

Cluster	Subject Title	Instructor	Credit	Semester
K-P	Cognitive Science of Human Communication	Hideki KOZIMA	2	Summer 2022
Subject Description				
<p>To produce future education and therapy, students are required to cultivate a deep understanding of the human body, brain, and cognition from the viewpoint of cognitive sciences of human communication. In this interdisciplinary course of lectures, students learn to weave an integrated understanding of human nature from a broad range of topics such as brain science, cognitive psychology, developmental psychology, and evolutionary psychology. In the final part of the course, students examine research on using robots for autism therapy that was done by the lecturer. Through these activities, students are expected to be able to foresee their future studies and research.</p>				
Objective				
<p>Engaging in the course of lectures, the participating students will be able to</p> <ul style="list-style-type: none"> <li>(1) be able to understand the fundamentals of human cognitive nature for future education and therapy from the viewpoint of cognitive engineering,</li> <li>(2) be able to design future forms of education and therapy, and explain the expected effects of their technical feasibility and expected effects, and</li> <li>(3) be able to have the perspective for producing innovative education and therapy in their future study and research.</li> </ul>				
Learning Method				
<p>The course consists of lectures to acquire fundamental knowledge of the course subject, accompanied by mutual discussion to deepen, express, and share ideas on them. The lectures and discussion use English.</p>				
Content				
<p>[Day 1]</p> <ul style="list-style-type: none"> <li>(1) Introduction: Cognitive sciences for future education</li> <li>(2) Body, mind, and brain (1) Ecological psychology</li> <li>(3) Body, mind, and brain (2) Brain science</li> <li>(4) Learning theories (1) Social learning</li> <li>(5) Learning theories (2) Situated learning and natural pedagogy</li> </ul> <p>[Day 2]</p> <ul style="list-style-type: none"> <li>(6) Communication development (1) Joint attention</li> <li>(7) Communication development (2) Theory of mind</li> <li>(8) Communication development (3) Imitation</li> <li>(9) Language development (1) Vocabulary</li> <li>(10) Language development (2) Grammar</li> </ul> <p>[Day 3]</p> <ul style="list-style-type: none"> <li>(11) Language development (3) Language and culture</li> <li>(12) Autism and robotic therapy (1) Facts on autism</li> <li>(13) Autism and robotic therapy (2) Perception and cognition</li> <li>(14) Autism and robotic therapy (3) Robotic interventions</li> <li>(15) Conclusion: Qualitative and interdisciplinary approach to human</li> </ul>				

Requirement
Students should bring their laptop computers (preferably not smartphones). In case of in-person class, Internet connection (WiFi) will be available in the lecture room.
Evaluation
Engagement in the lectures and discussions - 50% Individual final essay (500 words in English) - 50%
Textbook and reference (please indicate which are to be provided by instructor and which students need to find by themselves)
No particular textbook is used. Course materials and references (academic papers, etc.) will be provided by the lecturer.
Pre-course reading and preparation (if any)
No particular preparation is required.