1895, through a gift from his family, the Arboretum continues to thrive today on campus and in over 15 separate gardens. There are over 4,000 different kinds of plants displayed, selected for their outstanding ornamental qualities, ease of maintenance, and resistance to disease. Major plant collections include: flowering cherries, crabapples, hollies, lilacs, magnolias, tree peonies, rhododendrons, hydrangeas, conifers, vines, summer flowering shrubs, viburnums, and witchhazels.

Maps and specialized brochures about plants growing on the campus are available at the Arboretum office, which also houses a horticultural reference library. The Arboretum grounds are open from dawn to dusk year-round. Admission is free. The Arboretum is supported in part by the Associates of the Scott Arboretum, a membership group.

For additional information, call 610-328-8025, Monday to Friday, 8:30 – noon and 1:00 – 4:30.

Brochure last updated in October 2012.
Photos by Archer & Buchanan and M. Fochs.
A Showcase of Sustainable Design

A state-of-the-art multipurpose building, the Wister Center was completed in 2009 and houses a classroom, event spaces, greenhouses, and staff and volunteer support areas. In addition, the building showcases sustainable design and was awarded Gold LEED Certification by the U.S. Green Building Council in August 2010.

What is LEED?
LEED stands for Leadership in Energy and Environmental Design. The LEED Green Building Rating System was introduced in 1999 by the U.S. Green Building Council in order to improve the quality of buildings by reducing their impact on the environment. Green design can reduce overall energy consumption and operating costs, generate public health benefits, and help create a sustainable community.

A Sustainable Site

The Wister Center replaces an older greenhouse formerly located on the same site. By building on a previously-developed site and retaining a portion of the original structure's footprint, we reduced the amount of additional land that needed to be cleared for construction. In so doing, we were able to minimize the impact of the construction on the surrounding landscape.

In addition, the construction site was carefully managed to prevent runoff. By preventing soil erosion, we were able to protect local waterways from the sediment pollution often caused by conventional construction practices.

Water Efficiency

Harvesting and recycling rainwater are great ways to conserve a precious natural resource while lowering utility costs. A 7,000-gallon cistern was installed underground behind the Wister Center capturing and storing rainwater from the roofs. This water is used to irrigate the nearby Terry Shane Teaching Garden. Overflow from the cistern is channeled into the BioStream, a stormwater infiltration garden that allows water to percolate gently into the ground through a drainage bed planted with native shrubs and perennials.

A green roof installed atop the flat area of the Wister Center roof will also collect a portion of the rainwater that falls onto the building, further reducing runoff and providing a host of other benefits as well. This green roof will capture and process about 60% of the rainfall on the building and is vegetated with a mix of sedums. In addition to mitigating storm runoff, the green roof will provide a layer of living insulation, reducing the Center's cooling energy requirements. Furthermore, the green roof plantings support wildlife by providing habitat for songbird and insect species.

Water efficiency has also been maximized within the Wister Center itself through the use of high-efficiency faucets, toilets, and shower fixtures.

Energy-Efficient Design

The Wister Center has been designed as a highly energy-efficient structure; in fact, the building uses 17.5% less energy than a conventional building of the same size. This energy-efficient design allows us to conserve non-renewable fossil fuels and reduces the pollution associated with energy extraction.

The use of energy-efficient lighting reduced the use of electricity substantially. The majority of the lights in the Wister Center are T8 fluorescent or compact fluorescent (CFL) lamps. CFL bulbs use 75% less energy and last about 10 times longer than traditional incandescent bulbs. Occupancy sensors throughout the building turn lights on when movement is detected and shut them back off after several minutes of stillness.

The Wister Center maximizes the infiltration of daylight, both reducing electricity use and providing a pleasant environment for occupants. The building features numerous large windows, allowing ample daylight to enter and providing great views into the gardens. Additional daylight enters the Wister Center through four light tubes, which capture light through a dome on the roof, funnel it through a reflective-lined tube, and finally project it through a transparent ceiling lens.

An innovative heating and cooling system also allows us to save energy. This unique system uses the campus's chilled water loop to heat and cool the building. In the summer, excess heat in the Wister Center is absorbed by the water loop, lowering the Center's temperature and reducing the need for air conditioning. During the winter months, the Wister Center collects the water loop's excess heat, raising the interior temperature and minimizing the need for additional heating.

The George and Maralyn Orbison Gillespie '49 Room, set up lecture style (above) and meeting style (right).