

1. Course number and name
(a)TC1009 Information Systems Development and Databases
2. Credits and contact hours
(b)5-0-12
3. Instructor's or course coordinator's name
(c)Lorena G. Gómez Martínez
4. Text book, title, author, and year
(d)* Kendall, Kenneth E., 1948-, Análisis y diseño de sistemas / Kenneth E. Kendall, Julie E. Kendall ; traducción Antonio Núñez Ramos., 6a ed., México : Pearson Educación, c2005., Mexico, c2005., spa, [9702605776],[9789702605775]
* Elmasri, Ramez., Fundamentals of database systems / Ramez Elmasri, Shamkant B. Navathe., 4th ed., Boston : Pearson/Addison-Wesley, c2004., Massachusetts, c2004., eng, [0321122267]
* Yourdon, Edward, Modern structured analysis / Edward Yourdon, , Englewood Cliffs, N.J. : Yourdon, c1989, New Jersey, c1989, eng, [0135986249]
 - a. other supplemental materials
(e)
5. Specific course information
 - a. brief description of the content of the course (catalog description)
(f)The Systems and Data Bases Development course is a basic level course that has as purpose: Know, analyze and apply: the systems development and Software Engineering development cycle, and the analysis fundamentals requires, to build the requirements specification of an application; the data bases and relational data bases fundamentals, and the data bases managing systems for the design of data bases required by an application.
 - b. prerequisites or co-requisites
(g)TC1005
 - c. indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program
(h)Required
6. Specific goals for the course
 - a. specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.
(j)Understand the development cycle of systems as a basis for planning the development of an information system. Learn about the basic concepts of the centralized database management systems. Obtain the conceptual and logic design of a database from a system's requirements. Define and manipulate the information contained in a database in the structured query language (SQL) of commercial management systems. Develop basic applications that allow the end user to interact with a relational database.
 - b. explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.
(k)1. The student will be able to identify, evaluate, propose and implement business solutions supported with information technologies in organizations and based on the analysis of information about customer's satisfaction, cost, response time and risks
7. Brief list of topics to be covered
(l)Introduction to databases
Data models

The relational model

Normalization.

Relational algebra.

SQL.

Transactions, security and Recovery

Introduction to distributed data bases.