

UBT120M

Anatomy and physiology for make-up services

Unit reference number: L/507/5464

Level: 3

Guided Learning (GL) hours: 20

Overview

This unit will provide all the necessary underpinning knowledge of anatomy and physiology for the face and head and will also enable learners to identify with face shapes, development of an ageing skin and associated dermatology/pathology.

Learning outcomes

On completion of this unit, learners will:

LO1 Understand the structure, function and development of an ageing skin

LO2 Understand the anatomy and physiology of the cranium and face

LO3 Understand dermatology of the face

Assessment requirements

Learners must complete the assessment requirements related to this unit:

1. External examination
2. Graded synoptic assessment

1. External examination

The theory content of LO1, LO2 and LO3 will be tested by external examinations at the end of the period of learning.

External examinations will test knowledge and understanding from across the whole vocational area (mandatory units). Learners should use the unit content section of this unit to aid revision since exam questions will test the full breadth of this section.

External examinations will be set and marked by VTCT and will contribute to the overall qualification grade.

2. Graded synoptic assessment

In the last term or final third of their qualification learners will be required to undertake a graded synoptic assessment. This will require learners to carry out a range of treatments from across the whole vocational area (mandatory units). Assessment coverage will vary year on year, although all services will be covered over time.

VTCT will set a brief for centres which will detail the treatments to be covered in the graded synoptic assessment. Grading descriptors for the synoptic assessment will also be provided by VTCT.

The graded synoptic assessment will be marked and graded by centre staff and externally quality assured by VTCT.

The graded synoptic assessment will contribute to the overall qualification grade.

Unit content

LO1 Understand the structure, function and development of an ageing skin

Learners must understand the structure of the skin:

- Epidermis
 - Stratum corneum (horny layer), stratum lucidum (transparent layer), stratum granulosum (granular layer), stratum spinosum (prickle cell layer), stratum germinativum (basal layer), keratinisation, melanocytes, Malpighian layer, columnar cells, keratinocytes, desquamation, acid mantle
- Dermis
 - Papillary, reticular, Langers lines, sebaceous gland, arrector pili muscle, dermal papillae, hair follicle, hair follicle walls (outer root sheath), hair bulb, bulge, stem cells, sweat gland – eccrine and apocrine, sweat pore, sweat duct, Langerhans cells, fibroblasts, mast cells, leucocytes, phagocytes, sensory nerves, motor nerves, Pacinian corpuscle, Ruffini corpuscle, Meissner corpuscle, arteriole, venule, lymphatic vessel, collagen, elastin
- Structure of the hair
 - Hair shaft, medulla, cortex, cuticle, inner root sheath – cuticle, Huxle and Henle layer, germinal matrix, connective sheath, vitreous membrane, anagen, catagen, telogen, lanugo, vellus, terminal
- Subcutaneous (Hypodermis)
 - Areolar, adipose, fat cells
- Factors which may affect hair growth
 - Congenital, hormonal, topical, systemic, non-systemic, medication
- Functions of the skin
 - Secretion, heat regulation, absorption, protection, excretion, sensation, vitamin D formation (7-dehydrocholesterol), melanin formation
- Growth and repair stages of the skin
 - Keratinisation, desquamation, wound healing
- Different skin types
 - Normal, dry (asteatosis), oily (seborrhoeic), combination
- Different skin conditions
 - Sensitive, dehydrated, mature
- Factors which affect the colour of a skin
 - Distribution of melanin – hyper- or hypo-pigmentation, amount of carotene present, effective blood circulation
- Factors affecting an ageing skin
 - Ultra-violet rays, degeneration of elastic fibres, poor blood circulation, thinning of the skin e.g. medication, moisture gradient reduction in the dermis, hyper- or hypo-pigmentation, poor diet

LO2 Understand the anatomy and physiology of the cranium and face

Learners must know about bones:

- Structure of bone
 - Compact, cancellous, ossification, osteoblasts, osteoclasts, osteocytes, lamellae, mineral calcium, epiphysis, diaphysis, medullary canal, periosteum, epiphyseal cartilage, chondrocytes
- Types of bones
 - Long, short, irregular, flat, sesamoid, with examples
- Types of joints
 - Fixed or fibrous or immoveable, slightly moveable or cartilaginous, freely moveable or synovial, with examples
- Type of synovial joint
 - Pivot (atlas and axis)
- Functions of the skeletal system
 - Gives shape and support forming a framework for the face, protection, provides attachment for tendons and muscles, forms joints to give movement, red blood cells are made in the red bone marrow located in the cancellous bone
- Genetically inherited bone structure can delay ageing
 - Protruding jaw-line, defined cheek bones (zygomatic bone), maintaining a full-set of healthy teeth
- Ligament

