NATIONAL UNIVERSITY OF SAN MARCOS
(The University of Peru, DEAN OF AMERICA)
FACULTY OF SYSTEMS ENGINEERING AND COMPUTER SCIENCE
SCHOOL OF SOFTWARE ENGINEERING

SYLLABUS

1. GENERAL INFORMATION

1.1 Course Name	:	Thesis I
1.2 Course Code	:	AAAAAA
1.3 Course Type	:	Mandatory
1.4 Area of Study	:	Investigation
1.5 Number of Weeks	:	16
1.6 Weekly Hours	:	Theory: 3, Practice: 2, Lab: 2
1.7 Academic Semester	:	2025-I
1.8 Cycle	:	IX
1.9 Credits	:	4
1.10 Modality	:	IN PERSON
1.11 Prerequisites	:	Software Inteligente, Negocios
1.12 Teacher(s)	:	Lucho Barreda (lucho.barreda@ejemplo.com) Sergio Quiroz (sergioq@ejemplo.com)

2. COURSE SUMMARY

This course falls under the complementary studies area and is theoretical and practical in nature. Its purpose is to develop intelligent systems based on knowledge of artificial intelligence and algorithms developed in data mining: "Build, develop, and manage software solutions for managerial decision-making using international quality and data science methodologies and standards with an ethical attitude and social responsibility." The main content is: Data collection and exploration using algorithms. Use of statistical techniques for data analysis with algorithms. Machine learning algorithms, deep learning algorithms, Common KADS algorithms, and genetic algorithms.

3. GRADUATE PROFILE COMPETENCIES CONTRIBUTED BY THIS COURSE

Code	Description	Type	Level
CG3.3	Apply the capacity for analysis and critical thinking in the development of activities related to your future professional life	Generic	Intermedio
CT11.3	Implement intelligent software based on emerging development processes with an ethical, critical, and innovative attitude.	Generic	Básico
CE12.3	Implements software solutions for management decision-making using international quality and data science methodologies and standards with an ethical attitude and social responsibility.	Specialty	Avanzado

4. LEARNING ACHIEVEMENTS

CG3.3
Analyze and relate algorithms as models of human life, whose application solves real-life problems.

CT11.3
Analyze and relate algorithms as models of human life, whose application solves real-life problems.

CE12.3
Analyze and relate algorithms as models of human life, whose application solves real-life problems.

5. CAPACITIES

- **Unit 1:** Introduction to bio-inspired software and algorithms

  Description: He is familiar with genetic algorithms and has the ability to implement solutions tailored to the needs of the environment.

- **Unit 2:** . Neural Networks

  Description: It has the ability to design neural network architectures tailored to the requirements of organizations and/or the environment.

- **Unit 3:** Image processing

  Description: You are familiar with image classification models and algorithms and can implement intelligent software with an artificial intelligence engine based on image processing.

- **Unit 4:** Natural Language Processing

  Description: He is familiar with natural language processing models and can implement solutions tailored to the environment's requirements.

6. CONTENT PROGRAMMING

Unit 1: Introduction to bio-inspired software and algorithms

Unit Achievement: Understands and models solutions using genetic algorithms, and designs intelligent software based on bio-inspired algorithms.

Sem	Content	Activities	Resources	Strategies
1	Fundamentals of Intelligent Software Development, MLops Common KADS Methodology.	Entrance Assessment • Syllabus sharing • Group formation for the course project • Presentation and discussion of the content • Laboratory tool recognition	• Syllabus, • Material Teaching	• Active learning • Case analysis • Teamwork
2	fgdfg	gfdgfd	g	dfgdfg
3	dgfdg	fdgf	gfdg	dfgdf
4	dfg	fdgdf	dfgdf	fdg

Unit 2: . Neural Networks

Unit Achievement: gdfgdf

Sem	Content	Activities	Resources	Strategies
gd	fgdf	gdfg	dfgdf	gdfg
gf	dfgd	dfgdf	dfg	dfgdg
df	dfgdfg	gdfgdf	gdfg	gdfg
8	Partial exam	—	—	—

Unit 3: Image processing

Unit Achievement: asdasd

Sem	Content	Activities	Resources	Strategies
sa	adas	dasd	asd	asdas
as	dasd	asdas	asd	dasd
ds	dasd	asd	asdas	d
as	dasd	sadas	sad	dsad

Unit 4: Natural Language Processing

Unit Achievement: sdasdasd

Sem	Content	Activities	Resources	Strategies
da	asdas	you give	asdas	you give
as	sdsad	dasd	asd	dasdas
as	sdas	asd	asd	dasdasds
16	Final exam	—	—	—

7. TEACHING STRATEGY

adasdasd

8. LEARNING ASSESSMENT

asdasdd

Formula: dasdasd

- dsadasd

Unit	Criterion	Performance	Product	Instrument
Introduction to bio-inspired software and algorithms	dsadasd	dsad	sadas	dasd
. Neural Networks	dasd	you give	asdas	sad
Image processing	sad	sad	asd	asd
Natural Language Processing	dasd	you give	you give	asdas

9. BIBLIOGRAPHY

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