Gracefully stretching across the north end of the main quad, the Centennial Centre for Interdisciplinary Science (CCIS) is an era-defining landmark. Its bright and airy architecture encourages cross-pollination of ideas and disciplines. Its builders wove red brick and glass with daylight and air to house laboratories, offices and classrooms.

Built on an infill site and replacing part of the old physics building, CCIS actually expanded available green space by placing its main auditoria underground. Innovations bring daylight into the building while heating and cooling efficiently. The ground floor features a stunning Terrazo Tile mosaic created by the artist Scott Parsons who received the 2011 Project of the Year Award by the Tile & Marble Association of Canada.
ENERGY

• Uses 27 per cent less energy compared to a model building meeting minimum code compliance.  
  *Model based on ASHRAE 90.1 1999*

• Exhaust air is used to preheat fresh air intake.

• Lighting is optimized with lower ambient lighting, smarter layout and energy efficient fixtures

• Lighting is sensor controlled, dimming in low traffic and/or day lit areas.

• Automated blinds optimize the use of daylighting.

• Energy-efficient, aluminum radiant panels provide heating and cooling customized for occupants’ workspaces.

• High efficiency heating system minimizes energy loss due to operation.  
  *85 per cent efficiency.*

• Variable air volume (VAV) fume hoods require less energy for ventilation when fume hoods are closed and unused.

CONSTRUCTION & DEMOLITION MATERIALS

• 26 per cent of materials used in construction were recycled-content materials.

• 30 per cent of materials used in construction were regionally sourced.

• 64 per cent of construction and demolition waste was recycled or reused.

• Adhesives, paints, carpets and composite wood products are low-VOC emitting.  
  *Volatile organic compounds can cause health problems when inhaled or consumed.*

• Composite wood products were free of added urea-formaldehyde.

• 3,716 m² terrazzo floor is made of recycled glass and gravel refuse from mining projects.  
Centennial Centre for Interdisciplinary Science

ENVELOPE
- Reflective roof keeps building cooler in summer. 
  High albedo with an R value of 42.
- Exterior walls built with high R-value materials 
  Wall materials: R 21
- Large windows allow daylight to partially offset electrical lighting.
- Reflective panels increase natural daylighting in the atriums.

WATER
- Designed to use 41 per cent less water compared to a model building meeting minimum code compliance.
- Low-flow fixtures and laboratory vacuum systems conserve water.

LOW IMPACT DEVELOPMENT
- Organic food is collected by the food vendor.

EDUCATIONAL PROGRAMING
- Tours of the building available through Campus Visits program.
- Green Buildings signage identifies interactive sustainability elements and educates on CCIS’ hidden green building features.

CAMPUS-WIDE PROGRAMS AND POLICIES
- District Energy System efficiently delivers heating, cooling and electricity. Connected buildings do not require chillers or boilers.
- The Building Automation System adjusts temperature depending on weather and occupant schedules.
- Buildings are cleaned using high efficiency machines to save resources and ozonated water to avoid harsh chemicals in the indoor environment.
- Grounds are landscaped with native and drought tolerant plants in mulch beds to minimize irrigation in Alberta’s hot, dry summers.
- Water from annual fire pump testing is stored and used for irrigation.