Instructor: Dr. Kerry MacDonald  
Email/Office/ Tel: kerry.macdonald@ubc.ca, War Memorial Gym, room 286  
604-822-5215  
Office Hours: Before class or by appointment  
Time and Location Wednesday evenings, 5-8pm in Room 208  
War Memorial Gymnasium

Prerequisites: Students should have some background in exercise physiology and the natural sciences of coaching.

Course Aims: To expose the graduate student to the process of periodization and planning for the optimization of performance.

Course Objectives: By the end of the course it is expected that the graduate student will:  
a) Apply information from the Long-Term Athlete Development Plan (LTAD) to develop athletes for optimal sport performance  
b) Examine recovery tools/techniques and sport nutrition to prepare the athlete for optimal sport performance  
c) Outline fitness program structure based on training, competition, and recovery needs and opportunities (periodization)  
d) Develop and implement strategies to monitor the training program in order to prevent overtraining and fatigue  
e) Design an assessment program for the testing athlete’s physiological abilities  
f) Develop a personal Yearly Training Plan for your specific sporting context  

Course Text and Readings: No textbook required. Selected readings for each area will be available online (Canvas). The course will be based on those materials, scientific research papers/review articles, and guest speakers.

Class Format: Classes will include short lecture presentations by the instructor or guest lecturers, and interactions in small and large group discussions with peers. Group discussion is a major focus of this course. It is expected for content to be reviewed prior to class by the student in order to discuss in detail the selected topics/issues. Similarly, opportunities will be offered to debate controversial topics in coaching. Lastly, exposure to different UBC and local coaches will be offered allowing students a chance for open group discussions. Students will be expected to:  
1) come prepared to participate in the in-class discussions, debates and coaches round-table  
2) provide presentations for the class as required  
3) review or acquire basic sport planning concepts  
4) submit a yearly training plan
Course Evaluation:

<table>
<thead>
<tr>
<th>Participation</th>
<th>15%</th>
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<tbody>
<tr>
<td>Recovery/Supplements Presentation</td>
<td>10%</td>
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<tr>
<td>Sport Assessment Assignment</td>
<td>10%</td>
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<tr>
<td>Athlete Testing, Monitoring Assignment</td>
<td>15%</td>
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<td>Athlete Testing, Monitoring Presentation</td>
<td>10%</td>
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<tr>
<td>YTP &amp; Planning Presentation</td>
<td>10%</td>
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<tr>
<td>YTP &amp; Planning Assignment</td>
<td>30%</td>
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100%

Tentative Course Schedule: This schedule is subject to change.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Sept. 4</td>
<td>Course Introduction and Long-term Athlete Development (Unit 1)</td>
</tr>
<tr>
<td>Sept. 11</td>
<td>No Class – Training for Sport (Unit 2) to be reviewed on own</td>
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<tr>
<td>Sept. 18</td>
<td>Training for Sport (Unit 2) Review</td>
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<td>Periodization and tapering (Unit 3)</td>
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<td>Sept. 25</td>
<td>Fatigue &amp; OTS (Unit 4)</td>
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<td></td>
<td>Athlete Testing (Unit 4B)</td>
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<td>Oct. 2</td>
<td>Sport Nutrition</td>
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<td>Oct. 9</td>
<td>Athlete Monitoring</td>
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<td>Oct. 16</td>
<td>Recovery or Supplements Presentations</td>
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<td>Oct. 23</td>
<td>Guest Lecture - TBA</td>
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<td></td>
<td>Sport Assessment Assignment Due</td>
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<tr>
<td>Oct. 30</td>
<td>YTP Development</td>
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<tr>
<td>Nov. 6</td>
<td>Athlete Testing &amp; Monitoring Assignments Due</td>
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<td>Athlete Testing &amp; Monitoring Presentations</td>
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<tr>
<td>Nov. 13</td>
<td>Class Debate (Relevant Coaching Issues)</td>
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<tr>
<td>Nov. 20</td>
<td>YTP Presentations</td>
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<tr>
<td>Nov. 27</td>
<td>YTP Presentations</td>
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<tr>
<td></td>
<td>YTP Assignment Due</td>
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Supplementation and Recovery Assignment

Students will present a 10 minute presentation in class on Supplementation and Recovery Technique. Following the presentation there will be a 2-5 minute Q & A Session. Presentations should include use, sources, mechanism of action, results (inconsistencies), side-effects/contraindication, doses, protocols, etc. and cite a minimum of 5 references.

Sport Assessment Assignment
Students will submit a 1000-2000 word paper providing a comprehensive assessment of their sport. Assignments must cover the following topics:

- Brief sport history
- Summary of the physiological, technical, tactical demands & strategies of the sport.
- An overview of standard periodization approaches used in the sport
- An overview of known key performance indicators
- A viewpoint on what traditionally held viewpoints could be challenged within the sport
- A discussion on how the sport may change in the next 10 years and how/why.

All sections should be well cited with a minimum of 8 references in total.

**Athlete Testing & Monitoring Assignment/Presentation**

Students will submit a 1500-2500 word paper providing a comprehensive analysis of testing and monitoring approaches for their sport. Assignments must cover the following topics:

- A detailed assessment of physiological testing approaches for your sport. Including known measures of validity and reliability.
- A detailed assessment of both internal and external measures of training load for your sport. Including known measures of validity and reliability.
- A highlight of 3 other measures of wellness, wellbeing or fatigue measures that could be collected. Include best practices and known limitations.
- An overview of how physiological testing could be optimally used within your sport (assuming no financial or personnel limitations).
- A comprehensive analysis of how load metrics could be utilized to optimize performance and/or athlete wellness.

