

Subject Outline

Subject Name:	<i>Musculoskeletal Therapy Techniques to the Axial Skeleton</i>
Subject Code:	<i>MSTT315</i>
Award(s):	<i>Bachelor of Health Science (Musculoskeletal Therapy)</i>
Core/Elective:	<i>Core – 2 credit point subject</i>
Pre/co-requisites:	<i>MSTC223, BIOE221</i>
Student Workload:	39 hours face to face 36 hours self-directed study
Delivery Mode:	Face to face <ul style="list-style-type: none"> • 3 hours lecture/practical Full Time Part Time
Subject Coordinator:	<i>Emrys Goldsworthy (Brisbane campus)</i>
Subject Rationale:	<ul style="list-style-type: none"> • This unit's purpose is to extend the students understanding of musculoskeletal therapy through the knowledge and skills required to apply segmental joint mobility assessment and segmental mobilisation of the axial skeleton. • This subject will build on foundational treatment and assessment techniques studied in MSTT223 and MSTT224. • Students will develop a thorough knowledge of segmental joint mobility assessment, and segmental mobilisations to the axial skeleton. • These skills will be applied to the cervical, thoracic and lumbar spine, sacroiliac joints, and the junction joints of the cervicothoracic, thoracolumbar and lumbosacral joints, plus the joints relating to the ribs. • Students will also learn the concepts of how these techniques will be able to help the student treat conditions common to a musculoskeletal therapist. • In addition students will be expected to demonstrate and know the rationale of special tests relating to the regions previously covered in subjects leading up to this subject. • This subject is a pre-requisite for: <ul style="list-style-type: none"> ○ MSTC314 Musculoskeletal Clinical Practice 4

Learning Outcomes:

1.	Demonstrate accurate application of joint play and mobilisation techniques at the segmental joint level.
2.	Demonstrate exercise prescription that addresses a patient's condition.
3.	Explain the rationale for the choice and use of particular techniques.
4.	Apply knowledge to clinical examples appropriately.
5.	Observe precautions and contraindications to treatment.
6.	Demonstrate professional conduct at all times with patient management.



Content:

Week	Lecture/Practical
1.	The Maitland Concept <ul style="list-style-type: none">• Principles• Clinical reasoning Examination of the Lumbar Spine and Sacroiliac Joints <ul style="list-style-type: none">• Subjective examination• Objective examination Nociception <ul style="list-style-type: none">• Primary Nociception Chronic Pain
2.	Examination of the Lumbar Spine <ul style="list-style-type: none">• Observation• Active Movement• Passive Accessory Motion• Passive Range of Physiological Movements of Single Intervertebral Joints Review of Sacroiliac and Hip Joint Examination
3.	Neurological Examination of the Lumbar Spine <ul style="list-style-type: none">• Sensory Exam• Muscle Function Testing• Reflex Testing• Neurodynamic Testing
4.	Joint Mobilisation of the Lumbar Spine <ul style="list-style-type: none">• Introduction to Joint Mobilisation• Grading of Mobilisation Posterior to Anterior Central Vertebral Pressure (PACVP), Posterior to Anterior Unilateral Vertebral Pressure (PAUVP), Transverse Vertebral Pressure (TVP), Anterior to Posterior Central Vertebral Pressure , Physiological Mobilisations – Rotation and Flexion and Longitudinal Movements.
5.	Examination and Joint Mobilisation for the Sacroiliac Joints and Pubic Symphysis <ul style="list-style-type: none">• Form and Force Closure Principles• Research on the SIJ• Review of Testing for SIJ• Posterior to Anterior Pressure on the Sacrum• Posterior to Anterior Pressure on the Ilium• Ilium Rotations• Pubic Symphysis Glides Lumbopelvic Case Studies Disc Pathologies <ul style="list-style-type: none">• Mechanical Effects of Joint Mobilisation
6.	Mid-Semester Practical Exam
7.	Exercise Therapy for the Lumbopelvic Region <ul style="list-style-type: none">• Core Stability Principles• Assessment of Core Stability



