SIHHHSC301A Apply the principles of hairdressing science
SIHHHSC301A Apply the principles of hairdressing science

Modification History
Not applicable.

Unit Descriptor
This unit describes the performance outcomes, skills and knowledge required to apply the principles of hairdressing science.

Hairdressers demonstrate an understanding of skin and hair biology and cosmetic chemistry as they apply to the performance of hairdressing services.

Application of the Unit
This unit applies to hairdressers in salon environments, who exercise judgement in planning and selecting appropriate products, services, equipment and techniques.

A person undertaking this role applies discretion and judgement and accepts responsibility for outcomes of own work.

Licensing/Regulatory Information
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites
Nil

Employability Skills Information
This unit contains employability skills.
## Elements and Performance Criteria Pre-Content

### Elements and Performance Criteria

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements describe the essential outcomes of a unit of competency.</td>
<td>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</td>
</tr>
</tbody>
</table>

1. **Apply knowledge of skin structure and function.**
   - 1.1. Identify and apply knowledge of the *main structure, functions and role of the skin* to the provision of hairdressing services.
   - 1.2. Apply knowledge of the *structure and function of the glands of the skin* to the provision of hairdressing services.
   - 1.3. Identify the *physical effects of scalp treatments* on the skin and relate to the performance of hairdressing treatments.

2. **Apply knowledge of hair structure and function.**
   - 2.1. Identify the *main functions and role of hair* to provide hairdressing services.
   - 2.2. Identify the *glands and muscles* associated with the hair and hair follicles.
   - 2.3. Recognise the *structural and cellular features of hair and hair follicles*.
   - 2.4. Apply knowledge of the *process of hair growth and the hair growth cycle* to the provision of hairdressing services.
   - 2.5. Recognise the *characteristics of normal and damaged hair*.
   - 2.6. Identify factors affecting *hair colour and chemical reformation* and apply this knowledge in designing and performing treatments.
   - 2.7. Recognise the *physical effects of hairdressing services*.

3. **Apply knowledge of cosmetic chemistry.**
   - 3.1. Identify relevant *concepts of cosmetic chemistry* and relate to the safe performance of hairdressing services.
   - 3.2. Assess the actions of the range of chemicals used in hairdressing treatments and relate to the selection and performance of hairdressing services.
   - 3.3. Base assessment of suitability of the hair for chemical services on analysis of the effect of previous chemical services or environmental factors on the condition of the hair.
4. Apply knowledge of hairdressing products.

4.1. Assess the formulation of a range of hairdressing products in relation to the product purpose and action on the hair.

4.2. Identify contraindications where they relate to client health and safety, hair condition and potential service outcomes.

4.3. Select appropriate product based on hair and scalp analysis and desired action on hair.

5. Promote hair and scalp care.

5.1. Apply knowledge of the physical and chemical actions of a range of hairdressing products during services, to maximise the promotion of hair and scalp care, and client and operator safety.

5.2. Apply knowledge of potential environmental damage to hair, when providing after-care service and advice.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to respond to questions and provide information, advice and reassurance to clients on hairdressing services
- technical skills to:
  - analyse client hair characteristics
  - select products and services that will minimise hair damage
  - protect client and operator skin
- literacy skills to interpret:
  - relevant information on skin and hair biology
  - product information and safety data sheets

Required knowledge

- relevant health and hygiene regulations
- skin penetration legislation and regulations
- relevant occupational health and safety legislation and regulations
- principles of hairdressing science as they relate to hairdressing treatments
- salon procedures related to the performance of hairdressing services
- skin biology in relation to scalp treatments and procedures
- hair biology in relation to common hairdressing treatments
- the salon product range.
Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- knowledge of the main ingredients in common hairdressing products and their physical and chemical effects on hair
- applying safe work practices and the safe use of products and equipment (including the use of preventative measures)
- knowledge and consistent application of the principles of skin and hair science as they apply to hairdressing services, including:
  - main functions and roles of the skin
  - structural and cellular features of hair and hair follicles
  - process of hair growth and the hair growth cycle
  - characteristics of normal and damaged hair
  - contraindications to particular services.

