School of Medicine

EXSC320: Exercise Prescription

Subject Outline
Autumn, 2016
On-Campus
Wollongong

Subject Information
Credit Points: 16
Pre-requisite(s): SHS 220/MEDI220 and SHS 221/MEDI221 and SHS 222/MEDI222 and SHS 223/MEDI223
Co-requisite(s): Nil
Restrictions: Bachelor of Exercise Science and Bachelor of Exercise Science & Rehabilitation students only
Contact Hours: 4 hrs Lectures; 4 hrs Practicals; 2hr Tutorials; 1 hour of case-based learning

Subject Contacts
Subject Coordinator/Lecturer

<table>
<thead>
<tr>
<th>Name</th>
<th>Dr Herb Groeller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Building 41, Room 310</td>
</tr>
<tr>
<td>Telephone</td>
<td>61 2 4221 3461</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:hgroell@uow.edu.au">hgroell@uow.edu.au</a></td>
</tr>
<tr>
<td>Consultation mode and times</td>
<td>Email for appointment</td>
</tr>
</tbody>
</table>

Student Support and Advice
For general enquiries please contact StudentHub 41:

Location: 41.138B
Telephone: 61 2 4221 3492
Email: smah-students@uow.edu.au
Student Consultation and Communication

University staff receive many emails each day. In order to enable them to respond to your emails appropriately and in a timely fashion, students are asked to observe basic requirements of professional communication:

*Please ensure that you include your full name and student number and identify your practical class or tutorial group in your email so that staff know who they are communicating with and can follow-up personally where appropriate.*

**Consider what the communication is about**
- Is your question addressed elsewhere (e.g. in the subject outline or, on the eLearning site)?
- Is it something that is better discussed in person or by telephone? This may be the case if your query requires a lengthy response or a dialogue in order to address. If so, see consultation times above and/or schedule an appointment.
- Are you addressing your request to the most appropriate person?

**Specific email subject title to enable easy identification of issue**
- Identify the subject code of the subject you are enquiring about (as staff may be involved in more than one subject) put this in the email subject heading. Add a brief, specific query reference after the subject code where appropriate.

**Professional courtesy**
- Address the staff member appropriately by name (and formal title if you do not yet know them).
- Use full words (avoid ‘text-speak’ abbreviations), correct grammar and correct spelling.
- Be respectful and courteous.
- Allow 3 – 4 working days for a response before following up. If the matter is legitimately urgent, you may wish to try telephoning the staff member (and leaving a voicemail message if necessary) or inquiring at the School Office.
Table of Contents

Section A: General Information ............................................................................................................... 4
  Subject Learning Outcomes .................................................................................................................. 4
  Subject Description ............................................................................................................................... 4
  eLearning Space .................................................................................................................................. 4
  Lecture, Tutorial, Laboratory Times ..................................................................................................... 4
  Readings, References and Materials ..................................................................................................... 5
    Textbooks ........................................................................................................................................... 5
    Prescribed Readings (includes eReadings) .......................................................................................... 5
    Materials .......................................................................................................................................... 5
  Recommended Readings ........................................................................................................................ 5
  Recent Changes to this Subject ............................................................................................................. 6
  Schedule of Learning ............................................................................................................................ 7
  List of Topics Covered .......................................................................................................................... 8

Section B: Assessment ............................................................................................................................ 9
  Assessment Summary ........................................................................................................................... 9
  Details of Assessment Tasks ............................................................................................................... 9
  Minimum Requirements for a Pass in this Subject ............................................................................ 14
    Minimum Student Attendance and Participation ............................................................................ 14
  Scaling ............................................................................................................................................... 15
  Late Submission ................................................................................................................................ 15
    Late Submission Penalty .................................................................................................................... 15
  Supplementary Assessments .............................................................................................................. 16
  System of Referencing Used for Written Work .................................................................................. 16
  Use of Internet Sources ...................................................................................................................... 16
  Plagiarism .......................................................................................................................................... 16
  Submission of Assessments ................................................................................................................ 16
    Assessment Return ............................................................................................................................ 17

Section C: General Advice ....................................................................................................................... 18
  University Policies ............................................................................................................................... 18
  Student Support Services and Facilities ............................................................................................... 19
  Student Etiquette ................................................................................................................................ 19
  Version Control Table .......................................................................................................................... 19

Appendix 1: Case-based learning: Triathlete ......................................................................................... 20
Appendix 2: Training Session Development with Garmin GPS .............................................................. 21
Appendix 3: Skills Examination – Physical Assessment ......................................................................... 22
Section A: General Information

Subject Learning Outcomes

<table>
<thead>
<tr>
<th>On successful completion of this subject, students will be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Display, teach, and perform resistance and endurance exercises;</td>
</tr>
<tr>
<td>2. Plan, organise and deliver a group exercise session;</td>
</tr>
<tr>
<td>3. Display, teach and perform muscle stretching;</td>
</tr>
<tr>
<td>4. Develop exercises specific to muscle groups;</td>
</tr>
<tr>
<td>5. Develop exercises and exercise programmes for specific tasks, sports or occupations;</td>
</tr>
<tr>
<td>6. Perform a needs, movement or task analysis;</td>
</tr>
<tr>
<td>7. Have a comprehensive understanding of resistance and endurance training literature;</td>
</tr>
<tr>
<td>8. Have a comprehensive understanding of the types of adaptations achieved via different exercise protocols;</td>
</tr>
<tr>
<td>9. Analyse, plan, develop and deliver an exercise-training programme;</td>
</tr>
<tr>
<td>10. Progress exercises from specific isolated exercises to functional activities;</td>
</tr>
<tr>
<td>11. Competent in the use of a variety of resistance and endurance training equipment;</td>
</tr>
<tr>
<td>12. Have the skill to develop and conduct assessments of physical performance;</td>
</tr>
<tr>
<td>13. Engage in practice-based and work-integrated based learning</td>
</tr>
</tbody>
</table>

Subject Description

This subject applies knowledge from the foundation areas of anatomy, physiology, biomechanics, psychology, and exercise science practice. It requires students to design and implement safe and beneficial exercise programs in the areas of aerobic endurance and resistance training that encourage healthy populations within the community, sports clubs or workplace to participate. Students are required to undertake a supervised placement in at least one area of the exercise science field. It is expected that by the end of this subject, the students will have completed a minimum of 70 hours of placement in a healthy/community based field of exercise science.

eLearning Space

This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column. For information regarding the eLearning spaces please use the following link: http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf

Lecture, Tutorial, Laboratory Times

All timetable information is subject to variation. Check the latest information on the university web timetable via the Timetable link on the Current Students webpage or log into SOLS to view your personal timetable prior to attending classes.

All timetable information is subject to variation. Check latest timetabling information on the ‘Current Student’ webpage on UOW website or log into SOLS to view your personal timetable prior to attending classes. http://www.uow.edu.au/student/index.html

Timetable information can be accessed from http://www.uow.edu.au/student/timetables/info/index.html

Key University Dates can be accessed from http://www.uow.edu.au/student/dates/index.html
Readings, References and Materials

Textbooks
The following text(s) will need to be purchased by students enrolled in this class.

