

Code	TBD	Prerequisites	Processes Plastic II
Name	Process III Extrusion	Co-requisites	Materials I

Credits	Contact Hours
04	44
Categorization of credits	
Math and basic science	
Engineering topic	X
Other	

Coordinator's name	Simón Pascual
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Text book
<p>Brent Strong, A. (2006). Plastic Materials and Processing. (Third Edition). New Jersey. Pearson Prentice Hall</p> <p>Singer, K. (2011). Blow Film Extrusion an Introduction (2 Edition). United State of America: Hanser Publication.</p> <p>Giles, H., Mount III, E.M., Wagner Jr., J. (2005). Extrusion: The Definitive Processing Guide and Handbook. (1 Edition). United State Of America. William Andrew, Inc.</p> <p>Rao, N., Schott, N. (2012). Understanding Plastics Engineering Calculations. (First Edition). United States of America. Hanser Publication</p> <p>Rauwendaal, C. (2010). Polymer Extrusion. (2 Edition). United State of America: Hanser Publication.</p> <p>Rubin, I.I. (2008). Plastic Materials, Properties and Applications. Mexico: Limusa Noriega Publishers.</p>
Other supplemental materials

Description	
Process III, within the polymers concentration, focuses on the study of transformation processes through extrusion. It includes the study of all the components required for the correct practice of extrusion operations. The machinery, main elements and characteristics. Analysis of the process and principles that support it.	
Type of course	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Elective

Specific goals for the course
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Outcomes of instruction	<ol style="list-style-type: none"> <li>1. Responsibly assume their academic role during the teaching-learning process, participating in discussions and respecting the established work schedule.</li> <li>2. Show curiosity about technology and applied science with an interest in developing innovative solutions that impact production processes</li> <li>3. Define and distinguish industry trends by participating in updating processes, in order to propose solutions that reflect those available in the market.</li> </ol>
Student outcomes	<ol style="list-style-type: none"> <li>1. Recognize the need and are able to participate in initiatives and spaces for continuous learning and updating in both professional and academic contexts.</li> <li>2. Use modern engineering techniques, skills and tools in practice appropriately according to their context or area of performance.</li> </ol>

Topics
Unit I. Introduction to the concepts of Extrusion Unit II. Extruder Description Unit III. Process Analysis Unit IV. Screw Design Unit V. Thermoforming Unit V. Blow Film