



# SUBJECT OUTLINE

Subject Name:

**Advanced Sports Injury Management**

Subject Code:

**MSTS323**

## SECTION 1 – GENERAL INFORMATION

<b>Award/s:</b>	<b>Total Course Credit Points:</b>	<b>Level:</b>
Bachelor of Health Science (Myotherapy)	96	3 <sup>rd</sup> Year
<b>Duration:</b>	1 Semester	
<b>Subject Coordinator:</b> Andrew Morris (Brisbane Campus)		
<b>Subject is:</b>	<b>Subject Credit Points:</b>	4
Core		

### Student Workload:

No. timetabled hours per week:	No. personal study hours per week:	Total hours per week:
6	4	10

### Delivery Mode:

Face to Face      2 x 3 hour practicals  
(On Campus)

Full Time

Part Time

**Pre-requisites:**      MSTS221, MSTE311

**Co-requisites:**      Nil

## SECTION 2 – ACADEMIC DETAILS

### Subject Rationale

This subject will enable the student to assess the effects of complex sports related injuries and pathologies in the human body and to diagnose and treat a wide variety of athletes and recreational non-athletes effectively, including specific exercise prescription to prevent further injury and achieve effective rehabilitation.

### Learning Outcomes

1. Critically evaluate and manage the rehabilitation phase for sports injuries.
2. Critically assess and describe the effect of a range of joint injuries on elite athletes.
3. Demonstrate critical thinking and judgement to determine the specific mechanism of injury and its effects on the athlete.
4. Compare and contrast aetiologies and the clinical presentation for a broad range of sports injuries.



5. Develop and adapt treatment plans for specific population groups, including female athletes, the elderly and recreational non-athletes, based on an understanding of their specific characteristics and needs.

## Assessment Tasks

Type	Learning Outcomes Assessed	Session Content Delivered	Due	Weighting
<b>Attendance</b> (80% attendance is required)	N/A	N/A	Sessions 1 - 26	Pass/Fail
<b>Treatment Planning Assignment</b> (2000 words)	1,5	1-10	Session 13	40%
<b>Final Practical Exam</b> (30 mins)	1-2,4	1-24	Session 26	30%
<b>Final Written Exam</b> (2 hours)	1-5	1-26	Final Examination Period	30%

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

### Prescribed Readings:

1. Brukner, P., & Khan, K. (Eds.). (2017). *Clinical sports medicine* (5th ed. Vol 1 and Vol 2). McGraw Hill. [ebook available]

### Recommended Readings:

1. Comerford, M., & Mottram, S. (2012). *Kinetic control: The management of uncontrolled movement*. Elsevier. [ebook available]
2. Kisner, C., & Colby, L. A. (2011). *Ther ex notes: Clinical pocket guide*. F. A. Davis Company. [ebook available]
3. Magee, D. J., Zachewski, J. E., & Quillen, W. S. (Eds.). (2007). *Scientific foundations and principles of practice in musculoskeletal rehabilitation*. Saunders; Elsevier. [ebook available]

## Subject Content

Week	Practicals
1.	Session 1 <b>Overview of participation in sports in Australia and internationally</b> <b>Principles of injury prevention</b>



