

# iUBT335 – Electrical epilation

URN – R/617/4314

**Guided Learning Hours: 250**

Learning outcome	Assessment criteria	Taught content to include
LO1 Know the anatomy, physiology and pathologies of the skin	1.1. Explain the structure and functions of the skin	<ul style="list-style-type: none"> <li>• Epidermis <ul style="list-style-type: none"> <li>- Stratum corneum</li> <li>- Stratum lucidum</li> <li>- Stratum granulosum</li> <li>- Stratum spinosum/Malpighian layer</li> <li>- Stratum germinativum/Basal layer</li> <li>- Melanocytes</li> </ul> </li> <li>• Dermis <ul style="list-style-type: none"> <li>- Blood supply</li> <li>- Lymphatic supply</li> <li>- Hair follicle</li> <li>- Hair</li> <li>- Erector pili muscle</li> <li>- Sebaceous gland</li> <li>- Sweat gland: eccrine and apocrine</li> <li>- Sensory nerve endings</li> <li>- Dermal papilla</li> <li>- Collagen</li> <li>- Elastin</li> </ul> </li> <li>• Subcutaneous layer <ul style="list-style-type: none"> <li>- Adipose tissue</li> </ul> </li> <li>• Functions <ul style="list-style-type: none"> <li>- Secretion</li> <li>- Heat regulation</li> <li>- Absorption</li> <li>- Protection/acid mantle</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>- Elimination</li> <li>- Sensation</li> <li>- Vitamin D formation (7-dehydrocholesterol)</li> </ul>
	1.2. Explain the functions and formation of the acid mantle	<ul style="list-style-type: none"> <li>• Composition and formation</li> </ul>
	1.3. Identify skin types and characteristics	<ul style="list-style-type: none"> <li>• Dry</li> <li>• Oily</li> <li>• Combination</li> <li>• Sensitive</li> <li>• Dehydrated</li> <li>• Mature skin</li> <li>• Young skin</li> <li>• White</li> <li>• Black</li> <li>• Asian type skin</li> <li>• Mixed</li> </ul>
	1.4. Identify skin diseases, disorders and conditions and whether they are contraindicated to electrical epilation	<ul style="list-style-type: none"> <li>• Infestations <ul style="list-style-type: none"> <li>- Scabies</li> <li>- Lice</li> </ul> </li> <li>• Congenital <ul style="list-style-type: none"> <li>- Atopic eczema</li> <li>- Atopic dermatitis</li> <li>- Psoriasis</li> </ul> </li> <li>• Bacterial <ul style="list-style-type: none"> <li>- Acne vulgaris</li> <li>- Impetigo</li> <li>- Acne rosacea</li> <li>- Boils</li> <li>- Pseudo folliculitis</li> </ul> </li> <li>• Viral <ul style="list-style-type: none"> <li>- Warts</li> <li>- Herpes simplex</li> <li>- Herpes zoster</li> </ul> </li> <li>• Fungal <ul style="list-style-type: none"> <li>- Tinea corporis</li> </ul> </li> <li>• Pigmentation disorders <ul style="list-style-type: none"> <li>- Vitiligo</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>- Albinism</li> <li>- Melasma</li> <li>- Ephelides</li> <li>- Lentigo</li> <li>- Moles (papilloma)</li> <li>- Naevae</li> <li>- Port wine stain</li> <li>- Leucoderma</li> <li>- Dermatitis papulosa nigra</li> <li>- Hyperpigmentation</li> <li>- Hypopigmentation</li> <li>• General conditions <ul style="list-style-type: none"> <li>- Sensitive skin</li> <li>- Dehydrated skin</li> <li>- Lack of elasticity</li> <li>- Lack of muscle tone</li> <li>- Blemishes</li> <li>- Age</li> <li>- Crow's feet</li> <li>- Broken capillaries</li> <li>- Open pores</li> <li>- Comedones</li> <li>- Milia</li> <li>- Pustules</li> <li>- Papules</li> <li>- Keloid scarring</li> <li>- UV damage</li> <li>- Thin skin</li> <li>- Small raised moles</li> <li>- Urticaria</li> <li>- Allergic reaction</li> </ul> </li> </ul>
	1.5. Explain the types of skin cancer and relevance to electrical epilation	<ul style="list-style-type: none"> <li>• Basal cell carcinoma</li> <li>• Squamous cell carcinoma</li> <li>• Malignant melanoma</li> </ul>

