DESIGN AND FABRICATION OF PRESSURE VESSELS

Perth: 22 - 24 August 2018  |  Sydney: 27 - 29 August 2018

**Course Overview**

This three-day course is a comprehensive introduction to global best practice in pressure vessel design and construction as outlined in The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

The ASME Boiler and Pressure Vessel Code is an international standard that regulates the design, fabrication and inspection of boilers and pressure vessels, and nuclear power plant components during construction.

Based on the requirements of Section VIII, Division 1 of the Code (Rules for Construction of Pressure Vessels) the course covers the background, organisation, design, materials, fabrication, inspection, testing and documentation of pressure vessels.

It also examines the more commonly applied subsections and paragraphs of the Code and includes a practical discussion of individual problems and situations.

Facilitated by an international expert in boiler and pressure vessels, there will be additional content delivered on the updates pre-approved for the 2019 edition of the Code.

This course is run exclusively by The American Society of Mechanical Engineers (ASME) with Engineering Education Australia.

**Target Audience**

Designed primarily as an introductory course, experienced vessel designers will find value in updating their knowledge of the current edition of the ASME Boiler and Pressure Vessel Code.

It will be particularly useful for those involved with the purchase, design, fabrication, or inspection of pressure vessels.

**Course Objectives**

Upon completion of this course, you will be able to:

- Describe the background of the Code
- Explain how to apply the Code rules to more common design and fabrication situations
- Identify the calculations for some of the loadings and situations not addressed by the Code
- Describe the preparation of design specifications, design reports, data reports, and other documentation

**Course Outline**

**Day 1**

- Introduction to ASME Code and Section VIII
- General requirements
- Materials requirements
- General design requirements
- Design for internal pressure

**Day 2**

- Design for buckling
- Design of flat heads and covers
- Design of openings
- Fabrication requirements
- NDE, testing, pressure relief and documentation requirements
- Requirements for vessels fabricated by welding

**Day 3**

- Requirements for carbon and low alloy steels
- Requirements for high alloy steels
- Requirements for heat treated materials
- Code appendices
- Example problems