

Course Syllabi

1. INDU-00018 PRODUCTION MANAGEMENT

2. 96 credits hours.

3. Bibliography

- Pronósticos en los negocios, Hanke, J., Wichern, D. & Brito, A, 2010
- Planificación y control de la producción, Chapman, S. & Boneville, E., 2006
- Production and operations management, Chary, S. , 2019
- Filosofías de Gestión de la Producción/ <https://sgb.ucuenca.edu.ec/cgi-bin/koha/opac-detail.pl?biblionumber=158458>, Jardim E. & Costa R., 2017

4. Specific Course Information

a. The subject of Production Organization is an introduction to the Planning and Control of Production, as well as to the Philosophys of Production Management. It analyses the forecasts, both in demand and in the operations and capacity of productive systems. The subject contributes to the student's discharge profile in developing learning results associated with: Identifying, formulating and solving complex engineering problems by applying engineering, science and math principles. (RDA 1 ABET) Apply engineering design to produce solutions that meet specific needs taking into account public health, safety and well-being, as well as global, cultural, social, environmental and economic factors (RDA 2 ABET). Develop and conduct appropriate experimentation, analyze and interpret data and use engineering criteria for conclusions (RDA 6 ABET) Acquire and apply new knowledge as required, using learning strategies appropriate (RDA 7 ABET).

b. Prerequisites:

- INDU-00013 OPERATIVE RESEARCH

5. Learning Objectives of the Course

a. Analyze and interpret forecasts, demand and other necessary data for a proper planning and organization of production.

- Analyze typology of processes and product typology.
- Perform forecasts of demand and operations.
- Analyze the production capacity of an industrial plant.
- Know the different Production Philosophys.

b. Learning Outcomes

- It differentiates the types of forecasts and identifies the best calculation method for a demand forecast. (rda 1 abet).
- It determines, according to the knowledge acquired, clearly and precisely the types of products and processes. (rda 7 abet).
- It dominates production capacity, line balancing and modular production concepts, including calculation techniques to obtain solutions that meet business needs using engineering criteria (rda 2 abet). (rda 6 abet).
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- Conoce las diferentes filosofías de producción, sus aplicaciones y ventajas para implementarlas en escenarios reales de producción de bienes y/o servicios. (rda 7 abet).

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- It differentiates the types of forecasts and identifies the best calculation method for a demand forecast. (rda 1 abet).

6. Course Topics

- Type of process and products
- The product structure grove
- Pronostics
- Capacity
- Takt time and line balancing
- Modular production
- Philosophy of production management