

<p>ITEC Level 4</p> <p>Unit 861 – Physiology of Ageing</p> <p>Recommended Minimum Guided Learning Hours – 64</p> <p>Unit Accreditation Number: A/601/5349</p>	
<p>Learning outcome The Learner will:</p> <p>1. Understand the nature of ageing</p>	
<p>Assessment Criteria</p>	<p>Taught Content</p>
<p>1.1 Describe the characteristics of ageing</p> <p>1.2 Explain the differences between intrinsic and extrinsic environmental effects on the skin which contribute to the ageing process</p> <p>1.3 Critically compare different theories of ageing</p> <p>1.4 Explain the ageing process in cells and tissues</p>	<p>1.1.1 To include: ▪ Physical changes ▪ Psychological changes ▪ Biological aging ▪ Chronological ageing</p> <p>1.2.1 Intrinsic to include: ▪ Senescence ▪ Heredity factors ▪ Chronologic age ▪ Free radicals ▪ MMP activation • Hormones</p> <p>1.2.2 Extrinsic to include: ▪ Environment ▪ Temperature changes ▪ UV light ▪ Pollution ▪ Diet ▪ Smoking ▪ Medication ▪ Alcohol ▪ Lifestyle ▪ Occupation ▪ Exercise ▪ Sleep ▪ Stress ▪ Relaxation ▪ Illness • Medication ▪ Current regime</p> <p>1.3.1 To include: Theories of ageing e.g. ▪ Evolutionary theories ▪ Programmed theories ▪ Immunological theory ▪ Wear and tear theory ▪ Cross-linking theory ▪ Free radical theory etc.</p> <p>1.4.1 To include: Cells: ▪ Lipid loss ▪ Loss of function ▪ Mutation ▪ DNA damage Tissues: ▪ Atrophy ▪ Loss of function ▪ Waste accumulation ▪ Stiffness ▪ Degeneration</p>

<p>Learning outcome The Learner will:</p> <p>2. Understand the causes and effects of ageing of the skin</p>	
<p>Assessment Criteria</p>	<p>Taught Content</p>
<p>2.1 Analyse the changes which occur to the repair mechanisms of the skin with ageing</p> <p>2.2 Explain how ageing causes microscopic changes to the structure of skin</p> <p>2.3 Evaluate the causes of changes to the skin when ageing</p> <p>2.4 Explain pathological conditions of the skin which may occur as a result of ageing</p> <p>2.5 Explain the ageing effect of UV on the skin</p> <p>2.6 Recommend precautions to minimise damage caused by UV light</p>	<p>2.1.1 To include: ▪ Loss of cell function ▪ DNA damage ▪ Reduction in healing abilities ▪ Increase in healing time</p> <p>2.2.1 To include: ▪ Epidermis ▪ Dermis ▪ Subcutaneous tissue/Hypodermis</p> <p>2.3.1 To include: ▪ Biological ▪ Chronological ▪ Intrinsic ▪ Extrinsic</p> <p>2.4.1 To include: ▪ Thin skin ▪ Pigmentation ▪ Elastosis ▪ Solar Elastosis ▪ Dehydrated skin ▪ Dry skin ▪ Loss of subcutaneous tissue - poor thermoregulation ▪ Haematomas ▪ Cherry angiomas ▪ Hyperplasia e.g. skin tags etc. ▪ Decreased cellular renewal ▪ Melanomas ▪ Allergies ▪ Increased incidence of skin disorders i.e. psoriasis, eczema ▪ Pressure ulcers ▪ Increased incidence of skin infections</p> <p>2.5.1 To include: ▪ Light spectrum ▪ UVA ▪ UVB ▪ UVC ▪ Melanocytes ▪ Melanin production and function ▪ The effects of UV light exposure on the skin ▪ Effects of prolonged exposure</p> <p>2.6.1 To include: ▪ Physical barriers e.g. hats, clothing ▪ Avoid or limit exposure ▪ Nutritional protection e.g. Vitamin C, antioxidants ▪ Time of exposure ▪ Sunscreens ▪ Sun Protection Factor (SPF)</p>
<p>Learning outcome The Learner will:</p> <p>3. Understand the cause and effects of degenerative</p>	