Nil

Prescribed Readings (includes eReadings)
The following readings are prescribed for this subject, but students are not expected to purchase these. They are available to students through the library on the subjects eLearning site.


Materials
Nil

Recommended Readings
The following references complement the prescribed readings and textbooks:

Readings for Multi-choice Examination One: Assessed Week 5

Readings for Multi-choice Examination Two: Assessed Week 8
Readings for Multi-choice Examination Three: Assessed Week 11

Readings for Multi-choice Examination Four: Assessed Week 13

Recommended readings are not intended as an exhaustive list, students should use the Library catalogue and databases to locate additional resources.

Recent Changes to this Subject
i. Additional readings included in the MC online exam
ii. Inclusion of case-based learning
iii. Integration of two assessment tasks to improve learning outcomes associated with exercise coaching and exercise assessment and prescription
Schedule of Learning

Please see MOODLE for the up to date schedule for this subject. Please note due to number of different sessions that run concurrently within this subject, it is not unusual for the schedule of learning to change. If it does you will always be notified by SOLS email in the week prior to the change in the schedule.

*Attendance is compulsory

<table>
<thead>
<tr>
<th>Week</th>
<th>Week Commencing</th>
<th>Lecture</th>
<th>Lecture or Case-based learning (CBL)</th>
<th>Practical</th>
<th>Tutorial Ex Coaching</th>
<th>Computer MC exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29/02/2016</td>
<td>L: Intro Legal/Ethical</td>
<td>L: Interview/Ax musculoskeletal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>07/03/2016</td>
<td>L: Screening CV</td>
<td>*CBL: Triathlete: Needs Ax and Screening</td>
<td>Ex technique applying a load + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14/03/2016</td>
<td>L: Physical Ax</td>
<td>L: Physical Ax</td>
<td>Physical Ax + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>21/03/2016</td>
<td>L: Movement Ax Fxn Movement Ax</td>
<td>*CBL: Triathlete: Phys Ax Periodisation</td>
<td>Endur training Strat + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>28/03/2016</td>
<td>L: Flexibility</td>
<td>L: Trunk strength</td>
<td></td>
<td>*Exercise Coaching</td>
<td>*MC Exam</td>
</tr>
<tr>
<td>6</td>
<td>04/04/2016</td>
<td>L: Motor control</td>
<td>*CBL: Triathlete: Trunk, Flex, Warmup</td>
<td>Resist training Strat + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>18/04/2016</td>
<td>L: Adaptation to load</td>
<td>*CBL: Triathlete: CV training strategies</td>
<td>Stretching + GYM</td>
<td>*Exercise Coaching</td>
<td>*MC Exam</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Week</th>
<th>Week Commencing</th>
<th>Lecture</th>
<th>Lecture or Case-based learning (CBL)</th>
<th>Practical</th>
<th>Tutorial Ex Coaching</th>
<th>Computer MC exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>02/05/2016</td>
<td>L: Adaptation to load</td>
<td>L: Adaptation to load</td>
<td>Trunk strength + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>09/05/2016</td>
<td>L: Ageing</td>
<td>*CBL: Triathlete: Resistance training strategies</td>
<td>*Teaching Skill Ax + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>16/05/2016</td>
<td>L: Children</td>
<td>L: Medications</td>
<td>Functional Ax + GYM</td>
<td>*Exercise Coaching</td>
<td>*MC Exam</td>
</tr>
<tr>
<td>12</td>
<td>23/05/2016</td>
<td>L: Nutrition</td>
<td>*CBL: Triathlete: Other and special considerations</td>
<td>*Physical Ax Skills + GYM</td>
<td>*Exercise Coaching</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>30/05/2016</td>
<td>L: Overview</td>
<td></td>
<td>*Physical Ax Skills + GYM</td>
<td></td>
<td>*MC Exam</td>
</tr>
</tbody>
</table>

STUDY RECESS 6th – 10th June 2016

EXAMINATION PERIOD 11th – 23rd of June 2016
List of Topics Covered

The following are examples of the topics to be covered in this course. This is not an exhaustive list and will be subject to change.

- Professional and ethical practitioner requirements
- Interview technique and note taking
- Motivational counselling
- Behaviour change and strategies to enhance physical activity
- Cardiovascular and musculoskeletal risk assessment
- Assessment of physical performance
- Teaching of skilled performance to groups
- Interpretation of physical performance scores
- Periodisation and systematic modification of training load
- Movement analysis
- Flexibility
- Trunk strengthening strategies
- Ergometry and estimation of metabolic load
- Electronic recording and interpretation of activity
- Children and physical activity strategies
- Older cohorts, responsiveness and loading
- Motor learning and skill acquisition
- Principles of exercise prescription
- Strategies to develop cardiorespiratory endurance
- Adaptation to load
  - Manipulation of muscle activation
    - Eccentric
    - Concentric
    - Isometric
    - Ballistic
    - Occlusion
    - Vibration
  - Mass
  - Movement
    - Closed and open kinetic chain
    - Single joint and compound specific movement
    - Progression to function
- Medications
- Nutrition
Section B: Assessment

Assessment Summary

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Form of Assessment</th>
<th>Due Date</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment 1</td>
<td>Clinical Exam</td>
<td>Exam Week 1</td>
<td>40%</td>
</tr>
<tr>
<td>Assessment 3</td>
<td>MC Theory Exams</td>
<td>Weeks 5, 8, 11, 13</td>
<td>15%</td>
</tr>
<tr>
<td>Assessment 4</td>
<td>Skills Exam: Teaching and Physical Ax</td>
<td>Weeks 8, 12,13</td>
<td>Pass/Fail 0%</td>
</tr>
<tr>
<td>Assessment 5</td>
<td>Practicum Hours</td>
<td>Friday Week 13</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Total Marks 100%</strong></td>
</tr>
</tbody>
</table>

Details of Assessment Tasks

Assessment tasks will be marked using explicit criteria that will be provided to students prior to submission.

**Assessment 1 Clinical Exam**
- **Due date**: Exam Week 1
- **Weighting**: 40%
- **Submission**: N/A
- **Type of Collaboration**: Individual Assessment
- **Length**: Approximately 30 minutes

Clinical Examination will be based on material covered in all practicals and lectures. All students attending the examination are required to be dressed in appropriate exercise attire. If your standard of dress is deemed inappropriate you will not be allowed to sit the examination which could result in failure of the subject.

Please note that this assessment is a compulsory element of the subject, you therefore must pass all competencies to be eligible for a passing grade in this subject. Failure in two elements will incur an outright fail. Failure in 1 area will incur an opportunity for a supplementary examination.

