1. Course number and name
   (a)TC1004 :   Computer Organization

2. Credits and contact hours
   (b)3-0-8

3. Instructor's or course coordinator's name
   (c)Mario de la Fuente Martínez

4. Text book, title, author, and year
   (d)* Stallings, William., Computer organization and architecture : designing for performance / William Stallings., 7th ed., Upper Saddle River, N.J. : Pearson Education / Prentice Hall, c2006., New Jersey, c2006., eng, [0131856448],[9780131856448]
   a. other supplemental materials
      (e)

5. Specific course information
   a. brief description of the content of the course (catalog description)
      (f)The Computational Organization course has as purpose that the student knows the fundamental parts in computer architecture, their organization and functioning, and the basic digital circuits design. As course learning result, the student will carry out: a Report than contains the program's source code of an assembler ready to be tested in a simulator. Investigation Report developed on a determined peripheral devise printer, monitor, keyboards, mouse, etc) in which the application of the learned technical knowledge in this device is observed. This report must show the use of data buses, direction and control. Project report in which a minimum combinational circuit is designed and simulated (applying boole algebra). He must turn in his design in a disc or CD ready to be tested in a common use developing environments (used in class).
   b. prerequisites or co-requisites
      (g)none
   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)By the end of the course, students will be able to: Understand the internal structure of a computer, its operation, and the way in which its components interact. Design a basic logic circuit.
   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 computer architecture and organization.
   • Numeric systems.
   • Data representation and binary arithmetic.
   • Digital design fundamentals.

- Memory systems architecture and organization.
- Central processing unit organization.
- Peripheral equipment and input/output operations.