



TABLE OF CONTENTS

JEPPESEN INTEGRATED A&P TRAINING SYSTEM	iii
CHAPTER 1 Mathematics	1-1
Section A Arithmetic	1-2
Section B Algebra	1-13
Section C Geometry and Trigonometry	1-16
CHAPTER 2 Physics	2-1
Section A Matter and Energy	2-2
Section B Work, Power, Force, and Motion	2-7
Section C Gas and Fluid Mechanics	2-18
Section D Aerodynamics	2-32
Section E High-Speed Aerodynamics	2-52
Section F Helicopter Aerodynamics	2-58
CHAPTER 3 Basic Electricity	3-1
Section A Theory and Principles	3-2
Section B Direct Current	3-24
Section C Batteries	3-33
Section D Alternating Current	3-45
Section E Electron Control Devices	3-70
Section F Electrical Measuring Instruments	3-88
Section G Circuit Analysis	3-100
CHAPTER 4 Electrical Generators and Motors	4-1
Section A DC Generators	4-2
Section B Alternators	4-20
Section C Motors	4-28
CHAPTER 5 Aircraft Drawings	5-1
Section A Types of Drawings	5-2
Section B Drawing Practices	5-12
Section C Charts and Graphs	5-21
CHAPTER 6 Weight and Balance	6-1
Section A Weighing Procedures	6-2
Section B Shifting the CG	6-19
Section C Helicopter Weight and Balance	6-24

CHAPTER 7	Aircraft Structural Materials	7-1
	Section A Metals	7-2
	Section B Nonmetallic Materials	7-19
CHAPTER 8	Aircraft Hardware	8-1
	Section A Aircraft Rivets	8-2
	Section B Aircraft Fasteners	8-16
CHAPTER 9	Hand Tools and Measuring Devices	9-1
	Section A Hand Tools	9-2
	Section B Measuring and Layout Tools	9-34
CHAPTER 10	Fluid Lines and Fittings	10-1
	Section A Rigid Fluid Lines	10-2
	Section B Flexible Fluid Lines	10-14
CHAPTER 11	Nondestructive Testing	11-1
	Section A Visual Inspections	11-2
	Section B Electronic Inspections	11-13
CHAPTER 12	Cleaning and Corrosion	12-1
	Section A Aircraft Cleaning	12-2
	Section B Types of Corrosion	12-5
	Section C Corrosion Detection	12-16
	Section D Treatment of Corrosion	12-23
CHAPTER 13	Ground Handling and Servicing	13-1
	Section A Shop Safety	13-2
	Section B Flight Line Safety	13-13
	Section C Servicing Aircraft	13-25
CHAPTER 14	Maintenance Publications, Forms, and Records	14-1
	Section A Maintenance Publications	14-2
	Section B Forms and Records	14-18
CHAPTER 15	Mechanic Privileges and Limitations	15-1
	Section A The Mechanic Certificate	15-2
INDEX		I-1