LO2 Know the structure and function of hair and factors affecting hair growth	2.1. Explain the position, structure and function of the hair and surrounding tissue	<ul style="list-style-type: none"> <li>• Cuticle</li> <li>• Cortex</li> <li>• Medulla</li> <li>• Inner root sheath: <ul style="list-style-type: none"> <li>- Huxley's layer</li> <li>- Henle's layer</li> </ul> </li> <li>• Outer root sheath</li> <li>• Vitreous membrane</li> <li>• Connective tissue</li> <li>• Dermal papilla</li> </ul>
	2.2. Explain the types of hair	<ul style="list-style-type: none"> <li>• Lanugo</li> <li>• Vellus</li> <li>• Terminal</li> </ul>
	2.3. Explain the factors which affect hair growth	<ul style="list-style-type: none"> <li>• Congenital</li> <li>• Topical</li> <li>• Hormonal</li> <li>• Systemic</li> <li>• Non-systemic</li> <li>• Drugs/medication</li> <li>• Stress</li> <li>• Anorexia</li> <li>• Polycystic ovaries</li> <li>• Hirsutism</li> <li>• Hypertrichosis</li> </ul>
	2.4. Explain the hair growth cycle	<ul style="list-style-type: none"> <li>• Anagen</li> <li>• Catagen</li> <li>• Telogen</li> </ul>
	2.5. Explain the stage of hair growth at which permanent hair removal may be achieved	<ul style="list-style-type: none"> <li>• Blend <ul style="list-style-type: none"> <li>- Anagen</li> <li>- Hair bulb attached</li> <li>- Hair still living</li> <li>- Chemical decomposition of the hair bulb by the currents</li> <li>- Current cuts off the blood supply and the hair dies</li> <li>- Damage by the current to the surrounding follicle</li> <li>- Production of lye</li> </ul> </li> <li>• Alternating current (short wave diathermy)</li> </ul>

