

## Subject Outline

<b>Subject Name:</b>	<i>Nutrition, Exercise and Lifestyle</i>
<b>Subject Code:</b>	MSTN211
<b>Award(s):</b>	<i>Bachelor of Health Science (Musculoskeletal Therapy)</i>
<b>Core/Elective:</b>	<i>Core – 2 credit point subject</i>
<b>Pre-requisites:</b>	BIOH122
<b>Student Workload</b>	39 hours face to face 36 hours self-directed study
<b>Delivery Mode:</b>	<p><b>Face to face</b></p> <ul style="list-style-type: none"> <li>• 3 hours lecture/practical</li> </ul> <p><b>E-learning</b></p> <ul style="list-style-type: none"> <li>• Narrated PowerPoint</li> <li>• Asynchronous tutor moderated discussion forums and activities</li> <li>• Student Handouts, Web based resources</li> </ul> <p><b>Full Time</b></p> <p><b>Part Time</b></p>
<b>Subject Coordinator:</b>	Brent Cunningham (Brisbane campus)
<b>Subject Rationale:</b>	<ul style="list-style-type: none"> <li>• This subject provides students with the underpinning knowledge and practical skills to work safely with and supervise the fitness development of clients in a lifestyle modification program to improve overall health and wellbeing.</li> <li>• On completion of this subject students will be able to advise and educate patients about exercise, nutrition and lifestyle choices to better support their clinical treatments.</li> <li>• This subject is a pre-requisite for: <ul style="list-style-type: none"> <li>○ MSTS221 Musculoskeletal Therapy Sports Injury Management 1</li> </ul> </li> </ul>

### Learning Outcomes:

1.	Apply critical thinking to relevant exercise planning and programming for individuals.
2.	Critically evaluate the use of a broad range of fitness equipment.
3.	Differentiate between exercise regimes for fitness industry clients with special requirements.
4.	Demonstrate a critical understanding of motivational psychology with fitness clients.
5.	Analyse the need for and prepare an individualised long-term training program for clients, including their individual nutritional requirements.

**Content:**

<b>Week</b>	<b>Lecture/Practical</b>
1.	<p>Relevant activities for all teaching sessions are directed by the lecturers/tutors through in class discussion, demonstration, practice and activities. Teaching and learning activities may be modified or adapted to suit the particular learning strategies and delivery style.</p> <p>Activities are developed to allow the students to explore relevant concepts, expand on ideas and have peer and lecture/tutor interaction. Activities also allow for formative assessment and feedback.</p> <p>Principles of Exercise</p> <ul style="list-style-type: none"> <li>• Components of fitness – <ul style="list-style-type: none"> <li>○ Muscular strength, muscular endurance, cardiorespiratory endurance, power, agility, flexibility, balance, coordination</li> </ul> </li> <li>• FITT formula – <ul style="list-style-type: none"> <li>○ Frequency, intensity, time, type</li> </ul> </li> <li>• The positive effects of exercise on the cardiorespiratory system, musculoskeletal system, stress levels, body composition</li> </ul>
2.	<p>Motivation and Goal Setting</p> <ul style="list-style-type: none"> <li>• Goal Setting</li> <li>• Motivation Principles</li> <li>• Motivational Techniques</li> </ul>
3.	<p>Fitness Assessment</p> <ul style="list-style-type: none"> <li>• Test Selection</li> <li>• Procedures for testing</li> <li>• Evaluation of tests</li> </ul>
4.	<p>Flexibility Training</p> <ul style="list-style-type: none"> <li>• Static, ballistic, passive, dynamic, PNF</li> </ul>
5.	<p>Aerobic Conditioning</p> <ul style="list-style-type: none"> <li>• Aerobic exercise prescription</li> <li>• Methods of training for aerobic and anaerobic fitness <ul style="list-style-type: none"> <li>○ Continuous</li> <li>○ Interval</li> <li>○ Fartlek</li> </ul> </li> </ul>
6.	<p>Resistance Training – Programming</p> <ul style="list-style-type: none"> <li>• Needs analysis</li> <li>• Exercise selection</li> <li>• Training frequency</li> <li>• Exercise order</li> <li>• Training Load</li> <li>• Volume</li> <li>• Rest/recovery</li> </ul>
7.	<p>Resistance Training</p> <ul style="list-style-type: none"> <li>• Grips</li> <li>• Techniques</li> </ul> <p>Plyometrics</p> <ul style="list-style-type: none"> <li>• Physiology</li> </ul>