**Details**

i) The 30 minute clinical examination will be conducted during the examination period in the URAC gymnasium.

ii) The assessment will occur in pairs (i.e. two students each 30 minutes), though you will be marked as an individual.

iii) To be eligible to commence the clinical examination, students must adhere to URAC gymnasium guidelines and wear appropriate clothes suitable for exercise. BRING A TOWEL, no towel = no exam

iv) Students must arrive at the examination venue 15 minutes prior to the commencement of the clinical examination.

v) Note you may be asked to critique your partner’s response during the examination and may be marked on your response.

vi) During the examination you will be asked to display and respond in a clinically relevant time period to verbal questions, instructions, prompts and problems from the examiner.

**Clinical Examination Content**

The clinical examination will require students to perform ten tasks and in so doing display competency in each of those tasks. Please note the timeliness of your ability to answer questions related to these competencies during the examination is also taken into account (see marking).

**Task 1: Gross and isolated exercises:** Competency: Display appropriate technique and spotting procedures to utilise any training equipment in the University of Wollongong Recreation and Aquatic Centre Gymnasium.
Knowledge of essential teaching points and progressions. See section 7.1.4 for an example of some of the exercises you may be asked to show competency in.

Task 2: Movement analysis: Competency: Ability to effectively perform a Movement Analysis as per SHS220: Functional Anatomy of any movement in a clinical setting.

Task 3: Loading strategies: Competency: Display knowledge of loading strategies, able to make exercises harder or easier on the basis of varying loading strategies in a clinical setting. Ability to develop exercises showing safe progressions using loading strategies. Ability to modify exercise on the basis of limitations (e.g. client cannot kneel on the floor)

Task 4: Stretches: Competency: Perform safe and appropriate stretches. Knowledge of essential teaching points of the stretch. Knowledge of the region and function of each muscle. Ability to vary stretches to suit client need. See list below of the muscle which you may be assessed on. See section 5.1.5

Task 5: Case study: Competency: Ability in a clinical setting to promptly develop basic exercise prescription strategies moving from specific to functional activities.

Task 6: Trunk and core stability: Competency: Ability to perform or instruct a client to perform exercises which will improve trunk or core stability. Understanding of loading and teaching strategies to develop trunk and core stability from beginner to advanced and occupational or sport specific exercises.

Task 7: Exercise training knowledge: Competency: Ability to physically perform or verbally describe training protocols which elicit specific physiological responses (e.g. strength, power). Ability to apply theoretical aspects of lecture and laboratory material in a clinical setting.

Task 8: Strength assessment: Competency: Ability within a clinical setting to develop and perform an assessment appropriate to a specific situation.

Task 9: Communication: Competency: Ability to communicate effectively to a client, your partner or examiner, using appropriate terminology, tone, volume and non-verbal cues to assist clients/partner or examiners understanding of exercise requirements, or answer.

Task 10: Motor Learning: Competency: Ability to breakdown a task to its key components in order to teach and develop new movement skills in a client. Able to use verbal cues and feedback to assist the client in the acquisition of movement skills. Able to modify teaching approach if the client is not making progress.

**Marking Criteria**

Marking of the clinical examination will be based on the completion of the tasks as listed in the Clinical Examination Section. The tasks may be assessed in any order or in combination (i.e. case study, combined with movement analysis and loading strategies). An equally weighted mark will be allocated to each of the tasks assessed to produce an aggregate total mark for the clinical examination.

The marking form (rubric) for the clinical examination will be put on MOODLE four weeks prior to the date of the final examination.

**Outright fail grade for clinical examination:**

An outright Fail will be awarded when two or more individual tasks have been marked with a fail grade. Receiving an outright fail will mean failure of the subject. Failure of only one task in the clinical examination will require the student to resit the entire clinical examination again. The student is required to successfully pass all competencies again in order to be considered for a pass in the clinical examination and thus the subject.
### Assessment 2
### Exercise Assessment, Prescription and Coaching: Parts A and B

#### Overview

This assessment task is a major assignment designed to encapsulate much of your learning in this degree and is therefore termed a capstone assessment task. The assessment is conducted in two distinct parts. **Part A** you are required to engage in case-based learning to develop an assessment and training regimen for a triathlete, in contrast **Part B** focuses upon working with a real client conducting Exercise Coaching under the supervision of a qualified practitioner.

<table>
<thead>
<tr>
<th>Weighting Parts A + B</th>
<th>Part A: 25% and Part B 20%: Total weighting 45%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment 2 Part A</td>
<td>Exercise Assessment and Prescription</td>
</tr>
<tr>
<td>Due date</td>
<td>Friday 13/5/2016 (Week 10)</td>
</tr>
<tr>
<td>Weighting</td>
<td>25%</td>
</tr>
<tr>
<td>Submission</td>
<td>Electronic i) Turnitin and ii) Upload to Garmin Website and email verification of the upload to Herb Groeller.</td>
</tr>
<tr>
<td>Type of Collaboration</td>
<td>Group activity but marked individually</td>
</tr>
<tr>
<td>Length</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Details**

At the beginning of each fortnight (Wk1, Wk3, Wk5…..etc) you will be presented with elements of a clinical/applied scenario of a triathlete. This information with a series of questions will be posted on MOODLE. Over the course of the semester this single case will develop to the point where you have written a complete exercise program.

For each fortnight you will be given some information on the triathlete and also some questions that are required to be answered. Also on Moodle there will be some links to information that might be useful to review. Importantly it will be up to you and your group to determine what the next steps; actions; information required are for you and your group to meet the objectives of the case.

The class will meet on each even week to discuss the case, on the basis of your information and class discussion, you are required to write up the case actions, steps, information required or findings, as per the case objectives for that fortnight. This is an individual task for each fortnight. The write up for each fortnight should be no longer than 5 A4 pages (unless otherwise specified). See Appendix 1 for further details about the CBL sessions.

For each fortnight your group may be asked to lead discussion or present findings on a section relevant to that particular week. This is a group task and your group will be graded on the level of participation and preparedness for the CBL sessions. See Appendix 1 for further details about the CBL sessions.

Your group will also be required to create three endurance workouts for the triathlete, these are to be uploaded to the Garmin website. Refer to Appendix 2: Training Session Development with Garmin GPS. Submit via email (with all your groups email addresses in the CC) to hgroell@uow.edu.au. Provide the username and password client log. Incorrect details that do not permit Herb Groeller to log on will be counted as a late submission.

**Style and format**

CBL: MOODLE and Word, Tutorial style presentation, participation and Web-based interaction.

