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Undergraduate Research Program

Project Name	Ohmic heating assisted extraction of natural pigments from corn byproducts
Campus & Location in Mexico	Toluca
Faculty	Engineering and Sciences
Research Area	Bioengineering - Emerging technologies & phytochemistry
Research Responsible	Dra. Aurea K. Ramírez Jiménez
Description of the Project	Natural pigments are valuable compounds that might replace artificial dyes in the food and pharmaceutical industry. Byproducts generated after corn processing to produce tortilla are a significant source of these natural pigments. In this Project, we aim to recover pigments using ohmic heating, an electric field-based technique that allows the rapid and efficient extraction of bioactive compounds.
Training Provided	Training for the use of lab equipments: HPLC, GC and ohmic heater. Training in antioxidant capacity and stability techniques for bioactive compounds.

Offered during:

SUMMER

WINTER

SEMESTER

Student

Tasks/Responsibilities	Perform the extraction of natural pigments and their further evaluation of stability and antioxidant capacity.
Required Language Proficiency	Advanced English
Required Skills and Abilities	knowledge of basic lab guidelines and techniques
Other Documents	<ol style="list-style-type: none"> 1) Being at least in your 2nd year of bachelor 2) Accumulative grade point average (GPA) 2.5 3) Official Transcript 4) 2 letters of recommendation of faculty members 5) Resume 6) Letter of intention explaining the reason why you would like to participate in the research program