

# SUBJECT OUTLINE



Subject Name:

## Myofascial Dry Needling 1

Subject Code:

## MSTM311

### SECTION 1 – GENERAL INFORMATION

<b>Award/s:</b>	<b>Total course credit points:</b>	<b>Level:</b>
Bachelor of Health Science (Musculoskeletal Therapy)	96	3 <sup>rd</sup> Year
Bachelor of Health Science (Myotherapy)	96	3 <sup>rd</sup> Year
<b>Duration:</b> 1 Semester		
<b>Subject Coordinator:</b> Emrys Goldsworthy (Brisbane campus)		
<b>Subject is:</b> Core	<b>Subject Credit Points:</b> 2	

### Student Workload:

<b>No. timetabled hours per week:</b> 3	<b>No. personal study hours per week:</b> 2	<b>Total hours per week:</b> 5
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### Delivery Mode:

Face to face	3 hour practical
Intensive Delivery	Details: Summer School - contact hours are delivered over 3 weeks with 2 x 6 hour days delivered per week. Assessment: Practical participation for intensive delivery is assessed in class. Mid-semester quiz conducted online – will be available for completion in Week 3 of the intensive. Final Practical assessments for the Summer School are completed in an additional session at the end of week 3 of the intensive.
Full Time	
Part Time	

**Pre-requisites:** MSTN121, MSTA212, MSTC223

**Co-requisites:** MSTC314

**Special resource requirements:** Working with Children Check (varies by State)  
Current Provide First Aid (HLTAID003) competency  
Closed-toe leather (or similar) footwear. No sneakers, sandals etc

### SECTION 2 – ACADEMIC DETAILS

#### Subject Rationale

Students are introduced to the historical origins of myofascial dry needling (MDN) and its development over the last hundred years. This subject explores and expands the application of MDN as a valid adjunctive therapy in the treatment of myofascial pain syndrome. This introduction encompasses the principles and techniques of MDN and its application in the reduction of soft tissue contracture.

Students will expand on their existing knowledge of myofascial pain and its role in the assessment and treatment of a range of painful conditions. Protocols pertinent to infection control, personal and clinical hygiene including skin penetration are strengthened to comply with current health and safety regulations. Students will be assessed for demonstrated clinical efficacy, personal and client safety. This subject is a pre-requisite for MSTM322, Myofascial Dry Needling 2.

#### Learning Outcomes

1. Explain the historical developments that led to the classification of myofascial pain syndrome.
2. Identify the clinical characteristics of myofascial pain syndrome.

3. Analyse the neurophysiological mechanisms by which myofascial dry needling (MDN) can contribute to the resolution of myofascial pain syndrome.
4. Demonstrate adherence to workplace health and safety regulations for safe skin penetration and endangerment sites applicable to MDN.
5. Demonstrate clinical efficacy in physical assessment location and selection for therapeutic intervention of MTPs with consideration to relative contraindications and precautions.
6. Demonstrate the ability to differentiate between the application of superficial and deep dry needling and manual therapy techniques.

### Assessment Tasks

Type	Learning Outcomes Assessed	Weeks Content Delivered	Week Due	Weighting
<b>Attendance</b> (80% is required)	N/A	1-12	1-12	Pass/Fail
<b>Online Quiz</b> (30 mins)	1-4	1-4	5	20%
<b>Weekly practical assessment</b> (In-class)	1-6	1-12	3-12	30%
<b>Practical Exam</b> (30 mins per student)	2-6	1-12	13	50%

The overall pass mark for this subject is 50%  
 Additionally, students must pass the Practical Exam with a mark of not less than 50%.

#### Prescribed readings:

1. Dommerholt, J., & Fernández-de-las-Peñas, C. (2013). *Trigger point dry needling: An evidence and clinical-based approach*. Edinburgh, Scotland: Churchill Livingstone. [ebook available]

#### Recommended readings:

1. Garrido, F. V., & Munoz, F. M. (Eds.). (2016). *Advanced techniques in musculoskeletal medicine and physiotherapy using minimally invasive therapies in practice*. Sydney, NSW: Elsevier.
2. Neal-Asher, S. (2014). *The concise book of trigger points* (3rd ed.). Berkeley, CA: North Atlantic Books. [ebook available]

### Subject Content

Week	Practical
1.	<p><b>Demonstration of myofascial dry needling</b></p> <ul style="list-style-type: none"> <li>• Introduction to the methods of the pioneers of myofascial dry needling</li> <li>• Differentiation of the theoretical underpinnings and philosophies of acupuncture and myofascial dry needling.</li> </ul> <p><b>Revision of trigger point locations and referral patterns</b></p> <ul style="list-style-type: none"> <li>• Palpation techniques</li> <li>• Locating key trigger points</li> <li>• Locating satellite trigger points.</li> </ul> <p><b>Familiarisation with barriers to infection:</b></p>

