MUSCULOSKELETAL ANATOMY AND PALPATION 2

SUBJECT OUTLINE

Subject Name: Musculoskeletal Anatomy and Palpation 2
Subject Code: MSTA212

SECTION 1 – GENERAL INFORMATION

Award/s: Bachelor of Health Science (Myotherapy)
Total Course Credit Points: 96
Level: 1st Year

Duration: 1 Semester
Subject Coordinator: Amy Hulse (Brisbane Campus)

Subject is: Core

Student Workload:

<table>
<thead>
<tr>
<th>No. timetabled hours per week:</th>
<th>No. personal study hours per week:</th>
<th>Total hours per week:</th>
</tr>
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<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
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Delivery Mode:
Face to Face (On Campus)
1 x 3 hour practical

Intensive Delivery (Summer School)
Contact hours are delivered over 5 weeks with 9 hours delivered per week

Content: Practical activities

Assessment: Attendance - Weeks 1-5; Wet Lab Field Trip - *Availability dependent; Online Quiz - Week 3, Wet Lab Workbook - Week 5; Final Practical Exam - Week 6

Full Time
Part Time

Pre-requisites: MSTA121
Co-requisites: BIOH122

Special Resource Requirements:
Attire that allows effective palpation while acting as student model
One bath-sheet sized towel per student (Clinic towels must not be used)
Vaccination or Non-Susceptibility Certificate (Queensland only)

SECTION 2 – ACADEMIC DETAILS

Subject Rationale

In this subject students will further develop the skills and knowledge gained in MSTA121 and accompanying practical and therapeutic subjects. The aim of this subject is to further develop knowledge of clinically relevant anatomy and apply palpation skills to more detailed anatomy of the body. Students will further develop their
understanding of how dynamic and passive structures work together to produce human movement. On completion of this subject students will have a working knowledge of the musculoskeletal anatomy of the body and will know how to identify, locate and palpate bony landmarks, muscles, bones, ligaments, tendons and other relevant structures as part of a musculoskeletal assessment.

### Learning Outcomes

1. Identify key anatomical structures and describe their movements using appropriate terminology.
2. Discuss the clinical relevance of key anatomical structures in relation to Myotherapy practice.
3. Discuss the individual and coordinated roles of dynamic and passive anatomical structures.
4. Explain the principles of arthokinematics and the clinical relevance of these principles in relation to myotherapy examination and treatment.
5. Locate and palpate anatomical structures on diverse body types using techniques common to musculoskeletal examination of the body.

### Assessment Tasks

<table>
<thead>
<tr>
<th>Type</th>
<th>Learning Outcomes Assessed</th>
<th>Session Content Delivered</th>
<th>Due</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>N/A</td>
<td>N/A</td>
<td>Sessions 1-13</td>
<td>Pass/Fail</td>
</tr>
<tr>
<td>(80% required)</td>
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<tr>
<td>Wet Lab Field Trip</td>
<td>1-3</td>
<td>8*</td>
<td>Session 8*</td>
<td>Pass/Fail</td>
</tr>
<tr>
<td>Online Quiz</td>
<td>1-4</td>
<td>1-6</td>
<td>Week 7</td>
<td>30%</td>
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<tr>
<td>(30 minutes)</td>
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<td></td>
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</tr>
<tr>
<td>Wet Lab Workbook</td>
<td>1-4</td>
<td>1-10</td>
<td>Week 11</td>
<td>30%</td>
</tr>
<tr>
<td>Final Practical Exam</td>
<td>1-5</td>
<td>1-13</td>
<td>Final Practical Exam Period</td>
<td>40%</td>
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<tr>
<td>(30 minutes)</td>
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All written assessments and online quizzes are due at 11:55 p.m. Sunday and submitted through the LMS

