

Higher National Unit specification

General information for centres

Unit title: Botanical Science for Aromatherapy

Unit code: F1BM 34

Unit purpose: This Unit is designed to allow candidates to gain knowledge of aromatic plants, their taxonomy and profiles.

On completion of the Unit the candidate should be able to:

- 1 Use botanical nomenclature.
- 2 Explain plant structure and function.
- 3 Produce basic profiles for key species.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit is at the discretion of the Centre. However, candidates are expected to have basic IT skills.

Core Skills: There are opportunities to develop the Core Skill of Communication at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: Outcomes 1, 2 and 3 can be holistically assessed.

Higher National Unit specification: statement of standards

Unit title: Botanical Science for Aromatherapy

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Outcome 1

Use botanical nomenclature

Knowledge and/or Skills

- ◆ The history of taxonomy
- ◆ Flowering plants
- ◆ Botanical nomenclature

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ use terminology relevant to aromatherapy
- ◆ recognise features common to flowering plants
- ◆ be conversant with botanical nomenclature to family level in describing oil producing plants

Assessment Guidelines

The assessment of this Outcome should be combined with Outcomes 2 and 3, with candidates producing profiles for 40 plants. Plants selected reflect those of most significance within the industry. These should cover plants which produce essential oils and those which produce carrier oils.

Outcome 2

Explain plant structures and function

Knowledge and/or Skills

- ◆ External structure of plants
- ◆ Internal structure of plants
- ◆ Plant physiological functions
- ◆ Environmental pressures on plants

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge by showing that they can explain the:

- ◆ interaction between environmental pressures
- ◆ external and internal structures of plants
- ◆ basic plant physiology functions

Higher National Unit specification: statement of standards (cont)

Unit title: Botanical Science for Aromatherapy

Assessment Guidelines

The assessment of this Outcome should be combined with Outcomes 1 and 3, with candidates producing profiles for 40 plants. Plants should reflect those of most significance within the industry. These should cover plants which produce essential oils and those which produce carrier oils.

Outcome 3

Produce basic profiles for key species

Knowledge and/or Skills

- ◆ Listed species used in aromatherapy
- ◆ Growth and harvesting
- ◆ Plant part(s) used in aromatherapy

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by producing a series of profiles for 40 key species. Plant profiles should:

- ◆ describe the external structure of the plant
- ◆ the conditions required for growth and harvesting
- ◆ specify the plant part(s) used for the production of oil

Assessment Guidelines

The assessment for this Outcome should be combined with Outcomes 1 and 2, with candidate producing profiles for 40 plants. Plants selected should reflect those of most significance within the industry. These should cover plants which produce essential oils and those which produce carrier oils.

Candidates should use botanical nomenclature to the family level.

These profiles could be inserted into the portfolio generated in Aromatherapy.

Administrative Information

Unit code: F1BM 34
Unit title: Botanical Science for Aromatherapy
Superclass category: RH
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History of changes:

Version	Description of change	Date

Source: SQA

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Higher National Unit specification: support notes

Unit title: Botanical Science for Aromatherapy

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit is intended to give candidates knowledge of aromatic plants used in aromatherapy.

Outcome 1 looks at the importance of identifying plants correctly, the struggle to identify plant groupings and the evolution of the naming system. Although this is a short section, it is vital that candidates understand it thoroughly before moving onto the specific plants of interest. Botanical classification should be introduced in a historical context, with reference to the work of Theophrastus, Pliny, Dioscorides, Linnaeus, Bentham and Hooker. Candidates should be encouraged to seek out additional publications. Plant names should be used from family to sub species and cultivar levels, but their place in the entire classification system could be covered.

Outcome 2 is designed to help aromatherapy candidates to link essential and carrier oil plants with the natural environment in which they evolved. While plant physiological structures are presented in a general sense initially, examples from the range of oil plants should be considered in detail, with examples of as wide a range as possible depending on the time of year and samples available. Plant structures include appropriate labels such as stem or trunk, leaves, terminal and lateral buds, nodes and root types. Internal structures include the translocation system, and those cells involved in photosynthesis and gaseous exchange. Physiological processes include photosynthesis, respiration, translocation, osmosis and transpiration.

Environmental pressures include slope, soil, climate, land use, exposure to wind, rain, frost, snow, competition from other plants, pests and diseases. These pressures vary with location. Distinction should be made between those areas where a plant is endemic and the areas where the plant is treated as a crop. Reference should be made to changing pressures from global warming, over exploitation of wild resources and changing labour markets (for oil collection and processing). Candidates must recognise oils as a factor in global economies.

Outcome 3 requires candidates to utilise the above training in order to produce 40 plant profiles of the key species listed. Candidates should have access to floras, standards and outline information and should be shown how to utilise these correctly.

