INDEPENDENT STUDY PROJECT PROPOSAL
CHEM 199 V (3 credits)
Course Outline

Student: Sean Dupuis
Advisor: Leticia Colmenares, PhD
Date: Fall 2011
Title: Extraction, evaluation of antioxidant capacities and identification of antioxidant chemicals in dried leaves of local Hawaiian plants

COURSE DESCRIPTION:

See description of Independent Study in the catalog.

COURSE OBJECTIVE:

To determine the antioxidant capacity of the plant extracts of Bidens pilosa, Commelina communis, Ipomea batatas, and Solanum americanum using at least two different chemical assays and identify the antioxidant chemicals. Emphasis on the use of UV-Vis spectrophotometry and HPLC. This will be conducted at Windward Community College in Fall 2011.

METHOD OF INSTRUCTION:

Instruction will be done through a one-on-one discussion of the research methodology followed by hands-on demonstration of laboratory techniques and procedures. Weekly meetings will be held to discuss progress and provide guidance to meet weekly targets. Handouts and reference materials will be provided.

EVALUATION OF OBJECTIVE ACHIEVEMENT:

Laboratory journals, weekly oral presentation and written reports will be evaluated. Weekly targets should be met, and the above-mentioned course objective is met.

METHOD OF GRADING:

Student will receive a grade of ‘CR’ upon submission of the final written formal report and successful completion of poster presentation. Deadline: Dec 15, 2011. Otherwise, student will receive “NC” grade.
PREREQUISITE:

CHEM 162 and 162L

SUGGESTED READING:


• Truong V-D, Mcfeters R.F., Thompson R.T., Dean L.L., Shofran B. Phenolic acid content and composition in leaves and roots of common commercial sweet potato (Ipomea batatas L.) Cultivars in the United States.