**Marking Criteria**

Assessment 2A will be marked using the following criteria:

1. Individual triathlete case development: 15\%
2. Group CBL preparedness, presentation and participation: 5\%
3. Group Garmin endurance workouts: 5\%

<table>
<thead>
<tr>
<th>Assessment 2 Part B</th>
<th>Exercise Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due date</td>
<td>Friday 3/6/2016 (Week 13)</td>
</tr>
<tr>
<td>Weighting</td>
<td>20%</td>
</tr>
<tr>
<td>Submission</td>
<td>Electronic i) Turnitin for individual reflection and ii) Group client file via</td>
</tr>
</tbody>
</table>
**Type of Collaboration**  Group project  
**Length**  N/A

---

**Details**

1. **You will be required to:**
   - Get into a group of two-four.
   - Undergo training to run an interview/counselling session
   - Develop motivational interviewing skills
   - Interview and work with at least one client
   - Assess the client’s current readiness for behaviour change with regards to physical activity
   - Assess the client’s current level of physical activity
   - Determine what the client would like to do in regards to physical activity
   - Determine the barriers to engaging in physical activity
   - Determine the possible meaningful benefits for the client to engage in physical activity
   - Collaboratively with the client develop exercise strategies that meet the client’s needs and wants
   - Follow up with the client weekly via phone or email
   - Meet with the client fortnightly to monitor progress during exercise counselling sessions
   - Assess any changes in physical activity following the counselling sessions
   - Assess any changes in readiness for behaviour change following the counselling sessions
   - Provide recommendations to the client to foster life-long engagement in physical activity for your client.

2. **All work related to this assignment is to be assembled within a patient file. You will be provided this file.** Remember this file contains client information, thus file security and confidentiality is ABSOLUTELY PARAMOUNT. Loss of a patient file will incur a 50% reduction in your groups mark for this assessment. LOOK AFTER THE FILE. A damaged client file may also incur a 20% reduction in your total mark for this assessment.

3. **Your grade for this assignment will be based on**
   - Professionalism: marks will be deducted for poor clothing and footwear or unprofessional interpersonal communication, failure to be on time for client appointments, lack of follow up with client. You must wear appropriate professional clinical clothing, exercise science polo shirt, slacks/long pants, shoes. You will not be allowed on the facility if you are not appropriately dressed.
   - Effective clinical notes of each contact with the client.
   - Orderly and clearly marked professional client file: Dated, concise and accurate notes of each meeting (phone or face to face) with the client
   - Development of resources: The development of suitable resources or assessment and monitoring tools to assist in the delivery of exercise counselling sessions or client goals
   - Client reflection: Each student (this is an individual student task) is to submit a maximum of 4 pages reflecting on the client/s counselling that was provided. The reflection should cover what was learnt, a comparison (if you had more than one client) of the clients observed within counselling and the
modifications you would now make to your counselling sessions or approach, given the experience you now have obtained. Do not repeat the information contained in the file.

<table>
<thead>
<tr>
<th>Style and format</th>
<th>Counselling sessions, resource development and reflection evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject Learning Outcomes</strong></td>
<td>2,4,5,9,13</td>
</tr>
</tbody>
</table>
| **Marking Criteria** | Assessment 2B will be marked using the following criteria:  
1. Group professionalism, client file/resources developed for client 10%  
2. Individual Client Reflection 10% |

### Assessment 3
**Multi-choice exams**

| Due date | Week 5, 8, 11, 13 |
| Weighting | 15% |
| Submission | Four electronic multi-choice examinations will be run |
| Type of Collaboration | Individual Assessment |
| Length | 10 questions in each exam; |

**Details**

- Theory questions based on the prescribed readings allocated to the examination, textbooks and lectures
- This assessment is a compulsory element; you are required to successfully complete in order to pass this subject.

- Examination 1: Week 5: Lectures Weeks 1 -4, allocated readings and related text book chapters
- Examination 2: Week 8: Lectures Weeks 5-7, allocated readings and related text book chapters
- Examination 3: Week 11: Lectures Weeks 8-10, allocated readings and related text book chapters
- Examination 4: Week 13: Lectures Weeks 11-12, allocated readings and related text book chapters

**Style and format**

- Multi-choice online examination

**Subject Learning Outcomes**

- 7,8

### Assessment 4
**Skills Examination - Physical assessment**

| Due date | Weeks 8, 12,13 |
| Weighting | Satisfactory/Unsatisfactory |
| Submission | N/A |
| Type of Collaboration | Individual Assessment |
| Length | N/A |
| Details | Refer to Appendix 1: Skills Examination – Physical Assessment |
| Style and format | Clinical Exam |

### Assessment 5
**Practicum Hours**

| Due date | Friday 3/6/2016 (Week 13) |
| Weighting | Satisfactory/Unsatisfactory |
| Submission | Submit hardcopy of your assignment John Sampson for signing. DO not submit the original practicum hours log book. Retain this and make a copy. Submit the copy, to ensure you always retain the original. |
| Type of Collaboration | Individual Assessment |
| Length | 70 hours |
| Details | i) You will be required to:
  - Read information with regards to healthy practicum placement hours
  - Understand the learning objectives required in order to count the healthy practicum hours
  - Fill out the log book
  - Any hours must be signed off by your practicum supervisor for the specific activities you are making a claim for.
  - Fill out the work experience insurance form (for external sites only)
• Successfully completing EXSC320, will provide you with approximately 30 work experience hours
  - You will therefore need to accumulate approximately an additional 40 hours of work experience to be eligible for a passing grade in this subject.
  - To assist in this process see Dr John Sampson (Ph 4221 5597, jsampson@uow.edu.au ) to view high quality placements all ready organised for you
  - These will be displayed outside his office (41.330)
  - You should ensure that you sign up for these placements sites as soon as possible.

Note if you have already acquired approved hours, you do not need to acquire any more over and above those provided by this subject. If you have not completed 140 hours of healthy placement hours you must complete the remainder of the hours up to a maximum of 70 hours this semester.

<table>
<thead>
<tr>
<th>Style and format</th>
<th>Practicum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Learning Outcomes</td>
<td>13</td>
</tr>
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</table>

**Minimum Requirements for a Pass in this Subject**

To receive a clear pass in this subject a total mark of 50% or more must be achieved. In addition, failure to meet any of the minimum performance requirements is grounds for awarding a Technical Fail (TF) in the subject, even where total marks accumulated are greater than 50%.

The minimum performance requirements for this subject are:

- Attempt all assessment tasks and achieve 50% or more
- Submit all work to avoid a technical fail
- Receive a minimum pass grade for the Clinical Examination.

**Minimum Student Attendance and Participation**

It is expected that students will allocate 20 hours per week to this subject, including any required class attendance, completion of prescribed readings and assessment tasks.