	<ul style="list-style-type: none"> <li>• Program design</li> </ul>
	<p><b>NON-TEACHING WEEK</b> (note that make-up classes may be scheduled in this week)  <b>Semester 1</b> - This aligns with the week after Easter so it may fall between weeks 6 to 8.  <b>Semester 2 &amp; Online Students</b> - The break week falls between Weeks 7 and 8.</p>
8.	<p>Exercise Programs for Special Populations</p> <ul style="list-style-type: none"> <li>• Exercise Rehabilitation</li> <li>• Pre-post natal exercise</li> <li>• Older adults</li> </ul> <p><b>Quiz – quiz on sessions 1-7 this week.</b></p>
9.	<p>Periodisation</p> <ul style="list-style-type: none"> <li>• Cycles and phases</li> <li>• Sports Specific Programming</li> </ul>
10.	<p>Macronutrients</p> <ul style="list-style-type: none"> <li>• Carbohydrates</li> <li>• Fats</li> <li>• Protein</li> </ul>
11.	<p>Weight Management</p> <ul style="list-style-type: none"> <li>• Energy Requirements and Balance</li> <li>• BMI</li> <li>• Weight Gain/Loss</li> </ul>
12.	<p>Vitamin and Mineral Intake to Maintain Performance - Micronutrients</p> <ul style="list-style-type: none"> <li>• Ensuring the intake is sufficient</li> <li>• Classes of vitamins</li> <li>• Supplementing with minerals</li> </ul>
13.	<p>Maximising Sporting Performance with Supplements:</p> <ul style="list-style-type: none"> <li>• Dietary Supplements</li> <li>• Ergogenics</li> <li>• Hydration</li> </ul>
14.	<p><b>Non-Teaching Weeks / Practical Examination Week 1.</b> Note that make-up classes may be scheduled in this week.  <b>Assignment DUE (see Assessment table)</b></p>
15.	<p><b>Non-Teaching Weeks / Practical Examination Week 2.</b> Note that make-up classes may be scheduled in this week.</p>
16-17.	<p><b>Final Exam Period</b>  Please refer to the Exam Timetable for your local campus for the exact day and time of the exam.</p>

**Set Text Requirements:**

1. Baechle, T., & Earle, R. (2008). <i>Essentials of strength training and conditioning</i> (4th ed.). Champaign, IL: Human Kinetics.
2. Readings as per the LMS

**Recommended readings:**

1. Baechle, T., & Earle, R. (2012). <i>NSCA's essentials of personal training</i> (2nd ed.). Champaign, IL: Human Kinetics.
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**Assessments:**

<b>Assessment Item</b>	<b>Topic/s</b>	<b>Learning Outcomes assessed</b>	<b>Week Content Delivered</b>	<b>Week Due</b>	<b>Weighting</b>
Summative Assessment <b>Quiz</b>	Quiz on the principles of fitness and training methods.	1-5	1 - 7	9	20%
Summative Assessment <b>Assignment</b>	Application of theoretical and practical knowledge regarding case scenarios of a client with specific requirements for a training program. Outline an appropriate training regime and the expected benefits and provide the client with a prescription for achieving their goals safely.	1-5	1 - 13	14	50%
Summative Assessment <b>Final Written Exam</b>	Written exam consisting of, multiple choice, short answer questions related to the client's needs and goals considering lifestyle, fitness levels and nutritional needs.	1-5	1 - 13	Final 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.