Scheme of work

For each VTCT (ITEC) qualification, the lecturer/centre must complete a scheme of work for each unit indicating how the Lecturer is planning to cover the unit content throughout the course. Set out the planned sessions in terms of learning outcomes to be achieved. These should match those stated within the VTCT (ITEC) unit specification. Include all units of each course offered. Hours should meet the minimum guided learning hours listed within the unit specification.

Unit title: iUSP158 - Conduct complex assessment for sports massage

Total contact tuition hours proposed: 42

Lecturer(s) responsible:

Learning objectives	Lecture content	Suggested resources	Approx. hours
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	
LO1 Understand neurological presentations			
Describe the pathways of peripheral nerves	• Receptors: - Exteroceptors - Interoceptors - Proprioceptors • Sensory modalities: - Somatic senses - Visceral senses - Special senses • 12 pairs of cranial nerves - Sensory - Motor	• Whiteboard • Lecture • Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	12

	- Mixed • 31 pairs of spinal nerves - Cervical - Thoracic - Lumbar - Sacral - Coccygeal • Nerve plexuses (cervical, brachial, lumbosacral) • Intercostal nerves • Posterior root and posterior root ganglion • Anterior root • Somatic nerves (motor & sensory) • Autonomic nerves (motor & sensory) (sympathetic, parasympathetic) • Enteric nerves (motor & sensory) • Ganglia • Synapses		
Define the characteristics of: • Dermatomes • Myotomes	• Dermatomes: - Spinal nerves and sensation • Myotomes: - Motor supply and muscles: ▪ C1/C2, neck flexion/extension ▪ C3, neck lateral flexion ▪ C4, shoulder elevation ▪ C5, shoulder abduction ▪ C6, elbow flexion/wrist extension ▪ C7, elbow extension/wrist flexion ▪ C8, finger flexion ▪ T1, finger abduction ▪ L2, hip flexion ▪ L3, knee extension ▪ L4, ankle dorsi-flexion ▪ L5, great toe extension ▪ S1, ankle plantar-flexion/foot eversion/hip extension ▪ S2, knee flexion ▪ perineal reflex		
Explain the organisation of dermatomes	• Cranial nerve: - Trigeminal nerve: anterior scalp and face • Spinal nerves: - C2 Posterior head - C3-T1 Neck, arms and hands - T2-L1 Trunk		

	- L2-S2 Legs and feet - S3-S5 Perineum		
Describe common causes of neurological damage	• Nerve lesions • Nerve compression • Inflammation • Diabetes • Ischaemia • Alcoholism • Cancer • Herpes zoster (shingles) • Lyme disease • Chemotherapy • Radiation therapy • Repeated micro-trauma • Parkinson's disease • Multiple sclerosis • Cerebral palsy • Coeliac disease • Kidney disease • Systemic lupus erythematosus • Rheumatoid arthritis • Neuromas • Human Immunodeficiency virus (HIV) • Spondylosis • Intramuscular haematoma		
Describe common peripheral neuropathy patterns	• Sciatica • Femoral neuropathy • Obturator neuropathy • Carpal tunnel syndrome • Morton's neuroma • Piriformis syndrome • Trigeminal neuralgia • Bell's palsy • Ulnar nerve palsy • Radial nerve palsy • Peroneal nerve palsy • Diabetic neuropathy • Cervical spondylosis		

	• Axillary nerve palsy • Brachial neuritis • Optic neuritis • Vestibular neuritis • Spinal cord injuries • Intervertebral disc prolapse		
Describe presentations that warrant neurological testing	• Radicular pain • Paraesthesia: - pins and needles - formication - tingling - tickling - pricking - burning sensations • Muscular weakness • Muscular flaccidity • Loss of mobility • Loss of sensation • Involuntary muscle contractions • Difficulty in masticating • Loss of bladder or bowel control • Tremors • Fasciculation		
Describe the pathophysiology of common neurological injuries/soft tissue dysfunction	• Ankle/foot/lower leg - Sprains: ▪ Anterior talofibular ligament ▪ Calcaneofibular ligament ▪ Posterior talofibular ligament ▪ Medial ligament - Syndesmosis injury - Fractures of the ankle region - Osteochondritis dissecans of the talus - Ankle hyperflexion or hyperextension injuries - Peroneal tendon dislocation - Tibialis posterior syndrome - Calcaneal bursitis - Plantar fasciitis - Tarsal tunnel syndrome - Entrapment of medial calcaneal nerve - Stress fractures:		

