OPRE 7315 - Stochastic Dynamic Programming

This course is an introduction to both deterministic and stochastic dynamic programming. The basic ideas of recursion and functional equation will be introduced. A wide variety of applications will be used to illustrate these concepts. Specific topics include: Markov and Semi-Markov decision processes, principle of optimality, structure of optimal policies under various cost criteria, LP formulations, and policy-improvement techniques. Instructor consent required. (3-0) R