Context of and specific resources for assessment

Assessment must ensure access to:

- a salon or a simulated salon environment that includes a range of work situations such as client interruptions and involvement in other related activities normally expected in the salon
- a fully equipped salon which includes as a minimum:
  - a fully functional client reception area with:
    - telephone
    - client booking system
    - retail products range
  - a basin services area
  - equipment and work stations suitable for services including:
    - client consultation
    - hair and scalp treatments
    - haircutting
    - hair design
    - hair colouring
    - hair lightening
    - reformation
  - a supply of clean towels
  - a supply of clean client gowns or wraps
  - hairdressing products and equipment
  - a range of clients for different services
• relevant documentation, such as:
  • product information and safety data sheets
  • salon procedures.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

• observation of the learner:
  • performing consultation, and hair and scalp analysis
  • safely performing a variety of treatment processes with minimum negative impact on hair and skin.

• written or verbal questions appropriate to the language and literacy level of the learner to test knowledge which may include:
  • structural and cellular features of the hair and hair follicles
  • hair growth cycle
  • hair colour
  • effects of chemical curling, volumising and straightening products on the structure of the hair
  • relationship between the pre-existing condition of the hair and scalp and the contraindication of some services
  • review of portfolios of evidence and third-party reports of on-the-job performance.

Guidance information for assessment

A unit of competency describes an individual skill but people rarely perform one skill at a time. Many skills are combined on a day-to-day basis in the workplace as part of work processes. This does not mean that each skill described by a unit of competency is pre-requisite to another— they are related skills.

Holistic assessment with other units relevant to the industry sector, salon and job role is recommended for example:

• SIHHOHS201A Apply salon safety procedures
• SIHHHSC302A Identify and treat hair and scalp conditions
Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

The main structure, functions and role of the skin may include:
- structure and function of the glands of the skin
- relevant skin surface anatomy
- major epidermal appendages and dermal structures
- major cells of the epidermis
- role of vascular, connective and nervous tissue in the dermis.

The structure and function of the glands of the skin may include:
- structure, function, distribution and development of skin glands
- production, composition and functions of sebum
- production, composition and functions of eccrine and apocrine sweat fluids.

Physical effects of scalp treatments may include:
- conditioning
- removal of excess skin cells
- removal of excess sebum.

The main functions and role of hair may include:
- thermo-regulation
- protecting the scalp from physical damage
- controlling micro-organisms on the skin.

The glands and muscles associated with the hair and hair follicles may include:
- structural and cellular features of a hair follicle
- sebaceous glands
- arrector pili muscle.

The structural and cellular features of hair and hair follicles may include:
- hair shaft
- layers of the hair
- hair root and follicle.

The process of hair growth and the hair growth cycle may include:
- hair growth cycle:
  - anagen (growth phase)
  - catagen (transitional phase)
  - telogen (resting phase)
  - influences on hair growth rate.

The characteristics of normal and damaged hair may include:
- hair type including, coarse, medium and fine
- texture
Hair colour and chemical reformation may include:
- porosity.
- main factors contributing to hair colour origin, structure and location of melanin.

Physical effects of hairdressing services may include:
- effects on hair structure
- effects on hair texture
- degree of curl or wave in hair
- hair colour.

Concepts of cosmetic chemistry may include:
- bonds
- molecules
- chemical compounds
- chemical change
- neutralisation and buffering
- organic chemistry
- chemical reactions
- acids and bases and their effect on skin and hair
- pH.

Relevant legislation may include:
- federal, state and local health and hygiene
- occupational health and safety.

Workplace policies and procedures may include:
- client comfort and safety
- operator safety
- health and hygiene.

Range of hairdressing products may include:
- colouring products
- lightening products
- chemical reformation products
- chemical relaxation products
- temporary setting aids
- topical products including sprays and waxes
- trichological treatments.

Contraindications may include:
- allergic reactions
- hair porosity.

Potential environmental damage may include:
- ultraviolet (sun) light
- excessive use of overheated thermal equipment.

Unit Sector(s)
Hairdressing