Student attendance Case-based Learning sessions and Exercise Coaching is compulsory, students must attend all session (100%). Absences will require the submission of an application for Academic Consideration via SOLS and the presentation of suitable documentation, for example a Medical Certificate, to Student Central as soon as practical. For further details about applying for academic consideration visit the Student Central webpage: [http://www.uow.edu.au/student/central/academicconsideration/index.html](http://www.uow.edu.au/student/central/academicconsideration/index.html)

The following is a list of additional academic performance standards and participation requirements that must be met in order for a student to have satisfactorily completed this subject.

i) Receive a minimum pass grade for the Clinical Examination.
ii) Attend and participate in all Workshop A and B sessions. Failure to attend all sessions may contribute to a technical failure grade being awarded in EXSC320. A medical certificate must be provided if you are
unable to attend or participate in any of the sessions. Please submit the certificate to your demonstrator for Workshops NOT your lecturer.

iii) Attendance to PRACTICAL sessions is not compulsory (apart from assessment sessions that are bolded in the time table), but you must enrol into a laboratory group and attend only at that time

iv) Attendance is compulsory for all introductory exercise counselling sessions and all scheduled counselling sessions with a client. Your attendance will only be marked off if you are appropriately dressed for the session.

v) You must be deemed skilled in the conduct of physical assessments and teaching a skill in Weeks 8, 12 and 13.

vi) You must complete 70 hours of practicum experience by the due date or alternatively 110 hours since the commencement of your degree. If you have already completed 110 hours of practicum you are not required to complete any additional hours this semester. However you are required to have a minimum of 140 practicum hours at the completion of your degree.

vii) All students must be appropriately attired to exercise safely for all Practicals, Resistance and Exercise sessions. PLEASE READ THE GYMNASIUM RULES.

viii) You must behave and dress in a professional manner during the exercise counselling sessions.

ix) You must bring your own towel to each gym practical session. You will not be allowed to enter the gymnasium without one. You will not be allowed to enter the gymnasium if you are late.

Scaling

Scaling may occur in this subject in the form of z scores.

Late Submission

Late submission of an assessment task without an approved extension of the deadline is not acceptable. If you are unable to submit an assessment due to extenuating circumstances (e.g. medical grounds or compassionate grounds), you can make an application of academic consideration. Not all circumstances qualify for academic consideration. For further details about applying for academic consideration visit the Student Central webpage:


Late Submission Penalty

Marks will be deducted for late submission at the rate of 5% of the total possible marks for that particular assessment task per day. This means that if a piece of work is marked out of 100, then the late penalty will be 5 marks per day (5% of 100 possible marks per day). The formula for calculating the late penalty is: the total possible marks x 0.05 x number of days late. For the purposes of this policy a weekend (Saturday and Sunday) will be regarded as two days.

For example:

- Student A submits an assessment which is marked out of 100. The assessment is submitted 7 days late. This means that a late penalty of 35 marks will apply ((100 x 0.05 x 7). The assessment is marked as per normal out of 100 and is given a mark of 85/100, and then the late penalty is applied. The result is that the student receives a final mark of 50/100 for the assessment (85 (original mark) – 35 marks (late penalty) = 50/100 (final mark)).

- Student B submits a report which is marked out of 20. The report is submitted three days late. This means that a late penalty of 3 marks will apply ((20 x 0.05 x 3). The report is marked as per normal out of 20 and is given a mark of 17/20, and then the late penalty is applied. The result is that the student receives a final mark of 14/20 for the report (17 (original mark) – 3 marks (late penalty) = 14/20 (final mark)).

No marks will be awarded for work submitted either after the assessment has been returned to the students or more than two weeks after the due date, whichever is the sooner. This does not apply to situations where a particular assessment task is undertaken by students at different times throughout the session, but where the assessment is based on experiments or case studies specific to a student. In this case no marks will be awarded for work submitted more than two weeks after the due date.

Notwithstanding this, students must complete all assessment tasks to a satisfactory standard and submit them, regardless of lateness or loss of marks, where submission is a condition of satisfactorily completing the subject.
Supplementary Assessments
Supplementary assessment may be offered to students whose performance in this subject is close to that required to pass the subject, and are otherwise identified as meriting an offer of a supplementary assessment. The precise form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made.

Students can log on to SOLS and click on the link titled “Supplementary Assessment” to view any applicable offers or use the following link; http://www.uow.edu.au/student/exams/suppassess/index.html

System of Referencing Used for Written Work
The Author-Date (Harvard) referencing system should, unless otherwise specified for a particular assessment (check Details of Assessment Tasks), be utilised. A summary of the Harvard system can be accessed on the Library website at: http://public01.library.uow.edu.au/refcite/style-guides/html/

Use of Internet Sources
Students are able to use the Internet to access the most current information on relevant topics and information. Internet sources should only be used after careful critical analysis of the currency of the information, the role and standing of the sponsoring institution, reputation and credentials of the author, the clarity of the information and the extent to which the information can be supported or ratified by other authoritative sources.

Plagiarism
The full policy on Academic Integrity and Plagiarism is found in the Policy Directory on the UOW website.

“The University's Academic Integrity and Plagiarism Policy, Faculty Handbooks and subject guides clearly set out the University's expectation that students submit only their own original work for assessment and avoid plagiarising the work of others or cheating. Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism can be detected and has led to students being expelled from the University.

The use by students of any website that provides access to essays or other assessment items (sometimes marketed as ‘resources’), is extremely unwise. Students who provide an assessment item (or provide access to an assessment item) to others, either directly or indirectly (for example by uploading an assessment item to a website) are considered by the university to be intentionally or recklessly helping other students to cheat. This is considered academic misconduct and students place themselves at risk of being expelled from the University.”

Submission of Assessments
Refer to the submission requirements under the details of the individual assessments. Students should ensure that they receive a receipt/evidence acknowledging assessment submission. Students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assignments in the event that re-submission is required.

EXERCISE COUNSELLING – (CLIENT FILE) ASSESSMENT SUBMISSION ONLY
Client file documents are to be submitted at:
The Student Centre (41.152) or

All assignments must have a SATS (Student Assignment Tracking System) coversheet attached to the front of the assignment. Instructions for generating a coversheet can be found on: http://smah.uow.edu.au/current-students/UOW151958.html. Please note the instructions on what to do if you are experiencing any difficulties generating or printing a SATS Coversheet.
For an assignment to be successfully submitted please note the following:

- The coversheet must be signed and dated.
- The assignment must have the correct coversheet i.e. the correct subject code and tutorial group (if applicable).
- A legible barcode with all numbers and digits below e.g. UOW20121007656.
- Assignments must be submitted by 4:00pm on the due date.

If an assignment is submitted to the Student Centre without any of the above we will contact you through your student email address and advise that you need to return to the Student Centre with the correct coversheet. Your assignment won’t be considered submitted until the correct coversheet is attached. This might mean that your assignment is submitted late.

An email receipt will be issued on the same day as submission of assignments and students are required to retain this receipt until they have received the final mark for that assessment task. It is your responsibility to contact the Student Centre if you have not received this receipt by the following business day. The receipt is proof of submission of assignments and students will be required to produce this in the event that an assessment task is considered to be lost. Students are also expected to keep a copy of all their submitted assignments in the event that re-submission is required. SATS Group Assignment Coversheets are printed by the lead member of the group and subsequent names can be added in the SATS student interface before printing. All members of the group must sign the printed SATS Group Assignment Coversheet before submitting the assignment.

