

Aroma Trades Studies for the 21st Century

An effort to create an overarching framework of skills and knowledge for flavor and fragrance industry professionals

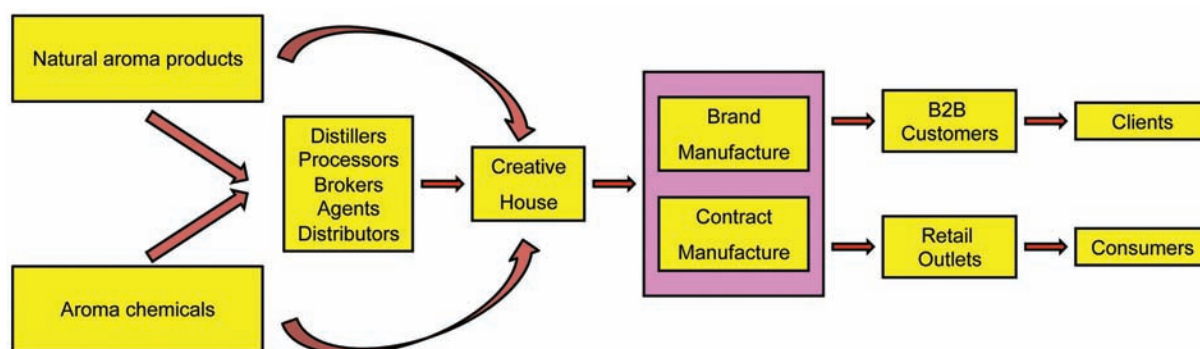
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The “aroma trades” constitute a global supply chain bringing flavored and fragranced products to enhance consumers’ enjoyment around the world. Within the supply chain is an army of specialists required to maintain and develop the industry (see F-1). These specialties include:

- **Engineering:** The people who design, build and maintain the specialist plant and its machinery.
- **Evaluation:** The people who assess the performance of flavors and fragrances in consumer products.
- **Finance:** Money is common to all businesses, but there are specialist aspects to be found with regard to financial management in the aroma trades.
- **Flavor development:** The staff involved in the creation of flavors and aromas.
- **Perfumery:** The specialists responsible for fragrance creation.
- **Information technology:** The staff that creates and maintains unique software such as sensory perception databases.
- **Marketing:** The demand for aroma materials is derived from the consumption of end-use consumer products. An understanding of how aromas and fragrances affect consumer preferences is vital, but it is not a specialist subject that is taught in general marketing programs. Much of the marketing in the aroma trades supply chain is conducted in a business-to-business context in which relationship marketing and key account management are important. In marketing, there are specialists (and whole degree programs) devoted to facets such as market research and public relations. The glue that binds the various marketing sub-disciplines is an overarching framework of marketing (e.g. the concept of the marketing mix).
- **Procurement:** With some 3,000 aroma materials traded, a specialized understanding of a multitude of commodity markets is required.
- **Product and brand management:** Perfumes and aromas are key aspects of a brand’s attributes and character.
- **Production:** In each level of the aroma trades supply chain there are unique production issues.
- **Quality assurance:** It is comparatively easy to measure the weight or dimensions of nuts and bolts, but more difficult to judge the quality of an essential oil or the flavor and quality of a cake.
- **Research and development:** Areas range from “blue sky” research in the mechanisms of odor perception to detailed incremental refining of techniques such as

The aroma trades supply chain

F-1



***Acknowledgements:** The work to develop and launch this new aroma trades program has been supported in part with an endowment of £25,000 from IFEAT. The development of this program framework would not have been possible without the active support of Michel Boudjouk (chair of IFEAT education committee) and other members of the IFEAT board and education committee. The development of aroma trades studies has been a team effort comprising John Ayres (Pandora), Ali Green (University of Exeter), Lorraine Kirby (University of South West), Tina Carne (Four Degrees West Ltd.), and the University of Plymouth’s aroma trades group—Pat Trundle, Sally Bishop-Hawes, Bob Baggott, Leon Thomson, Harriet Hamilton and Sharon Heard.

GC/MS headspace analysis.

- **Safety and regulatory compliance:** The chemical, food and fragrance industries are tightly regulated regarding issues affecting safety and the environment from production to shipping to the use of aroma materials.
- **Sales:** A key account manager for a major creative house selling to P&G is a long way from the lay person's concept of industrial sales.
- **Training:** The selection, training and development of organoleptic assessment panels are just some areas of specialist activity in training within the aroma trades.

In consideration of this diversity of roles and subsequent conversations among members of the International Federation of Essential Oils and Aroma Trades (IFEAT), the need for an overarching framework of skills and knowledge for professionals in the industry became clear. A new academic subject area, aroma trades studies, was required.

What Are Aroma Trades Studies?

