



SUBJECT OUTLINE

Subject Name:

Subject Code:

Advanced Myotherapy Assessment and Treatment Techniques

MSTT317

SECTION 1 – GENERAL INFORMATION

Award/s:	Total Course Credit Points:	Level:
Bachelor of Health Science (Myotherapy)	96	3 rd Year
Duration: 1 Semester		
Subject is: Core	Subject Credit Points: 4	

Student Workload:		
No. timetabled hours per week: 6	No. personal study hours per week: 4	Total hours per week: 10
Delivery Mode*:		
<input type="checkbox"/> On campus	<input type="checkbox"/> Online / Digital	<input checked="" type="checkbox"/> Blended
<input type="checkbox"/> Intensive		
Weekly Session^ Format/s - 2 sessions per week:		
<input checked="" type="checkbox"/> On campus practical tutorials:	<input type="checkbox"/> 1 hour <input checked="" type="checkbox"/> 2 hours	2 x 2 hour practical sessions per week
<input checked="" type="checkbox"/> Livestream lectures:	<input checked="" type="checkbox"/> 2 hours <input type="checkbox"/> 3 hours	1 x 2 hour lecture per week
<p>*All modes are supported by the online learning management system which will include subject documents such as handouts, readings and assessment guides.</p> <p>^A 'session' is made up of 3 hours of timetabled / online study time per week unless otherwise specified. Each subject has a set number of sessions as outlined above.</p> <p>Note: As they are aware, international students on a Student Visa (500) must attend livestream classes on their local campus, using the Virtual Classrooms provided.</p>		
Study Pattern: <input checked="" type="checkbox"/> Full Time <input checked="" type="checkbox"/> Part Time		
Pre-requisites: MSTC223, MSTT223, MSTT224		
Co-requisites: Nil		
Special Resource Requirements: Clinical equipment kit including: <ul style="list-style-type: none"> ➤ Goniometer ➤ Measuring tape ➤ Mulligan belt ➤ Penlight ➤ Sphygmomanometer ➤ Stethoscope 		



SECTION 2 – ACADEMIC DETAILS

Subject Rationale

The purpose of this subject is to expand the students' understanding of myotherapy through the acquisition of specialised knowledge of joint arthrokinematics and osteokinematics on the axial and appendicular skeleton. This is required to develop skills in differentiating regional symptomology relating to neuropathic pain, executing axial joint and peripheral joint mobility assessment and applying segmental mobilisation to the axial and appendicular skeleton. Students will apply conceptual frameworks, clinical reasoning, and evaluation when making clinical decisions regarding the assessment and treatment of musculoskeletal disorders.

Learning Outcomes

1. Demonstrate accurate application of joint and neural examination, joint mobilisation and neural mobilisation for the appendicular and axial skeleton.
2. Describe normal joint biomechanics and pathomechanics in relation to the appendicular and axial skeleton.
3. Explain the rationale for the choice and use of particular techniques.
4. Apply knowledge of the Maitland concept, Mulligan concept and neural mobilisation techniques to clinical examples appropriately.
5. Consider precautions and contraindications to treatment.

Assessment Tasks

Type	Learning Outcomes Assessed	Week Content Delivered	Due	Weighting
Attendance (80% required)	N/A	N/A	Week 1 - 13	Pass/Fail
Mid-semester Practical Exam (30 min)	1,3-5	1-5	Week 6	20%
Final Practical Exam (30min)	1,3-5	1 – 13	Week 13	40%
Final Written Exam (2 hours)	2-5	1-13	Final Examination Period	40%

All written assessments and online quizzes are due at 11:55 p.m. Sunday and submitted through the LMS



Prescribed Readings:

1. Butler, D.S. (2005), *The neurodynamic techniques: A definitive guide from the Noigroup team*. Noigroup Publications
2. Hing, W., Hall, T., Rivett, D., Vincenzino, B., & Mulligan, B. (2015). *The Mulligan concept of manual therapy: Textbook of techniques*. Elsevier.

Recommended Readings:

1. Butler, D.S. (2000), *The sensitive nervous system*. NoiGroup Publications.
2. Hengeveld, E., & Banks, K. (Eds.). (2010). *Maitland's clinical companion: An essential guide for students*. Churchill Livingstone Elsevier. [ebook available]
3. Neumann, D. A. (2017). *Kinesiology of the musculoskeletal system: Foundations for rehabilitation* (3rd ed.). Mosby.