		<ul style="list-style-type: none"> <li>- Anagen</li> <li>- Hair bulb attached</li> <li>- Hair still living</li> <li>- Cauterisation/coagulation of the hair bulb by the current</li> <li>- Current cuts off the blood supply and the hair dies</li> <li>- Damage by the current to the surrounding follicle</li> </ul>
	<p>2.6. Explain the position of the main endocrine glands, the hormones secreted and effects of hyper/hypo secretion</p>	<ul style="list-style-type: none"> <li>• Pituitary <ul style="list-style-type: none"> <li>- Oxytocin</li> <li>- Antidiuretic hormone (ADH) (Vasopressin)</li> <li>- Prolactin</li> <li>- Human growth hormone (HGH)</li> <li>- Thyroid stimulating hormone (TSH)</li> <li>- Adrenocorticotrophic hormone (ACTH)</li> <li>- Lutenising hormone (LH)</li> <li>- Follicle stimulating hormone (FSH)</li> <li>- Melanin stimulating hormone (MSH)</li> </ul> </li> <li>• Thyroid gland <ul style="list-style-type: none"> <li>- Thyroxin</li> <li>- Triiodothyronine</li> <li>- Calcitonin</li> </ul> </li> <li>• Parathyroid glands <ul style="list-style-type: none"> <li>- Parathormone</li> </ul> </li> <li>• Thymus <ul style="list-style-type: none"> <li>- T lymphocytes</li> </ul> </li> <li>• Pineal <ul style="list-style-type: none"> <li>- Releases melatonin</li> </ul> </li> <li>• Islets of Langerhans <ul style="list-style-type: none"> <li>- Insulin</li> </ul> </li> <li>• Adrenal glands <ul style="list-style-type: none"> <li>- Adrenal medulla <ul style="list-style-type: none"> <li>▪ Adrenalin</li> <li>▪ Noradrenalin</li> </ul> </li> <li>- Adrenal cortex <ul style="list-style-type: none"> <li>▪ Corticosteroids</li> <li>▪ Mineralocorticoids – Aldosterone</li> <li>▪ Glucocorticoids</li> </ul> </li> </ul> </li> <li>• Ovaries <ul style="list-style-type: none"> <li>- Oestrogen</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>- Progesterone</li> <li>• Testes</li> <li>- Testosterone</li> </ul>
	2.7. Explain the effects of hormones on the skin and hair growth cycle	<ul style="list-style-type: none"> <li>• Puberty</li> <li>• Pregnancy</li> <li>• Menopause</li> </ul>
	2.8. Explain the menstrual cycle	<ul style="list-style-type: none"> <li>• To include the effects of hormone at the various stages: <ul style="list-style-type: none"> <li>- Menstrual</li> <li>- Proliferative</li> <li>- Secretory</li> </ul> </li> </ul>
	2.9. Explain the effect of stress on the endocrine and reproductive systems	<ul style="list-style-type: none"> <li>• Production of adrenalin and its effects</li> <li>• Effect of stress on the other hormones</li> <li>• Effect on the reproductive systems in men and women</li> </ul>
	2.10. Explain the pathologies of the endocrine and reproductive systems relevant to electrical epilation	<ul style="list-style-type: none"> <li>• Addison's syndrome</li> <li>• Cushing's syndrome</li> <li>• Amenorrhoea</li> <li>• Menopause</li> <li>• Pre-menstrual syndrome</li> <li>• Polycystic ovarian syndrome</li> </ul>
LO3 Be able to consult and prepare for electrical epilation treatment	3.1. Demonstrate a consultation for epilation	<ul style="list-style-type: none"> <li>• An example of a consultation form can be downloaded from <a href="http://www.itecworld.co.uk">www.itecworld.co.uk</a></li> <li>• Private comfortable area</li> <li>• Positive body language</li> <li>• Positioning of the client (no barriers between themselves and client)</li> <li>• Good communication skills (asking open and/or closed questions where appropriate)</li> <li>• Trust</li> <li>• Professionalism, confidence and enthusiasm</li> <li>• Confidentiality</li> <li>• Consent</li> <li>• Any contra-indication to treatment</li> <li>• Possible reasons for the hair growth – note the hair growth pattern</li> </ul>

