Ucayali State University (UNU)
School of Computer Science
Sillabus 2023-I

1. COURSE

CS361. Computational Vision (Elective)

2. GENERAL INFORMATION

2.1 Credits	:	4
2.2 Theory Hours	:	2 (Weekly)
2.3 Practice Hours	:	2 (Weekly)
2.4 Duration of the period	:	16 weeks
2.5 Type of course	:	Elective
2.6 Modality	:	Blended
2.7 Prerrequisites	:	CS262. Machine learning. (7^{th} Sem)

3. PROFESSORS

Meetings after coordination with the professor

4. INTRODUCTION TO THE COURSE

Provee una serie de herramientas para resolver problemas que son difíciles de solucionar con los métodos algorítmicos tradicionales. Incluyendo heurísticas, planeamiento, formalismos en la representación del conocimiento y del razonamiento, técnicas de aprendizaje en máquinas, técnicas aplicables a los problemas de acción y reacción: asi como el aprendizaje de lenguaje natural, visión artificial y robótica entre otros.

5. GOALS

- Realizar algún curso avanzado de Inteligencia Artificial sugerido por el curriculo de la ACM/IEEE.

6. COMPETENCES

a) An ability to apply knowledge of mathematics, science. (**Usage**)

h) A recognition of the need for, and an ability to engage in life-long learning. (**Usage**)

i) An ability to use the techniques, skills, and modern computing tools necessary for computing practice. (**Usage**)

j) Apply the mathematical basis, principles of algorithms and the theory of Computer Science in the modeling and design of computational systems in such a way as to demonstrate understanding of the equilibrium points involved in the chosen option. (**Assessment**)

7. TOPICS

Unit 1: (60)	
Competences Expected: a,h	
Topics	**Learning Outcomes**
• CS360. Sistemas Inteligentes • CS361. Razonamiento automatizado • CS362. Sistemas Basados en Conocimiento • CS363. Aprendizaje de Maquina [RN03],[Hay99] • CS364. Sistemas de Planeamiento • CS365. Procesamiento de Lenguaje Natural • CS366. Agentes • CS367. Robótica • CS368. Computación Simbólica • CS369. Algoritmos Genéticos [Gol89]	• Profundizar en diversas técnicas relacionadas a la Inteligencia Artificial [Usage]
Readings : [RN03], [Hay99], [Gol89]	

8. WORKPLAN

8.1 Methodology

Individual and team participation is encouraged to present their ideas, motivating them with additional points in the different stages of the course evaluation.

8.2 Theory Sessions

The theory sessions are held in master classes with activities including active learning and roleplay to allow students to internalize the concepts.

8.3 Practical Sessions

The practical sessions are held in class where a series of exercises and/or practical concepts are developed through problem solving, problem solving, specific exercises and/or in application contexts.

9. EVALUATION SYSTEM

********* EVALUATION MISSING ********

10. BASIC BIBLIOGRAPHY

[Gol89] David Goldberg. *Genetic Algorithms in Search, Optimization and Machine Learning*. Addison Wesley, 1989.

[Hay99] Simon Haykin. *Neural networks: A Comprehensive Foundation*. Prentice Hall, 1999.

[RN03] Stuart Russell and Peter Norvig. *Inteligencia Artifical: Un enfoque moderno*. Prentice Hall, 2003.