Note that if assignments are submitted in the after-hours slot at the Student Centre it will be scanned into SATS the following business day. Assignments submitted via post will be scanned into SATS on the day of delivery. Any assignments received without the correct assignment coversheet attached will not be accepted by SATS. It is the student’s responsibility to ensure that the correct assignment coversheet is submitted with their assignment.

Wollongong Students may post their assignments to:
The Student Centre (41.152) University of Wollongong, Wollongong, NSW 2522

Assignments received by mail will be considered submitted on the date of postage. It is the student’s responsibility to ensure they have evidence of their submission date if it arrives at the office after due date.

Distance students who would like to have marked assignments returned must include a stamped self-addressed envelope with the posted assignment.

Assessment Return
Students will be notified when they are able to view their marked assessment. In accordance with University Policy marked assignments will usually only be held for 21 days after the declaration of marks for that assignment.

EXERCISE COUNSELLING – (CLIENT FILE) ASSESSMENT RETURN ONLY
Students will be notified by email when marked SATS assignments are available for collection from the Student Centre during business hours. Students will be required to present their student card when collecting marked assignments. Subject Coordinators/ Tutors may opt to hand marked assignments back to students in class or during their consultation hours.
Section C: General Advice

Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.

University Policies

Students should be familiar with the following University policies:

a. Code of Practice – Teaching and Assessment
   [Link]

b. Code of Practice – Research, where relevant
   [Link]

c. Code of Practice – Honours, where relevant
   [Link]

d. Student Charter
   [Link]

e. Code of Practice – Student Professional Experience, where relevant
   [Link]

f. Academic Integrity and Plagiarism Policy
   [Link]

g. Student Academic Consideration Policy
   [Link]

h. Course Progress Policy
   [Link]

i. Graduate Qualities Policy
   [Link]

j. Academic Complaints Policy (Coursework and Honours Students)
   [Link]

k. Policy and Guidelines on Non-Discriminatory Language Practice and Presentation
   [Link]

l. Workplace Health and Safety, where relevant
   [Link]

m. Intellectual Property Policy
   [Link]

n. IP Student Assessment of Intellectual Property Policy, where relevant
   [Link]

o. Policy on Ethical Objection by Students to the Use of Animal and Animal Products in Coursework Subjects, where relevant
   [Link]

p. Human Research Ethics Guidelines, where relevant
   [Link]

q. Animal Research Guidelines, where relevant
   [Link]
r. Student Conduct Rules and accompanying Procedures or Research Misconduct Policy for research students

Student Support Services and Facilities
Students can access information on student support services and facilities at the following link. This includes information on “Academic Support”, “Starting at University”, “Help at University” as well as information and support on “Career’s and Jobs”. http://www.uow.edu.au/student/services/index.html

Student Etiquette
Guidelines on the use of email to contact teaching staff, mobile phone use in class and information on the university guide to eLearning ‘Netiquette’ can be found at http://www.uow.edu.au/student/elearning/netiquette/index.html

Version Control Table

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<th>Version Control</th>
<th>Release Date</th>
<th>Author/Reviewer</th>
<th>Approved By</th>
<th>Amendment</th>
</tr>
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<td>Herb Groeller – Subject Coordinator</td>
<td>Sonia Losinno – ADE nominee</td>
<td>Addition of text and changes to student attendance as per coordinator request</td>
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<td>1</td>
<td>20160120</td>
<td>Herb Groeller – Subject Coordinator</td>
<td>Sonia Losinno – ADE nominee</td>
<td>FINAL EXSC320 Autumn 2016 Subject Outline</td>
</tr>
</tbody>
</table>
Appendix 1: Case-based learning: Triathlete

Individual Assessable Task

i) What to do to get the most out your Case-based learning (CBL) session?
   - Do your work beforehand: If you come unprepared you are letting down your group and yourself. The case-based learning is only effective when everyone has put in effort to try and address the particular issue for the fortnight. Remember, the role of the lecturer is only to facilitate these sessions to keep the session on track and not to provide answers that are perceived to be correct. So use the MOODLE material provided, read journal papers and related website links to so that you are in the best position to provide input on the case.
   - Use your group and your own personal opinion: Facts from journal papers and text books are all very good, but try not to exclusively rely upon them. Remember that this is a case based up on a real person, so it is what you think and do that is more important than repeating facts or opinions from a journal or text book during these sessions.
   - Get involved and get your group involved: Make sure your opinion and views have been heard, likewise acknowledge the opinions of others whether they concur or disagree with those of your own or your group. It is important to realise that in the case-based sessions there is no such thing as a silly or wrong question. Indeed it is most likely that your student peers will be thankful you asked the question.

ii) What do I need to submit by Week 10 into Turnitin?

Each fortnight you will be required to meet the case objectives within 5 A4 pages (unless otherwise specified). Therefore by the end of Week 10 there will have been five (5) CBL sessions with each session requiring a maximum of 5 A4 pages (unless otherwise specified). The final page of the write up for each session must be dedicated to a reflection of what you have learnt from other groups, how you could (or have) adjust/ed your approach to meeting the session objectives.

Having written up each of the sessions, each student will be required to submit a MS Word file into Turnitin by the due date. Your group will also need to submit via email the Garmin endurance workout files and provide Dr Herb Groeller with the username and password details to access this information.

iii) Group participation in the CBL sessions

It is critical for the success of these sessions, that your group is ready to present or lead discussion related an element of CBL session. Please note groups will be asked on multiple occasions to lead discussions, so each group should be prepared PRIOR to attending the CBL session. It is therefore critical that you and your group have done sufficient background work for this to occur seamlessly.
Appendix 2: Training Session Development with Garmin GPS

GROUP Assessable Task

i) This assignment will require you to
- use a HR, Accelerometer, GPS Watch
- Become familiar with the operation of a Garmin 210 GPS
- create a user name and password to create user accounts on http://connect.garmin.com/
  Make sure you only have one user account (ie do NOT create a separate user account for each workout).
- create a series of running and/or cycle ergometry workouts that your group believe are most appropriate to meet the need to the triathlete CBL case.
- download, GPS, HR, pace and stride length data to your user account on http://connect.garmin.com/
- comment on each workout you have created on http://connect.garmin.com/ within the NOTES section in the specific activity page for the workout you have created. The comments should provide a rationale for the purpose of the workout in relation to the CBL, and an interpretation of the data collected within the work out. KEEP it brief, no more than two paragraphs maximum.
- one member of the group must email Dr Herb Groeller (hgroell@uow.edu.au) the user name and password of your Garmin account, including those members that are in your group (ensure all members of the group are cc’d in the email). This will formally signal that your assessment task has been completed.

ii) Set up
Your group will be able to loan a Garmin Forerunner 210 equipped with GPS, HR. The loan period is for a maximum of one week at any one time, the Garmin can be loaned several times during semester to complete the assignment. All loans are through Petra Olbrechtova; petra_olbrechtova@uow.edu.au.

The watch is not waterproof and must only be used for running or cycling or other land-based activities.

