

Outline

Lecture	Text
Introduction; notation	A1-A3, B1
<u>Parameter Optimization Problems</u> with and without equality constraints	1.1, 1.2
Numerical solution by gradient and Newton-Raphson methods	1.3 - 1.6
<u>Discrete-Step</u> optimization problems; numerical solution by gradient	2.1, 2.2
<u>Function Optimization Problems</u> . No terminal constraints, t_f given	2.3
Terminal state constraints, t_f given	2.4
Terminal function constraints, t_f given and t_f open	2.5 - 2.8
Solution of TPBVP's using collocation and nonlinear programming	
Solution of optimal control problems using Evolutionary Algorithms and Metaheuristics	
<u>Optimal Feedback Control</u> ; Dynamic Programming	4.1, 4.2
<u>Linear-Quadratic Problems</u>	5.1, 5.2
Time-invariant regulators; symmetric root locus	5.4
Exact terminal constraints	5.3
<u>Neighboring Extremals and Second Variation</u>	6.1 - 6.10
<u>Inequality Constraints</u> ; parameter optimization problems	1.7 - 1.9
Control constraints in function optimization problems	3.8, 3.9
State constraints in function optimization problems	3.11
<u>Singular Arcs</u> in function optimization problems	8.1 - 8.3

