

Code	INI326	Prerequisites	INI339
Name	Industrial Development Evolution	Co-requisites	None

Credits	Contact Hours
02	22
Categorization of credits	
Math and basic science	
Engineering topic	X
Other	

Coordinator's name	Louis Toirac
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Text book
Gillen. C. (2001). The social organization of production as a dynamic of development. Horizon Publisher. Maynard, H. (2018). Handbook of Industrial Engineering. McGraw Hill. Womack, J., Jones, D., & Roos, D. (1992). The machine that changed the world. McGraw Hill.
Other supplemental materials
Boyer, R., & Freyssenet, M. (2003). Productive models. Publisher Fundamentals. Chase, R., Jacobs, R., & Aquilano, N. (2014). Management of operations, products and supply chains. McGraw Hill. Neffa, JC (1998). The Taylorist and Fordist paradigms and their crises. Lumen/Work and Society/ PIETTE. Niebel, B. (1992). Industrial Economics and Management. Penn State University. Niebel, B. (2009). Industrial engineering. McGraw Hill. Ohno, T. (2001). The Toyota Production System. Management Editions 2000. Taylor, F. (1984). Principles of scientific management. The Athenaeum.

Description _
The subject has the objective of taking the student through the different paradigms and productive models that have emerged after the first industrial revolution. With this, he will understand what concepts motivate these changes and what the current trend is, while developing an understanding of their professional role in the current production model.
The content of the subject focuses on the detailed study of the production models: artisanal, mass and adjusted, through their characteristics and impact on the production systems, as well as in-depth analysis of the profitability strategies related to the industrial activity: quality, volume, volume and diversity, permanent cost reduction,

innovation and flexibility. They are established through the study of production models based on the experience of the automotive industry: Kalmarism, Taylorism, Fordism, Sloanism, Ohnism and Hondism, and through the approaches of its main conceptualizers and executors in the industry.

Type of course	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Elective _
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Specific goals for the course	
Outcomes of instruction	1. Prepare reports expressing most of the key ideas of the topic being discussed, organize and classify them coherently and with criteria. 2. Present oral messages clearly using physical gestures, facial expressions and regulation of the tone of voice. 3. Use complementary, detailed and organized information to support the ideas that you want to convey. 4. Provide evidence from reliable and up-to-date sources. 5. Participate in the planning of the objectives and the partial follow-up of their fulfillment. 6. Interact with team members appropriately, encourages and considers the ideas of other members. 7. Apply strategies to avoid and resolve conflicts.
Student outcomes	SO3. Communicate effectively with a variety of audiences. SO5. Function effectively in a team whose members together provide leadership, create a collaborative and inclusive environment, set goals, plan tasks and meet objectives. SO7. Acquire and apply new knowledge as required, using appropriate learning strategies.

Topics
Unit I. Productive models and the craft model Unit II. Scientific Administration and work organization. Taylorism Unit III. Mass production: Fordism and Sloanism Unit IV. Lean production: Ohnism and Hondism Unit V. Import substitution model in the Dominican Republic