



HANYANG UNIVERSITY

Hanyang International Summer School

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Course Information	Class No.	TBA	Course Code	SOI1001	Credits	3
	Course Name	AI Basics				
	Lecture Schedule	Mon-Thu /				
	Course Description	<p>Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.</p> <p>The OECD defines an Artificial Intelligence (AI) System as a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments (https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449),</p> <p>This class introduces artificial intelligence (AI) and discusses its application to practical problems. Since AI covers machine learning and deep learning as the above figure illustrates, we will cover them as well.</p>				
	Course Objective	This course would be easy and accessible. It **intuitively explains** the various computational and mathematical models to apply artificial intelligence to practical problems, such as optimization, application design,				



		textual analysis, portfolio analytics, quantitative risk modeling, time series analysis, cross-sectional analysis, etc. Students will learn and use python for their projects. Students are expected to come up with their own ideas for their projects.		
	Prerequisite	This course is pretty introductory.		
	Materials/Textbooks	(1) John C Hull. Machine Learning in Business https://www-2.rotman.utoronto.ca/~hull/MLThirdEditionFiles/index3rdEd.html (2) Harvard business cases		
Evaluation	Attendance	10 %	Quiz	%
	Assignment	20 %	Mid-term Exam	20 %
	Presentation	20 %	Final Exam	20 %
	Group Project	%	Participation	10 %
	Etc.	Evaluation Item		Ratio
				%
				%
Daily Lecture Plan	Week 1	Day 1	Orientation & Opening Ceremony	
		Day 2	Class introduction	
		Day 3	Ch1	
		Day 4	Ch2	
	Week 2	Day 1	Ch3	
		Day 2	Special lecture	
		Day 3	Ch4	
		Day 4	Ch5	
	Week 3	Day 1	Take home midterm exam	
		Day 2	Special lecture	
		Day 3	Ch8	
		Day 4	Ch9	
	Week 4	Day 1	Case discussion	
		Day 2	Take home final exam	
		Day 3	Case discussion	
		Day 4	Final presentation	