Preparation Q-Course

Dear candidates,

With this document, we would like to provide you with a guideline in preparation for the Q-course. To arrive in top shape at the start of your challenge, it is important to integrate the following pillars into your preparation: mindset, nutrition, exercise and recovery.

1. ***Mindset:*** **committing yourself to a goal where you fully understand what is needed to achieve it.**

You have decided for yourself that you want to go 100% for this goal (succeeding on the Q course and getting a job within SF Gp). Fine! Through this document, you will find out exactly what is needed to achieve this goal.

2. ***Nutrition:*** **provides the fundamental fuels for the body and mind, it maximises performance.**

Without nutrition, the following two pillars are not possible. Nutrition is essential for exercise, performance and recovery. Therefore, this document will discuss some basic principles of nutrition.

3. ***Exercise:*** **is essential to improve performance. This is about moving better.**

First and foremost, the aim of the programme is for you to pass the entrance tests. We also do injury prevention. We try to achieve this by incorporating exercises into the programme that counteract the risk of highly frequent injuries (in your future job).

4. ***Recovery:*** **allows the body and mind to find new energy and prepare for subsequent activities.**

Recovery and rest periods will be respected when building the programme. Ways to promote recovery will be briefly discussed.

If you experience problems with one or more of the four pillars, do not hesitate to call for help. Average expectations and average performance require average coaching.
We have high expectations of you and you will have to deliver excellent performances. Therefore, there should certainly be no hesitation in seeking professional coaching.
Within the mindset pillar, this involves a psychologist. For the nutrition pillar, you can consult a nutritionist or dietician. For more specific coaching in the exercise pillar, you can turn to a PTI or personal trainer. For the last pillar, you can consult a psychologist, doctor or nutritionist. You will find these specialists within Defence as well as in the civil sector.
To reinforce this plea for professional help, we refer to the following quote:

“Being prepared for any random task is not the same as preparing randomly for any task.” – Greg Everett

Contents

1. Mindset

Framework:

Why is mindset important?

Just as physical skills can be trained through physical training, mental skills can be trained through mental training. Examples of mental skills include: maintaining concentration in difficult circumstances, increasing self-confidence and maintaining motivation.
You have probably all experienced a moment where you were struggling mentally. This could be about a lack of motivation to finish a particular workout, for example, or feeling bad because you did not recover from an injury quickly enough.
In contrast to this, we have the convergence of positive emotions and thoughts “in the flow”, where you are in control of the situation and everything seems to flow naturally. This mental state can help you achieve optimal performance.
Mental and emotional components often overshadow the purely physical and technical aspects of a performance. The importance of mental skills is reflected in the concept of mental strength. Mental strength is about the ability to focus, bounce back from failure and cope with pressure.

What do you want to achieve with mental training?

Some people are mentally strong by nature, while others have a tougher time. It is important to prepare the mind as well as possible for the mentally demanding moments you may encounter in your future job. Stress, anxiety, exhaustion, hypothermia and other unpleasant feelings will become part of the job. It is important to learn techniques that can help you deal with such situations. Everyone has a limit, which will be assessed during the Q-course. With the right training, you can push your limit which will make it easier for you to deal with challenging situations.

System:

How to improve your mental skills?

Improving your mental skills is a very specific process. Going into how to improve each skill would lead us too far in this report. We list some crucial skills. It is up to you to determine in which skills you could use extra training and to figure out how to work on them. You can search the literature for methods or consult a specialist.

- Communication
- Concentration
- Consistency
- Imagery or visualisation
- Leadership
- Mental preparation
- Courage
- Motivation
- Self-talk
- Stress management
- Dedication
- Self-confidence

In recent years, the realisation that this pillar should not be underestimated has also grown in top-level sport (many top-level athletes are now supported by a sports psychologist). Top athletes try to maximise their potential, they have to deal with a lot of training and consider the same pillars as members of the SF Gp. With this comparison, the question also arises as to why you would not seek such support. Often, we wrongly associate consulting a specialist in this field with people who have mental problems. However, preparing for mental challenges is similar to preparing for physical challenges. A specialist in this field (psychologist) should rather be seen as a coach in this situation.

2. Nutrition

Framework:

Why is nutrition so important?

- Energy for optimal performance
  - To train/perform qualitatively
  - To recover optimally
- Injury prevention
  - To recover quickly and optimally
  - To start the next training session rested
  - To prevent muscle breakdown
  - To avoid injury and illness
- Weight and fat percentage
  - Losing weight
  - Maintaining weight
  - Gaining weight
- Maximising the training effect
  - What you eat before a workout has an effect on the workout (e.g. training on an empty stomach ensures that the body will draw more energy from fat burning)

What is your goal?

