COURSE DESCRIPTION FORM: AL-2002 Artificial Intelligence Lab

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INSTITUTION	FAST School of Computing, National University of Computer and Emerging Sciences, Karachi
PROGRAM TO BE EVALUATED	BS-CS BS-AI BS-CY BS-SE SPRING 2025

Lab/ Practical Component of the course

Weeks	Contents/Topics	Assessment Items
Week 1 (Lab0)	Revision of python-it's famous IDE & Introduction to AI with Practical Examples	
Week 2 (Lab1)	Types of Agents, Environments to implement, Revision of Python concepts & relevant libraries	Task 1
Week 3 (Lab2)	Uninformed Searching Algorithms	Task 2
Week 4 (Lab3)	Informed Searching Algorithms	Task 3
Week 5 (Lab4)	Constraint Satisfaction Problems	Task 4
Week 6	**MidTerm-I (Theory)**	
Week 7 (Lab5)	Adversarial Search Algorithms	Task 5
Week 8 (Lab6)	Evolutionary Search Algorithms	Task 6
Week 9	**LAB MID**	
Week 10 (Lab7)	Dynamic Bayesian Networks, HMM	Task 7
Week 11	**MidTerm-II (Theory)**	
Week 12 (Lab8)	Supervised Learning	Task 8
Week 13 (Lab9)	Unsupervised Learning & Reinforcement Learning	Task 9
Week 14	Hackathon	
Week 15	**Final Lab Exam**	

Assessment Instruments with Weights *:*

Assessment Item	Number	Weight (%)
Hackathon	1	11
Lab Tasks	9	14 (7 best will be considered) (2% for each lab)
Mid Exam	1	25
Final Exam	1	50