Course title	Principles of Learning and Decision Making				
Course code	PSY13##				
Course type	Lecture				
Level	Undergraduate				
Year / Semester	Year 3				
Teacher's name	STF				
ECTS	7.5	**Lectures / week**	1	**Laboratories / week**	0
Course purpose and objectives	The purpose of this course is to provide students with a comprehensive understanding of the fundamental principles underlying human learning processes and decision-making mechanisms. By exploring the theoretical frameworks, empirical research, and practical applications of these concepts, students will develop a solid foundation in understanding how individuals acquire knowledge, make choices, and adapt their behaviors based on their experiences and environment.				
Learning outcomes	The following learning outcomes are expected, where students will: 1. Demonstrate a comprehensive understanding of major learning theories, including classical and operant conditioning, cognitive learning theories, and decision-making models such as rational choice theory and prospect theory. 2. Differentiate and explain various learning processes, such as habituation, sensitization, observational learning, and implicit learning, detailing their significance in shaping behavior. 3. Describe the neural and cognitive mechanisms underlying learning and decision-making, including the role of neurotransmitters, brain regions, and memory systems. 4. Identify common cognitive biases and heuristics that influence decision-making and assess their impact on human judgment. 5. Apply principles of learning to design effective strategies for skill acquisition and behavior modification in educational and therapeutic settings. 6. Analyze decision-making scenarios, evaluating the interplay of cognitive, emotional, and social factors, and proposing informed solutions. 7. Evaluate how individuals perceive and respond to risks, uncertainties, and rewards in decision-making, considering cognitive and emotional dimensions. 8. Critically assess the concepts of behavioral economics in practical contexts, and suggest ways to mitigate biases and enhance decision-making.				

	9. Develop research questions related to learning and decision-making, design empirical studies, and select appropriate methodologies to investigate hypotheses. 10. Interpret and analyze research findings related to learning and decision-making, applying statistical techniques to draw meaningful conclusions. 11. Recognize and address ethical considerations in conducting research involving human behavior, including issues of informed consent, privacy, and potential harm. 12. Effectively communicate complex concepts related to learning and decision-making through written reports, presentations, and discussions for both expert and lay audiences. 13. Collaborate with peers to present and critically evaluate research findings, engage in debates, and work together on projects that require interdisciplinary perspectives. 14. Apply critical thinking to analyze and synthesize diverse sources of information, including research articles, case studies, and real-world examples. 15. Recognize the evolving nature of psychological research and stay informed about new developments in the fields of learning and decision-making beyond the course.		
Prerequisites	No	**Required**	No
Course content	By exploring the theoretical frameworks, empirical research, and practical applications of these concepts, students will develop a solid foundation in understanding how individuals acquire knowledge, make choices, and adapt their behaviors based on their experiences and environment. Week 1: Introduction to Learning and Decision Making Week 2: Learning Theories Week 3: Neural Mechanisms of Learning and Decision Making Week 4: Decision-Making Models Week 5: Learning Processes and Adaptation Week 6: Cognitive Biases in Decision Making Week 7: Applying Learning Principles Week 8: Emotions and Decision Making Week 9: Behavioral Economics and Decision Making Week 10: Individual Differences and Cultural Influences Week 11: Ethical Considerations		

	Week 12: Future Directions and Contemporary Research Week 13: Capstone Project and Presentations
Teaching methodology	Lecture
Bibliography	Domjan, M. (2018). The Principles of Learning and Behavior. Cengage Learning. Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux. Additional Readings: Duhigg, C. (2012). The Power of Habit: Why We Do What We Do in Life and Business. Random House.
Assessment	1. Midterm & Final Exam (30% & 30%): Mid-term and final exams will be conducted covering the entire course. Both exams will include multiple-choice, short-answer, and essay questions. 2. Group assignment and presentation (20%): where students design and create a research design related to learning or decision-making, applying theories to real-world situations. 3. Individual assignments (10%): where students are assigned case studies that present complex learning or decision-making scenarios for students to analyze and propose solutions based on course content. 4. Presence & Participation (10%): Students should be present and actively participate in in-class discussions.
Language	Greek