Position of the cranium and facial bones:

- Cranium
 - Temporal, occipital, parietal, frontal, sphenoid, ethmoid, skull sutures
- Facial bones
 - Lacrimal, zygomatic, nasal, mandible, maxillae, vomer, turbinator, hyoid, palatine
- Face shapes
 - Oval, round, square, heart, oblong, diamond, triangular

Learners must know about muscles:

- Types of muscle tissue
 - Voluntary or skeletal or striated, involuntary or smooth or non-striated, cardiac
- Structure of muscle
 - Myofibril, sarcolemma, nuclei, endomysium, perimysium, epimysium, actin, myosin, tendon
- The characteristics of muscle tissue
 - Power of contraction, elasticity, fatigue, muscle tone
- Functions of muscle tissue
 - Heat production, maintaining firm facial contours, movement

Position and action of the muscles of:

- Head and face
 - Corrugator, orbicularis oculi, orbicularis oris, quadratus labii superior – levator labii superioris and levator anguli oris, triangularis or depressor anguli oris, depressor labii inferioris, mentalis, procerus, nasalis, buccinator, risorius, zygomaticus, masseter, temporalis, frontalis, occipitalis, platysma, sternocleido-mastoid, trapezius, muscles of mastication – pterygoids (medial and lateral), masseter and temporalis
- Contraction of a muscle
 - Myofibril, actin, myosin, glycogen, glucose, lactic acid, aerobic, anaerobic, oxygen debt, isotonic, isometric, motor nerve, factors affecting muscle tone, muscle tension, muscle fatigue
- Movement of a muscle
 - Tendon, joint, agonist, antagonist, cerebrum, motor nerves, contraction, fascia

Learners must know about blood:

- Erythrocytes, leucocytes – granulocytes, monocytes and 'T' and 'B' lymphocytes (effector and memory cells), thrombocytes (platelets), plasma, transportation, protection, immunity, regulation of temperature, homeostasis, clotting, blood groups
- Blood transportation
 - Lumen, arteries, arterioles, capillaries, venules, veins, valves, tunica intima (endothelium), tunica media, tunica adventitia, cell nutrition - semi-permeable membrane, osmosis, diffusion and active transport
- The process of blood clotting
 - 12 clotting factors
 - Understand only 5 clotting factors – thromboplastin, prothrombin, thrombin, fibrinogen, fibrin
 - Essential mineral – calcium
- Main arteries
 - Head and face
 - Common carotid, external carotid, occipital, facial, maxillary, lingual, superficial temporal, thyroid
- Main veins
 - Head and face
 - External jugular, posterior external jugular, internal jugular, common facial, anterior facial, maxillary, superficial temporal

Learners must know about lymph:

- Composition of lymph
 - Lymphatic fluid (interstitial fluid), lymphatic capillary, lymphatic vessel, semi-lunar valves, lymphatic node, lymphocytes
- Movement of lymph
 - No central pump, skeletal/muscular contractions, pressure changes in the thorax
- Functions of the lymphatic system
 - Defence against harmful pathogens, maintains correct balance of body fluids
- Main lymph glands
 - Head and face
 - Face – buccal, mandibular, mastoid, occipital, submental, submandibular, parotid (anterior auricular), mastoid (posterior auricular), deep cervical

Learners must understand the inter-relationship between the lymphatic and the venous system:

- Thoracic and right lymphatic duct, right and left subclavian veins

Learners must know about cells and tissues:

- Structure and function of the nerve cell
 - Neurone, neuroglia, nerve cell body, axon, Schwann cells, dendrite, myelin sheath, nodes of Ranvier, boutons or axon terminals, synapse, ganglia, reflex arc, grey matter, white matter, sensory nerve (afferent), motor nerve (efferent), mixed nerve, neurilemma, neuro-transmitters – acetylcholine and noradrenaline, synaptic cleft, plexus
- Characteristics of nervous tissue
 - Irritability, conductivity

Learners must know about nerves:

- Head and face
 - 12 pairs of cranial nerves
 - 5th Cranial nerve (trigeminal), 7th cranial nerve (facial) and 11th cranial nerve (accessory)

LO3 Understand dermatology of the face

Learners must know about diseases and disorders of the skin:

- Allergic reaction, benign, bruise, bulla, crust, erythema, excoriation, fissures, haemangioma, hyperaemia, inflammation, keloid, macule, malignant, papule, pustule, nodule or cyst, oedema, scales, scar, tumour, ulcer, vesicle, weal, weeping, chilblains, couperose, telangiectasia, comedones, crow's feet, milia, pseudo folliculitis, urticaria, hyper-pigmentation, hypo-pigmentation, atopic eczema, atopic dermatitis, psoriasis, acne vulgaris, acne rosacea, boils, carbuncles, folliculitis, impetigo, herpes simplex, herpes zoster, warts, candida, tinea corporis, albinism, chloasma, dermatosis papulosa nigra, ephelides, lentigo, leucoderma, naevae, papilloma, port wine stain (capillary naevus), vitiligo, sebaceous cysts (steatoma), skin tags (fibroma) spider naevi, styes, xanthomas, hyperhidrosis (excessive sweating), prickly heat (miliaria rubra)

Skin cancer awareness

Please note this information will not be assessed for the achievement of this unit.

Public awareness of skin cancer has never been higher, and yet skin cancer remains the fastest growing cancer in the UK, especially amongst young people. The chances of a positive outcome can be dramatically increased with early identification and diagnosis.

Professionals in hair, beauty, sports massage and health and wellbeing industries work closely with clients and in many cases have sight of areas of skin which may not be easily visible to the client. An informed awareness of the signs, symptoms and changes of appearance to be aware of when checking for early signs of cancer is a crucial tool for the conscientious practitioner in order to provide the most thorough service and in some cases, possibly lifesaving information signposting.

Signs to look for when checking moles include utilising the ABCDE guide:

A - Asymmetry – the two halves of the area/mole may differ in their shape and not match.

B - Border – the edges of the mole area may be irregular or blurred and sometimes show notches or look 'ragged'.

C - Colour – this may be uneven and patchy. Different shades of black, brown and pink may be seen.

D - Diameter – most but not all melanomas are at least 6mm in diameter. If any mole gets bigger or changes see your doctor.

E - Elevation/evolving – elevation means the mole is raised above the surface and has an uneven surface. Looks different from the rest or changing in size, shape or colour. Anyone can get a suspicious mole or patch of skin checked out for free by the NHS by visiting their doctor, who may then refer to a dermatologist (an expert in diagnosing skin cancer).

If you require any additional NHS information please refer to <https://www.nhs.uk/be-clear-on-cancer/symptoms/skin-cancer>

If your learners are interested in learning more about skin cancer awareness alongside this qualification, VTCT runs the following qualification: VTCT Level 2 Award in Skin Cancer Awareness for Non-Healthcare Professionals.

This qualification has been specifically designed for those working in the sports massage, health and wellbeing, beauty, hairdressing and barbering sectors. It will enable learners to identify any changes to their client's skin and to highlight those changes to the client using appropriate language and communication skills. It will enable the learner to raise awareness of skin cancer and signpost their clients to public information about skin cancer.

This qualification will enable hair, beauty and wellbeing professionals to gain the appropriate knowledge and communication skills required to provide non-diagnostic, professional advice and information to clients in a discrete, empathetic and confidential manner.

For more information please refer to the Record of Assessment book:

<https://qualifications.vtct.org.uk/finder/qualfinder/1Record%20of%20Assessment%20Book/AG20529.pdf>

Resources

The special resources required for this unit are access to a real or realistic working environment which supports the provision of good quality anatomy and physiology books, DVDs or CD-ROMs

Delivery guidance

Teachers are encouraged to use innovative, practical and engaging delivery methods to enhance the learning experience. Learners may benefit from:

- Using interactive information and technology systems and hardware so they can learn about concepts and theories of anatomy and physiology; research disorders and diseases; use and produce visual aids

Links with other units

This unit is closely linked with the following units:

UBT118M Photographic make-up

This unit will provide all the required knowledge for learners to be able to provide photographic make-up service.

UBT121M Bridal make-up

This unit will provide all the required knowledge for learners to be able to provide bridal make-up service.

UBT122M Airbrush make-up

This unit will provide all the required knowledge for learners to be able to provide airbrush make-up service.

UBT126M Media make-up

This unit will provide all the required knowledge for learners to be able to provide media make-up service.

Graded synoptic assessment

At the end of the qualification of which this unit forms part, there will be a graded synoptic assessment which will assess the learner's ability to identify and use effectively in an integrated way an appropriate selection of skills, techniques, concepts, theories, and knowledge from a number of units from within the qualification. It is therefore necessary and important that units are delivered and assessed together and synoptically to prepare learners suitably for their final graded assessment.

Version	Details of amendments	Date
v7	Skin cancer awareness page added	13/06/17