Subject Content		
Week	Lectures	Tutorials / Practicals
1.	<p>Introduction (Subject Outline / Subject Aims / Assessment / Teaching Resources)</p> <p>Models for Myotherapy Practice</p> <ul style="list-style-type: none"> ➤ Revision of the Maitland concept ➤ Introduction to the Mulligan concept and mobilisation with movement ➤ Introduction to neurodynamics and nerve mobilisation techniques <p>Clinically Oriented Anatomy of the Craniocervical Region</p> <ul style="list-style-type: none"> ➤ Skeletal anatomy of the cervical spine and temporomandibular joint ➤ Cranial nerve pathways and innervations ➤ Cervical plexus and peripheral nerve pathways and innervations <p>Clinical Presentation of Craniocervical Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the craniocervical region ➤ Common conditions affecting the head, neck and face 	<p>Neuromusculoskeletal Examination of the Craniocervical Region</p> <ul style="list-style-type: none"> ➤ Demonstration of advanced assessment of the craniocervical region with reference to clinical examples of pain, dysfunction and disability ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Supervised student practice of assessment techniques <p>Mobilisation with Movement of the Craniocervical Region</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation and mobilisation with movement ➤ Demonstration of mobilisation techniques to the cervical spine with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of joint mobilisation with movement
2.	<p>Clinically Oriented Anatomy of the Upper Limb</p>	<p>Neural Mobilisation to the Craniocervical Region</p>



	<ul style="list-style-type: none"> ➤ Skeletal anatomy of the shoulder complex and upper limb ➤ Brachial plexus and peripheral nerve pathways and innervations <p>Clinical Presentation of Shoulder Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the shoulder complex ➤ Common conditions affecting the shoulder complex <p>Case Study Application</p> <ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	<ul style="list-style-type: none"> ➤ Review current research regarding neural mobilisation ➤ Demonstration of neural mobilisation treatment techniques for the trigeminal and greater occipital nerves with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of neural mobilisation treatment <p>Advanced Neuromusculoskeletal Examination of the Shoulder Complex</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the shoulder complex with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of assessment and treatment techniques
3.	<p>Clinical Presentation of Elbow Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the elbow ➤ Common conditions affecting the elbow 	<p>Mobilisation with Movement for the Shoulder Complex</p> <p>Neural Mobilisation to the Shoulder Complex</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of mobilisation techniques of sternoclavicular, acromioclavicular, scapulothoracic and glenohumeral joints with reference to clinical examples of pain, dysfunction and disability ➤ Demonstrate neural mobilisation treatment techniques to the suprascapular and axillary nerves ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques <p>Advanced Neuromusculoskeletal Examination of the Elbow</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the elbow with reference to clinical examples of pain, dysfunction and disability



		<ul style="list-style-type: none"> ➤ Supervised student practice of assessment and treatment techniques
4.	Clinical Presentation of Wrist and Hand Disorders <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the wrist and hand ➤ Common conditions affecting the wrist and hand 	Mobilisation with Movement for the Elbow Neural Mobilisation at the Elbow <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of mobilisation techniques of humeroulnar, humeroradial and proximal radioulnar joints with reference to clinical examples of pain, dysfunction and disability ➤ Demonstrate neural mobilisation treatment techniques to the median, ulnar and radial nerves at the elbow ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques Advanced Neuromusculoskeletal Examination of the Wrist and Hand <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the wrist and hand with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of assessment and treatment techniques
5.	Case Study Application <ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	Joint Mobilisation and Mobilisation with Movement of the Wrist and Hand Neural Mobilisation at the Wrist and Hand <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of joint mobilisation, and mobilisation with movement techniques of the distal radioulnar, radiocarpal and intercarpal joints with reference to clinical examples of pain, dysfunction and disability ➤ Demonstrate neural mobilisation techniques to the median, ulnar and radial nerves at the wrist and hand



		<ul style="list-style-type: none"> ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques <p>Revision and Preparation for Practical Exam</p> <ul style="list-style-type: none"> ➤ Concentrated practice of assessment, mobilisation with movement and neural mobilisation ➤ Case study application and exam preparation
6.	Mid Semester Practical Exam – no theory this week.	
7.	<p>Clinically Oriented Anatomy of the Thoracic Region</p> <ul style="list-style-type: none"> ➤ Skeletal anatomy of the thorax ➤ Thoracic cutaneous nerve pathways and innervations <p>Clinical Presentation of Thoracic Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the thoracic region ➤ Common conditions affecting the thorax 	<p>Advanced Neuromusculoskeletal Examination of the Thoracic Region</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the thorax with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of assessment and treatment techniques <p>Mobilisation with Movement of the Thoracic Region</p> <p>Neural Mobilisation of the Thorax</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of mobilisation, mobilisation with movement and neural mobilisation techniques to the thorax with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of treatment techniques
	<p>NON-TEACHING WEEK (note that make-up classes may be scheduled in this week)</p> <p>Semester 1 – This aligns with the week after Easter so it may fall between Weeks 6 to 8</p> <p>Semester 2 & Online students – The non-teaching week falls between Weeks 7 and 8</p>	
8.	<p>Clinically Oriented Anatomy of the Lumbopelvic Region</p> <ul style="list-style-type: none"> ➤ Skeletal anatomy of the lumbopelvic region ➤ Lumbar and sacral plexuses and peripheral nerve pathways and innervations <p>Clinical Presentation of Lumbopelvic Disorders</p>	<p>Advanced Neuromusculoskeletal Examination of the Lumbopelvic Region</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the lumbar spine and sacroiliac



