UPRM COURSE ANNOUNCEMENT:
GRADUATE LEVEL COURSE, 2ND SEMESTER 2013/2014

NOAA-CREST Special Course:
Applications of Satellite Remote Sensing in Agriculture and Water Resource Management

Course Number:
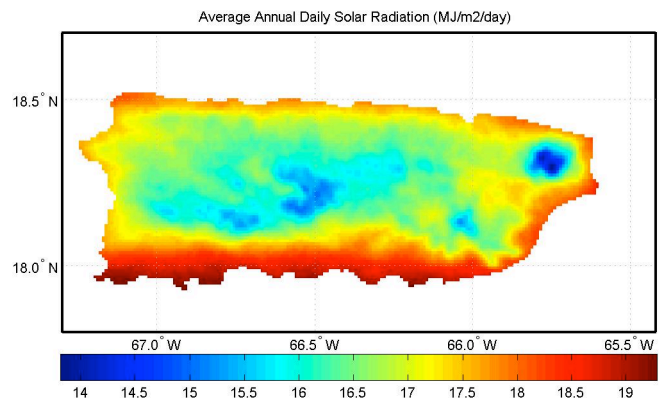
AGRO 6997 SPECIAL TOPICS IN AGRONOMY

Credit Hours: 3 credits.

Time and Location: To be decided by students and professor; Agr. Eng. Building, UPRM

Average Annual Daily Solar Radiation (MJ/m2/day)

Professor: Eric Harmsen

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Phone: 787-955-5102

Prerequisite: Authorization of the Director of the Department.

Course Description:
Theory and application of techniques in remote sensing and hydrology related to agriculture and water resource management in the Tropics. Application of remote sensing algorithms to estimate water and energy balance components as well as crop stress and crop yield throughout Puerto Rico and Hispaniola. Students will become familiar with the various sources of remotely sensed data; differing file formats and required computer software for pre- and post-processing data. The student's semester project may potentially lead to co-authoring a conference or journal paper with the professor.

Course Objectives:
  a. Be able to download and access satellite remote sensing data from a variety of sources for use on remote sensing projects.
  b. Become familiar with the remote sensing literature.
  c. Be capable of reading large datasets into a computer algorithm and estimate quantities of various dependent variables (e.g., surface runoff, evapotranspiration, percolation, latent heat flux, sensible heat flux, etc.).
  d. Become familiar with a variety of remote sensing data products and their particular formats (e.g., HDF5, shp, GRIB, etc.).
  e. Be able to develop his or her own remote sensing products.