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|--------------------------------------|---|------------------------|---|----------------------------|---|
| <b>Course title</b>                  | Sensation and Perception  |                        |   |                            |   |
| <b>Course code</b>                   | PSY13##   |                        |   |                            |   |
| <b>Course type</b>                   | Lecture   |                        |   |                            |   |
| <b>Level</b>                         | Undergraduate   |                        |   |                            |   |
| <b>Year / Semester</b>               | Year 3  |                        |   |                            |   |
| <b>Teacher's name</b>                | STF   |                        |   |                            |   |
| <b>ECTS</b>                          | 7.5   | <b>Lectures / week</b> | 1 | <b>Laboratories / week</b> | 0 |
| <b>Course purpose and objectives</b> | <p>The purpose of this course is to provide students with a comprehensive understanding of the processes involved in sensation and perception, exploring how the human brain processes sensory information to create our perception of the world. Through theoretical knowledge, practical demonstrations, and interactive activities, students will gain insights into the intricate mechanisms that govern how we experience and interpret our environment.</p>   |                        |   |                            |   |
| <b>Learning outcomes</b>             | <p>The following learning outcomes are expected, where students will:</p> <ol style="list-style-type: none"> <li>1. Demonstrate a comprehensive understanding of the key concepts and theories related to sensation and perception.</li> <li>2. Explain the processes involved in sensory transduction, neural processing, and perceptual organization for various sensory modalities.</li> <li>3. Analyze the role of sensory thresholds, adaptation, and perceptual constancies in shaping our perceptual experiences.</li> <li>4. Evaluate the significance of cross-modal interactions in creating a holistic perception of the environment.</li> <li>5. Apply psychophysical methods to design and conduct experiments that investigate sensory thresholds and perceptual phenomena.</li> <li>6. Utilize neuroimaging techniques to explore the neural mechanisms underlying sensory processing and perceptual illusions.</li> <li>7. Analyze perceptual illusions and explain how they provide insights into the mechanisms of perception.</li> <li>8. Apply principles of perceptual organization to interpret visual and auditory stimuli and predict perceptual outcomes.</li> <li>9. Critically evaluate research methodologies used to study sensation and perception, identifying strengths and limitations of different approaches.</li> </ol> |                        |   |                            |   |

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|                       | <ol style="list-style-type: none"> <li>10. Analyze the influence of cultural and individual differences on sensory experiences and perceptual interpretations.</li> <li>11. Evaluate the ethical considerations and challenges involved in conducting research on human sensory experiences.</li> <li>12. Effectively communicate complex concepts related to sensation and perception through written reports, presentations, and class discussions.</li> <li>13. Present findings from sensory experiments and research projects to peers, demonstrating clear articulation and organization of ideas.</li> <li>14. Apply knowledge of sensation and perception to real-world contexts, such as cognitive psychology, clinical psychology, human-computer interaction, and marketing.</li> <li>15. Develop solutions to practical problems related to perception disorders, sensory rehabilitation, and user experience design.</li> <li>16. Recognize the interdisciplinary nature of sensation and perception by understanding how research in this field contributes to various other disciplines.</li> <li>17. Discuss emerging trends and technologies in the study of sensation and perception, and predict potential future directions.</li> <li>18. Cultivate a curiosity for ongoing research in sensation and perception, demonstrating a commitment to continuous learning and staying updated with developments in the field.</li> </ol> |                 |    |
| <b>Prerequisites</b>  | PSY205   | <b>Required</b> | No |
| <b>Course content</b> | <p>Through theoretical knowledge, practical demonstrations, and interactive activities, students will gain insights into the intricate mechanisms that govern how we experience and interpret our environment.</p> <p>Week 1: Introduction to Sensation and Perception</p> <p>Week 2: Sensory Modalities and Neural Processing</p> <p>Week 3: Sensory Thresholds and Adaptation</p> <p>Week 4: Perceptual Organization</p> <p>Week 5: Perceptual Illusions and Ambiguities</p> <p>Week 6: Cross-Modal Perception</p> <p>Week 7: Neural Mechanisms of Perception</p> <p>Week 8: Research Methods in Sensation and Perception</p> <p>Week 9: Practical Applications and Real-World Context</p>   |                 |    |

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|                             | <p>Week 10: Ethical Considerations</p> <p>Week 11: Emerging Trends and Future Directions</p> <p>Week 12: Final Projects and Presentations</p>   |
| <b>Teaching methodology</b> | Lecture   |
| <b>Bibliography</b>         | <p>Goldstein, E. B. (2021). Sensation and Perception (11th ed.). Cengage Learning.</p> <p>PerceptionWeb. (<a href="https://perceptionweb.com/">https://perceptionweb.com/</a>): An online resource providing a collection of illusions, demos, and explanations related to visual and auditory perception.</p> <p>Sensation and Perception Virtual Lab. (<a href="https://psych.hanover.edu/JavaTest/index.html">https://psych.hanover.edu/JavaTest/index.html</a>): Interactive Java applets for various sensation and perception experiments, allowing students to explore concepts online.</p>   |
| <b>Assessment</b>           | <ol style="list-style-type: none"> <li>1. Midterm &amp; Final Exam (30% &amp; 30%): Mid-term and final exams will be conducted covering the entire course. Both exams will include multiple-choice, short-answer, and essay questions.</li> <li>2. Group assignment and presentation (30%): a research project where students will design and conduct a perceptual experiment. Students will write a research proposal, collect data, analyze results, and present their findings in a written report and a presentation.</li> <li>3. Presence and Participation (10%): Students should be present and actively participate in in-class discussions.</li> </ol> |
| <b>Language</b>             | Greek   |