L. Beril Toktay and Ellen Zegura
Executive Co-Directors

Serve • Learn • Sustain
Georgia Tech QEP
Opportunities for students to learn \textit{and} serve around the theme “creating sustainable communities” through engagement with content and context.

Nice words...what does it mean?
Defining Sustainability and SL/CE

- Domain: Sustainability, with emphasis on community-level considerations
  - Sustainability = “transforming our ways of living to maximize the chances that environmental and social conditions will indefinitely support human security, wellbeing, and health” (McMichael et al., *Science* 2003)

- Pedagogy: Community engagement and service learning building on/from disciplinary excellence
What Will it Mean for Our Students?

**BUILD AWARENESS**
- Freshmen Camp, Project One, Student Orgs, Communication

**DEVELOP SKILLS AND KNOWLEDGE**
- Foundations of Sustainability
- Community Engagement Methods
- New and Infused Courses

**CONNECT TO PRACTICE**
- Co-op Experiences
- Internship Experiences

**STRUCTURE DEEP EXPERIENCES**
- Public Service Pathway
- VIP
- Capstone
- Innovation Pathway
Vision: We will be leaders in influencing major technological, social, and policy decisions that address critical global challenges.

Mission: We will be leaders in improving the human condition in Georgia, the United States, and around the globe.
“Just finished up the program in Moultrie. It was pretty amazing. In the morning we would set up in an elementary school and see children, it was during this time that I would code. At night the program would set up in the fields and see the migrant farmworkers, I would act as an interpreter during this time.”

Rodolfo Derez Saez, BS graduate, Iraqi veteran

“There are several reasons I stayed involved with the program. In the order of importance: The first is that it feels good to be able to use my talents to help other people. The second is that I like that it enables me to stay in touch with Georgia Tech, which I credit for giving me the opportunity to learn and advance on the path that I follow today. The third is that it’s nice to know something I helped create is continuing to serve a useful purpose, and I like maintaining it and improving it so that it can continue to serve its purpose.”

Greg Youree, MS graduate, at Google
<table>
<thead>
<tr>
<th>To what extent did Georgia Tech prepare you to</th>
<th>% saying well or very well prepared</th>
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<tbody>
<tr>
<td>Understand the environmental impact of your professional practice</td>
<td>40.4%</td>
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<tr>
<td>Understand the social and cultural impact of your professional practice</td>
<td>44.3%</td>
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<tr>
<td>Effectively resolve interpersonal conflict within a group or team</td>
<td>51.7%</td>
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<tr>
<td>Function on multi-disciplinary of cross-functional teams</td>
<td>68.6%</td>
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**Source:** 2012 Baccalaureate Alumni Survey
Timeline

- March 9-12: SACSCOC on-campus site visit!
- 2015: Develop sophomore level courses, build IT infrastructure, collect baseline data, hire QEP staff, encourage and sync with related efforts
- 2016-17: Establish pilots, partnerships, new courses, initial course infusion
- 2018-19: Solidify programs and move towards institutionalization
- 2020: Institutionalized
- Throughout: assessment and re-balancing
Value Add: Faculty Opportunities

- Course development support for the sophomore courses (FY 16)
  - Foundations of sustainability with applications to communities
  - Community engagement methods with applications to sustainability
- Service learning workshops (fall)
- Course development support
  - for new QEP-themed course proposals and course infusion
  - via a call for proposals process (fall)
- Funding for new Vertically Integrated Projects (FY 16)
- Expanded partner access (over time)
- We welcome other ideas by faculty (always)
Partners are crucial to success

Partners will include:
- Non-profits
- Community-facing organizations
- Local, state, national government
- Companies

Partners will provide: projects, case studies, access to places/people/experiences

QEP will fund partnership development and management
Develop university-wide project clearing house; initial model is capstone matching in CoE

Collaborating with Amit Jariwala in ME on partner/project repository

QEP will fund additional functionality, move development and support into OIT, scale and sustain software
Organizational Structure

Executive Committee inc.
VPUE + Executive Co-Directors

Provost

Administrative Functions

Sustainable Communities Educational Initiatives Office (SCEIO)
[Office of the QEP]

Faculty and Academic Units +
Academic Advisory Committee

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Table 1: QEP Collaborators and Their Roles

