Equity, Social Justice, and the Built Environment: Leveraging Living Buildings to Educate and Engage Students at Georgia Tech

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The Kendeda Building for Innovative Sustainable Design
SLS IS GEORGIA TECH’S QEP

SERVE • LEARN • SUSTAIN
QUALITY ENHANCEMENT PLAN
MARCH 9-12, 2015

DESIGNING THE FUTURE
1. As an Integrated System – with an emphasis on projects and initiatives that address two or more spheres
2. With a special focus on Society, incl. Equity and Voice

“The overriding aim of global economic development must surely be to enable humanity to thrive in the safe and just space, ending human deprivation while keeping within safe boundaries of natural resource use locally, regionally, and globally.”

- Kate Raworth, Oxfam Doughnut

Website: http://www.kateraworth.com/doughnut/
Focusing on VOICE means supporting shared leadership and community-driven change.

Increasing level of community involvement, impact, trust and communication

- Outreach: Some community involvement
- Consult: More community involvement
- Involve: Community involvement
- Shared Leadership / Participatory: Strong bidirectional relationship
- Community-Driven: Strong community leadership

From Schematic of Community Engagement Continuum (EPA, 2015; NCER CEnR Primer; note that this is one piece of a larger diagram)

Read more about our Partnership Principles in our BIG IDEAS:
http://serve-learn-sustain.gatech.edu/big-ideas
3. And an emphasis on developing and using Technology to support community visions that benefit Society and Nature
HOW CAN TECHNOLOGY ASSIST COMMUNITIES IN SUPPORTING SOCIETY AND NATURE?

Address basic needs and advance equity
Nurture civic participation and amplify community voices
Strengthen social ties and other connections to place
Bolster human capital
Preserve cultural diversity
Nurture vibrant, diverse economies
Support local innovation, entrepreneurship, and ownership

Protect natural resources
Preserve and restore biological diversity
Reduce energy use
Manage and recycle waste

COURSES

CHEM 1212 (large intro course)

ENG 1101 (gen ed requirement)

ME 1770
Intro to Engineering Graphics & Visualization

Capstone/Sr Design
ENVIRONMENTAL JUSTICE SERIES SPRING 2017

SPRING SEMESTER SCHEDULE

FOR EVERY 3 SLS EVENTS ATTENDED IN 2016/17 RECEIVE 2 FREE TICKETS TO THE CENTER FOR CIVIL AND HUMAN RIGHTS OR A SPECIAL SERVE-LEARN-SUSTAIN GIFT
Teaching Toolkit

The Teaching Toolkit is a library of resources that help instructors integrate sustainability, community engagement, and service-learning into their courses.

Browse our tools by Category, Type, Big Ideas, and/or Time Commitment, for example, or simply feel free to explore the options below. We also invite you to contribute by adding your own tools that you’ve successfully tried in your classrooms.

Tool Categories
- Intro to SLS & Creating Sustainable Communities
- Equity, Justice & Sustainability
- Service Learning and Community Engagement (SLCE)
- Case Studies on Sustainable Communities
- Using Data
- Assessment

Five Ways to Use This Toolkit

Society, Equity, and Sustainability
SLS approaches sustainability as an integrated system, linking environment, economy, and society.

Regenesis Case Study: Chemical Safety & Ethics in Relation to Communities
This tool explores the principles that environmental health impacts are a function of the inherent risk of chemical processes, the hazards of chemical processes we have become better at managing inherent risk, but
University-Community Partnerships: An inclusive approach for community engaged workforce development

Equity, Social Justice, & The Build Environment
Net Positive Symposium for Higher Education
Chris Burke – Director, Community Relations
Anchor institutions such as universities and hospitals are important partners in community development

- Provide jobs & services
- Serve as a community knowledge base
- Support local businesses
- Seen as resilient in the face of recession
BACKGROUND
Demographic Overview

- Approximately 22,000 residents in Tier 1 and Tier 2 neighborhoods
- >80% African American residents

Economic Overview

- ~40% of all residents living below the poverty line
- Median household incomes less than half the Atlanta average
- 59% of Westside residents earned less than $40,000/year
- 23% of Westside residents earned $15,000/year or less

Environmental Overview

- Housing vacancy rates over double the City of Atlanta average (17%)
- Substandard living conditions (mold)
- Long-standing crime and safety issues
44% of those in Westside Atlanta are either unemployed or underemployed.
Local Hiring Recommendations

Out of the current 7,155 Tech employees, only 396, or about 6%, reside within Westside zip codes.