All sections should be well cited with a minimum of 12 references in total.

Students will then be asked to summarize their findings in a 15 minute in class presentation with an additional 3-5 minute Q & A.

**YTP Assignment & Presentation**

Students will submit a 2000-3000 word paper including each of the following:

- A profile of the sport using empirical evidence.
- A description of the athlete context (Stage) related to the sport specific LTAD.
- A detailed gap analysis that clearly states perceived gaps to be addressed in the plan and training objectives to achieve discrepancy between current and desired performance (gap).
- A summary of key elements that will impact the plan and detailed monitoring strategies related to: Energy system training, Strength training, Mental training, Tactical training, Nutrition consideration, Recovery and regeneration, Tapering for key event(s), Other ancillary sport specific factors (ect. Environment / Equipment)
- An overview of the training plan indicating integration of training components / objectives.
- An example of a selected a micro cycle from each phase of the plan (GPP, SPP, PCP, CP, and TP) describing the objective of the cycle and the daily sequencing of training, competition and recovery activities.
- **Conclusion** should include a re-statement of the purpose/aim, summarizing key findings, stating limitations of paper and future considerations.
Participation:
Your participation in this course will be evaluated by the Instructor. Credit will be given for leadership, critical contribution, interpersonal skills, support activities, punctual attendance, on-time completion of class activities, positive attitude and effort.

10  Outstanding  Continual encouraging and supportive of others, outstanding leadership, critical contribution and interpersonal skills. Volunteers, facilitates the learning of others. Excellent attitude and effort. 100 % punctual attendance

8   Very good  Demonstrates leadership and active support with colleagues. Very high level of critical contribution. Near 100 % punctual attendance. Positive attitude and very high level of effort throughout course.

6   Adequate  Works well with others, willing to contribute towards class discussion. Only 2-3 sessions non-punctual /non-attendance. Satisfactory effort and attitude.


2   Poor  Zero contribution and support given during class processes. Poor punctual and attendance. Attitude, participation, and effort do not meet acceptable standard.

Assessment and Evaluation tools:
Refer to Connect for assessment and evaluation tools/details.

Important Information:
- Because this course emphasizes a number of concepts, terms and practical demonstrations, regular attendance is required. The student is responsible for all material covered in class and any information given whether in attendance or not.
- You are responsible for all announcements concerning changes in the course outline, readings, assignments, exams, and other matters made during class periods whether or not you are in attendance when announcements are made.
- Students who are unavoidably absent because of illness or disability should report to their instructors on return to classes.
- Please note: Extensions will NOT be provided for academic workload or for any other reason. In case of a medical or serious family emergency an appropriate medical certificate must be submitted.
Students should retain a copy of all submitted assignments (in case of loss) and should also retain all their marked assignments in case they wish to apply for a Review of Assigned Standing.

**Evaluation Standards:**

1. **Evaluation Standards:**

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<tr>
<th>Grade</th>
<th>Description</th>
<th>Requirements</th>
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| High A | 90-100% A+ 85-89% A | 1) Required learning activities are completed, and display outstanding commitment to learning, including evidence of considerable independent research outside the class time.  
2) Evidence of outstanding ability to analyze and synthesize relevant ideas, and to critically assess & weigh alternative perspectives in an informed fashion.  
3) Prepared materials represent original (to the learner) insight, thought or presentation and are organized logically and clearly expressed.  
4) Cooperative engagement with peers and demonstrated leadership in learning  
5) No deficiencies of note. |
| A-B | 80-84% A- 76-79% B+ | 1) Required learning activities are completed.  
2) Efforts display a sound grasp of concepts.  
3) Evidence of synthesis of relevant ideas, along with the ability to critically assess & weight alternative perspectives in an informed fashion.  
4) Prepared materials are organized logically and clearly expressed.  
5) Cooperative engagement with peers.  
6) Minor difficulties that are developmental in nature. |
| B-C | 72-75% B 68-71% B- 64-67% C+ 60-63% C | 1) Required learning activities are completed.  
2) Efforts display a basic grasp of concepts.  
3) Evidence of a basic ability to synthesize of relevant ideas, along with the ability to critically assess & weigh alternative perspectives in an informed fashion.  
4) Prepared materials are organized logically and clearly expressed.  
5) Cooperative engagement with peers. |

**Academic Dishonesty and Plagiarism**

It is your responsibility to become familiar with the University of British Columbia’s Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies. Plagiarism, cheating or any other form of academic dishonesty will not be tolerated. Violations will be taken seriously and will be dealt with according to the University policy regarding academic dishonesty.

(See Academic Calendar, [http://www.students.ubc.ca/calendar/](http://www.students.ubc.ca/calendar/)). Any transgression could result in failure of the course.

**Course Review**

The School of Kinesiology is continually trying to improve our teaching, and student opinion is an important factor, which influences this. At the end of the course every student should fill in a questionnaire (SCETs). This involves a set of predetermined questions to grade all aspects
of the course, as well as the opportunity to add any written comments. Make sure you complete this questionnaire. Your opinion is valuable to us.