For a number of years, dedicated courses have been provided covering specialist topics for segments of the industry, including those in cosmetic science from the Society of Cosmetic Scientists and the IFEAT diploma sequence in perfumery. At the University of Plymouth (Plymouth, United Kingdom), two pioneering degree courses were run for a number of years. Business students could take the BA "Business of Perfumery," and science students the B.Sc. "Aroma and Formulation Science." Out of this emerged the concept of aroma trades studies. This filled a serious gap, providing a broad-based understanding of the entire industry and its various technical and commercial facets. The relationship between aroma trades studies and other academic courses is shown in **F-2**.

Over a number of years of research and discussion, a formula for aroma trades studies has been created to cover all key aspects of this emerging new subject: science + technology + management + creativity.

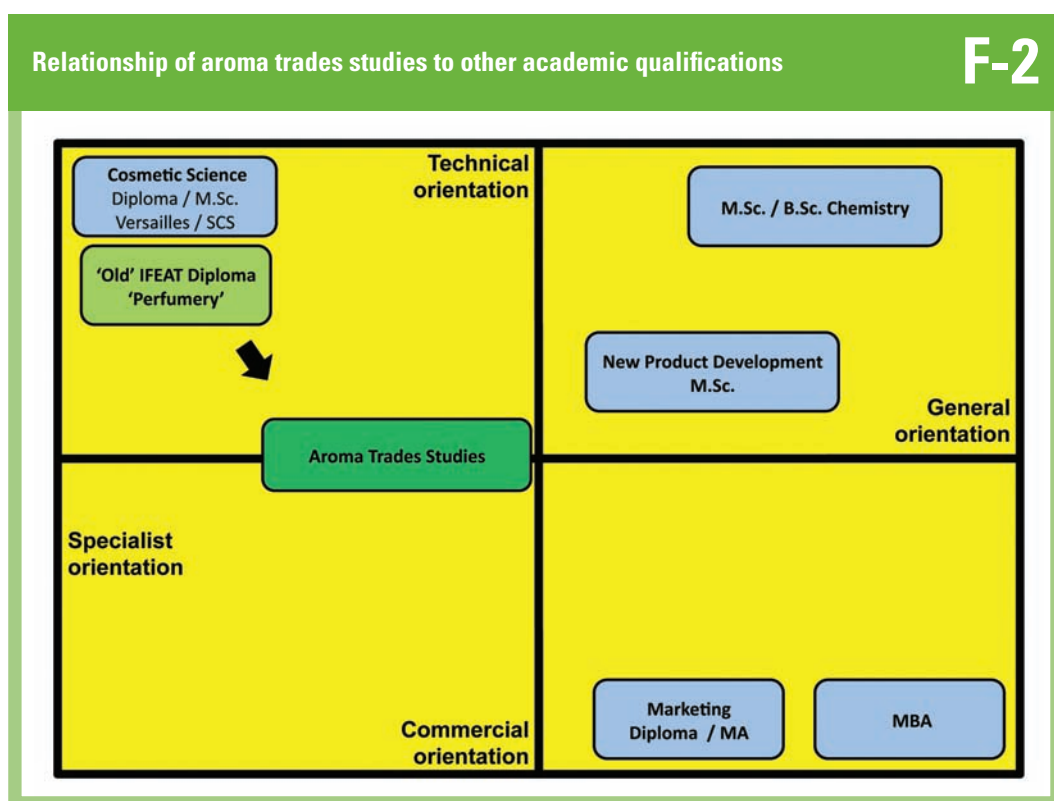
The technical and creative areas identified were:

- The nature of aroma materials and their manufacture
- The creation and application of fragrances and flavors
- The regulatory, safety and environmental issues relevant to the manufacture of aroma materials, their formulation into flavors and fragrances, and final application in consumer products
- Operations, logistics and quality assurance in the aroma trade supply chain

The business topics identified included:

- Marketing
- New product development
- Briefing and product management
- Financial management

Discussions among members of the IFEAT education committee indicated that there should be "open entry" to aroma trades studies, with a set of foundation courses to equip people without formal technical qualifications with key basic knowledge and skills (e.g. basic organic chemistry and odor language). In addition, the discussions noted that the provision for specialist studies in a selected area in the original IFEAT diploma sequence in perfumery should be preserved with a concluding dissertation phase. The resulting framework is shown in **F-3**.



Industry Need for Aroma Trades Studies

The industry has made use of the original IFEAT perfumery program, devised by David Williams, for more than 25 years. Today, the need for flexible provision of aroma trades studies is increasing for the following reasons:

- In an increasingly globally competitive environment, companies no longer have time for extended apprenticeships.

