Code	INI201	Prerequisites	None
Name	Introduction to Industrial Engineering	Co-requisites	None

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

Coordinator's name	Sharon Schnabel

Text book
Gabriel Baca U., M. C. (2014). Introducción a la ingeniería industrial. México: Patria. Maynard, H.B. & Zandin, K.B.; (2001) Maynard's Industrial Engineering Handbook (5th edition). New York: McGraw Hill.
Other supplemental materials
Madhavan, G; (2015) Applied Minds: How Engineers Think (1st edition). New York: W.W. Norton & Company. Michalko, M. (2006). Thinker toys: A handbook of creative-thinking techniques. Berkeley, Calif: Ten Speed Press. Senge, P.M. (1990). The fifth discipline: the art and practice of the learning organization. New York :Doubleday/Currency.

Description	
The content of the subject addresses the following topics: 1. General aspects of industrial engineering, 2. Analytical, systemic and engineering thinking, 3. Nature of industrial processes, 4. Productivity and continuous improvement, 5. Quality management, 6. Operations Administration, 7. Work Study and Design, 8. Logistics, 9. Facilities Design.	
Type of course	☒ Required ☐ Elective

Specific goals for the course	
Outcomes of instruction	1. Develop solutions according to the current reality, taking into account ethical and professional responsibility. 2. Assess consequences of the impact of engineering decisions in global, regional and local contexts (economic, environmental and social). 3. Identify the copyright in the particular solutions developed.

	4. Infer through the information of another the need for new knowledge. 5. Compile some sources of information and occasionally apply it to the achievement of objectives.
Student outcomes	SO4. Recognize ethical and professional responsibilities in engineering situations and makes informed judgments considering the impact of engineering solutions in global, economic, environmental and social contexts. SO7. Acquire and apply new knowledge as required, using appropriate learning strategies.

Topics
Unit I: Introduction to Industrial Engineering Unit II: Generalities of Industrial Engineering Unit III: Nature of Industrial Processes Unit IV: Logistics and Information Systems Unit V: Productivity and Continuous Improvement Unit VI: Quality Unit VII: Operations Management Unit VIII: Work Study and Design Unit IX: Facility Design