To setup the Garmin go to http://static.garmincdn.com/pumac/Forerunner_210_OM_EN.pdf to download the manual and learn how to install the web-based software.

Install web-based software on your computer, then once the Garmin is plug into your computer all new data you have collected will be downloaded to the website http://connect.garmin.com/. Make sure once you have downloaded your data that you delete your files on the watch.

You are to perform the workouts that you have created for the CBL triathlete on one person in your group. Please note that it is expected that the fitness of your CBL triathlete may be different to your group member. Make sure that the workout structure is what you would give the triathlete, but the levels of exertion are suitable for the participant in your group.

**Very important: Make sure your unit is actually recording.** If you are unable to download the data to the Garmin site, you will have to repeat the sessions until you are able to download the data from the exercise sessions. Also it is expected that it will take you a number of practice sessions for each work out to ensure your participants are actually conducting the workout within the specifications your group are recommending for the CBL triathlete. Prior to diving straight into recording the workouts, think very carefully, is there any preliminary activities or tests that need to be completed to ensure the workouts are performed correctly or are at the appropriate intensity? If your group believe there are, then these should also be recorded as separate workouts on the Garmin website.
Appendix 3: Skills Examination – Physical Assessment

INDIVIDUAL Assessable Task
WEEK 10: Teaching assessment
You are required to take a small group of students through a class to teach them a skill. To pass you must seamlessly complete each of these 6 steps with your allocated group. You will be allocated an activity in the week prior to the assessment.

This will involve 6 steps
i) Name the exercise
ii) State the purpose of the exercise
iii) Perform a silent demonstration of the exercise
iv) Perform a talking demonstration of the exercise, while demonstrating mentioning the key teaching points for the exercise
v) Have your group perform the exercise. Guide the group through the exercise
vi) Provide feedback to the group and each individual within the group.

Key points
i) Keep it simple but have a plan for the session
ii) Have a clear strong voice
iii) Provide feedback to the group and individuals that builds confidence and improves skill
iv) Attempt to identify technical faults (eg “the bar is coming up just behind your head”)
v) Provide solutions to the identified faults (“try extending your hips earlier, that should allow you to lift the bar directly above your head”)
vi) Do not use jargon

INDIVIDUAL Assessable Task
WEEK 12 and 13: Physical assessment
Students will be required to perform the following assessments in Week 11 or 12. Students will be assessed on their ability to carry out the assessment, the technique used to perform the assessment, and the timeliness to which they complete the assessment task. Students will also be required to act as subjects
-Be dressed professionally, greet your subject and introduce yourself
-Be prepared with your own data sheet and board to record data
-Be able to take all measures competently and professionally, be able to vary measures for special populations (eg aged), be able to explain results and related calculations.
-Understand test termination points.
-Effective communication is critical ensure all assessments are fully explained to the client.

i) Perform a medical history check have subject complete the a PAR-Q review PAR-Q, have it signed by the examiner.

ii) Resting heart rate
• Ensure the subject is rested and has not consumed and taken caffeine, tobacco or other chemical that may affect resting HR and BP
• Instruct the subject to sit upright in a chair with their non-dominant limb rested supported on a table for a period of rest. Locate the radial artery and take resting heart between the 4th and 5th minute of rest. Record the resting heart rate. Also record resting heart rate, this time using the carotid artery for a period of 30 seconds between 5.30 - 6 mins.
• After recording resting heart rate, you should record resting blood pressure

iii) Resting and exercise blood pressure
• Wrap the pressure cuff firmly around the arm at heart level (eg supported on a table). The tubes should be aligned with the brachial artery and the dial secured to the cuff where the tester can see it. The stethoscope diaphragm should be placed in the antecubital space opposite the elbow ~1cm below the BP cuff. The stethoscope bell should not be placed under the cuff. Stethoscope ear pieces should be directed forward, down the ear canal of the tester. Stethoscope should be help in place firmly with the testers thumb preferably.
• Inflate the cuff to ~180-mmHg and deflate the cuff at a rate of 2-4mm/Hg per second. The first of two or more korotkoff sounds signifies systolic blood pressure, when the korotkoff sound stops indicates diastolic blood pressure.
• A second measure should be taken approximately two minutes later for consistency
Please see demonstrator for tips on how to effectively take an exercise blood pressure.
Note: you will be assessed using a dual stethoscope, this allows the examiner to simultaneously
determine blood pressure with you. You must be within 3mmHg of the examiners blood pressure
reading to pass this section.

iv) Standing Height
• Visually check the equipment, check for alignment. Instruct subject to remove footwear (ideally
barefoot). Ask the subject to stand erect with heels, buttocks and shoulders pressed against the
stadiometer and arms hanging freely by their sides (palms facing thighs). Ensure the subject’s heels
are together and feet are flat on the floor.
• Instruct the subject to look straight ahead. Gently hold the subjects head with your fingers running
along the jaw line and thumbs under the chin. Position the subject in the Frankfort plane by aligning
the orbital (lower edge of eye socket) with the tragion (the notch superior to the tragus of the ear).
• Instruct the subject to take a deep breath and stand as tall as possible, apply gentle upwards
pressure to the subjects skull behind the ear. Ensure the body is fully stretched and that the head is
not tilted backward and remains in the Frankfort plane. Ensure the height platform makes firm contact
with the vertex of the head and take the measurement at the end of the deep inward breath.
• Record standing height to the nearest 0.1cm (Table 1).

v) Mass
• Check equipment (check LED display if battery operated). Ensure the scales are placed on a flat,
level and hard surface. Ensure the scales are registering zero before weighing.
• Instruct the subject to remove their footwear (ideally barefoot) and ensure all light clothing is worn (t-
shirt / singlet / shorts / skirt). Instruct the subject to stand still and erect on the scales and ensure
weight is evenly distributed on both feet over the centre of the scales. Wait for a stable reading before
recording the measurement.
• Record subjects body mass to the nearest 0.1kg.

vi) BMI
• Calculate each subject’s body mass index.
• BMI = Mass (kg) divided by Height squared (m2); kg/m2

vii) Circumferences
• Wherever possible reference points must be measured and marked for consistency across
measures.
• Arm: Subject standing erect and arms hanging freely at the sides (hands facing thighs). Horizontal measure midway between the acromion and olecranon processes.
• Calf: Subject standing erect, feet ~20cm apart; take a horizontal measure at the level of the
maximum circumference between the knee and the ankle.
• Hips/thigh: Subject standing, legs slightly apart ~10cm, horizontal measure taken at the maximum
circumference of the hip/proximal thigh, just below the gluteal fold.
• Mid Thigh: Subject standing, one foot on a bench, knee flexed at 90°. Measure is taken midway
between the inguinal crease and proximal border of the patella.
• Waist: Subject standing, arms at sides, feet together and abdomen relaxed. Horizontal measure is
taken at the narrowest part of the torso (above umbilicus; below xiphoid process).
• Record circumferences to the nearest 0.1cm
• Waist Hip circumference
• Waist circumference / Hip circumference (buttocks/hips) =

viii) Sit & Reach
• Rest the sit and reach box against the wall or other immovable object. Instruct the subject to remove
their shoes (ideally barefoot) and sit on the floor with the knees held straight. One hand should be
place flat on top of the other with the finger tips together and the subject is required to slowly reach
forward keeping the legs straight at all times. Warn against fast and jerky movements. Instruct the
subject to drop their head and exhale as they reach forward and push the slide forward, the subject
must hold the maximum stretch for 2-3 seconds for accurate measurement. The subject is allowed 3
attempts.
• Record the measure to the nearest 1cm

ix) Skinfolds
• Wherever possible reference points must be marked for consistency. All measures should be made on the right hand side of the body with the subject standing upright. Calipers should be placed on the skin surface, 1cm away from the thumb and finger, perpendicular to the skinfold and halfway between the crest and base of the fold. The pinch should be maintained while reading the caliper. Wait 1-2 seconds (no longer) before taking the reading.