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<thead>
<tr>
<th>QEP COLLABORATOR</th>
<th>ROLE</th>
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<tbody>
<tr>
<td>Center for Academic Enrichment (VP Undergraduate Education (VPUE))</td>
<td>Infuse SC content into Academic Transition Programs (Project One, GT 1000)</td>
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<tr>
<td>Center for Academic Success (VPUE)</td>
<td>Include SC-focused information in student support systems and advisor communications (e.g., Grades First)</td>
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<tr>
<td>Center for Career Discovery and Development (VPUE)</td>
<td>Support SC designation project in CareerBuzz, collaborate with QEP Partnership Development team to enhance SC-focused co-op/internship opportunities and career advising, include SC-themed content in events (e.g., internship/co-op welcome back event, career fair)</td>
</tr>
<tr>
<td>Honors Program (VPUE)</td>
<td>Designate some Honors Program special topic courses as SC-themed courses</td>
</tr>
<tr>
<td>Office of the Registrar (VP Enrollment Services (VPES))</td>
<td>Support SC designation project and provide information for assessment purposes (e.g., undertake semester reporting of students taking SC-flagged classes)</td>
</tr>
</tbody>
</table>
Spring ’15 Activities

- We posted the QEP Director position (pls make recs)
- We are working to increase campus awareness
- We need names for the site visit
- We need a liaison to each College
- We will form teams to develop and teach the sophomore courses
  - Foundations of sustainability with applications to communities
  - Community engagement methods with applications to sustainability
- We will define specs for project clearinghouse
Example of Complementary Effort: MOOCs on Design for Social Innovation

- Proposal to GT MOOC program
- Participants: Jon Colton (ME), Ed Coyle (ECE), Betsy DiSalvo (IC), Bonnie Ferri (ECE), Bruno Frazier (ECE), Beki Grinter (IC), Joy Harris (ECE), Wayne Li (ID), Ellen Zegura (CS)
- D4SI 1 – Design Basics
- D4SI 2 – Discipline Perspectives
- Support capstone design and other courses involving projects, design, and partners
What is long-term Success?

- Georgia Tech will be a leader in infusing sustainability and community engagement content into its curriculum.
- All of our students will have the opportunity to serve and learn around the theme “creating sustainable communities.”
- Georgia Tech will be known for its positive engagement with communities that is rooted in its sustainability leadership.
For more information

- www.serve-learn-sustain.gatech.edu
Backup Slides
Student Learning Outcomes

- Students will be able to identify relationships among ecological, social, and economic systems.
- Students will be able to describe how sustainability and community engagement relate to their civic lives and values, and how their actions impact issues of sustainability.
- Students will develop the skills necessary to work in a community different from their own, in cooperative and diverse teams, with appreciation for varied cultural and life circumstances.
- Students will be able to analyze the impact of choices on different constituencies, entities, and at different scales, including communities and the planet.
Student Learning Outcomes II

- Students will be able to describe how sustainability relates to their professional practice.
- Students will be able to describe the social and cultural impact of their professional practice.
- Students will be able to create and evaluate approaches to sustainability challenges in the context of community-level needs.
- Students will be able to communicate effectively with diverse audiences around issues in creating sustainable communities and approaches to address them.
Students will develop and manifest personal values and beliefs consistent with their roles as responsible members of local, national, international, and/or professional communities.
Goals

- Build student awareness
- Develop knowledge and skills
- Connect to practice
- Structure deep learning experiences
- Build long-lasting values and beliefs
- Create supporting institutional infrastructure
Arc 1: Science Major

- Freshman biology bee project
- Foundations of Sustainability course (Year 2)
- Earth Processes; Environment, Energy and Society (Year 3)
- Senior research thesis on arctic climate modeling (Year 4)
- Grad school in climate science
Arc 2: Computer Science Major

- Post high school gap year at Thinking Beyond Borders
- Foundations of Service course (Year 2)
- Study abroad with SL (Year 3)
- Senior capstone Computing for Good project on Westside Power Grid Control (Year 4)
- Completes Public Service Pathway
- Position at Opower in consumer behavior modeling
Arc 3: Engineering Major

- Accepted into Living Learning Community
- Community Engagement methods course to satisfy Engineering Ethics
- Sustainability content course
- Completes Innovating for Sustainability pathway
- Startup on waste-to-energy technology
Arc 4: Ivan Allen Major

- Honors Program Student
- Foundations of Service as part of Honors Program
- Summer internship on Data Science for Social Good
- Ugrad thesis on water use policy
- Sustainability officer for City of Atlanta
Arc 5: Architecture Major

- Grand Challenges student
- Carries forward project on public transportation
- Zero-energy design studio
- Independent study in senior year
- Joins Peace Corps
Arc 6: Business Administration Major

- Foundations of Service course (Year 2)
- Business Strategies for Sustainability (Year 3)
- Summer internship at UPS
- Sustainable Business Consulting project (Year 4)
- Position at CPG company in supply chain mgmt