	<ul style="list-style-type: none"> Phase 1-2 exercises Treating Acute Lower Back Pain
	NON-TEACHING WEEK (note that make-up classes may be scheduled in this week) Semester 1 - This aligns with the week after Easter so it may fall between weeks 6 to 8. Semester 2 - The break week falls between Weeks 7 and 8.
8.	Examination of the Cervical Spine <ul style="list-style-type: none"> Clinical Reasoning Observation Active Movements Passive Movements
9.	Joint and Neurological Examination of the Cervical Spine <ul style="list-style-type: none"> Cervical Compression Testing VAI Testing Palpation and Accessory Motion PAUVP, PACVP, TVP, APUVP
10.	Joint Mobilisation of the Cervical Spine <ul style="list-style-type: none"> Longitudinal Movements PAUVP, PACVP, TVP, APUVP Rotation Lateral Flexion Flexion
11.	Examination of the Thoracic Spine <ul style="list-style-type: none"> Clinical Reasoning Observation Active Movements Passive Movements
12.	Joint Mobilisation of the Thoracic Spine <ul style="list-style-type: none"> PAUVP, PACVP, TVP Rotation Mechanics of Breathing Costal Joint Mobilisation <ul style="list-style-type: none"> PA Costal Pressure First Rib Mobilisation
13.	Rehabilitation of the Cervical Spine <ul style="list-style-type: none"> Deep Cervical Flexor Training Cervicothoracic Extensor Training Case Studies of the Region Case Study Assignment Due
14.	Study Week / Practical Exam Period
15-16.	Final Exam Period Please refer to your Campus Timetable for the exact time and day of the final exam

Set Text Requirements:

1. Brukner, P., & Khan, K. (Eds.). (2012). <i>Clinical sports medicine</i> (4th ed.). North Ryde, NSW: McGraw Hill. [ebook available]
2. Hengeveld, E., & Banks, K. (Eds.). (2014). <i>Maitland's vertebral manipulation: Management of neuromusculoskeletal disorders</i> (8th ed., Vol. 1). Edinburgh, Scotland: Churchill Livingstone Elsevier. [ebook available]
3. Neumann, D.A. (2010). <i>Kinesiology of the musculoskeletal system</i> (2nd ed.). Sydney, NSW: Elsevier.

Recommended readings:

1. Butler, D.S. (2000). <i>The sensitive nervous system</i> . Adelaide. SA: Noigroup Publications.
2. Magee, D.J. (2013). <i>Orthopedic physical assessment</i> (6th ed.). St. Louis, MO: Elsevier. [ebook available]
3. Wise, C.H., & Gulick, D.T. (2009). <i>Mobilization notes: A rehabilitation specialist's pocket guide</i> . Philadelphia, PA: F.A. Davis Company. [ebook available]

Special Resource Requirements:

1. Two bath-sheet sized towels per student (Clinic towels must not be used)

Assessment Tasks:

Assessment Item	Topic/s	Learning Outcomes assessed (LO)	Week Content Delivered	Week Due	Weighting
Ongoing Skills & Participation Assessment	Participation and attendance in skills based classes.	1-6	1-13	Ongoing	20%
Mid-semester Practical Assessment	Demonstration of application of skills.	1,3-6	1-5	6	30%
Case Study Assignment (2000 words)	A case scenario requiring a student to prescribe a group of exercises that addresses the patient's condition.	2	1-12	13	20%
Final Practical Exam	Demonstration of application of skills.	1, 3-6	7-13	Practical Exam Period	30%

Formative assessment will be undertaken early in the subject and then on a regular basis throughout the duration of the subject to provide students and staff with feedback on the learning. It may take the form of quizzes, small group and classroom presentations, writing activities, peer review where appropriate.

Early formative assessment would be used to determine any necessary intervention strategies to ensure students are able to complete the program in the normal subject duration.

Feedback will also be provided on summative assessment undertaken during semester.