		<ul style="list-style-type: none"> <li>• Client lifestyle</li> <li>• Client profile</li> <li>• Importance of planning electrolysis treatments and their frequency bearing in mind the clients religious, moral and social beliefs and diverse needs</li> <li>• Treatment sensation</li> <li>• Skin reaction</li> <li>• Skin healing</li> <li>• Appointments and frequency</li> <li>• Permanency of treatment</li> <li>• Re-growth</li> <li>• Client commitment</li> <li>• Home care advice</li> <li>• Aftercare advice</li> </ul>
	3.2. Identify those contra-indications which require medical or informed consent, restrict or prevent electrical epilation	<ul style="list-style-type: none"> <li>• With medical, GP or specialist permission – In circumstances where written medical permission cannot be obtained, clients must sign an informed consent form stating that the treatment and its effects have been explained to them and confirm that they are willing to proceed without permission from their GP <ul style="list-style-type: none"> <li>- Pregnancy</li> <li>- Cardiovascular conditions (thrombosis, phlebitis, hypertension, hypotension, heart conditions)</li> <li>- Any condition already being treated by a GP or another practitioner</li> <li>- Medical oedema</li> <li>- Nervous/psychotic conditions</li> <li>- Epilepsy</li> <li>- Recent operations</li> <li>- Diabetes</li> <li>- Asthma</li> <li>- Any dysfunction of the nervous system (e.g. Muscular sclerosis, Parkinson's disease, Motor neurone disease)</li> <li>- Neuralgia</li> <li>- Inflamed nerve</li> <li>- Cancer</li> <li>- Conditions which cause muscular spasticity (e.g. cerebral palsy)</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>- Whiplash and any neck conditions</li> <li>- Slipped disc</li> <li>- Undiagnosed pain</li> <li>- When taking prescribed medication</li> <li>- Endocrine disorders</li> <li>• Contra-indications that restrict treatment <ul style="list-style-type: none"> <li>- Fever</li> <li>- Contagious or infectious diseases</li> <li>- Under the influence of recreational drugs or alcohol</li> <li>- Diarrhoea and vomiting</li> <li>- Mucous membranes</li> <li>- Hepatitis B</li> <li>- HIV/AIDS</li> <li>- Anti-coagulant drugs</li> <li>- Bell's palsy</li> <li>- Loss of skin sensation</li> <li>- Keloid scarring</li> <li>- Skin diseases</li> <li>- Hair moles</li> <li>- Undiagnosed lumps and bumps</li> <li>- Localised swelling</li> <li>- Inflammation</li> <li>- Varicose veins</li> <li>- Pregnancy (abdomen)</li> <li>- Cuts</li> <li>- Bruises</li> <li>- Abrasions</li> <li>- Scar tissues (2 years for major operation and 6 months for a small scar)</li> <li>- Sunburn</li> <li>- Hormonal implants</li> <li>- Abdomen (first few days of menstruation depending how the client feels)</li> <li>- Haematoma</li> <li>- Hernia</li> <li>- Recent fractures (minimum 3 months)</li> <li>- Cervical spondylitis</li> <li>- Hyperpigmentation</li> <li>- Botox/dermal fillers (1 week following treatment)</li> </ul> </li> </ul>
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	3.3. Demonstrate how to set up a working area for the treatment	<ul style="list-style-type: none"> <li>• All surfaces must be wiped with sanitiser and covered with couch roll</li> <li>• Check the machine is in working order</li> <li>• Cotton wool</li> <li>• Cleanser</li> <li>• Sanitiser</li> <li>• Tissues</li> <li>• Pre-packed sterilised needles in a variety of sizes</li> <li>• Tweezers which have been adequately sterilised</li> <li>• Gloves</li> <li>• Surgical masks</li> <li>• Unperfumed aftercare lotion</li> </ul>
	3.4. Demonstrate how to prepare the client for the treatment	<ul style="list-style-type: none"> <li>• Explain the treatment procedure and expected treatment sensations to the client</li> <li>• Remove all jewellery</li> <li>• Perform thermal and tactile tests</li> <li>• Cleanse the area to be treated</li> <li>• Wipe over the area with sanitising solution</li> <li>• Perform test patch</li> <li>• Instruct the client regarding positioning for safe treatment</li> <li>• Cover the client's eyes with damp cotton pads, tissue or a sleep mask to stop the glare of the magnifying lamp when treating the face</li> <li>• Start the current very low and allow the client to get used to it (after the 1<sup>st</sup> treatment or more start the current a little below the level where the hairs were sliding out in the previous treatment to allow the client to get used to the current again)</li> </ul>