	<ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the lumbopelvic region ➤ Common conditions affecting the lumbar region 	<p>joints with reference to clinical examples of pain, dysfunction and disability</p> <ul style="list-style-type: none"> ➤ Supervised student practice of assessment and treatment techniques <p>Mobilisation with Movement of the Lumbar Spine and Sacroiliac Joints</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of mobilisation techniques to the lumbar spine and sacroiliac joints with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of treatment techniques
9.	<p>Clinically Oriented Anatomy of the Lower Limb</p> <ul style="list-style-type: none"> ➤ Skeletal anatomy of the lower limb ➤ Review of lumbar and sacral plexuses, peripheral nerve pathways and innervations <p>Clinical Presentation of Hip Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the hip and pelvis ➤ Common conditions affecting the hip and pelvis <p>Case Study Application</p> <ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	<p>Neural Mobilisation of the Lumbopelvic Region</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of neural mobilisation techniques to the neuromeninges with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of treatment techniques <p>Advanced Neuromusculoskeletal Examination of the Hip Region</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the hip and pelvis with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of assessment and treatment techniques
10.	<p>Clinical Presentation of Knee Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the hip and pelvis ➤ Common conditions affecting the hip and pelvis <p>Case Study Application</p>	<p>Mobilisation with Movement of the Hip</p> <p>Neural Mobilisation at the Hip</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of joint mobilisation and mobilisation with movement techniques of the hip



	<ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	<p>with reference to clinical examples of pain, dysfunction and disability</p> <ul style="list-style-type: none"> ➤ Demonstrate neural mobilisation techniques to the femoral, obturator and sciatic nerves at the hip ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques <p>Advanced Neuromusculoskeletal Examination of the Knee Complex</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the knee with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of assessment and treatment techniques
11.	<p>Clinical Presentation of Ankle and Foot Disorders</p> <ul style="list-style-type: none"> ➤ Biomechanics and pathomechanics of the ankle and foot ➤ Common conditions affecting the ankle and foot <p>Case Study Application</p> <ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	<p>Mobilisation with Movement of the Knee Complex</p> <p>Neural Mobilisation at the Knee Complex</p> <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of joint mobilisation and mobilisation with movement techniques to the tibiofemoral, patellofemoral and proximal tibiofibular joints with reference to clinical examples of pain, dysfunction and disability ➤ Demonstrate neural mobilisation techniques to the tibial, common fibular and saphenous nerves at the knee ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques <p>Advanced Neuromusculoskeletal Examination of the Ankle and Foot</p> <ul style="list-style-type: none"> ➤ Demonstrate clinical reasoning to interpret examination findings ➤ Demonstration of advanced assessment techniques of the ankle and foot with reference to clinical examples of pain, dysfunction and disability



		<ul style="list-style-type: none"> ➤ Supervised student practice of assessment and treatment techniques
12.	Problem Based Learning – Integrating Treatment Models into Myotherapy Practice <ul style="list-style-type: none"> ➤ Case study analysis and discussion of biopsychosocial determinants of health ➤ Discussion of evidence-based interventions and patient-centred practice ➤ Application of Maitland & Mulligan models to clinical examples Case Study Application <ul style="list-style-type: none"> ➤ Case interpretation and identification of red / yellow flags, precautions and contraindications ➤ Treatment planning ➤ Integration of examination and treatment techniques 	Mobilisation with Movement Techniques for the Ankle and Foot Neural Mobilisation at the Ankle and Foot <ul style="list-style-type: none"> ➤ Review current research regarding mobilisation, mobilisation with movement and neural mobilisation ➤ Demonstration of mobilisation with movement techniques to the distal tibiofibular, talocrural, subtalar and midfoot and MTP joints with reference to clinical examples of pain, dysfunction and disability ➤ Supervised student practice of mobilisation, mobilisation with movement, and neural mobilisation techniques
13.	Revision <ul style="list-style-type: none"> ➤ Concentrated practice of assessment, mobilisation with movement and neural mobilisation ➤ Case study application and exam preparation 	Final Practical Exam
14.	Non-Teaching Week/Practical Examination Week 1 Note that make-up classes may be scheduled in this week	
15.	Non-Teaching Week/Practical Examination Week 2 Note that make-up classes may be scheduled in this week	
16.	Final Examination Week 1 Students are required to sit examinations using the Respondus Lockdown Browser software per the Examination Policy – Higher Education . Refer to the LMS for exam opening and closing times.	
17.	Final Examination Week 2 Students are required to sit examinations using the Respondus Lockdown Browser software per the Examination Policy – Higher Education . Refer to the LMS for exam opening and closing times.	