	▪ Calcaneus ▪ Navicular ▪ Metatarsals - Fractures of talus, calcaneus and metatarsals - Pes planus - Pes cavus - Hallux valgus - Hammer toe - Hallux rigidus - Morton's neuroma - Compartment syndromes - Intermuscular and intramuscular haematoma - Tibialis anterior syndrome - Stress fractures to tibia and fibula - Medial tibial stress syndrome (shin splints) - Gastrocnemius and soleus strain - Common peroneal nerve injury - Achilles tendon rupture - Achilles tendinitis • Thigh/knee - Ligament sprains: ▪ Medial collateral ▪ Lateral collateral ▪ Anterior cruciate ▪ Posterior cruciate - Meniscal tears - Articular cartilage injuries - Osteochondritis dissecans - Patello-femoral pain syndrome (chondromalacia patellae) - Patella dislocation - Patellar tendon injury - Osgood-Schlatter's disease - Bursitis - Baker's cyst - Iliotibial band syndrome - Patellar fractures - Quadriceps strains - Hamstring strains • Hip region - Adductor strains - Ilio-psoas (flexor) strain - Strain to upper rectus femoris - Inflammation and strain to abdominal muscles		

	- Osteoarthritis - Hip dislocation - Fractures to neck and shaft of femur - Inguinal hernia - Piriformis syndrome - Sciatica - Femoral neuropathy - Obturator neuropathy - Sacroiliac inflammation and dysfunction - Osteitis pubis - Trochanteric bursitis - Perthes disease • Shoulder region - Shoulder dislocation - Acromioclavicular injury - Sternoclavicular injury - Glenoid labrum tear - Rotator cuff tears - Subacromial bursitis - Impingement syndrome - Dislocation of long head of biceps muscle - Nerve injuries: ▪ Suprascapular nerve ▪ Axillary nerve ▪ Long thoracic nerve ▪ Pectoralis major rupture - Rupture to long head of biceps - Rupture of triceps tendon - Axillary nerve palsy • Elbow injuries - Lateral epicondylitis - Medial epicondylitis - Entrapment to radial, ulnar and median nerves - Olecranon bursitis - Elbow dislocation - Osteochondritis dissecans - Fractures: ▪ Distal humerus (supracondylar fracture) ▪ Head of radius ▪ Olecranon fracture • Wrist and hand injuries - Colles' fracture - Scaphoid fracture		

	- Carpal tunnel syndrome - De Quervain's disease - Ulnar neuritis - Lunate dislocation - Perilunar dislocation - Scaphoid and lunate separation - Kienböck's disease - Fracture to the hook of hamate - Metacarpal fractures - Ulnar collateral ligament rupture - Mallet finger - Finger-dislocations - Infections to the fingers and palms - Dupuytren's contracture - Volkmann's contracture • Back and neck - Torticollis - Brachial plexus lesions - Spondylolysis - Spondylolisthesis - Bechterew's disease - Scoliosis - Kyphosis - Lordosis - Scheuermann's disease - Spinal stenosis - Intervertebral disc prolapse - Sciatica - Ankylosing spondylitis - Muscle strains - Ligament sprains - Facet syndrome		
Explain the importance of referral for neurological testing	• Radiating pain and/or paraesthesia on objective testing • Aggravated by objective testing • Does not fit a specific peripheral nerve pattern • Always refer with positive SLR slump or Valsalva test • Presence of red or yellow flags		

LO2 Understand sports specific posture and gait			
Explain the phases of the gait cycle	• Stance phase: - Heel strike	• Whiteboard	5

	- Foot flat - Mid-stance - Toe off • Swing phase: - Acceleration - Mid-swing - Deceleration	• Lecture • Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	
Outline the different methods used to analyse gait	• Visual • Recording • Pressure mats		
Describe foot deformities and their effects on gait	• Pes planus • Pes cavus • Morton's foot • Pronated foot • Supinated foot • Plantar-flexed first ray • Hammer toes • Congenital talipes equinovarus		
Describe gait abnormalities	• Propulsive gait • Scissors gait • Spastic gait • Circumduction gait • Hip hiking • Vaulting • Steppage gait • Waddling gait • Forward trunk bending • Backward trunk bending • Lateral trunk bending • Internal hip rotation • External hip rotation		
Explain how postural deviations can affect sporting performance	• Range of motion • Centre of gravity • Balance and vestibular function • Coordination • Head and eye position • Kinaesthetic awareness and proprioception • Risk of injury		

