



# VERNER WHEELOCK

Excellence in food industry training

  
A PRACTICAL  
GUIDE TO THE  
CREATION OF  
REACTION  
FLAVOURS

## CREATING THERMAL PROCESS FLAVOURS

A unique laboratory based reaction flavours course consisting of a range of specialist lectures supported by hands-on practical sessions to reinforce the learning. Delegates are given the freedom to create their own process meat flavours which are applied and evaluated in relevant food products.

25th - 29th October 2021

### LEARNING OUTCOMES

- The knowledge and skills required to develop process meat flavours and sweet brown flavours.
- The skills needed to evaluate a thermal process flavour and the knowledge to reformulate it to produce the desired flavour character.
- An understanding of the principles governing the science, reaction and application of thermal process flavours.
- An understanding of the raw materials and process parameters used in the production of thermal process flavours such as beef, chicken, pork, lamb, roast, boiled, bouillon etc.
- The sensory methodology and descriptive language used in the evaluation of thermal process flavours.
- The application and evaluation of thermal process flavours in various food products including vegan and vegetarian.
- An insight into the use of enzymes to generate ingredients for use in process flavours technology.
- The use of thermal process flavour technology to generate sweet brown products such as chocolate, malt and caramel.
- An understanding of the legislation affecting thermal process flavours on a global basis.

### WHO SHOULD ATTEND?

The course is intended for graduates working in NPD and flavour technology in the food, seasonings and flavour industries – an understanding of chemistry would be an advantage but is not essential.

### TOPICS

- The chemistry and use of the Maillard reaction to create thermal process flavours.
- The Science and application of the Maillard Reaction in food products.
- The origins and use of flavour precursors compounds in thermal process flavours.
- Hands-on laboratory sessions on the creation of red and white meat flavours and advice and guidance on the development of natural EU meat flavours
- The use of enzymes to produce flavour precursors and natural sources of umami that can be applied to thermal process flavours.
- The use of proteolytic and lipolytic enzymes to produce dairy flavours, including enzyme modified cheese flavours.
- Sensory laboratory sessions and the use of descriptors to evaluate process meat flavours on their own and applied to food products.
- Raw materials used in reaction flavours including reducing sugars, amino acids, HVP's, yeast extract fats and oils, stocks, flavour enhancers, smoked ingredients, grill products, vegetable powders, natural umami ingredients, meat extracts, herbs, spices, seasonings.
- Process technologies and flavour delivery systems including spray drying, extrusion, oven drying, coacervation, molecular encapsulation and bio-encapsulation.
- Legislation affecting thermal process flavours in the EU, USA, Japan, Australasia, South America and other regions.

# COURSE DETAILS

## COURSE TUTORS

Professor David Baines and Mr Richard Seal

## FORMAT

It will be very much a 'hands-on' course with laboratory sessions interspersed with lectures throughout the day. Candidates will develop and compound their own flavour systems during the course and will apply their creations to a range of food products.

## VENUE

The course will take place in Skipton, England, in the heart of the picturesque Yorkshire Dales. Accommodation will be provided at a delightful English hotel

## DURATION

The course will run over 5 days - Monday 25th - Friday 29th October inclusive.

## COURSE FEE

£2,800 + VAT (@ 20%)

### Course fee includes

- Binder and course notes
- Lunch and refreshments throughout the course
- Thursday evening 'course dinner' and presentations
- Certificate of attendance

Accommodation and evening meals (except course dinner) are not included in the course fee, but rooms have been reserved for delegates at a local hotel for the nights of Sunday 24th October to Thursday 28th October 2021. We can also assist with airport transfers.

## PLACES ARE STRICTLY LIMITED

To book or enquire about the above courses contact either **Claire Lennon** or **Rachel Coote** on **+44 (0) 1756 700802** or email **office@vwa.co.uk**



## PREVIOUS ATTENDEES INCLUDE

- DSM Food Specialties – The Netherlands
- Frutarom – UK
- Firmenich – UK
- Golden Frog Flavor & Fragrance – Vietnam
- International Flavors & Fragrances – USA
- Kerry Ingredients & Flavours – Italy
- Nestlé Product Technology Centre – Germany
- PepsiCo International – Ireland
- Takasago – Germany
- Unilever – Germany

## TESTIMONIALS

*Day one gave a great introduction to reaction flavours*

*The tutors have a wealth of detailed experience, knowledge and passion for the industry which comes across well making for a hugely enjoyable and educational course*

*Really interesting enzyme practical work, lots of sensory analysis and lab work*

*I enjoyed the structure of the lectures and how they fed into each other and the practicals*



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