• Complete one measurement across each of the measurement sites then repeat to check for consistency. If measurements are not within 1-2mm take a third reading.

• Abdominal: Vertical fold; 2cm to the right side of the umbilicus
• Triceps: Vertical fold; on the posterior midline of the upper arm, halfway between the acromion and olecranon processes. Ensure the subjects arm hangs freely to the side of the body
• Biceps: Vertical fold; on the anterior aspect of the arm over the belly of the biceps muscle, 1cm above the level used to mark the triceps site,
• Medial calf: Vertical fold; at the maximum circumference of the calf on the midline of its medial border.
• Midaxillary: Vertical fold; on the midaxillary line at the level of the xiphoid process of the sternum. An alternate method is a horizontal fold at the level of the xiphoid/sternal border in the midaxillary line.
• Subscapular: Diagonal (45 angle) fold; 1-2cm below the inferior angle of the scapula.
• Suprailiac: Diagonal fold; in line with the natural angle of the iliac crest taken in the anterior axillary line immediately superior to the iliac crest.
• Thigh: Vertical fold; on the anterior midline of the thigh, mid-way between the proximal border of the patella and the inguinal crease.

• Record the sum of the eight skinfolds

x) Bench Pull
• Check the height of the bench ensuring the subject can take grip of the bar while the weight is off the ground in the hang position. Position the subject lying prone on the bench with arms extended below the bench. The subject should take a shoulder wide grip on the bar. The subject must keep their elbows out and chest on the bench at all times, only the arms and shoulders are permitted to move in lifting the weight. Ensure the rest of the body (head, trunk and legs) remains still throughout the movement and the feet remain off the ground throughout the lift and in the same position throughout the lift.
• Set the weight at 30kg (female) or 40kg (male) (Olympic bar = 20kg). Attach collars to prevent the weights from sliding.
• The subject should pull up the bar until it makes contact with the underneath of the bench, once contact has been made, the subject must extend the arms in a controlled manner back to the starting hang position. Ensure the bar does not touch the ground and the subject must maintain a continuous movement sequence and continue until volitional exhaustion.
• Encourage proper technique and maximal effort before each trial. If the subject displays poor technique provide simple feedback.
• Record the number of correctly completed (full) repetitions. Record the bench height and weight lifted

xi) Max Push ups
• The subject must position themselves with hands pointing forward and under the shoulders, back straight and head up. Push ups are ideally performed on the toes. A modified "knee push up" (legs together, lower leg in contact with the mat, ankles planter flexed, back straight, hands shoulder width apart & head up) can be performed if the subject cannot comfortably perform toe push ups.
• The subject begins in the “down” position and must raise the body by straightening the elbows and return back to the down position until the chin touches the mat. The subjects back must be straight at all times and the subject must push up to a straight arm position.
• The maximum number of push ups performed consecutively without rest is counted as the score. The test is terminated if the client strains forcibly or is unable to maintain the correct technique over two consecutive repetitions.

xiii) Sit ups (6 stage)
• Ask the subject to position themselves supine on a mat with the knees at 90. The hands are placed on the thighs. The test is terminated if the subjects feet leave the ground.
• Level 1: The subject slides the hands up the thighs until the hands reach the knee cap
• Level 2: The subject slides the hands up the thighs until the elbows reach the knee cap
• Level 3: The subjects arms should be crossed across the chest (finger tips touching opposite shoulders). Sit up until elbows touch knees (elbows must also remain in contact with trunk)
• Level 4: Lift arms above the head and fold across the back so that the hands are touching the shoulder blades. Sit up chest to knees
• Level 5: Clasp hands together and fully extend above the head. Sit up chest to knees
• Level 6: Lift arms above the head and fold across the back so that the hands are touching the shoulder blades. Provide the subject with a 2.5kg plate to hold behind the back. Sit up chest to knees

gxiv) Vertical Jump
• Ensure the subject stands side on to the vertec with heels flat on the floor. Ensure the dominant hand is used for reach height. The non-preferred hand is to be placed on the hip. Ask the subject to move the vertec markers at maximum reach to establish base height.
• The subjects arms must remain in the same position as described above throughout the test. Instruct the subject to complete a countermovement jump aiming to reach as high as possible, no arm swing is allowed, jump to move the vertec markers at maximum jump height. Ensure correct take off technique (two foot take off).
• Complete a minimum of three jumps.
• Record the jump height. Calculate the difference between the jump height and the reach height to give the vertical jump result (cm).

xv) Seated two hand chest pass medicine ball throw
• Thrower sits on the floor with their back flat against a wall with legs spread comfortably apart. Hold the ball as if performing a basketball chest pass with the thumbs touching the chest. Using two hand chest pass the ball as far forward as possible. The thrower may lean forward as required and may lose contact with the wall in order to throw the ball as far as possible. Measure the distance from the throwers chest to the sport where the back of the ball hit the floor as the distance thrown.

xvi) Submaximal exercise test.
You are to follow the YMCA protocol as outlined in ACSM Guidelines for Exercise Testing and Prescription.
You will be required to set the client up on the cycle ergometer correctly
You will be required to independently set the correct workloads for the client and be able to convert KPM to Watts
Your will be instructed to measure HR and blood pressure by the examiner
You will be required calculate aged predicted maximum HR and predicted maximum oxygen consumption and comparing them to known norms (you are responsible for sourcing these norms).
Note the examiner may instruct you to vary the protocol, you will be required to respond appropriately
Alternatively the examiner may say your client is experiencing certain symptoms, you will be required to act within a clinically relevant time period. Ensure you are well aware of absolute and relative contraindications to exercise.

• At the start of stage 3, 6, 9, 12, 15 you will be asked to rate your feeling of perceived exertion using the 20 point borg scale (see below).

6
7 Very very light
8
9 Very light
10
11 Fairly light
12
13 Somewhat Hard
14
15 Hard
16
17 Very hard
18
19 Very very hard
20