	<ul style="list-style-type: none"> <li>• Handwashing</li> <li>• Gloves</li> <li>• Footwear</li> <li>• Skin sterilisation</li> <li>• Needle insertion and disposal.</li> </ul>
<b>2.</b>	<p><b>Revision of the health and safety regulations pertaining to skin penetration</b></p> <ul style="list-style-type: none"> <li>• Safe disposal of needles and the equipment required to practice safely.</li> <li>• Needling technique using manual or guide tube insertion for SDN and DDN applications.</li> </ul> <p><b>Treatment of trigger points using dry needling</b></p> <ul style="list-style-type: none"> <li>• Mechanisms of trigger point activation/deactivation</li> <li>• Indications for myofascial dry needling</li> <li>• Neurophysiology of pain and the mechanisms of dry needling in the treatment of myofascial pain</li> <li>• Locate painful MTPs for consideration of needle insertion in preference to ischemic pressure.</li> </ul> <p><b>Introduction to needling and demonstration of basic needling application methods</b></p> <ul style="list-style-type: none"> <li>• Disinfection of skin at possible insertion sites.</li> <li>• Practice effective, safe and painless superficial needling techniques with guide-tubed needles.</li> <li>• Practice MTP location and safe needling techniques.</li> <li>• Safe and hygienic needle disposal.</li> </ul> <p>Supervised student practice of demonstrated techniques.</p>
<b>3.</b>	<p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the arm and forearm</b></p> <ul style="list-style-type: none"> <li>• Review endangerment sites, contraindications and precautions to this area.</li> <li>• Demonstration of dry needling to muscles of the upper limb.</li> </ul> <p>Supervised student practice of demonstrated techniques.</p>
<b>4.</b>	<p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the rotator cuff and shoulder</b></p> <ul style="list-style-type: none"> <li>• Review endangerment sites, contraindications and precautions to this area.</li> <li>• Demonstration of dry needling of muscles to the upper limb.</li> </ul> <p>Supervised student practice of demonstrated techniques. Review of the research for dry needling (review of journal articles)</p>
<b>5.</b>	<p><b>Complete Online Quiz this week</b></p> <p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the head, neck and thorax</b></p> <ul style="list-style-type: none"> <li>• Review endangerment sites, contraindications and precautions to this area.</li> <li>• Demonstration of dry needling of muscles to the region.</li> </ul> <p>Supervised student practice of demonstrated techniques. Following an evidence-informed approach to dry needling (review of journal articles)</p>
<b>6.</b>	<p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of pelvis and hip</b></p> <ul style="list-style-type: none"> <li>• Review endangerment sites, contraindications and precautions to this area.</li> <li>• Demonstration of dry needling of muscles to the lower limb.</li> </ul> <p>Supervised student practice of demonstrated techniques.</p>
<b>7.</b>	<p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the thigh (part 1)</b></p> <ul style="list-style-type: none"> <li>• Review endangerment sites, contraindications and precautions to this area.</li> <li>• Demonstration of dry needling of muscles to the thigh.</li> </ul> <p>Supervised student practice of demonstrated techniques.</p>
	<p><b>NON-TEACHING WEEK</b> (note that make-up classes may be scheduled in this week)</p> <p><b>Semester 1</b> - This aligns with the week after Easter so it may fall between weeks 6 to 8.</p> <p><b>Semester 2</b> - The break week falls between Weeks 7 and 8.</p>
<b>8.</b>	<p><b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the thigh (part 2)</b></p>

	<ul style="list-style-type: none"> <li>Review endangerment sites, contraindications and precautions to this area.</li> <li>Demonstration of dry needling of muscles of the thigh.</li> </ul> Supervised student practice of demonstrated techniques.
<b>9.</b>	<b>Anatomy and palpation of specific muscles, trigger points and referral patterns of the leg and foot</b> <ul style="list-style-type: none"> <li>Review endangerment sites, contraindications and precautions to this area.</li> <li>Demonstration of dry needling of muscles to the lumbar region.</li> </ul> Supervised student practice of demonstrated techniques. Frontiers in dry needling research (review of journal articles)
<b>10.</b>	<b>Physical assessment for dry needling interventions to the lower limb</b> <ul style="list-style-type: none"> <li>Apply differential diagnosis for application of SDN or DDN relevant to assessment findings.</li> </ul> Supervised student practice of demonstrated techniques.
<b>11.</b>	<b>Physical assessment for dry needling interventions for the upper limb</b> <ul style="list-style-type: none"> <li>Apply differential diagnosis for application of SDN or DDN relevant to assessment findings.</li> </ul> Supervised student practice of demonstrated techniques to the upper limbs.
<b>12.</b>	<b>Demonstration of physical assessment and integration of manual therapy interventions</b> <ul style="list-style-type: none"> <li>Specific case scenario combined with SDN and DDN in the simulation of clinical practice.</li> <li>Determine appropriate methods of treatment through differentiation of presenting signs and symptoms and applying the correct protocols for treatment.</li> </ul> Group discussion and application of manual therapies and MDN interventions for the torso.
<b>13.</b>	<b>Final Practical Exam in class this week</b>
<b>14.</b>	<b>Study Week/Practical Exam Week 1 (note that make-up classes may be scheduled in this week).</b>
<b>15.</b>	<b>Study Week/Practical Exam Week 2 (note that make-up classes may be scheduled in this week).</b>
<b>16.</b>	<b>Final Exam Week 1</b> There is no final written exam in this subject.
<b>17.</b>	<b>Final Exam Week 2</b> There is no final written exam in this subject.