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Total Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>30310</td>
<td>36</td>
</tr>
<tr>
<td>30314</td>
<td>22</td>
</tr>
<tr>
<td>30318</td>
<td>338</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>396</strong></td>
</tr>
</tbody>
</table>

Needed:
- Application and hiring assistance
- Open house events with resume and cover letter help
- Local job fair participation
Recognition of Local Workforce Development Organizations

- Atlanta Center for Self Sufficiency
- Atlanta Job Corps Center
- Atlanta Workforce Development Agency
- Bobby Dodd Institute
- Families First
- Georgia Quick Start
- Georgia Trade-Up
- Go Build Georgia
- Greenerworks
- Lift Up Atlanta
- Operation Workforce
- Operation Workforce
- Urban League of Greater Atlanta
- Westside Community Alliance
- Westside Works
- Year Up

Heard Of • Assistance From
SURVEY

Career Interests

Most Desired Jobs:
1. Self-Employment
2. Professional Services
3. Transportation
4. Administrative
5. Restaurant

Least Desired Jobs:
1. Sanitation & Janitorial
2. Fast Food
3. Construction
4. Police
SURVEY

Most Requested Assistance & Training

- Computer Skills Class: 54%
- Help Starting or Growing a Business: 50%
- Resume and Cover Letter Assistance: 31%
- Legal Assistance: 28%
- Personal Finance Classes: 25%
- GED classes or Continuing Ed.: 24%
- Gov. Benefits and Tax Assistance: 24%
- Mock Interviews: 9%
- General Literacy Classes: 5%
Big Data  
Bioengineering and Bioscience  
Electronics and Nanotechnology  
Energy and Sustainable Infrastructure  
Manufacturing, Trade, and Logistics  
Materials  
National Security  
Paper Science and Technology  
People and Technology  
Public Service, Leadership, and Policy  
Robotics  
Systems
Proposed Workforce Organization Matching Tool

**INPUTS**
- Background Info/Requirements
  - Veteran
  - Criminal Background
  - Educational Attainment
- Career Desires
  - Certifications Seeking
  - Trainings Desired
  - Career Path
- Services Desired
  - Computer Lab
  - GED
  - Financial Literacy

**ORGANIZATION MATCH**
- Perfect Match
- Almost
  - If you go to X organization, you will need the following requirements:
  - Fixed
  - Fixable
  - Provide info on how to obtain missing requirements
- If Nothing Else
CREATING CONNECTIONS

Community RFP

Request for Proposal Structure & Flow Chart

- Georgia Tech organizations
- Researchers
- Student organizations

Organizations working in the westside of Atlanta identify a need or project that they believe Georgia Tech could provide assistance.

An entity within Georgia Tech would help organizations access the Request for Proposal Form.

RFP form would be filled out by the organizations seeking assistance. The RFP form would then be sent out to researchers, professors, and student groups at Georgia Tech.

The different organizations would then pick a RFP if they were looking for volunteer work, a research project, or a studio-like class.

Proposals would be completed by organizations at Georgia Tech that addressed the issues/needs identified in the RFP.
Thank You & Questions

Chris.Burke@gatech.edu
Architectures of Sound: Poetry, Place, Politics

tiny.cc/archsound
First-Year Writing and SLS

- Gen-Ed Research Course Allows for Sciences & Arts Collaboration
- SLS Tools Prompt Pedagogical and Disciplinary Innovation
- SLS Partnerships Are Essential to Interdisciplinary Contextualizing

Kendeda Building Adaption of Smart City Scenario-Building Game

1. DRAW A STAKEHOLDER CARD.*
*You can do this a couple of ways: Each group member picks a stakeholder card OR pairs within the group pick a card together.

