Urban Sustainability Course: Providing Value and Service to AZ communities

NALINI CHHETRI, PH.D
SENIOR SUSTAINABILITY SCIENTIST
SCHOOL OF SUSTAINABILITY
SOS 594/SOS 498
Urban sustainability: Best Practices/Case Studies
Fall 2014 (3 credit hours)
Thursday 4:30 p.m. to 7:15 pm. EDBL 1-24
8/21 – 12/05
Instructor : Dr. Nalini Chhetri

In conjunction with the Sustainable Cities Network
https://sustainablecities.asu.edu/resources/student-resources/
Deliverables

- 13 projects
  - ADOT
  - Maricopa county
  - Mesa, Tucson, Goodyear
  - Luke Air Force Base
  - Walton Sustainability Solutions Service (Feedstock, Economic impacts, circular economy)
- Research and fleshing out of new initiatives,
- Documentation of best practices
- Development of case study
- Dissemination materials for decision makers & public
City of Goodyear: Constructed Wetlands for Brine Water Management

With a projected increase in population of 115,300 total residents by 2020 and 167,700 residents by 2030 (City of Goodyear, 2014), the city of Goodyear will need to meet the demands of potable water for its growing community. Given that the city currently depends solely on groundwater to meet this demand and will remain heavily reliant, future pressures of limited supply will require innovative and effective means of treating and reusing this supply throughout the city. In light of these challenges, the City of Goodyear has embarked upon an experimental wetland system as a potential means to treat brine concentrated wastewater to be discharged into surface waters.

Summary Report
- Full Report
- Presentation
- Infographic
- Video of Presentation
Advantages for and commitments of “Clients’”

**Advantages**
- Free service with mostly graduate students of SOS
- Having students explore/ investigate potential projects/ ideas that have been shelved due to band-width issues
- Platform to build relationships with ASU
- Value addition with ASU’s Sustainable Cities Network

**Commitments**
- Pitching and presentation of their projects in the beginning
- 5-6 hours over a semester to talk to students
- Email correspondence & site visits
Benefits to students

- Real life situations and life experiences
- Building networks and relationships
- Pathway to potential future careers/ internships
- Bolsters their resumes
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Modifications

- More collaborative course design
- Not just case studies
- Research
- Allow students only one project