

ASME VIII-1 PRESSURE VESSEL DESIGN FUNDAMENTALS – TRAINING COURSE

COURSE OUTLINE

DAY 1

TIME	COURSE
08:00-9:30	INTRODUCTIONS
	HISTORY AND DEVELOPMENT OF ASME CODE
	REVIEW OF AUSTRALIAN REGULATIONS AND RELEVANT STANDARDS (AS 1200, AS 3920, AS 1210, AS3788, AS 4343)
09:30-09:45	MORNING TEA
9:45-12:00	REVIEW OF AUSTRALIAN REGULATIONS AND RELEVANT STANDARDS (AS 1200, AS 3920, AS 1210, AS3788, AS 4343)
	CODE COMPARISONS
	DESIGN PRINCIPLES
	CONTENT AND OVERVIEW OF ASME VIII-1
12:00-12:30	LUNCH
12:30-14:30	PART UG- GENERAL DESIGN CRITERIA AND MATERIALS
	SHELLS AND HEADS UNDER INTERNAL AND EXTERNAL PRESSURE
	OPENINGS AND REINFORCEMENTS
14:30-14:45	AFTERNOON TEA
14:45-16:30	DESIGN OF VESSEL SUPPORTS
	DESIGN OF BOLTED FLANGED JOINTS

DAY 2

TIME	COURSE
08:00-09:30	MANDATORY APPENDICES
	DESIGN OF HEAT EXCHANGERS
09:30-09:45	MORNING TEA
09:45-12:00	SUBSECTION C – PART UHX
	VESSELS SUBJECT TO LOW TEMPERATURE OPERATION
	OVERPRESSURE PROTECTION
12:00-12:30	LUNCH
12:30-14:30	MARKING
	VESSEL FABRICATION
	INSPECTION AND QUALITY CONTROL
14:30-14:45	AFTERNOON TEA
14:45-16:30	WELDING, WELDING PROCEDURE AND OPERATOR QUALIFICATIONS
	POST WELD HEAT TREATMENT
	NON-DESTRUCTIVE EXAMINATION
	PRESSURE TESTING

www.slateconsulting.com.au

Ph: +61 412 235 730

DAY 3

TIME	COURSE
08:00-09:30	VESSEL REPAIRS
09:30-09:45	MORNING TEA
09:45-12:00	INTRODUCTION TO FINITE ELEMENT ANALYSIS
	ASME VIII-2 PART 5 OVERVIEW
	PROTECTION AGAINST PLASTIC COLLAPSE
12:00-12:30	LUNCH
12:30-14:30	PROTECTION AGAINST LOCAL FAILURE
	PROTECTION AGAINST COLLAPSE FROM BUCKLING
	CYCLIC LOADING AND FATIGUE ANALYSIS
14:30-14:45	AFTERNOON TEA
14:45-16:30	FEA REPORTING REQUIREMENTS
	WORKED EXAMPLES
	FEA MODELLING AND DESIGN PITFALLS
	CONCLUSION