LO4 Be able to carry out electrical epilation treatment	4.1. Demonstrate appropriate professionalism and hygiene throughout the treatment	<ul style="list-style-type: none"> <li>• Clean, professional workwear</li> <li>• Clean natural tights and full flat shoes</li> <li>• Fingernails should be short, have no enamel and should be clean</li> <li>• Wash hands before beginning treatment</li> <li>• Gloves must be worn</li> <li>• A mask should be worn</li> <li>• Ensure all working surfaces and the electrolysis machine are wiped with sterilising solution prior to treatment</li> <li>• Ensure that tweezers have been fully sterilised</li> <li>• Ensure that pre-packed sterilised needles are available in all sizes</li> <li>• Ensure that a sharps box is available to dispose of used needles</li> <li>• Ensure that a bin for contaminated waste is available for any contaminated soft waste</li> <li>• Hands must be washed at the end of treatment</li> </ul>
	4.2. Demonstrate the correct handling of tools	<ul style="list-style-type: none"> <li>• Blend <ul style="list-style-type: none"> <li>- Indifferent electrode</li> <li>- Needle holder</li> <li>- Probe</li> <li>- Needles</li> <li>- Tweezers</li> <li>- Magnifying lamp/magnifying glasses</li> <li>- Machine</li> </ul> </li> <li>• Alternating current (shortwave diathermy) <ul style="list-style-type: none"> <li>- Needle holder</li> <li>- Probe</li> <li>- Needles</li> <li>- Tweezers</li> <li>- Magnifying lamp/magnifying glasses</li> <li>- Machine</li> </ul> </li> </ul>
	4.3. Select the needle appropriate for treatment	<ul style="list-style-type: none"> <li>• Check the area to be treated</li> <li>• Check the size of the follicle</li> <li>• Select the appropriate needle size so that it slides into the follicle easily</li> <li>• Change the needle size when changing areas where appropriate</li> <li>• Types of needle – one piece, two piece, insulated, gold, stainless</li> </ul>
	4.4. Explain the different heating patterns of needles	<ul style="list-style-type: none"> <li>• Blend</li> </ul>

		<ul style="list-style-type: none"> <li>• Alternating current (shortwave diathermy)</li> <li>• The way in which the current is emitted</li> <li>• The effect the current has on the follicle</li> </ul>
	4.5. Explain how the moisture content of the skin may affect the current	<ul style="list-style-type: none"> <li>• If the skin is dry the current may not be conducted efficiently</li> <li>• If the skin is oily or perspiring the intensity of the current may be increased</li> </ul>
	4.6. Carry out electrical epilation on a range of clients	<ul style="list-style-type: none"> <li>• Blend</li> <li>• Alternating current (shortwave diathermy)</li> <li>• Areas to be treated to include: <ul style="list-style-type: none"> <li>- Eyebrows</li> <li>- Upper lip</li> <li>- Chin</li> <li>- Neck</li> <li>- Breast</li> <li>- Chest</li> <li>- Abdomen</li> <li>- Bikini line</li> <li>- Legs</li> <li>- Arms</li> <li>- Underarms</li> </ul> </li> </ul>
	4.7. Explain the epilation methods appropriate for different types of hair	<ul style="list-style-type: none"> <li>• Definition of types of hair and removal techniques</li> <li>• Blend</li> <li>• Alternating current (shortwave diathermy)</li> <li>• Fine hair</li> <li>• Coarse hair</li> <li>• Straight hair</li> <li>• Curly hair</li> <li>• In-growing hairs</li> <li>• Scattered hairs</li> </ul>
	4.8. Demonstrate appropriate stretch of the skin	<ul style="list-style-type: none"> <li>• Stretching the area between the index and middle finger of the hand not probing</li> <li>• This enables the needle to slide more easily into the hair follicle</li> </ul>
	4.9. Complete the treatment in a commercially acceptable time	<ul style="list-style-type: none"> <li>• The treatment should be performed in a time which is both safe and acceptable to industry usually maximum 15 minutes on a specific area</li> </ul>