Do you want to gain, maintain or lose weight? To achieve your goal, a simple law applies:

Energy intake – Energy consumption = energy storage difference

In other words, if your energy intake exceeds your energy consumption, you will gain weight. If your energy intake is smaller than your energy consumption, you will lose weight. If your energy intake equals your energy consumption, then you will stay at the same weight.

What is the difference between a candidate like you and other people?

- Amount

You need more energy and building blocks than other people. Food provides this energy and building blocks.

- Timing

In your case, it is extra important to take the right nutrient at the right time. For instance, carbohydrates will be the main fuel during intense workouts, fats will be the main energy supplier during long endurance workouts and proteins are needed for muscle recovery and building.

- Frequency

You will need to provide snacks in addition to your main meals: to have enough energy to perform your work, to avoid major hunger or cravings for unhealthy food, to refuel energy for workouts and to aid your recovery.

- Type of food

You will need more healthy fats, vitamins and minerals.

System:

How to make the right choices?

- Carbohydrates

Preferably main meal	Preferably snacks	In limited quantities	In exceptional cases
Wholemeal bread Multigrain bread Muesli Oatmeal Wholemeal Breakfast Cereals Wholemeal pasta Wholemeal couscous Brown rice Quinoa Legumes	Fresh fruit Dried fruit Cereal biscuit Muesli bar Rice or corn wafers Wholemeal Breakfast Cereals Puffed corn Pancakes Nut cookies	White bread Baguette Sandwiches Sugared cornflakes White pasta White rice	Croissants Coffee cookies Fries Crisps Chocolate bars Shortbread cookies

- Proteins

Preferably main meal	Preferably snacks	In limited quantities	In exceptional cases
Low-fat cheese spread (max 15% fat) Low-fat cheese (max 20% fat) Lean meats (ham, chicken white, smoked meats) Skimmed/semi-skimmed milk Soy milk Fish Seafood Lean Meat Poultry Meat substitutes Eggs	Skimmed or semi-skimmed yoghurt Skimmed or semi-skimmed curd cheese Pudding or rice pudding	Whole dairy products Fatty cheese Sugared dairy drinks	Fatty meat

- Fats

Preferably main meal	Preferably snacks	In limited quantities	In exceptional cases
Low-fat cheese spread (max 15% fat) Low-fat cheese (max 20% fat) Lean meats (ham, chicken white, smoked meats) Skimmed or semi-skimmed milk Fish Seafood Lean meat Poultry Meat substitutes Vegetable oil & liquid margarine Plant-based & light cream (<10% fat)	Nuts Cereal biscuits Dry biscuits (max 15% fat) Skimmed or semi-skimmed yoghurt Rice pudding & pudding	Whole dairy products Fatty cheese Chocolate sprinkles	Fat & breaded meat Fatty meats (bologna sausage, salami, crab salad, chicken curry) Chocolate & chocolate spread Coffee cookies & donuts Pastry Farmhouse butter Cream Crisps & ice cream

- Fibres

Important for optimal digestion. Found in whole grain cereal products (whole grain bread, whole grain pasta, brown rice, oatmeal, fruit, dried fruit, nuts, legumes, vegetables).

- Vitamins and minerals

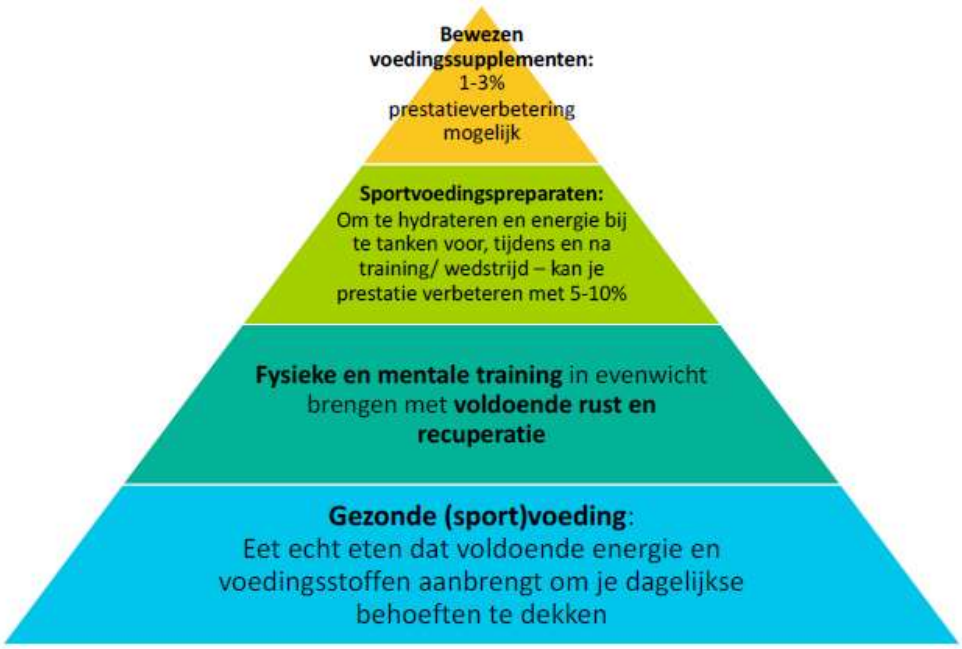
Vitamins are important to maintain various processes in the body (nervous system, brain function, immune system, healthy growth, etc.).
Minerals mainly have a structural role (bone density and regulatory role in fluid balance and muscle contraction).
Vitamins and minerals are mainly found in vegetables, fruits and whole grain cereals. Vitamin and mineral supplements are only necessary in case of deficiencies (determined through blood tests at the doctor's). Taking extra vitamins without being deficient has no added value and may even be toxic.

