



Service Learning Component

Why service?

USC is an urban school located just south of downtown Los Angeles

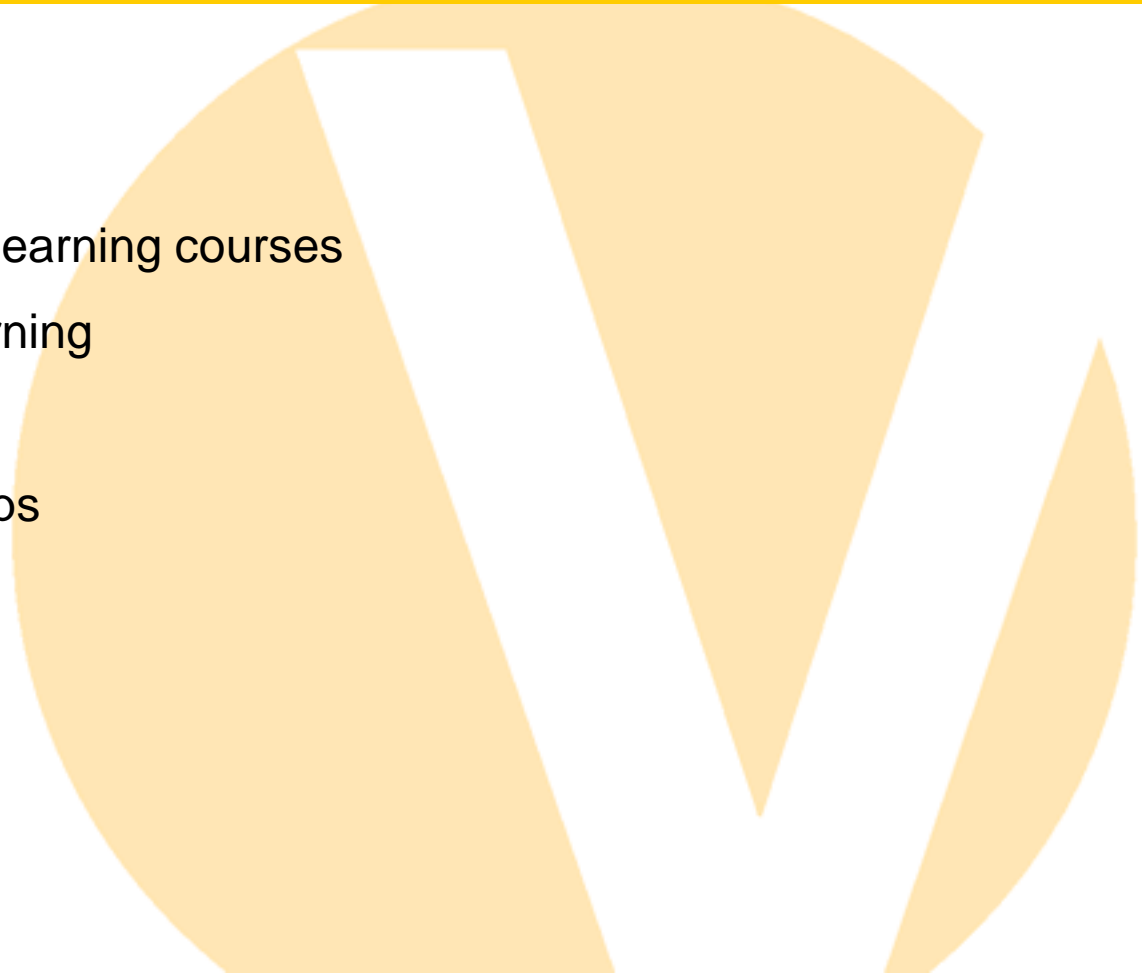
- Service learning is part of the University's strategic plan
- Recognized by Time Magazine as College of the Year
- Recognized by Princeton Review as College with a Conscience

Service learning engages students with societal needs

- Leads to larger efforts such as embracing the Grand Challenges

- It's expected!

- Traditional volunteer work
- Discipline- based service learning courses
- Project-based service learning
- Capstone courses
- Service oriented internships




University-wide Programs

Joint Educational Program

- Over 2,000 students per year are involved in community-based projects
- Students serve as mentors, tutors, and instructors
- Over 30 years in existence
- Faculty often require participation for classes
- USC Volunteer Center
 - Short term or long term projects



Alternative Spring Break

- Klein Institute for Undergraduate Student Life (KIUEL)
 - 1 of 3 focal points is service
 - Service learning portal for available projects
- MESA Program
 - Program works with 10+ elementary schools, 15 junior high and high schools
 - Both on-campus and off-campus
 - Students volunteer in local schools
-  Engineers as Teachers
 - Students develop STEM curriculum for elementary school programs

Project-based Service Learning Within A Writing Course

Communication for Engineers (WRIT 340)

- Advanced writing requirement
- Requires students to work in teams to complete consulting report for non-profit agency
- Course has worked with more than 100 non-profits
- Student projects have been awarded three University Neighborhood Outreach grants
- Many student ideas implemented, funded by outside foundations

Why Service Learning in an Engineering Writing Course?

Project-based Service Learning

- Teaches teamwork
- Engages students in ethical process
 - ABET Criteria f (an understanding of professional and ethical responsibility)
- Exposes students to real problems and real constituencies
- Develops communication skills
- Helps students understand societal responsibility of engineers
 - Grand Challenges

Example: The Blazers After School Safe Haven

Helping the Blazers increase capacity, develop new programs, and become more efficient

- Students researched and made recommendations for computer labs and curriculum, wheelchair accessibility, solar usage, urban garden design, and many more projects
- Outcomes include:
 - A new computer lab
 - A better understanding of neighborhood residents and issues
 - Grants from various foundations from \$2,000 to \$60,000

Example: African Millennium Foundation

Designing a Sustainable Village in Mozambique for Aids Orphans

- Students researched, designed and recommended refrigeration units, water distribution methods, and solar energy.
- Outcomes include:
 - Better global awareness
 - Establishment of future projects
 - Recommendations under consideration by architect and funders

Recent projects related to Grand Challenges

- Assisted local schools with ideas for utilizing solar panels (*Make Solar Energy Economical*)
- Researched how to improve traffic flow and transportation systems for Los Angeles (*Improve Urban Infrastructure*)
- Worked with local non-profit to develop better methods for teaching phonics to elementary school children (*Advance Personalized Learning*)

- Discipline based and capstone courses – service oriented
Recent focus has been on matching projects to Grand Challenge issues
 - Ipad app...”eHealthcare” – development of computerized medical checklist to minimize hospital errors (Advance health informatics)
 - Design of “safe” databases for non-profit organizations (Secure cyberspace)
 - Development of Human Remote – allowing disabled patients to control hardware through hand gestures (Advance health informatics)
 - Development of iPhone apps enabling severely handicapped individuals greater independence (Advance personalized learning)