

Beer School 3 for the Stockholm Beer and Whisky Festival

General Details:

- * The course will be made up of 5 independent 50 minute sessions.
- * Visitors may book any number of sessions.
- * A single session will cost 150SKr. 3 sessions will cost 350SKr. and if you book all 5 sessions the cost will be just 500SKr.
- * The course will be conducted in English.

Session 1 BREWING LIQUOR, MALT and MASHING

What does the session cover?

1. A detailed description and tasting of various types of malt and their use in brewing different types of beer
2. Discussion of the mashing process
3. The importance of water analysis in sparging
4. Review of dissolved salts and pH adjustments

Why should I attend this session?

You will gain a basic understanding of the chemical contents of brewing liquor that are required for successful mashing and flavour balance in the final product.

You will also be introduced to the use of dark malts in the production of British type beers such as brown ales, Porter and old ales.

Session 2 BOILING AND COOLING WORT PLUS THE USE OF HOPS IN BREWING

What does the session cover?

1. The importance of hops and hop products in brewing
2. Practical comparison of the odour characteristics of hops and their effect on the taste of beer
3. The boiling process
4. Calculations for the bitterness that will result from different hops

Why should I attend this session?

You will gain a basic understanding of wort boiling and the key chemical reactions. You will be shown how to work out the calculations that indicate the bitterness values that you will get in the final product.

You will also be introduced to modern and traditional hop products, their characters and use in different types of beer.

Session 3 YEAST HANDLING, FERMENTATION and MATURATION OF BEER

What does this session cover?

1. The process of fermentation
2. The common problems of fermentation

3. Easy to use tips on how to handle, store and pitch yeast for optimum fermentation.

Why should I attend this session?

You will gain a basic understanding of the procedures for handling top fermenting ale type yeasts used in the production of bitter beer.

Pitching rates and yeast counting with a haemocytometre are discussed.

You will also be introduced to the basics of ale fermentation with the normal associated flavours produced by top fermenting yeasts.

Session 4 **BEER MATURATION, FINING, BOTTLING and QUALITY CONTROL**

What does this session cover?

1. The maturation process
2. The stabilisation of beer flavours through maturation and the deterioration of quality with age
3. The use of fining materials with their effects on yeast and protein settlement
4. Introduction to some of the latest concepts for continuous quality control

Why should I attend this session?

You will gain a basic understanding of the key flavour components of matured unconditioned beers and the additives that can be used to clear and stabilise the final product.

You will be introduced to the key elements of a micro brewery quality control system including the specific analyses you will need.

Session 5 **BREWING CALCULATIONS**

What does this session cover?

All the calculations needed to develop, control and brew good quality beer.

Why should I attend this session?

You will be shown how to make the detailed calculations needed to check certain key chemicals when brewing liquor. This will include calculations for malt and hop grist so you can check on specific styles, ABV's and beer characters from the basic raw materials.