LO5 Be able to advise on aftercare and treatment effects	5.1. Explain the importance of providing the client with aftercare advice and products relevant to the area treated	<ul style="list-style-type: none"> <li>• Do not smoke</li> <li>• Do not wear makeup for 24-48 hours depending upon skin reaction</li> <li>• Do not sunbathe for 24-48 hours depending upon the skin reaction</li> <li>• Do not apply heat to the area</li> <li>• Bathe the areas in cool, purified water</li> <li>• Apply appropriate unperfumed aftercare lotion</li> </ul>
	5.2. Advise the client how to treat the hairs in between treatments	<ul style="list-style-type: none"> <li>• Cut hairs close to the surface of the skin</li> </ul>
	5.3. Explain the possible contra-actions to electrical epilation	<ul style="list-style-type: none"> <li>• How to deal with them, what advice to give clients and when to refer to a medical practitioner</li> <li>• Erythema</li> <li>• Slight oedema</li> <li>• Minor blood spots</li> <li>• Blanching</li> <li>• Burns</li> <li>• Excess heat in the tissues</li> <li>• Bruising</li> <li>• Broken/ingrowing hairs</li> <li>• Histamine/allergic reaction</li> <li>• Rash</li> </ul>
	5.4. Describe the consequences of incorrect probing techniques	<ul style="list-style-type: none"> <li>• Incorrect techniques</li> <li>• Incorrect needle size</li> <li>• Not securing the needle correctly in the probe</li> <li>• Inaccurate probing</li> <li>• Probing too deep</li> <li>• Probing too shallow</li> <li>• Prolonged incorrect probing</li> <li>• Piercing of the sebaceous gland</li> <li>• Removing the probe with the current flowing</li> <li>• Inserting the probe with the current flowing</li> <li>• Unsteady hands</li> </ul>

		<ul style="list-style-type: none"> <li>• Current too high</li> <li>• Using bent or blunt probes</li> <li>• Indentations (pitting)</li> <li>• Tissue damage</li> <li>• Black or blue marks (bruising)</li> <li>• Blanching</li> <li>• Hyperpigmentation</li> <li>• Hypopigmentation</li> <li>• Raised lumps</li> <li>• Scabs</li> <li>• Scarring</li> </ul>
	5.5. Explain the course of action a client should take if an abnormal reaction does occur	<ul style="list-style-type: none"> <li>• Bathe with cool, purified water</li> <li>• Apply unperfumed aftercare lotion</li> <li>• If the swelling has not gone down after 48 hours return to the electrologist</li> </ul>

Assessment	
<p>Portfolio of evidence containing:</p> <ul style="list-style-type: none"> <li>12 treatment evidence</li> </ul> <p>MCQ</p> <p>Practical examination</p>	<p>Evidence of treating 3 clients on at least 2 occasions each (3 clients treated with alternating current (shortwave diathermy) and 3 clients treated with the blend, 12 treatments in total) on the following areas, one of which must include the face:</p> <ul style="list-style-type: none"> <li>Face</li> <li>Neck</li> <li>Breast</li> <li>Chest</li> <li>Abdomen</li> <li>Bikini Line</li> <li>Legs</li> <li>Arms</li> <li>Underarms</li> </ul> <p>To include:</p> <ul style="list-style-type: none"> <li>Consultation</li> <li>Medical history</li> <li>Treatment details – to include needle size(s), current type, machine settings, current intensity and duration of treatment</li> <li>Client feedback</li> <li>Aftercare and homecare advice to include specific advice for ongoing treatment plan</li> </ul> <p>Treatments should be evidenced through the consultation form. These are internally assessed by the college lecturer and verified by the external examiner.</p>

Guide to taught content
<p>The content contained within the unit specification is not prescriptive or exhaustive but is intended to provide helpful guidance to teachers and learners with the key areas that will be covered within the unit, and, relating to the kinds of evidence that should be provided for each assessment objective specific to the unit learning outcomes.</p>

**Document History**

Version	Issue Date	Changes	Role
v1	20/09/2019	First published	Qualifications and Regulation Co-ordinator