	• Strength and power		
Understand the principles of sports specific posture analysis	• Review of specific sport and exercise programme • Sports-specific stresses and injury patterns • Asymmetrical usage and development • Other occupations of athletes • Hereditary and genetic factors • Indicators of illness and pathology • Post-injury atrophy and stiffness • Acute and chronic imbalances • Primary, secondary, adaptation and compensatory dysfunctions • Lateral gravity line: - Symmetry/asymmetry tests • Anteroposterior gravity line: - Primary (kyphotic) curves - Secondary (lordotic) curves) - Head and shoulder position - Pelvic alignment - Hip, knee and ankle position • Predictable patterns of dysfunction: - Upper and lower crossed syndromes		

LO3 Be able to undertake assessment of sports specific postures and gait			
Carry out gait analysis	• Walking - Front - Rear - Side view • Base width • Swing width • Step length • Stride length • Abnormalities • Pelvic tilts • Pelvic hitch • Movement in the lumbar spine, hip, knee and ankle • Pronation • Supination • Strike	• Whiteboard • Lecture • Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	5

Interpret findings identifying strengths and areas for improvement	• Asymmetry of stride • Pathologic gait pattern • Dysfunctional gait pattern (in the absence of pathology) • Swing of arms • Heel strike • Toe off • Spinal motion • Adaptation of shoulders • Hip motion		

LO4 Understand the principles and practice of complex assessment methods for sports massage			
Critically evaluate the range of complex assessment methods used to gather information: • Subjective • Range of movement (active/passive) • Resisted (Isometric) • Postural analysis • Special tests (ligamentous/neural)	Subjective assessment: • Nature and purpose of subjective assessment • Validity and reliability of data • Accuracy of information • Possibility of deception • Interpretation of symptoms Range of movement: • Reproducibility of testing • Use of visual estimation versus goniometry • Purposes of active and passive testing • Role of palpation and end feel • Concepts of ease and bind • Elastic, anatomic, physiologic, restrictive barriers • Tissues involved in the creation of barriers • Perception and apprehension of client • Range and quality of motion Resisted testing: • Assessment of strength • Elicitation of pain on resisted testing • Reliability of testing • Bilateral comparison Postural analysis: • Use of palpation with observation • Bilateral comparison in lateral gravity line • Deviation from the anteroposterior gravity line • Use of bony landmarks • Role of postural muscles	• Whiteboard • Lecture • Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	10

	• Anomalies in coronal, sagittal and horizontal planes • Bases of support - Sacral base - Feet • Centre of gravity • Patterns of fascial stress Special tests • Ankle and lower leg: - Specific range of motion and strength testing - Inversion talar tilt test - Eversion talar tilt test - Anterior drawer test - Squeeze test - Intermetatarsal glide test - Interdigital neuroma test - Homan's sign test - Metatarsal fracture test - Tinel's sign test - Thompson's test - Pes planus test • Knee: - Specific range of motion and strength testing - Collateral ligament stability tests - Apley compression and distraction test - McMurray test - Steinmann test - Anterior drawer test - Posterior drawer test - Patellar compression test - Patellar glide test - Slocum test - Lachmann test - Quadriceps active (PCL) test • Hip: - Specific range of motion and strength testing - FABERE (Patrick) test - Flexion (Thomas) test - Trendelenburg test - Leg length discrepancy testing - Ober test - Gaenslen's sign - Sacroiliac mobility (Gillet's) test		

	- Sacroiliac 'squish' test - Sacroiliac gapping test - Piriformis length test - Ely's test • Spine: - Specific range of motion and strength testing - Straight leg raise - Valsalva manoeuvre - Slump test - Cervical compression and distraction tests - Adson test - Testing reflexes: ▪ Biceps reflex (C5) ▪ Triceps reflex (C7) ▪ Brachioradialis reflex (C6) ▪ Patellar tendon reflex (L4) ▪ Achilles tendon reflex (S1) • Shoulder: - Specific range of motion and strength testing - Apley 'scratch' tests - Drop arm test - Apprehension test - Relocation test - Yergason test - Scapular winging test - Empty can test - Hawkins Kennedy test - Acromioclavicular cross arm test • Elbow: - Specific range of motion and strength testing - Tinel's sign - Medial and lateral epicondylitis tests - Varus and valgus stress tests - Test for cubital tunnel syndrome - Test for pronator teres syndrome • Wrist and hand: - Specific range of motion and strength testing - Finkelstein test - Phalen's test - Tinel's sign - Murphy's sign - Fromet's sign - Long finger flexion test		