* Session date may change due to wet lab availability

### Prescribed Readings:


**Recommended Readings:**

### Subject Content

<table>
<thead>
<tr>
<th>Week</th>
<th>Practicals</th>
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</table>
| **1.** | **Introduction** (Subject Outline / Subject Aims / Assessment / Teaching Resources)  
Review of Joints, Movement and Anatomical Terminology  
Introduction to Human Kinesiology  
Principal of osteokinematics and arthrokinematics  
*Upper Limb: The Pectoral Girdle*  
Associated joints  
- Scapulothoracic, glenohumeral, acromioclavicular and sternoclavicular  
- Palpation of pulses, bony landmarks and superficial muscle  
- Advanced palpation of bony landmarks, muscles and associated structures  
- Anatomy and arthrokinematics of the pectoral girdle  |
| **2.** | **Upper Limb: The Elbow and Wrist**  
Associated joints  
- Humeroulnar, humeroradial, proximal and distal radioulnar, radiocarpal  
- Palpation of pulses, bony landmarks and superficial muscle  
- Advanced palpation of bony landmarks, muscles and associated structures  
- Anatomy and arthrokinematics of the elbow and wrist  |
| **3.** | **Upper Limb: The Hand**  
Associated joints  
- Midcarpal, carpometacarpal, metacarpophalangeal, interphalangeal  
- Palpation of pulses, bony landmarks and superficial muscle  
- Advanced palpation of bony landmarks, muscles and associated structures  
- Anatomy and arthrokinematics of the hand  |
| **4.** | **Axial Skeleton: The Head and Neck**  
Associated joints  
- Temporomandibular, craniovertebral (atlantooccipital and atlantoaxial), intervertebral  
- Palpation of pulses, bony landmarks and superficial muscle  
- Advanced palpation of bony landmarks, muscles and associated structures  |
<p>| <strong>5.</strong> | <strong>Axial Skeleton: The Head and Neck</strong> |</p>
<table>
<thead>
<tr>
<th>1.</th>
<th>Associated joints</th>
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<tbody>
<tr>
<td>1.</td>
<td>Craniovertebral, intervertebral, costovertebral, sternocostal</td>
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<tr>
<td>2.</td>
<td>Palpation of pulses, bony landmarks and superficial muscle</td>
</tr>
<tr>
<td>3.</td>
<td>Advanced palpation of bony landmarks, muscles and associated structures</td>
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<tr>
<td>4.</td>
<td>Anatomy and arthrokinematics of the cervical spine</td>
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</table>

### 6. Axial Skeleton: The Trunk

- Associated joints
  - Intervertebral

- Palpation of pulses, bony landmarks and superficial muscle
- Advanced palpation of bony landmarks, muscles and associated structures
- Anatomy and arthrokinematics of the thoracic spine
- The muscles of respiration
- Forced inhalation/exhalation and quiet inhalation/exhalation

### 7. Nerve Pathways of the Upper Limb

Mock Examination

**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 non-teaching week falls between Weeks 7 and 8

### 8. Wet Lab Field Trip

(*Please note that the week of this session may need to change dependent on wet lab availability*)

### 9. Lower Limb: The Pelvic Girdle

- Associated joints
  - Sacroiliac, coccygeal

- Palpation of pulses, bony landmarks and superficial muscle
- Advanced palpation of bony landmarks, muscles and associated structures
- Anatomy and arthrokinematics of the lumbosacral junction

### 10. Lower Limb: The Knee and Ankle

- Associated joints
  - Tibiofemoral, patellofemoral, tibiofibular, talocrural, subtalar

- Palpation of pulses, bony landmarks and superficial muscle
- Advanced palpation of bony landmarks, muscles and associated structures
- Anatomy and arthrokinematics of the knee and ankle

### 11. Lower Limb: The Foot

- Associated joints
  - Subtalar, talonavicular, calcaneocuboid

- Palpation of pulses, bony landmarks and superficial muscle
- Advanced palpation of bony landmarks, muscles and associated structures
- Anatomy and arthrokinematics of the foot
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| **12.** | The Influence of Gravity and Position  
Nerve Pathways of the Lower Limb |
| **13.** | Revision of Upper and Lower Body  
Mock Examination |
| **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  
There is no final exam for this subject |
| **17.** | Final Examination Week 2  
There is no final exam for this subject |