

To attract a more diversion population of students to geophysics, IRIS Education and Public Outreach (EPO) is working with community members to develop resources that blend active-learning pedagogies with geophysics content. The IGUaNA project (Introducing Geophysics for Urban and Near-surface Applications) teaching modules on refraction seismics, ground penetrating radar (GPR), and resistivity have been tested and are available at serc.carleton.edu/iguana.

A gravity and magnetics module is currently under development. Instructors and students can work with data incorporated in the modules, or additionally collect their own via instrument loans from the IRIS PASSCAL instrument center or the University of Wyoming.

UNIVERSITY OF WYOMING School of Earth and Atmospheric Sciences

Measuring the depth to bedrock for an urban renewal project

Audience

- Urban, rural, or wildland environment – it's a fit!
- The field component is fun for all skill levels
- **Students:** Environmentalists, rock hounds, engineers, math/physics
- **Classes:** Intro Environment/Geology, Civil Eng, Physical Geography,

IGUaNA INTRODUCING GEOPHYSICS FOR URBAN AND NEAR-SURFACE APPLICATIONS

UNIVERSITY OF SOUTH FLORIDA

Pipes, Tree Roots or Unmarked Graves? Using Ground Penetrating Radar for Forensic Geophysics

- Determine depths to buried targets with real-world data
- Under development – how to collect and process your own data with instruments available from IRIS-PASSCAL

IGUaNA INTRODUCING GEOPHYSICS FOR URBAN AND NEAR-SURFACE APPLICATIONS

RUTGERS

Evaluating the Health of an Urban Wetland Using Electrical Resistivity

- Use of real data
- Connects students to world around them
- Flexibility

IGUaNA INTRODUCING GEOPHYSICS FOR URBAN AND NEAR-SURFACE APPLICATIONS

Unit 1 Exploring Harrier Meadow, an Urban Wetland System

Unit 2 Geophysical Properties of the Subsurface

Unit 3 Geophysical mapping

Unit 4 The Magic of Geophysical Inversion

Unit 5 Investigating Large Scale Patterns of Salinity

Student Materials page

Assessment