

TABLE OF CONTENTS & SCHEDULE

Lesson	Part	API 687 Reference Section	Description
Monday Start 7:30 AM			
1			Introduction
2			How to reach goals and content
3		Ch 1 Section 1	Scope, Definition, Unit responsibility
4		Ch 1 Section 2	Repair Process for a rotor
5			Class of Steels
6		Ch 1 App F	TIR
7		Ch 1 Section 3	Shop Qualification
8		Ch 1 Section 4	Communication
Lunch			
9		Ch 1 Section 5	Transportation to Shop
10		Ch 1 Section 6	Receiving Inspection
11		Ch 1 Section 7	Inspection of assembled rotor PHASE I
12	1		Case Study Part 1
	2		Case Study Part 2
13		Ch 1 Section 8	Inspection methods and testing
14		Ch 1 App B	Non Destructive Examination Methods
	1	Ch 1 App B	General & LPI
	2	Ch 1 App B	Magnetic Particle
Tuesday Start 7:30 AM			
	3	Ch 1 App B	Mag Particle –Portable & AC DC
	4	Ch 1 App B	Mag Particle – Wet/Dry/Particles/Current
	5	Ch 1 App B	Mag Particle – Demag
	6	Ch 1 App B	Measurement of Residual Gauss
	7	Ch 1 App B	UT & Hardness
	8	Ch 1 App B	Hardness
	9	Ch 1 App B	PMI
15	0	Ch 1 App C	Main Coupling
Lunch			
	1	Ch 1 App C	Case Study – Drawing Requirements
	2	Ch 1 App C	Disassembly & Inspection
	3	Ch 1 App C	Hub/Shaft Contact & Blueing Procedure & Case Study - O ₂ Compressor

	4	Ch 1 App C	Bore Dim vs Contact & Temp effects
	5	Ch 1 App C	Lapping & Case Study - Mounting Tool Failure
	6	Ch 1 App C	Coupling Failures
16	0	Ch 1 App D	Restoration Methods
Wednesday Start 7:30 AM			
	1	Ch 1 App D	Weld repair
	2	Ch 1 App D	Thermal Spray repair
	3	Ch 1 App D	Shaft Turn Down & 3 Case Studies
	4	Ch 1 App D	Plating / Straightening / Sleeving
17		Ch 1 App E	Fluid Film Bearings
18		Ch 1 App K	Quality Plans
19		Ch 1 Sec 9.6	Vibration Probe Runout & Case Study
Lunch			
20	1	Ch 1 Sec 10	Rotor Assembly & Balance
	2	Ch 1 Sec 10	Low Speed Ass. & High Speed Balance
	3	Ch 1 Sec 10	Case Study 7666 High speed Balance
	4	Ch 1 Sec 10	5 Case Studies
21		Ch 1 Sec 10	Preparation for shipment and storage
22	1&2	Ch 2 & App Centrif Comp	Inspection of Assembled Rotor
Thursday Start 7:30 AM			
	3	Ch 2 & App Centrif Comp	Repair of components
	4	Ch 2 & App Centrif Comp	Assembly & Balance
23	1&2	Ch 3 & App Axial Comp	Inspection of Assembled Rotor
	3	Ch 3 & App Axial Comp	Repair of components
	4	Ch 3 & App Axial Comp	Assembly & Balance
24	1&2	Ch 4 & App Stm Turbines	Inspection of Assembled Rotor
Lunch			
	3	Ch 4 & App Stm Turbines	Repair of components
	4	Ch 4 & App Stm Turbines	Assembly & Balance
25	1&2	Ch 5 & App Gears	Inspection of Assembled Rotor
	3	Ch 5 & App Gears	Repair of components
	4	Ch 5 & App Gears	Assembly & Balance
	5		Case Study – Contact vs. soft foot

