

# SAGRADO

Universidad del Sagrado Corazón

## SYLLABUS

|                      |                                      |
|----------------------|--------------------------------------|
| <b>TITLE:</b>        | Computing                            |
| <b>CODE:</b>         | INF 110                              |
| <b>PREREQUISITE:</b> | N/A                                  |
| <b>CREDITS:</b>      | 2 credits   30 hours contact  1 term |

### DESCRIPTION

A study of the most important aspects of data and information automation in business organizations and society in general. This course shows how technology can be integrated into an organization to extend and support, not only performance, but also the development of human skills and research. In addition, the importance of ethical conduct in the handling of information through computerized systems is discussed. Emphasis is placed on the impact of computer technologies by integrating pre-programmed packages such as word processing and electronic worksheets as tools for research and presentation of results.

### JUSTIFICATION

Technological developments in the field of computing have enabled organizations to handle a large amount of information. A manager's contact with information systems requires knowledge of the fundamental aspects of data processing. Managers are faced with situations where the information they can obtain is of paramount importance in the impact of their business management. As such, future managers are required to know and evaluate both the source and the means of information, which will allow them to solve problems at the right time, in the most accurate way.

### COMPETENCES

The course develops in the student the following competences:

- **Ethical sense and social justice**

## **OBJECTIVES**

At the end of the course, students will be trained to:

1. Form an integrated vision of an organization, technology, and management.
2. Recognize the impact of the Internet and the World Wide Web on daily life and society.
3. Properly use different tools to search for information that facilitate the management, organization, and evaluation of the same.
4. Develop teamwork skills, as well as tolerate and respect differing ideas and positions.
5. Handle information and technology appropriately and responsibly while demonstrating a sense of ethics in professional and personal performance.
6. Develop self-teaching skills.
7. Show the change in attitudes towards new learning experiences.
8. Recognize the importance of expressing ideas correctly, logically, clearly, and coherently, both orally and in writing, in the field of computer science.
9. Evaluate, select, and employ a suitable application program to solve a problem according to the needs for change.
10. Analyze the information needs of a company and present actionable alternatives to develop information systems.
11. Know the different levels of information systems in a company.
12. Effectively use information systems applied to the student's area of competence.

## **CONTENT**

- I. General Concepts
  - A. Information Systems
    1. Computer use in various areas
    2. Impact of computers on our society
    3. Ethical issues with respect to the use of information and technology
- II. Information Management, Organization, and Evaluation
  - A. Search
  - B. Bibliographic References and Citations
  - C. Virtual Libraries
  - D. Plagiarism

- E. Information Assessment
- F. Data and Information Storage
- III. The Internet and the World Wide Web
  - A. Computer-to-Computer Communication and Networking Concepts
    - 1. Communication networks
    - 2. Classification of network types
    - 3. Network topologies
  - B. Resources and Services Available on the Network
    - 1. E-mail
    - 2. Webpages
    - 3. Search engines
    - 4. Synchronous communication (*chat, instant messaging*)
    - 5. Others
- IV. Computer Ethics
  - A. Privacy
  - B. Freedom of Expression and Censorship
  - C. Copyright
  - D. Cybercrimes
    - 1. Malware
    - 2. Piracy
    - 3. Identity Theft
    - 4. Information Theft
- V. Use of Technology in Research and Decision Making
  - A. Characteristics of the Information
    - 1. Exact
    - 2. Relevant
    - 3. On time
  - B. Research Competencies
    - 1. Word processing application
    - 2. Internet usage
    - 3. References
    - 4. General APA format
    - 5. Presentation of the research
  - C. Decision Making – Using Technology as Support
    - 1. Chart preparation
      - a. Pie chart
      - b. Bar graph

- c. XY type chart
2. Use of functions
  - a. basic functions
  - b. addition
  - c. subtraction
  - d. multiplication
  - e. division
3. Summation (SUM)
4. Rounding (ROUND)
5. Average (AVERAGE)
6. Highest (MAX) and lowest (MIN) values
7. Monthly payment calculation (*PMT*)
8. Conditional summation (SUMIF)
9. Logical comparisons (*IF*)

## METHODOLOGY

The following strategies of the active learning methodology are recommended:

- Conferences
- Discussion of exercises and cases
- Laboratory
- Research project
- Use of distance learning system to access the online component of the course
- Oral presentation by means of multimedia resources (electronic presentations)
- Use of resources available on the Internet
- Computer software operation

## EVALUATION

|               |             |
|---------------|-------------|
| Examinations  | 20%         |
| Laboratories  | 20%         |
| Group project | 20%         |
| Online tasks  | 20%         |
| Final work    | <u>20%</u>  |
| <b>Total</b>  | <b>100%</b> |

Work to be done in the computer will be assigned as part of the mid-term evaluations.