disorders as a result of the ageing process	
Assessment Criteria	Taught Content
<p>3.1 Explain possible causes of degenerative disorders and their effects on the:</p> <p>Skeletal system Muscular system Nervous system Cardiovascular system Immune system Respiratory system</p> <p>3.2 Describe contraindications to beauty therapy treatments when a degenerative disorder is present</p>	<p>3.1.1 To include:</p> <p>Skeletal system: ▪ Loss of bone mass ▪ Brittle bones ▪ Spinal curvature ▪ Postural deformities ▪ Joint degeneration ▪ Stiffness ▪ Fractures ▪ Osteo Arthritis ▪ Osteoporosis</p> <p>Muscular system: ▪ Atrophy ▪ Stiffness ▪ Inflammation ▪ Pain ▪ Polymyalgia rheumatica</p> <p>Nervous system: ▪ Loss of sensation ▪ Paresthesia ▪ Reduction in reflexes ▪ Alzheimer’s disease ▪ Parkinson’s disease ▪ Multiple sclerosis</p> <p>Cardiovascular system: ▪ Decrease in blood volume ▪ Thickening/hardening of blood vessels ▪ Atherosclerosis ▪ Cardiovascular diseases e.g. heart disease, angina, heart failure, Transient ischemic attacks (TIA) ▪ Hypertension ▪ Varicose veins ▪ Deep vein thrombosis</p> <p>Immune system: ▪ Reduction in immunity ▪ Reduction in lymphocytes ▪ Reduction in lymphatic circulation ▪ Rheumatoid Arthritis</p> <p>Respiratory system: ▪ Reduction in lung capacity ▪ Loss of lung tissue elasticity ▪ Pneumonia ▪ Emphysema</p> <p>3.2.1 To include:</p> <ul style="list-style-type: none"> ▪ Understanding of when medical, GP or Specialist permission is required ▪ Understanding when informed consent is required ▪ Understanding when contraindications restrict treatment ▪ Scope of practice ▪ Referral
<p>Learning outcome The Learner will:</p> <p>4. Understand how beauty therapy treatments and products may delay the ageing process</p>	

<p>4.1 Justify how beauty therapy treatments and products may delay the skin ageing process</p> <p>4.2 Evaluate the performance of beauty therapy treatments and products considered to delay the ageing process</p>	<p>4.1.1 To include:</p> <ul style="list-style-type: none"> • Corrective/active skincare products: e.g. • Cleansers • Serums • Anti-oxidants • Phytosterols • Phytohormones • Moisturisers • Sunscreens • Skin lighteners • Cosmeceuticals • Peels: e.g. • Hydroxy Acids • Lactic acid • Phenol (carbolic acid) • Trichloroacetic acid (TCA) • Vitamin A • Galvanic treatments • Microcurrent treatments • Microdermabrasion treatments • Intense pulsed light treatments • Laser treatments • Light Emitting Diodes (LED) • Radio frequency therapy • Photodynamic therapy (PDT) • Skin needling • Facial Massage • Nutritional supplements e.g. Omega 3 and 6 Fatty Acids • Antioxidants • Vitamin C <p>4.2.1 To include:</p> <ul style="list-style-type: none"> • Methods of evaluation • Corrective/active skincare products: e.g. • Cleansers • Serums • Anti-oxidants • Phytosterols • Phytohormones • Moisturisers • Sunscreens • Skin lighteners • Cosmeceuticals • Peels: e.g. • Hydroxy Acids • Lactic acid • Phenol (carbolic acid) • Trichloroacetic acid (TCA) • Vitamin A • Galvanic treatments • Microcurrent treatments • Microdermabrasion treatments • Intense pulsed light treatments • Laser treatments • Light Emitting Diodes (LED) • Radio frequency therapy • Photodynamic therapy (PDT) • Skin needling • Facial Massage • Nutritional supplements e.g. Omega 3 and 6 Fatty Acids • Anti-oxidants • Vitamin C • Knowledge of common cosmetic surgery procedures
<p>Unit 861 – Physiology of Ageing</p> <p>Assignment All Learners will be assessed via an assignment for this unit. For details please see www.itecworld.co.uk</p>	<p>Unit 861 – Physiology of Ageing</p> <p>Unit 861 – Physiology of Ageing assignment should be evidenced using assignment guidance and assessment forms AG861 and AA861 which may be downloaded from www.itecworld.co.uk</p>