Course No.	M3309.000200	Lec. No.	001	Course Title	Reinforcement Learning	Credits	3
Representative Instructor	Name	U Kang		Homepage	datalab.snu.ac.kr/~ukang		
	E-mail	ukang@snu.ac.kr					
Prerequisite Course	- Machine Learning - Basic Statistics - Basic Algorithm						
* 1. Goals	Reinforcement learning (RL) is an area of machine learning concerned with how software agents ought to take actions in an environment so as to maximize some notion of cumulative reward. RL has been widely used for interesting AI applications including AlphaGo and backgammon. In this lecture, we will study important concepts in reinforcement learning including markov decision process, planning, prediction, policy gradient, exploration/exploitation, etc.						
* 2. Texts and References	- The textbook is "Reinforcement Learning" (2nd edition) by Sutton and Barto. It is also available at http://incompleteideas.net/book/the-book-2nd.html						

* 3. Evaluation	Attendance	Task	Midterm	Final	Random Evaluation	Attitude	Others	Total
	10	30	30	30	0	0	0	100
	기타 (Remark)							

* 4. Lecture Plan
Week 1: Introduction to Reinforcement Learning
Week 2: Markov Decision Processes
Week 3: Planning by Dynamic Programming
Week 4: Model-Free Prediction
Week 5: Model-Free Control
Week 6: Value Function Approximation
Week 7: Value Function Approximation
Week 8: Policy Gradient Methods
Week 9: Policy Gradient Methods
Week 10: Integrating Learning and Planning
Week 11: Integrating Learning and Planning
Week 12: Exploration and Exploitation
Week 13: Exploration and Exploitation
Week 14: Case Study: RL in Classic Games
Week 15: Case Study: RL in Classic Games

5. Guideline for Students	