

Syllabus

Topics	Reading Sections
Introduction to Computer-Aided Mechanism Design	1.1-1.4, 1.8, 2.1-2.6
Getting Started	
taxonomies related to mechanism design	lecture notes
kinematic diagram	1.4-1.7
introduction to Ch shell and C	supplemental
<i>vi</i> text editor and commonly used commands	supplemental
geometric interpretations of complex numbers	Appendix of chapter 3
review of complex algebra	Appendix of chapter 3
programming with complex numbers in Ch	supplemental
function files in Ch	supplemental
Ch function <i>complexsolve.chf</i>	supplemental
mobility, degrees of freedom, Gruebler's equation	1.7
Displacement Analysis of Four-Bar Linkages	
Object-Oriented programming with class	supplemental
Class library <i>CFourbar</i>	supplemental
Grashof criteria	3.1
Member function <i>CFourbar::Grashof()</i>	3.10 pp.182, supplemental
rotatability	lecture notes
transmission angle	3.1
complex number modeling in linkage	Appendix of chapter 3
loop-closure equation for displacement analysis	3.2-3.3
toolbox for four-bar linkage	supplemental
toolbox for slider-crank linkage	supplemental
Multiple-Loop Linkages and Geared-Linkages	1.6
toolboxes for five-bar and six-bar linkages	supplemental
Syntax of animation file .qnm for QuickAnimation	supplemental
Midterm Examination	
Introduction to Synthesis of Mechanisms	8.1-8.2, 8.21
Design and Computer Projects	
Velocity Analysis	3.4-3.6, 3.8, 3.10
instant centers	3.7
Kennedy's theorem	3.7
mechanical advantage	3.9-3.10
Acceleration Analysis	
normal, tangential, radial, and Coriolis acceleration	4.1-4.4
Static Force Analysis	5.1
Dynamic Force Analysis	5.1-5.4, 5.6-5.7
numerical solution of linear systems	supplemental
computational arrays in Ch	supplemental
Static Balance	
Cam Design	6.1-6.8
Class library <i>CCam</i>	supplemental
Final Examination	