

SCHEME OF WORK APPLICATION FORM

For each ITEC qualification, the Lecturer/Centre must complete Scheme of Work for each unit indicating how the Lecturer is planning to cover the ITEC syllabus throughout the course.

Set out the planned sessions in terms of *Learning Outcomes* to be achieved. These should match those stated within the ITEC syllabus for each unit. Include all units of each course offered. Hours should meet the minimum guided learning hours listed within the syllabus.

Unit Title: Unit 861 – Physiology of Ageing

Lecturer(s) responsible:

Total contact tuition hours proposed: 64

| Learning Outcomes | Lecture Content | Suggested Resources | Approx Hours |
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| Introductory session | College rules and regulations College mission statement ITEC rules and regulations Health & Safety Timetable Dates – holidays etc. Syllabus Recommended books Uniform | Lecture Q&A Using all the documents listed to ensure the students understand the college expectations and their commitment to the course | |
| 1. Understand the nature of ageing | | | |
| Describe the characteristics of ageing Explain the differences between intrinsic and extrinsic environmental effects on the skin which contribute to the ageing process Critically compare different theories of ageing Explain the ageing process in cells and tissues | <ul style="list-style-type: none"> Physical changes Psychological changes Biological ageing Chronological ageing <ul style="list-style-type: none"> Senescence Heredity factors Chronologic age Free radicals MMP activation Hormones Environment Temperature changes UV light Pollution Diet Smoking Medication Alcohol Lifestyle Occupation Exercise Sleep Stress Relaxation Illness Medication Current regime Theories of ageing e.g. <ul style="list-style-type: none"> Evolutionary theories Programmed theories Immunological theory Wear and tear theory Cross-linking theory Free radical theory etc. Cells: <ul style="list-style-type: none"> Lipid loss Loss of function Mutation DNA damage Tissues: <ul style="list-style-type: none"> Atrophy Loss of function Waste accumulation Stiffness Degeneration | OHP/Whiteboard Lecture Q&A Homework Test | 21 |
| 2. Understand the causes and effects of ageing of the skin | | | |

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| <p>Analyse the changes which occur to the repair mechanisms of the skin with ageing</p> <p>Explain how ageing causes microscopic changes to the structure of skin</p> <p>Evaluate the causes of changes to the skin when ageing</p> <p>Explain pathological conditions of the skin which may occur as a result of ageing</p> <p>Explain the ageing effect of UV on the skin</p> <p>Recommend precautions to minimise damage caused by UV light</p> | <ul style="list-style-type: none"> ▪ Loss of cell function ▪ DNA damage ▪ Reduction in healing abilities ▪ Increase in healing time ▪ Epidermis ▪ Dermis ▪ Subcutaneous tissue/Hypodermis ▪ Biological ▪ Chronological ▪ Intrinsic ▪ Extrinsic ▪ 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 ▪ Light spectrum ▪ UVA ▪ UVB ▪ UVC ▪ Melanocytes ▪ Melanin production and function ▪ The effects of UV light exposure on the skin ▪ Effects of prolonged exposure ▪ 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>OHP/Whiteboard Lecture Q&A Handout Homework Test</p> | <p>21</p> |
| <p>3. Understand the cause and effects of degenerative disorders as a result of the ageing process</p> | | | |
| <p>Explain possible causes of degenerative disorders and their effects on the:</p> <p>Skeletal system</p> <p>Muscular system</p> <p>Nervous system</p> <p>Cardiovascular system</p> <p>Immune system</p> <p>Respiratory system</p> | <p>Skeletal system:</p> <ul style="list-style-type: none"> ▪ Loss of bone mass ▪ Brittle bones ▪ Spinal curvature ▪ Postural deformities ▪ Joint degeneration ▪ Stiffness ▪ Fractures ▪ Osteo Arthritis ▪ Osteoporosis <p>Muscular system:</p> <ul style="list-style-type: none"> ▪ Atrophy ▪ Stiffness ▪ Inflammation ▪ Pain ▪ Polymyalgia rheumatica <p>Nervous system:</p> <ul style="list-style-type: none"> ▪ Loss of sensation ▪ Paresthesia ▪ Reduction in reflexes ▪ Alzheimer's disease | | <p>11</p> |

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| | <ul style="list-style-type: none"> • 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 | | |
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