



# Sheffield Fracture Mechanics

A six day course in two parts.

**Sheffield Fracture Mechanics** has trained engineers in those industries concerned with structural integrity since 1979 - without a break.

Engineering Fracture Mechanics is taught from scratch in an accessible and usable way. We are about practical fracture mechanics, hands-on failure assessments, and industry-standard safety cases.

In addition to formal lectures, tutorials and films, delegates work in mixed industry groups on genuine case studies drawn from engineering design and failure assessments in different industrial sectors.

We cover: brittle and ductile fracture (K, J & CTOD), plastic collapse, tearing instability, fatigue crack growth, stress corrosion cracking, R6, BS7910 and other standards, damage tolerant design, fracture toughness testing, and a host of other useful stuff.

The course will provide you with the principles of fracture mechanics used to carry out practical design and failure analyses, and the ability to prepare safety cases using state of the art industrial procedures.

For complex problems you will be able to identify underlying fracture mechanics issues, ask relevant questions and so commission work needed to progress a problem.

You will be capable of understanding and commenting critically on fracture mechanics applied to design and failure.

analysis in different industries, using both modern and legacy industrial practices.

We end the course with case studies on advanced techniques using strain-based techniques applied to high plastic strain pipe reeling and safety-critical, constraint-based local approaches.

**“ This is the first course I have come away from with a feeling that I can engineer better as a result of the knowledge I have gained. ”**

Companies sending delegates include:

Airbus, Wood, Assystem, Atkins, AWE, Axiom, Babcock Marine, BAe Systems, Sellafield, BP, EDF Energy, Nuclear Safety Commission (Canada), DNV, Doosan Babcock, EASL, E.ON, Expro, Exxon, First Hydro, GE Aviation, GKN Aerospace, DNV GL, Heerema (Netherlands), HRL Technology (Australia), HSE, Hyde Group, Incotest, Aker, Lloyds Register, Magnox, National Nuclear Laboratory, NOV, NRG (Holland), ONR, Padley & Venables, Penspen, Petrofac, Phillips 66, Qinetiq, Rolls-Royce, Royal & SunAlliance, RWE npower, Sabic Europe, Shell, Smiths Aerospace, Subsea7, Frazer-Nash, TNBR (Malaysia), Total, Tractebel Engineering (Belgium), TÜV (Germany), TWI, Uhde (Germany), Vestas (Denmark), Veqter, Westinghouse Electric (Belgium)

Forged in the city of Sheffield the course is presented in two parts at The Old Hall Hotel in the spa town of Buxton.

## Spring & Autumn Courses

### Part 1

Tuesday — Thursday

### Part 2

Tuesday — Thursday on the following week

**Price and current dates on the website link below.**

Accommodation is room and breakfast from the Monday night to the Thursday morning for both

**Attending the course is a SQEP requirement for many of our delegates.**

To reserve a place, or ask a question, email Martin on: [info@fracturereading.com](mailto:info@fracturereading.com)

For more information and our Terms & Conditions log on to: [www.fracturereading.com](http://www.fracturereading.com)