	<p>Session 2</p> <p><b>Recreational non-athletes</b></p> <ul style="list-style-type: none"> <li>➤ Athletes vs non-athletes</li> <li>➤ Recreational participation in sport: Recreational non-athletes</li> <li>➤ Specific needs and concerns of the “weekend warrior”</li> </ul> <p><b>Case studies and treatment planning</b></p>
2.	<p>Session 3</p> <p><b>Sports, fitness and health in an aging population</b></p> <ul style="list-style-type: none"> <li>➤ Sports and the elderly: Health, wellbeing and quality of life</li> <li>➤ Acknowledgement of risk and safety considerations</li> <li>➤ Injury prevention, rehabilitation and adaptation with comorbidity</li> <li>➤ Osteoarthritis</li> <li>➤ Masters athletes</li> </ul> <p><b>Case studies and treatment planning</b></p>
	<p>Session 4</p> <p><b>Sports, fitness and health with osteoporosis</b></p> <ul style="list-style-type: none"> <li>➤ Safety considerations</li> <li>➤ Current evidence regarding weight training and other resistance exercise</li> <li>➤ Injury prevention, rehabilitation and adaptation with comorbidity</li> </ul> <p><b>Case studies and treatment planning</b></p>
3.	<p>Session 5</p> <p><b>Sports, fitness and health with cardiovascular and metabolic disease</b></p> <ul style="list-style-type: none"> <li>➤ Safety considerations</li> <li>➤ Injury prevention, rehabilitation and adaptation with comorbidity</li> <li>➤ Health outcomes</li> </ul> <p><b>Case studies and treatment planning</b></p>
	<p>Session 6</p> <p><b>Sports, fitness and health for people with a disability</b></p> <ul style="list-style-type: none"> <li>➤ Benefit vs risk of participation</li> <li>➤ Adaptation to enable participation for physical and intellectual disability</li> <li>➤ Injury prevention, rehabilitation and comorbidity</li> <li>➤ Elite athletes with a disability</li> </ul> <p><b>Case studies and treatment planning</b></p>
4.	<p>Session 7</p> <p><b>Female athletes</b></p> <ul style="list-style-type: none"> <li>➤ Injuries common to female athletes</li> <li>➤ Special considerations</li> <li>➤ Focus on research regarding female athletes</li> <li>➤ Prevention specific to female athletes</li> </ul>



	<ul style="list-style-type: none"> <li>➤ Rehabilitation for female athletes</li> </ul> <p><b>Case studies and treatment planning</b></p>
	<p>Session 8</p> <p><b>Special female populations</b></p> <ul style="list-style-type: none"> <li>➤ Pregnancy</li> <li>➤ Post-partum</li> <li>➤ Young female athletes</li> </ul> <p><b>Case studies and treatment planning</b></p>
5.	<p>Session 9</p> <p><b>Young people in sport: Non-athletes</b></p> <ul style="list-style-type: none"> <li>➤ Benefits</li> <li>➤ Considerations and adaptations</li> <li>➤ Prevention and rehabilitation</li> <li>➤ Resistance training</li> </ul> <p><b>Case studies and treatment planning</b></p>
	<p>Session 10</p> <p><b>Young athletes</b></p> <ul style="list-style-type: none"> <li>➤ Considerations and adaptations</li> <li>➤ Injuries common to younger athletes</li> <li>➤ Prevention and rehabilitation</li> </ul> <p><b>Case studies and treatment planning</b></p>
6.	<p>Session 11</p> <p><b>Field-side treatment</b></p> <ul style="list-style-type: none"> <li>➤ The field-side team</li> <li>➤ Field-side assessment</li> <li>➤ Fitness to play</li> </ul> <p><b>Case studies</b></p>
	<p>Session 12</p> <p><b>Field emergency treatment</b></p> <ul style="list-style-type: none"> <li>➤ Concussion rules</li> <li>➤ Bleeding</li> <li>➤ Taping, bracing and splinting</li> <li>➤ Other treatment</li> </ul> <p><b>Case studies</b></p>
7.	<p>Session 13</p> <p><b>Review</b></p> <p><b>Doping in sport</b></p> <ul style="list-style-type: none"> <li>➤ Responsibilities of the therapist</li> <li>➤ Responsibilities of the athlete</li> </ul>