- The use of senior staff in training has become more and more difficult. The scarcity of those employees' time is growing due to the increasingly high demands of other activities, e.g. regulatory compliance.
- Similarly, releasing more junior staff for extended "off-line" training courses is equally unfeasible. Flexible delivery that can be built around the business demands is required.
- The globalization of the entire industry value chain demands that staff must be highly competent and well-trained.
- The industry needs rounded, seasoned professionals who can understand both technical and commercial issues. The current challenges facing the aroma trades, such as REACH, necessitate staff that can work on problems with multifaceted dimensions.

What Aroma Trades Studies Will Do for Companies

From the perspective of aroma chemical and essential oil producers and distributors, aroma trades studies not only provide specific coverage of the primary level of the industry's supply chain, but also impart insights into how and why materials are used in the creative compounding houses. Better understanding of customers improves sales performance.

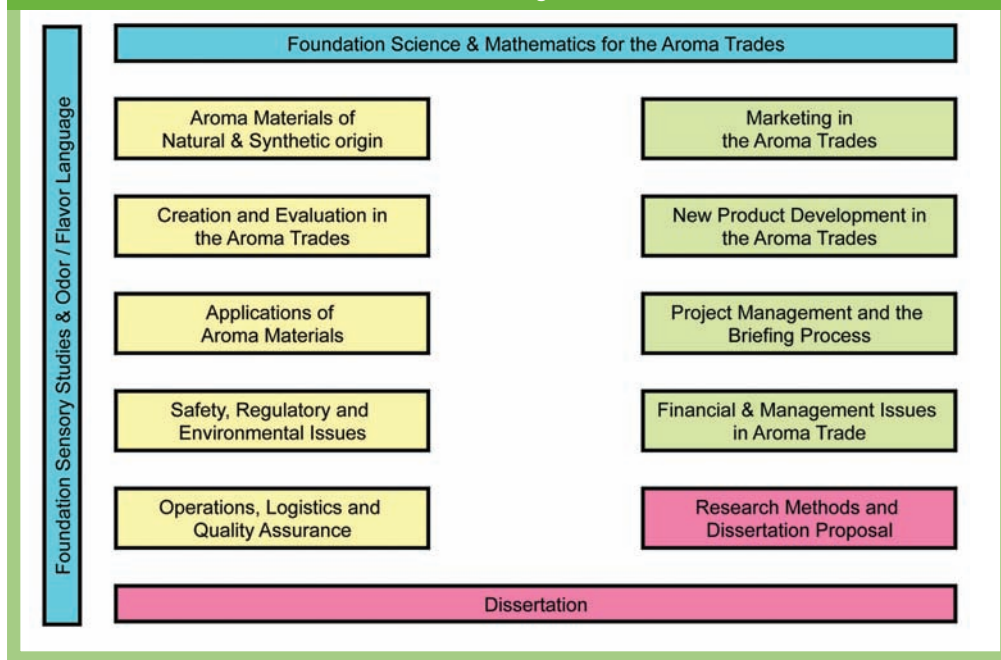
For staff in creative houses, key issues such as management of customer briefs are considered, thereby improving team performance. Meanwhile, the coverage of the nature and manufacture of aroma materials (natural and synthetic) provides the essential grounding that is needed by all involved in the creative house.

What Will Aroma Trades Studies Do for the Individual?

The coverage of the industry from aroma ingredient production to finished consumer product provides an essential overview of the industry for growing professionals in both management (e.g. management of new product development) and technical issues (e.g. production of essential oils and aroma chemicals). For existing industry professionals who want to take that next promotional step in their F&F careers, aroma trades studies provide a vital broad perspective and deeper skill base (as detailed above).

The structure of aroma trades studies divided by course type; blue elements represent foundational knowledge; the left column represents creation-oriented courses; the right column represents business-oriented courses; the structure concludes with a dissertation stage

F-3



IFEAT Aroma Trades Studies Diploma by Distance Learning

The perfumery version of the new IFEAT diploma program was launched during the 2008 conference in Montreal. A flavor version will debut at IFEAT's Shanghai meeting in October 2009. The full range of topics discussed above is covered by the new and revised distance learning material. Candidates can join the program at any time and complete their studies part-time on a flexible basis to accommodate work demands. Further information can be obtained from www.plymouth.ac.uk/ifeat.

A Call to Action: Regional Support for Aroma Trades Studies Students

A past problem for isolated study centers was a lack of quality learning material specific to the aroma trades context. This much-needed learning material has now been developed, along with detailed syllabi. As a result, core learning material does not have to be reinvented at each center. What is needed now is a global network of regional centers delivering aroma trades studies to a uniform IFEAT industry standard. The University of Plymouth is holding a major workshop in July for individuals and representatives of learned societies, industry associations, companies, academic colleges and universities interested in the provision of regional support for students of aroma trades studies. Further information and a downloadable application form can be obtained from www.plymouth.ac.uk/ifeat.

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