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<b>Contact Information:</b>	<a href="mailto:studyinmexico@itesm.mx">studyinmexico@itesm.mx</a>

### Undergraduate Research Program

<b>Project Name</b>	Ohmic heating assisted extraction of natural pigments from corn byproducts
<b>Campus &amp; Location in Mexico</b>	Toluca
<b>Faculty</b>	Engineering and Sciences
<b>Research Area</b>	Bioengineering - Emerging technologies & phytochemistry
<b>Research Responsible</b>	Dra. Aurea K. Ramírez Jiménez
<b>Description of the Project</b>	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.
<b>Training Provided</b>	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

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