	<ul style="list-style-type: none"> <li>➤ Overview of WADA and ASADA</li> <li>➤ ASADA anti-doping training</li> </ul>
	<p>Session 14</p> <p><b>Treatments used for musculoskeletal conditions in sports medicine</b></p> <ul style="list-style-type: none"> <li>➤ Analgesics, NSAIDs, traumeel, corticosteroids</li> <li>➤ Prolotherapy, sclerosing therapy</li> <li>➤ antidepressants, local anaesthetic injections,</li> <li>➤ Blood and blood products, nitric oxide donor</li> <li>➤ Hot and cold therapies, electrotherapy, extracorporeal shock wave therapy</li> <li>➤ Manual therapies and dry needling</li> <li>➤ Surgery</li> </ul> <p><b>Treatment planning in multidisciplinary care</b></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 non-teaching week falls between Weeks 7 and 8</p>
8.	<p>Session 15</p> <p><b>Sports-related head and neck pain</b></p> <ul style="list-style-type: none"> <li>➤ Acute wry neck</li> <li>➤ Cervical acceleration-deceleration injury</li> <li>➤ Head injury</li> <li>➤ Acute nerve root pain</li> </ul> <p><b>Sports-related thoracic and chest pain</b></p> <ul style="list-style-type: none"> <li>➤ Costovertebral and costotransverse joint disorders</li> <li>➤ T4 syndrome</li> <li>➤ Sternoclavicular joint problems</li> </ul> <p><b>Review of current evidence and case studies</b></p>
	<p>Session 16</p> <p><b>Sports-related lower back and gluteal pain</b></p> <ul style="list-style-type: none"> <li>➤ Intervertebral disc injuries</li> <li>➤ Apophyseal joint injuries</li> <li>➤ Spinal canal stenosis and acute nerve compression</li> <li>➤ Spondylolisthesis and pars interarticularis stress fracture</li> <li>➤ Sacroiliac joint injury</li> <li>➤ Vertebral crush fracture</li> <li>➤ Hamstring origin tendinopathy and ischiogluteal bursitis</li> <li>➤ Proximal hamstring avulsion injuries</li> </ul> <p><b>Review of current evidence and case studies</b></p>
9.	<p>Session 17</p> <p><b>Sports-related hip pain</b></p>



	<ul style="list-style-type: none"> <li>➤ Femoroacetabular impingement</li> <li>➤ Synovitis and labral tears</li> <li>➤ Chondropathy</li> <li>➤ Greater trochanteric pain syndrome</li> <li>➤ Gluteus medius pathology</li> <li>➤ Trochanteric bursitis</li> </ul> <p><b>Sports-related anterior thigh pain</b></p> <ul style="list-style-type: none"> <li>➤ Quadriceps muscle contusion and strain</li> <li>➤ Myositis ossificans</li> </ul> <p><b>Review of current evidence and case studies</b></p>
	<p>Session 18</p> <p><b>Sports-related groin pain</b></p> <ul style="list-style-type: none"> <li>➤ Adductor tendinopathy</li> <li>➤ Iliopsoas tendinopathy and bursitis</li> <li>➤ Abdominal wall pathologies</li> <li>➤ Pubic bone stress</li> <li>➤ Hip stress fractures</li> </ul> <p><b>Sports-related posterior thigh pain</b></p> <ul style="list-style-type: none"> <li>➤ Hamstring muscle contusion and strains</li> <li>➤ Biceps femoris, semimembranosus and semitendinosus tendinopathies</li> <li>➤ Adductor magnus strain</li> </ul> <p><b>Review of current evidence and case studies</b></p>
10.	<p>Session 19</p> <p><b>Sports-related acute knee injuries</b></p> <ul style="list-style-type: none"> <li>➤ Meniscus tear</li> <li>➤ MCL, LCL, ACL and PCL sprains</li> <li>➤ Articular cartilage injury</li> <li>➤ Patellar dislocation</li> </ul> <p><b>Sports-related knee pain</b></p> <ul style="list-style-type: none"> <li>➤ Patellar and quadriceps tendinopathy</li> <li>➤ Fat pad impingement</li> <li>➤ Infrapatellar bursitis</li> <li>➤ Synovial plica</li> <li>➤ Baker's cyst</li> <li>➤ Iliotibial band friction syndrome</li> <li>➤ Pes anserinus tendinopathy and bursitis</li> <li>➤ Popliteus tendinopathy</li> </ul> <p><b>Review of current evidence and case studies</b></p>
	<p>Session 20</p>



