



Faculty of
Sciences and
Systems

#SomosOrgullosamenteUNI



System

ENGINEERING

PROFILE OF GRADUATION
AND CURRICULA

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Knowledge OF A SYSTEM ENGINEER

- Understand fundamentals, methods, techniques, and procedures in order to plan organizational systems.
- Grab technical-scientific fundamentals, methodology systems, business process, administration, software engineering and information systems.
- Master methodologies and technological tools to identify, analyze and design organizations' business models.

System ENGINEERING

System Engineering has as its main objective to train professionals with a humanistic, scientific, and solid technique. It emphasizes in business areas of expertise and information systems in order to contribute with an effective decision making in management. Consequently, improvement for public and private companies contribute to the socio-economic development of the country.

Skills OF A SYSTEM ENGINEER

- Apply system methodologies and engineering software, techniques, strategies, administrative and technological tools.
- Deploy information systems to develop and manage organizational systems.
- Solve complex problems of organizations from a systematic view by modeling and analyzing complex interrelation between sources, people and information.
- Develop, evaluate, manage projects of public and private investment in each related area of their profession.

Attitudes OF A SYSTEM ENGINEER

- Show empathy and assertiveness in a methodological and technical coordination of work equipment with a systematic view.
- Apply transformative leadership by being consistent in the environment as well as showing entrepreneurial spirit. It is also committed to social needs and to preserve global environment.
- Behave with professional ethics in order to develop and manage organizational systems with its environment. It also shows responsibility, pro-activity, creativity and innovative activities.
- Assume commitment with self-improvement, ongoing learning and its comprehensive training.





I Semester

- Financial Accounting
- Introduction to Programming I
- English I
- Philosophy
- Mathematic I
- Technical Writing

II Semester

- Linear Algebra
- Cost Accounting
- English II
- Mathematic II
- Programming I
- Sociology

III Semester

- Management Accounting
- Culture of Peace and Human Rights
- Statistics I
- Economical Engineering
- Mathematic III
- Programming II

IV Semester

- Data Base I
- Microeconomy
- Statistics II
- Finance I
- Physics I

V Semester

- Numerical Methods
- Data Base II
- Macroeconomy
- Physics II
- Marketing
- Production I

Curricula

VI Semester

- Architecture of Machine
- Finance II
- Software Engineering I
- Operational Research I
- Organization I
- Production II

VII Semester

- Graphic and Multimedia Applications
- Software Engineering II
- Operational Research II
- Organization II
- Production III
- Operating Systems

VIII Semester

- History of Central America and Nicaragua
- System Engineering
- Artificial Intelligence
- Research Methodology
- Operating Network Systems

IX Semester

- Audit Systems
- Projects Design and Assessment
- Modelling and Simulation Systems
- Information Systems
- Technology and Environment

X Semester

- Computer Science Management
- Project Management
- System Design on the Internet
- Professional Ethics
- Manufacturing Systems





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