- Drinking

When	***Which drink***
All day long	Water
In limited quantities	Unsweetened or fresh fruit juice
During efforts < 1h	Water
During efforts > 1 h During efforts in hot weather During sports days	Isotonic sports drink

Water remains the best thirst quencher. Tea and soup are healthy alternatives. Soft drinks and fruit juice are not banned, but are best drunk on an exceptional basis.

- Sports nutrition preparations



It is very important to work on the base of the pyramid first before moving on to the top of the pyramid.

Sports drinks

For efforts of up to 30 minutes, it is best to drink only water. For efforts of less than 60 minutes, water, hypotonic or isotonic sports drinks are recommended. Hypotonic sports drinks contain less than four grams of carbohydrates per 100ml. Isotonic sports drinks contain four to eight grams of carbohydrates per 100ml. For efforts above 60 minutes in average or warm weather, it is recommended to take isotonic sports drinks. Hypertonic sports drinks contain more than eight grams of carbohydrates per 100ml and are used for efforts longer than an hour in cold weather, or after exercise.

Recovery drinks

To speed up recovery, it is best to take a recovery drink as soon as possible after exercise. This recovery drink consists of liquid proteins (20g-25g whey proteins) and about four times as many carbohydrates as proteins (depending on the length of the workout: long or intense workout, more carbohydrates; short or strength training, less carbohydrates). Low-fat chocolate milk is an example of a good recovery drink.

Energy bars/Energy gels

These are concentrated carbohydrates (about 30g per bar/gel) with up to ten per cent fat (so that it remains easily digestible). Possibly combined with additional minerals. Energy bars and gels are best tested on training as they can cause gastrointestinal problems. Combining them with enough drinking can be a solution.

How to concretely determine what to eat?

Depending on your goal (gain, maintain weight, lose weight), you will decide how much energy you will take in. A healthy diet ensures that there is always a balance between food groups. Below we show what this distribution would ideally look like when taking different amounts. You easily determine how much you need using an activity tracker (Garmin, Polar, FitBit, etc.). This determines how many calories you consume daily. Depending on your goal, you can then choose to go above or below this amount. Extremes are never good, so avoid situations where you are too far above or too far below your calorie consumption (take a maximum of 500kcal a day more or less than your consumption). How many portions can be taken is always determined per food group. What is considered a portion is being described below.

- Number of servings per food group in function of the number of calories to be consumed per day

	2000 kcal	2400 kcal	2800 kcal	3200 kcal	3600 kcal	4000 kcal
Cereal products	5	6	6.5	8	10.5	11.5
Vegetables	3	3	4	5	6	6
Dairy products	3	3.5	4	4	4.5	6
Healthy fats	3	3.5	4	5	5	5
Meat, fish, eggs, meat substitutes	3	3	3.5	4	4.5	5.5
Remaining group	2	3	3	3	3	3
Fruit	2.5	2.5	3	3	4	4

Example: I want to eat 2400 kcal a day. I may then take six servings of cereal products that day; three servings of vegetables; three servings of meat, fish, eggs and meat substitutes and three servings of the remaining group, etc.