	- Allen test for wrist and hand - Bunnel-Littler test - Ligamentous instability tests for wrist and hand		
Explain yellow flags and their potential impact on prognosis	• Necessity for cognitive and behavioural intervention • Depression • Withdrawal from social contact • Negative thought pattern • Loss of motivation • Poor coping strategies: - Avoidance - Alcohol - Drug use • Agoraphobia • Panic attacks		
Explain red flags and the importance of urgent medical referral	• Fever • Neurological deficit • Significant weakness • Unexplained swelling or deformity • Sudden or inexplicable loss of weight • Persistently feeling unwell • Loss of appetite • Pain at night • Bladder or bowel incontinence • Increased muscle tone • Previous history of cancer • Morning stiffness		
Explain the process of clinical reasoning and stages of problem solving	• Hypothetico-deductive model of reasoning • Pattern recognition model of reasoning • Inferential process - Collecting and evaluating subjective and objective data • Interaction between therapist, client and others involved in client care • Ethical reasoning		

LO5 Be able to conduct complex assessment methods for sports massage			
Carry out subjective assessments of clients	• Questions establish: - Personal details - Type of sport or physical activity	• Whiteboard • Lecture	5

	▪ Level of sport or physical activity (novice, club, county, national, international, elite) ▪ Frequency of training or competition ▪ Previous injuries ▪ Medical history and medication ▪ Details of presenting complaint or injury - Consideration of yellow and red flags - Verbal and non-verbal communication - Contra-indications	• Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	
Obtain consent for objective assessment	• Personal or written permission from client, parent, guardian, carer • GP permission • Record keeping and signatures		
Carry out objective assessments of clients	• Posture analysis • Range of movement testing • Strength testing • Special testing • Consideration of yellow and red flags		
Analyse subjective and objective findings	• Discernible reasoning strategy • Eliminate red and yellow flags • Objective data used as a means to confirm or refute subjective data • Formulation of a working hypothesis		
Complete clinical reasoning forms	• Record subjective and objective data • Log hypothesis and reasoning: - Probable condition with predisposing factors • Identify treatment parameters • Recommend referral		
Record clients information in accordance with professional practice requirements	• First point of contact - Personal and GP details - Attain informed consent • Assessment and re-assessment - Subjective data - Objective data - Indications - Contra-indications - Referral - Hypothesis/analysis - Treatment plan - Treatment and aftercare details logged - Evaluation		

Store clients' information as legally required	• Data Protection Act/GDPR • Legislation • Security • Organisation's standards and procedures		

LO6 Be able to devise sport massage treatment plans from information gathered			
Devise treatment plan	• Indications for massage • Adapting the treatment to meet the needs of the client • Soft tissue techniques • Aftercare/home care advice	• Whiteboard • Lecture • Q&A • Handout • Internet • Learning Apps • Books • Homework • Test	5
Explain rationale for chosen massage strategies	• Aims and objectives • Procedures • Techniques • Adaptations		
Present massage strategies and rationale to clients	• Nature • Purpose • Process		
Obtain consent to treatment	• Personal or written permission from the parent/guardian/carer is recommended if treating a client under 16 years of age • From a guardian/carer if a client is too ill to consent themselves • Having a chaperone present if necessary • Organisational procedures and policies regarding approved guidelines for the presence of a chaperone • From a GP if the client is taking medication or contraindicated in any way • Adequate disclosure of information: e.g. nature and purpose of treatment, its risk and consequences, alternative course of treatment • Competency • Welfare of client • Capacity for decision making • Client choice • Good practice • Ethical principles • Code of Conduct • Integrity • Respect • Professionalism		

	• Consultation form (an example of a consultation form can be downloaded from www.itecworld.co.uk) • Client signature		

Document History

Version	Issue Date	Changes	Role
v1	03/09/2019	First published	Qualifications and Regulation Co-ordinator