



BSSA

Stainless Steel Specialist Course



BRITISH STAINLESS STEEL ASSOCIATION
Making the Most of Stainless Steel

The Stainless Steel Specialist Course

The BSSA Stainless Steel Specialist Course is a self taught educational tool that sets an industry standard for knowledge of stainless steel. Providing comprehensive information about all aspects of stainless steel, the course not only offers a practical learning framework but is an ideal reference tool for future use.

The course is now available in various forms:

- Online (e-learning)
- Online (HTML version)
- Paper based version (available on request)

Both online versions are available via the ISSF website www.worldstainless.org. The e-learning version is interactive and easy to use and the online HTML version is very similar to the paper based version but the papers would have to be printed off. The paper based version is available from the BSSA office.

Levels of Certification

The course consists of 16 individual self-study modules with accompanying training notes. The BSSA offers two levels of certification:

Intermediate Certificate

An Intermediate Certificate will be awarded for the successful completion of a minimum of five modules. Compulsory subjects make up four of the five titles. Typically, the Intermediate Certificate can be completed in three months.

Full Certificate

A Full Certificate will be awarded for the successful completion of a minimum of twelve modules. Compulsory subjects make up seven of the twelve titles. Typically, the Full Certificate can be completed in six months.

Benefits:

- A full understanding of stainless steel and its applications
- An authoritative and up-to-date long term reference document
- Flexibility to complete the course at own pace and in own time
- Improves the knowledge base of the organisation in this key area
- Suitable for people new to the industry and as a refresher course for the more experienced employee
- Modular form of course gives the flexibility to tailor the training to suit the company's needs
- Provides an industry wide standard
- A recognised transferable qualification
- Raises the knowledge level and supports the longer term growth of the stainless steel market



Title of Training Modules	Intermediate Certificate	Full Certificate
1 An Introduction to Stainless steel	✓	✓
2 Stainless Steel vs Corrosion	✓	✓
3 The Mechanical Properties of Stainless Steel	✓	✓
4 The Surface Finish on Stainless Steels		✓
5 Fabricating Corrosion Resistant and Stainless Steel		
6 The Cutting of Stainless Steel		
7 The Metallurgy of Stainless Steel	✓	✓
8 The Welding & Joining of Stainless Steel		✓

Everything you ever wanted to know about

Course Content

Compulsory Intermediate & Full Certificate Modules = **BLUE**

Compulsory Full Certificate Modules = **RED**

One

An Introduction to Stainless Steel

The module provides a well laid out introduction that first of all defines stainless steels and leads onto an outline of the types (or families) of stainless steels and their basic properties and corrosion resistance.

Two

Stainless Steel vs Corrosion: How Stainless Steel is Affected by and Resists Corrosion

The second module builds on the introduction to corrosion resistance outlined in Module 1 by identifying and then describing the range of low temperature or wet corrosion mechanisms that are potential hazards to stainless steels.

Three

The Mechanical Properties of Stainless Steel

The first half of this module describes mechanical properties such as yield and tensile strength, elongation, hardness and toughness and how these are measured. The second half of the module discusses other mechanical properties such as creep and fatigue.

Four

The Surface Finish on Stainless Steel

One of the principal messages of this module is the importance of surface finish on the service performance of stainless parts and fabrications.

Five

Fabricating Corrosion Resisting and Stainless Steels

This module reinforces the basic message of Training Module 4 by examining various stages in supply, fabrication and installation where damage and contamination can result in subsequent in-service staining or corrosion.

Six

The Cutting of Stainless Steels

It deals entirely with intermediate product cutting methods, as applied to stainless steels, including mechanical methods.

Seven

The Metallurgy of Stainless Steels

This module complements and reinforces the material in Training Module 1 by giving more fundamental information at the atomic structure level that is useful for a better understanding of some of the terms like ferrite, body centred cubic, austenite, face centred cubic, martensite, duplex etc.

Eight

The Welding and Joining of Stainless Steels

Most of the paper is devoted to welding of stainless steel but brazing, soldering, adhesive bonding and bolting, joining methods are also covered.

Nine

Machining Stainless Steels

This module provides most of what fabricators or jobbing machine shop engineers need to know, in order to have a sound insight into stainless steel.

Ten

Practical Considerations for Designing in Stainless Steel

If Modules 1, 2, 3 and 4 have been studied beforehand this module completes the picture for design engineers both in industrial and building applications.

Eleven

Stainless Steel and Stainless Alloy Castings

This module thoroughly covers the classification, selection, application and manufacture of stainless steel castings.

Twelve

Forging Stainless Steels

This module provides insight into one of the major methods of hot forming stainless steels.

Thirteen

Stainless Steel Pipe and Tube

This module will be of particular interest to anyone involved in the manufacture, procurement or selling of stainless steel pipes or tube products.

Fourteen

Cold Forming of Stainless Steels

Modules 14 and 15 are allied to each other in their scope and should appeal equally as optional papers, particularly to engineers and fabricators, along with Module 6.

Fifteen

Deep Drawing of Stainless Steels

Modules 14 and 15 are allied to each other in their scope and should appeal equally as optional papers, particularly to engineers and fabricators along with Module 6.

Sixteen

Stainless Steels and Stainless Alloys at High Temperature

This final module includes a comprehensive reference list and table of wrought and cast, stainless steel and nickel heat resisting alloy grades.

Title of Training Modules	Intermediate Certificate	Full Certificate
9 Machining Stainless Steel		
10 Practical Considerations for Designing Stainless Steel		✓
11 Stainless Steel & Stainless Alloy Castings		
12 Forging Stainless Steel		
13 Stainless Steel Pipe and Tube		
14 Cold Forming Stainless Steel		
15 Deep Drawing Stainless Steel		
16 Stainless Steel and Stainless Steel Alloys at High Temperatures		

Fee

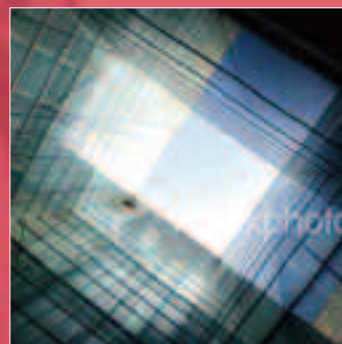
Registration Fee £20

Intermediate Certificate (5 Titles) £125
(£75 BSSA members)

Full Certificate (12 Titles) £300
(£180 BSSA members)

Additional Titles £25 each
(£15 BSSA members)

The cost of the course includes course materials,
examination questions and assessment and
certification. Prices are exclusive of VAT.



For more information

To receive further information
about the Stainless Steel Specialist
Course or an application form
contact the Association Administrator:

T: 0114 267 1260

F: 0114 266 1252

E: enquiry@bssa.org.uk

W: www.bssa.org.uk/training.php



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