ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL
Electrical and Computer Engineering Department (FIEC)
COURSE SYLLABUS
Artificial Intelligence

1. CODE AND NUMBER OF CREDITS *(Institutional identification of the course and the relation between academic and practical credits)*

CODE	FIEC03459	
NUMBER OF CREDITS	**Theoretical: 3.5**	**Practical:** 0

2. COURSE DESCRIPTION *(This section contains what the course aims to cover; its importance in terms of the professional training in the degree program; and how this course fits into the curriculum of the degree program. The description must be clear and concise. Maximum 10 lines. This information will be published in the institution´s academic catalogue.)*

> This course describes the artificial intelligence techniques as a tool for analyzing and solving non-conventional problems. During the course, different knowledge representation methods are defined and identified; also, diverse mechanisms for searching and artificial reasoning are discussed and applied to solve problems. Knowledge based system architecture is analyzed as well as its development cycle.

3. PRE-REQUISITES AND CO-REQUISITES *(Courses that must have been passed in order to take this course and courses that must be taken simultaneously with this course. Indicate the codes of these courses.)*

PRE-REQUISITES	1. LENGUAJES DE PROGRAMACIÓN
CO-REQUISITES	

4. CORE TEXT AND OTHER REQUIRED REFERENCES FOR THE TEACHING OF THE COURSE *(The text is the main book to be consulted and studied by the students. Its content ought to correspond to a large extent to the established program for this course and should be up-to-date. Other references may be included as complementary material to enhance the learning of the students. Both the core text and the other references must be listed with the following fields: author, title of the book, number of the edition, year of publication and editorial.)*

CORE TEXT	1. George F. Luger, Artificial Intelligence Structures and Strategies for Complex Problem Solving, Sixth Edition, Addison Wesley, 2009.
REFERENCES	1. Michael R. Genesereth & Nils J. Nilson, Logical Foundations of Artificial Intelligence, 2003, Morgan Kaufmann Publishers, Inc. 2. W. Bibel, J. Schneeberger & E. Elver, Knowledge Engineering Vol. I – Fundamentals. Representation of Knowledge, 2001, McGraw-Hill Inc. 3. Course notes and current papers published

5. COURSE STUDENT LEARNING OUTCOMES *(These can cover knowledge, abilities, values and attitudes. It is recommended that there are no more than 8. Ask yourself: what do I want the students to know at the end of the course? And, what do I expect the students to be able to do with what they know? It should be clear here the level (Bloom´s taxonomy) to which the students are to be exposed.)*

> At the end of the course, the student will be able to:
>
> **1.** Know and applied different knowledge representation methods;
>
> **2.** Evaluate, contrast and select the appropriate search algorithm for trees and proper artificial

reasoning techniques for modeling intelligent behavior of a system, based on the definition of user and computational requirements identified during the process of analysis;

3. Design, implement and evaluate the solution of a problem based on artificial inference mechanisms.

4. The student will develop a course project working as a member of a team and will develop a technical written report, which will also be orally presented at the end of the course.

6. CLASS SCHEDULE /LABORATORY *(NUMBER OF SESSIONS PER WEEK AND TIME FOR SESSION).*

Schedule: Tuesdays and Fridays from 12h00 to 13h30
Two sessions per week,
1.5 hours per session
31 sessions in the semester.

7. METODOLOGY AND ORGANIZATION OF THE COURSE

This is a face-to-face course and demands 47.5 hours of face-to-face sessions which are distributed in 31 sessions of 1.5 hours each, and 87 hours of individual work.

Each session has been designed following the constructivist paradigm; it starts with a re-construction of what has been learned to continue the development of new knowledge. Each class has diverse activities, such as presentations of topics, projection of videos, group activities and plenary discussions, to help construct together solution strategies to problems, discover and define concepts, and so on, as well as evaluating what has been learned.

All learning resources are available through the course web site in: www.sidweb.espol.edu.ec. In this site there is also available the reports from homework and projects.

8. COURSE EVALUATION

	First Evaluation	Second Evaluation	Third Evaluation
Exams	60	45	100
Quizzes	10	05	
Homework	10	05	
Project and Report		35	
Participation in Class	10	05	
Others – discussion of contemporary issues	10	05	
TOTAL	100%	100%	100%

9. RESPONSIBLE PERSON FOR SYLLABUS PREPARATION AND ELABORATION DATE

Elaborado por:	**Enrique Peláez**
Fecha:	**September, 2017**