	<p><b>Sports-related leg pain</b></p> <ul style="list-style-type: none"> <li>➤ Tibial stress fractures</li> <li>➤ Muscle strains – fibularii, gastrocnemius, soleus</li> </ul> <p><b>Sports-related Achilles tendon pain and acute ankle injuries</b></p> <ul style="list-style-type: none"> <li>➤ Achilles tendinopathy</li> <li>➤ Posterior impingement syndrome</li> <li>➤ Ligament sprains of the ankle</li> <li>➤ Fractures of the ankle</li> <li>➤ Osteochondral lesion of the talus</li> </ul> <p><b>Review of current evidence and case studies</b></p>
11.	<p>Session 21</p> <p><b>Sports-related ankle pain</b></p> <ul style="list-style-type: none"> <li>➤ Tibialis posterior, peroneal and flexor hallucis longus tendinopathies</li> <li>➤ Tarsal tunnel syndrome</li> <li>➤ Sinus tarsi syndrome</li> <li>➤ Anterolateral impingement</li> </ul> <p><b>Sports-related foot pain</b></p> <ul style="list-style-type: none"> <li>➤ Stress fractures of the region</li> <li>➤ MTP joint sprain</li> <li>➤ Sesamoid pathology</li> </ul> <p><b>Review of current evidence and case studies</b></p>
	<p>Session 22</p> <p><b>Sports-related shoulder pain</b></p> <ul style="list-style-type: none"> <li>➤ Strains and tendinopathies of the rotator cuff</li> <li>➤ AC joint sprains</li> <li>➤ Biceps tendinopathy</li> <li>➤ Clavicle fracture</li> </ul> <p><b>Sports-related shoulder pain</b></p> <ul style="list-style-type: none"> <li>➤ Glenohumeral dislocation and instability</li> <li>➤ Glenoid labral tears</li> </ul> <p><b>Review of current evidence and case studies</b></p>
12.	<p>Session 23</p> <p><b>Sports-related elbow and arm pain</b></p> <ul style="list-style-type: none"> <li>➤ Extensor and flexor tendinopathy</li> <li>➤ Medial collateral ligament sprain</li> <li>➤ Triceps tendinopathy</li> <li>➤ TFCC tear</li> <li>➤ Carpal tunnel and tunnel of Guyon syndromes</li> <li>➤ Ligamentous sprains of the fingers</li> </ul>



	<p><b>Sports-related wrist and hand pain</b></p> <ul style="list-style-type: none"> <li>➤ Distal radius, scaphoid, hamate and lunate fractures</li> <li>➤ Ligamentous sprains</li> <li>➤ Scaphoid impaction syndrome</li> <li>➤ De Quervain's tenosynovitis</li> </ul> <p><b>Review of current evidence and case studies</b></p>
	<p>Session 24</p> <p><b>Sports related injuries of the younger athlete</b></p> <ul style="list-style-type: none"> <li>➤ Perthes' disease</li> <li>➤ Osgood-Schlatter's lesion</li> <li>➤ Sinding-Larsen-Johansson lesion</li> <li>➤ Sever's lesion</li> <li>➤ Scheuermann's lesion</li> <li>➤ Other osteochondrosis and insertional conditions</li> </ul> <p><b>Review of current evidence and case studies</b></p>
13.	<p>Session 25</p> <p><b>Treatment planning and case studies</b></p> <p><b>Mock exam</b></p>
	<p>Session 26</p> <p><b>Final Practical Exam</b></p>
14.	<p><b>Non-Teaching Week/Practical Examination Week 1</b></p> <p>Note that make-up classes may be scheduled in this week</p>
15.	<p><b>Non-Teaching Week/Practical Examination Week 2</b></p> <p>Note that make-up classes may be scheduled in this week</p>
16.	<p><b>Final Examination Week 1</b></p> <p>Students are required to sit examinations using the Respondus Lockdown Browser software per the <a href="#">Examination Policy – Higher Education</a>. Refer to your local campus calendar for exam opening and closing times.</p>
17.	<p><b>Final Examination Week 2</b></p> <p>Students are required to sit examinations using the Respondus Lockdown Browser software per the <a href="#">Examination Policy – Higher Education</a>. Refer to your local campus calendar for exam opening and closing times.</p>