PLSC 405: Environmental Forensic & Society

Instructor: Deb P Jaisi (Jaisi@udel.edu)
Fall 2024 class: M/W 8:40-10:00AM

Course synopsis:

It blends a traditional classroom setting with an interactive environment to develop basic background and methodological knowledge, exposes students to real life problems, allows face-to-face interactions with experts, and develops writing skills in the form of forensic reports.

Student learning outcomes/deliverables:

- Theoretical and methodological knowledge on environmental forensics
- Skills in data processing and interpretation of results
- Skills to independently plan, execute, and report environmental forensic investigations

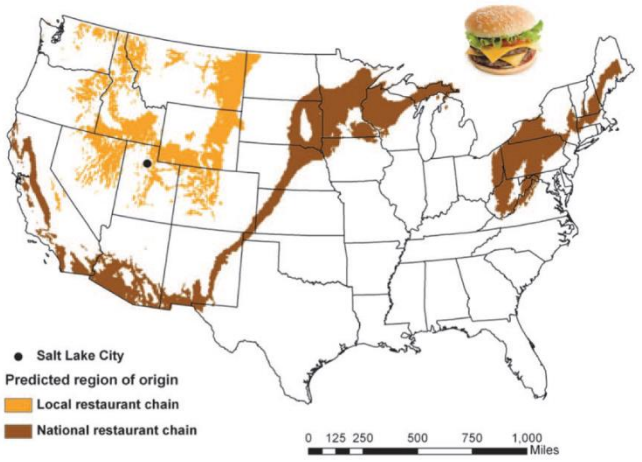
Several analytical methods will be included to meet the 'field experience' component of the course.

This course is approved in the following departments and programs:

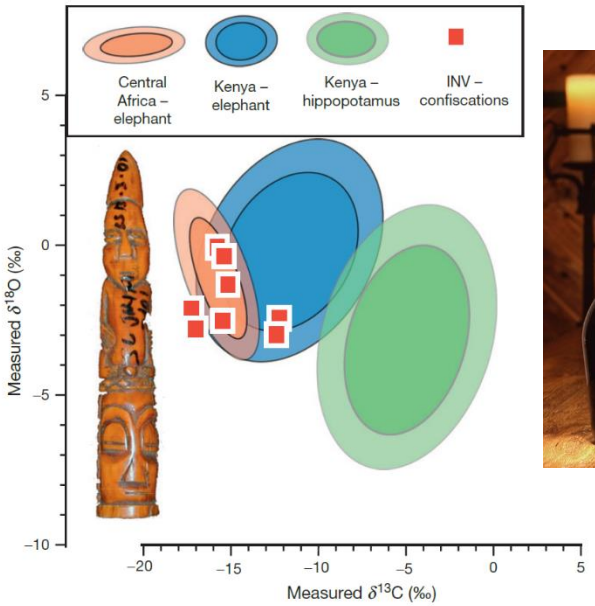
i) a) Critical Zone and b) Ecoscience thematic concentrations, Environmental Science program
ii) Forensic Science minor, Department of Medical and Molecular Sciences
iii) Field experience course, Environmental Science program
iv) Technical elective, Department of Civil and Environmental Engineering

Interesting forensic studies:

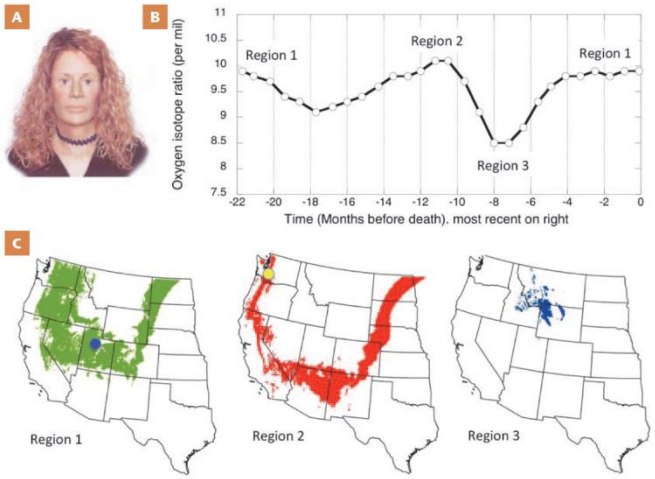
Geographic regions where food and animal grown



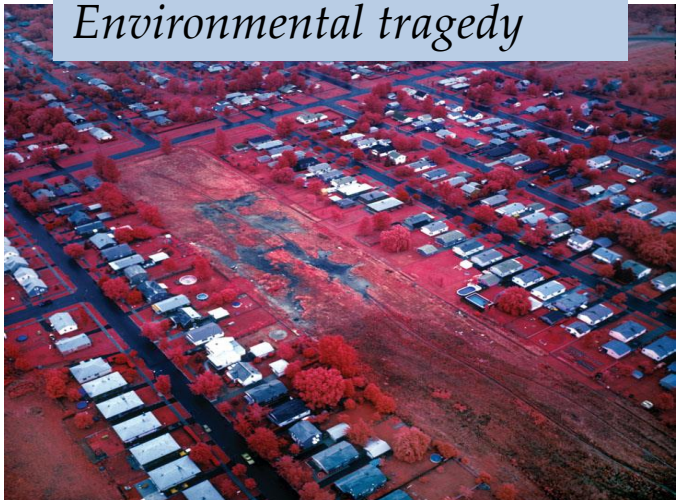
Authenticity of trade goods and beverages



Unravelling mystery and crimes



Environmental tragedy



Students field project:

This course meets the 'field experience' and DLE requirements for several programs.

Field experience component: field visits, soil and water samples collections, processing and analyses, and report writing

Fall 2018 students in field sampling

Fall 2018 students in laboratory processing of samples

Text and reference books:

1. Introduction to Environmental Forensics (text book)
Author: Brian L. Murphy & Robert D. Morrison. Publisher: Elsevier; 3rd edition. ISBN-13: 978-0124046962

2. Geological and Soil Evidences- Forensic Applications (reference book)
Author: Kenneth Pye, CRC Press ISBN 0-8493-3146-3 (pdf copy of the relevant chapters will be provided)

3. Geoforensics (reference book)
Authors: Alastair Ruffell and Jennifer McKinley, Wiley-Blackwell ISBN 978-0-470-05735-3 (pdf copy of the relevant chapters will be provided)