

Course No.		Lecture No.		Course Title (Subtitle)	First Steps in Programming a Humanoid AI Robot	Credit	3
Representative Instructor	Name	Bernhard Egger	(post :)	Homepage	https://csap.snu.ac.kr/bernhard	
	E-mail	bernhard@csap.snu.ac.kr			Phone No.	02-880-1843	
	Office Hour/Place :		Building 301, Room 403, by appointment.				

Prerequisite Course	None (some familiarity with Python is helpful but not a requirement)							
*1. Purpose of Course	<p>In this practical hands-on course, we learn how to control, and program a humanoid robot using AI. The course is split into three parts: in the first week, we assemble the robot, introduce the programming environment, and walk through a number of examples that show how to control the robot's cameras and apply artificial intelligence (AI) to extract information from the captured video stream. Weeks 2-4 consist of guided labs during which you work in teams on your robot. You can augment the robot itself or teach it to perform new tasks of your choosing. We provide a list of tasks that you can choose from; students with advanced Python or AI skills are also allowed to suggest and implement a topic of their own choosing. In the last week, each team will present their work and demonstrate their robot's newly acquired capabilities.</p> <p>This introductory course does not require any particular prior knowledge on robotics or programming; however, some familiarity with Python is helpful. Teams will consist of 2-3 members and are formed between international and SNU students. Each participant will receive his/her own robot kit to take home after the class.</p>							
*2. Materials and Reference	The programming environment requires a computer with at least an Intel i5 processor and 8GB of RAM. Students can bring their own laptop or are provided with one for the duration of the summer school.							
*3. Evaluation (%)	Attendance	Assignment	Midterm	Final	Additional Evaluation	Attitude	Other	합계
		100						100
	Attendance Policy :		Attendance of the guided labs is not required but recommended so that the instructor and TAs can assist you with eventual programming problems.					
	Other Remarks :		There is no exam					

<p>*4. Lecture Plan</p>		<p>Week 1 (3 x 3h):</p> <ul style="list-style-type: none"> - Introduction to humanoid robots powered by AI - Introduction to the humanoid robot and programming environment used in this course - Robot assembly, first steps <p>Weeks 2-4 (9 x 3h):</p> <ul style="list-style-type: none"> - Team formation, topic presentation, topic selection - Independent work on project (instructor and TAs available for questions and technical help) <p>Week 5 (3 x 3h):</p> <ul style="list-style-type: none"> - Team presentations - Concluding remarks
<p>5. Additional Notes for Students</p>		<p>This introductory course does not require any particular prior knowledge on robotics or programming; however, some familiarity with Python is helpful. Teams will consist of 2-3 members and are formed between international and SNU students. Each participant will receive his/her own robot kit to take home after the class.</p>
<p>6. Assistance for Students with Disabilities</p>	<p>Class</p>	<ul style="list-style-type: none"> ○ Visual Impairment: Make textbooks(digital textbook, braille textbook, enlarged textbook etc.), Allow note takers ○ Physical Disability: Make textbooks (digital textbook), Allow note takers and assistants ○ Hearing Impairment: Allow note takers and translators, Allow lecture recording ○ Health Impairment: Excuse absence due to health problems, Allow note takers ○ Learning Disability: Allow note takers ○ Intellectual Disability / Autism Spectrum Disorder: Allow note takers and mentors
	<p>Assignment & Evaluation</p>	<ul style="list-style-type: none"> ○ Visual Impairment / Physical Disability / Hearing Impairment / Health Impairment / Learning Disability: Extend assignment deadlines, Offer alternate assignment submission and response method, Extend testing period, Offer alternate testing method, Offer different testing room ○ Intellectual Disability / Autism Spectrum Disorder: Offer individualized assignments and alternative evaluations
	<p>Others</p>	<p>Students who take this course can get appropriate level of support service including the support listed above depending on the students' individual characteristics and needs through consultation with professors and the Support Center for Students with Disabilities. If you have any questions concerning support service for students with disabilities you can contact Professor *** (Contact Information) or Support Center for Students with Disabilities (02-880-8787).</p>