## RESOURCES

Classroom with IBM PC or compatible microcomputers; pre-programmed packages in the areas of word processing, electronic worksheets, and electronic presentations.

Access to the Internet and the World Wide Web.

## **LEARNING ASSESSMENT**

The institutional assessment rubric is applied to the core activity of the course.

## **BIBLIOGRAPHY**

Gates, B. (2009) *The speed of thought: Succeeding in the digital economy*. New York: Warner Books.

Hajek D., Herrera, C. (2019) *Introduction to Computers*. Independently published (March 28, 2019).

Lambert, J. & Frye, C. (2015) *Microsoft Office 2016: Step by Step*. Microsoft Press.

Recuperado de

<https://ptgmedia.pearsoncmg.com/images/9780735699236/samplepages/9780735699236.pdf>  
<https://ptgmedia.pearsoncmg.com/images/9780735697799/samplepages/9780735697799.pdf>

Lambert, J. (2015) *Microsoft PowerPoint 2016: Step by Step*. Microsoft Press.

Recuperado de

<https://ptgmedia.pearsoncmg.com/images/9780735697799/samplepages/9780735697799>

Laudon, K. C., & Laudon, J. P. (2018) *Management Information Systems: Managing the Digital Firm* (15<sup>th</sup> Ed.). Pearson.

McLeod, R. (1997) *Management information systems* (7<sup>th</sup>. Ed.). New Jersey: Prentice-Hall.

Montclair State University (n.d.) *Introduction to Microsoft Excel 2016*. Retrieved from <https://www.montclair.edu/media/montclair.edu/oit/documentation/office2016/Introduction-to-Excel-2016.pdf>

MountAllison University (n.d.) *Microsoft EXCEL Training*. Retrieved from [https://www.mta.ca/uploadedFiles/Community/Administrative\\_departments/Human\\_Resource/Training\\_and\\_professional\\_development/Classroom/Excel%20Training%20-%20Level%201.pdf](https://www.mta.ca/uploadedFiles/Community/Administrative_departments/Human_Resource/Training_and_professional_development/Classroom/Excel%20Training%20-%20Level%201.pdf)

Parsons, J. J., & Dan, O. (2017) *New Perspectives on Computer Concepts 2018: Comprehensive* (20<sup>th</sup> Ed.). Cengage Learning.

Vermaat, M., Sebok, S.L., Freund, S.M., Campbell, J.T. & Frydenberg, M. (2018) *Discovering Computers 2018: Digital Technology, Data and Devices*. Shelly Cashman Series. Boston, MA: Cengage Learning.

Zacker, C. (n.d.) *Microsoft Official Academic Course: Microsoft Word 2016*. Wiley. Retrieved from [https://www.dit.ie/media/ittraining/msoffice/MOAC\\_Word\\_2016\\_Core.pdf](https://www.dit.ie/media/ittraining/msoffice/MOAC_Word_2016_Core.pdf)

## MAGAZINES

ABI Business Index

Compute

Computer World

Journal of the Association of Computing Machinery

Journal of Systems Management

## ELECTRONIC RESOURCES

<http://www.presentersonline.com>

<http://www.computerhistory.org>

<http://www.cbi.umn.edu>

<http://www.cyberstreet.com>

<http://www.thocp.net/biographies/biographies.htm>

<http://www.digitalcentury.com>

Find more information resources related to the course topics on the library page  
<http://biblioteca.sagrado.edu/>

### **REASONABLE ACCOMMODATION**

To obtain detailed information on the process and the required documentation, you must visit the corresponding office. To guarantee equal conditions, in compliance with the ADA (1990) and the Rehabilitation Act (1973), as amended, all students who need reasonable accommodation services or special assistance must complete the process established by the Vice Presidency for Academic Affairs.

### **ACADEMIC HONESTY, FRAUD AND PLAGIARISM**

Any student who misses the policy of honesty, fraud and plagiarism is exposed to the following sanctions: received a grade of zero in the evaluation and/ or repetition of the work in the course, grade of F (\*) in the seminar: suspension or expulsion as established in the Academic Honesty Policy document (DAEE 205-001) effective August 2005.

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