



# AFL teacher edition

## Periodisation

### Key terms & definitions:

**VO<sub>2max</sub>:** The maximal amount of oxygen an individual can use per minute during aerobic exercise.

**Rating of Perceived Exhaustion (RPE):** An index used to assess how hard someone is working.

**% RM:** Percentage of the maximum resistance that can be lifted in one repetition when performing a particular exercise.

**Microcycle:** A microcycle is a phase of training, and normally lasts up to 7 days.

**Periodisation** is the systematic planning of athletic or physical training. The aim is to reach the best possible performance or 'peak' in the most important competition of the year.

**Importance to AFL:** "A well planned periodisation model can effectively augment physiological responses within an individual athlete or team. Well constructed sessions and training phases are an important part of the build up to the AFL season. The pre-season campaign or what's referred to as the preparatory period, is the best opportunity to increase the physical and mental state of an AFL footballer"

*Matthew Pell-* AFL Umpires national strength and conditioning coach

### 1. The Hans Selye's theory of general adaptation

Hans Selye's general adaptation theory describes how the body reacts to short term and long term stress. Three stages of adaptation have been identified when the body is presented with a new stressor.

#### These stages include;

**Alarm:** Refers to the initial shock on the body from the stimulus.

**Resistance:** Refers to the stage where the body adapts to the stimulus.

**Exhaustion:** Refers to the final stage where repairs to the body are inadequate resulting in a decrease in function of the body systems and adaptation.





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## Class activity:

1. List the three types of cycles used to periodised training.
2. Describe the relationship between each cycle type with an example.
3. In the following example, label the cycles currently being used within the training plan.

## 3. Training phases

An AFL players training year i.e. macrocycle, is broken into sub phases in accordance with desired fitness outcomes and priorities.

### These sub phases include;

**Pre-season:** This phase is typically divided into two sub-phases; early and specific preparation.

**Early preparation:** Emphasis is placed on developing general strength and endurance. Training volume is generally high, whilst intensity begins low and increases gradually. This sub-phase lasts from 4-10 weeks.

**Specific preparation:** Typically lasts between 2 and 6 weeks. There is a shift towards more specific, sport related fitness work. This phase develops maximal strength and anaerobic based conditioning.

**In-season:** The in-season phases within an AFL environment are divided into sub-phases; **pre competition** and **competition**. Early competition is sometimes broken up into early competition and peak competition, depending on the sport. The emphasis of both of these sub-phases is to maintain pre-season fitness, with each sub-phase lasting up to 8 months. Training will typically work on a hard-easy cycle. Sessions early on in the week are typically longer and more intense than later in the week.

Example of a weekly loading structure within an AFL team. Key E= Easy, M= Medium, H= Hard





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**Off season:** The off season is a recovery period for the body both physically and psychologically. This phase will last between 4 and 12 weeks. It is important that players participate in active rest to prevent detraining. For example, swimming and cycling to maintain fitness in the AFL off-season.

## Class activity:

1. List the key training phases used in periodisation.
2. Define the key training phases used in periodisation.
3. Explain the difference between early and specific preparation.
4. Which training principle is taken into consideration when shifting from early to specific preparation? Why is this important?
5. You are a strength and conditioning coach at an AFL club and you are planning the season ahead. Describe each of the training phases and sub-phases required for your training plan.
6. As a class, discuss the following; if you were in charge of your AFL club's fitness programming, when would you commence pre-season training? Justify your response.

## 3. Peaking and tapering

During an AFL season (macrocycle), it is difficult for AFL players to be in peak shape all year round. Strength and conditioning coaches will train their players to perform at their best for certain matches or part of a season (e.g. a tough opposition, finals or grand final). This is known as peaking. For example, the strength and conditioning coaches will make sure that their team is in the best possible condition for the grand final, not two weeks earlier.

**Peaking** is a strategy used for reaching top performance by preparing especially for important matches or certain periods in a season. It is achieved via altering the training load.

**Tapering** refers to the practice of reducing training load by manipulating training variables such as volume and intensity to prepare for an important competition. This phase can last from days to up to 2 weeks before the event and is essential for optimal performance.

## Class activity:

1. List and define the key differences between peaking and tapering.
2. When would an AFL player begin to taper for a finals match?  
Provide reference to the weekly loading structure above to assist with your response.



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