Stakeholder

Runner
Every student recorded a sound from a campus location that emulates the “aural architecture” of a space in the Kendeda Building.

They created polished SD entries, including WAV file, photo, and metadata.

tiny.cc/SDarchsound
Final Project: Mapping Equity through Sound

Featuring the SD recordings and images from the NDL’s 360-degree tour app, their tours analyze the aural architecture of scenarios that raise opportunities and obstacles to equity in the KBISD.

tiny.cc/archsound
First-year students are rightly focused on their own identity.

First-year students are exceptionally open and receptive.

Equity can seem abstract: paying attention to sound makes you pay attention to what isn’t abstract.

From top: Ever the Land (2015); “How to Become Batman” (Invisibilia 2015); The Intersection (2018)
The Living Building Equity Champions (LBECs) are a new initiative within the Center for Student Diversity and Inclusion (CSDI), where students work to provide programmatic and thought leadership, expertise, and advocacy to continue promoting the Institute’s diverse student initiatives, programs, and efforts that facilitate our collective goal of student diversity and inclusion.

They are supported by the Kendeda Building for Innovative Sustainable Design Academic and Research Council and the Center for Serve-Learn-Sustain.
LBEC Responsibilities

1. Provide input and feedback to the design and development of The Kendeda Building.

2. Engage current students in The Kendeda Building’s equity, sustainability, and diversity efforts.

3. Connect access to The Kendeda Building with the greater Atlanta community, particularly K-12 students.
ABOUT THE LIVING BUILDING EQUITY CHAMPIONS

**LBEC Profile**
- 1 first-year, 4 second-year, 2 third-year, 2 fourth-year, 2 graduate
- Majors: Building Construction, Civil Engineering, Computer Science, Environmental Engineering, Industrial Engineering, MBA, Mechanical Engineering, Public Policy

**Selection Process**
- Students apply during the early fall and agree to a year-long commitment
- Seeking students who want to be fully engaged in the development and realization of the Equity Petal

**Year One Structure**
- Fall 2017 – Focused on increasing their understanding of equity, sustainability and the Living Building through discussions, presentations and workshops
- Spring 2018 – Engaged in outreach efforts both on and off campus
“Being a LBEC opened my eyes to the term ‘equity’ itself. Because of this experience, I am more aware of people’s very different backgrounds, and it is important to understand that even if a design shows equality, it doesn’t mean that it is equitable in reaching all users.”
– Lucy Kates

“I hope that The Kendeda Building can be a place where people of all backgrounds feel included and productive. I would like this education and research facility to serve as an example for how we can prioritize equity in an everyday, working environment.”
– Angelica Acevedo
FUTURE PLANING

YEAR TWO – 2018–2019

• Shift to project based; LBECs will align with various projects related to the Kendeda Building for Innovative Sustainable Design. Examples include: community and outreach focused white papers, working with other petals directly.

• Increased outreach to current students and K-12 community

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To learn more, visit www.cski.gatech.edu/living-building-equity-champions.
WHICH COURSES SHOULD BE TAUGHT IN THE LB?
A. At least 10% of courses taught should have a strong equity component; and,
B. These should include at least two large introductory-level courses that reach students from a broad array of majors

WHICH FACULTY SHOULD TEACH IN THE LB?
A. Interested in engaging sustainability holistically
B. Teaching to diverse student populations and learners
C. Contribute to faculty diversity in the LB

PROCESS & TRAINING PROGRAM
Discussion:
How does this relate to what you’re already doing? Does it make you think of new approaches or things you might do?
NET POSITIVE
SYMPOSIUM FOR HIGHER EDUCATION

SEE YOU NEXT YEAR!
JUNE 20-21, 2019
Hampshire College
Amherst, MA
Georgia Tech Center for Serve-Learn-Sustain 
Living Building Challenge - Equity Petal Work Group 

http://serve-learn-sustain.gatech.edu/living-building-challenge-equity-petal-work-group