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|---------------------------------|------------------------------|
| ◆ <i>Lavendula angustifolia</i> | ◆ <i>Pelargonium asperum</i> |
| ◆ <i>Jasminum officinale</i> | ◆ <i>Eucalyptus globulus</i> |
| ◆ <i>Ocimum basilicum</i> | ◆ <i>Boswellia carteri</i> |
| ◆ <i>Cananga odorata</i> | ◆ <i>Mentha piperata</i> |
| ◆ <i>Rose centifolia</i> | ◆ <i>Santalum album</i> |
| ◆ <i>Melaleuca alternifolia</i> | ◆ <i>Citrus paradisi</i> |
| ◆ <i>Juniperus communis</i> | ◆ <i>Cymbopogon citrates</i> |
| ◆ <i>Origanum majorama</i> | ◆ <i>Citrus aurantium</i> |
| ◆ <i>Citrus bergamia</i> | ◆ <i>Citrus limonum</i> |
| ◆ <i>Anthemis nobulis</i> | ◆ <i>Salvia sclavea</i> |

Higher National Unit specification: support notes (cont)

Unit title: Botanical Science for Aromatherapy

- ◆ Cedrus atlantica
- ◆ Citrus reticulata
- ◆ Cymbopogon martini
- ◆ Eucalyptus smithii
- ◆ Foeniculum vulgare
- ◆ Lavendula latifolia
- ◆ Pinus sylvestris
- ◆ Ravensara aromatica
- ◆ Rosmarinus officinalis c.t. camphor
- ◆ Thymus vulgaris c.t. linalool
- ◆ Zingiber officinale
- ◆ Coriandrum sativum
- ◆ Cymbopogon citratus
- ◆ Eucalyptus staigeriana
- ◆ Hyssopus officinalis
- ◆ Melaleuca viridiflora
- ◆ Pogostemon cablin
- ◆ Rosmarinus officinalis c.t. 1,8 cineole
- ◆ Salvia officinalis
- ◆ Thymus vulgaris c.t. thymol

Carrier Oils

- ◆ Wheatgerm
- ◆ Avocado
- ◆ Olive
- ◆ Coconut
- ◆ Apricot kernel
- ◆ Evening Primrose
- ◆ Calendula
- ◆ Sunflower
- ◆ Rosehip
- ◆ Soya bean
- ◆ Grapeseed
- ◆ Jojoba
- ◆ Almond
- ◆ Macademia
- ◆ Carrot
- ◆ Peach kernel
- ◆ Rape seed oil
- ◆ Linseed
- ◆ Sesame
- ◆ Arnica

Guidance on the delivery and assessment of this Unit

Throughout the delivery of this Unit, examples of the most common essential oil plants should be available for examination by candidates. Lavender, rosemary, mint and pine are easy to acquire. Their characteristics can be described using terminology learned in class. Internal plant features can be identified from prepared slides where available, or photographs and diagrams.

Visits to different habitats help candidates to comprehend the way plant structures cope with environmental hazards and opportunities. Seashores, woodlands and hillsides offer an interactive opportunity for the candidates. Botanical gardens, maybe within reach, where more unusual plants can be seen. Candidates can easily learn to handle soil samples while on visits and assess texture, structure, degree of acidity, organic content, water and air content.

There may be opportunities in some contexts to propagate and grow on plants which yield oil. Plant groupings may be observed in different contexts in botanical gardens, and their similarities and differences shown. It must be emphasised that botanical nomenclature is essential for accuracy and communication. The background and meaning should be explained if possible.

Throughout the delivery of this Unit, explanations and exemplars should refer to plants which produce oil.

Higher National Unit specification: support notes (cont)

Unit title: Botanical Science for Aromatherapy

The plants studied in this Unit will be studied as oils in the *Aromatherapy* SCQF level 7 Unit and *Aromatherapy: Advanced* SCQF level 8 Unit.

Outcomes 1, 2 and 3 can be assessed holistically.

Opportunities for developing Core Skills

As candidates research information for the report for Outcome 4, a range of complex source materials should be analysed and key points could be identified, evaluated and summarised. Written reports should express essential complex ideas and information accurately and coherently, be formally structured and use accurate language, spelling, punctuation and syntax. Use of up to date software packages and templates could support the development of writing skills. The use of skills checklists and production of drafts will ensure assessor involvement at all stages of writing and support the development of communication skills.

Open learning

This Unit is suitable for delivery by some form of open, distance or online learning, assessed in conditions where arrangements have been put in place to assure the authenticity of the candidates work. For further information and advice please refer to *Assessment and Quality Assurance for Open and Distance Learning* (SQA, February 2001 — publication code A1030).

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Botanical Science for Aromatherapy

This Unit offers you the opportunity to link the oils you will use in aromatherapy to the plants from which they are obtained.

In **Outcome 1** you will investigate the history of plant taxonomy (classification), and plant groupings.

In **Outcome 2** you will look at essential and carrier oil plants. You will learn about their structure and the environmental pressure on these plants.

Outcome 3 looks at the listed species of plants used in aromatherapy, the conditions required for growth and harvesting of the plants and the parts used in aromatherapy.