- Units per food group (reflects what is considered one unit/portion)

Cereal products
Potato, fried - 5 tablespoons of 30 g
Potato, cooked (egg-shaped) - 3 medium-sized of 50 g
Mashed potatoes - 3 tablespoons of 50 g
Rusks, white/wholemeal - 6 pieces of 10 g
Bread, white/light brown - 2 slices of 27 g
Bread, white/light brown - 2 slices of 29 g
Bread, toasted white/light brown - 2 toasts of 21 g
Cornflakes - 1 cup of 30 g
Pasta, cooked - ½ cup of 210 g
Pasta, uncooked - 1 cup of 70 g
Oat flakes - 1 cup of 45 g
Muesli - 1 cup of 50 g
Breakfast cereals - 1 cup of 40 g
Pancake - 2 pieces of 60 g
Round roll - 1 medium-sized of 45 g
Rice, cooked - 1 portion of 150 g
Rice, uncooked - ½ bag of 62.5 g
Rice wafer - 5 pieces of 7 g
Rye bread - 2 slices of 40 g
Raisin bread - 2 slices of 40 g
Sandwich, sugared - 1 piece of 40 g
Spaghetti, prepared - 1 plate of 300 g
Baguette - ¼ baguette of 260 g
Wholemeal bread - 2 slices of 35 g
Wholemeal bread - 1 slice of 45 g

Vegetables
Cauliflower/broccoli, cooked - 2 tablespoons of 30 g
Mushroom, cooked - 2 tablespoons of 30 g
Courgette, cooked - 2 tablespoons of 35 g
Celeriac, raw - 1 handful of 85 g
Cucumber, raw - 1 handful of 85 g
Bell pepper green/yellow/red - ½ piece of 185 g
Leek, cooked - 2 tablespoons of 45 g
Radish - 10 radishes of 6 g
Soup - 1 soup cup of 300 ml
Brussels sprouts, cooked - 2 tablespoons of 40 g
Tomato - ½ piece of 150 g
Fennel - ½ piece of 200 g
Chicory - 1 piece of 100 g

Carrot - 1 medium-sized of 100 g

Dairy products

Chocolate milk - 1 carton of 200 ml

Gouda - 2 slices of 20 g

Gruyère, grated - 3 tablespoons of 15 g

Buttermilk - 1 glass of 150 ml

Milk - 1 glass of 150 ml

Milkshake - 1 glass of 150 ml

Parmesan - 5 tablespoons of 10 g

Curd cheese - 1 jar of 125 g

Pudding - 1 jar of 125 g

Rice pudding - 1 jar of 100 g

Cheese spread - 2 triangles of 20 g

Yoghurt - 1 jar of 125 g

Healthy fats

Avocado - ½ avocado of 160 g

Liquid margarine - 1 tablespoon of 18 g

Minarine - 2 tablespoons of 18g

Mayonnaise - 1 tablespoon of 25 g

Hazelnuts - 1 handful of 12 g

Oil - 1 tablespoon of 10 g

Olive - 16 olives of 4 g

Peanut butter - 1 tablespoon of 15 g

Peanuts - 1 handful of 20 g

Seeds - 2 tablespoons of 15g

Meat, fish, eggs, meat substitutes

Egg, boiled - 2 medium-sized of 50 g

Filet d'Anvers - 5 slices of 15 g

Trout - ½ piece of 120 g

Shrimps - 5 tablespoons of 18 g

Ham, cooked - 2 slices of 45 g

Ham, raw, smoked - 3 slices of 25 g

Herring/maatje - 1 medium-sized of 80 g

Halibut, smoked - 2 slices of 30 g

Cod - ½ piece of 175 g

Turkey ham - 3 slices of 20 g

Chicken ham - 3 slices of 20 g

Chicken breast (without skin) - ½ fillet of 160 g

Chicken leg (without skin) - ½ piece of 165 g

Rabbit/beef - ¼ leg of 250 g

Mackerel, smoked - ½ fillet of 145 g

Mussel - 20 mussels of 4 g

Omelette (1 egg) - 1 omelette of 60 g

Legumes, cooked/dried - 5 tablespoons of 35 g

Plaice - ½ piece of 135 g

Sardine - 2 pieces of 33 g

Pork steak - ½ piece of 150 g

Meat loaf - 2 slices of 30 g

Salmon, smoked - 2 slices of 30 g

Salmon, slice - ½ piece of 180 g

Remaining group

Potato croquette (frozen) - 4 pieces of 27 g

Icing sugar - 2 tablespoons of 6 g

Butter - 1 tablespoon of 18 g

Chocolate spread - 2 tablespoons of 33 g

Boudoir - 5 pieces of 5.5 g

Cake - 1 slice of 30 g

Cake with fruit filling - 1 slice of 35 g

Crisps - 1 pack of 30 g

Chocolate - 1 bar of 25 g

Jam - 2 tablespoons of 30 g

Jam pie - 1 piece of 80 g

Croissant - 1 piece of 50 g

Frangipane - 1 wedge of 100 g

Fries - 1 portion of 250 g

Fruit pie - 1 wedge of 165 g

Honey - 2 tablespoons of 27 g

Ketchup - 1 tablespoon of 23 g

Biscuit - 3 pieces of 10 g

Biscuit with chocolate - 2 pieces of 20 g

Coffee cookie - 1 medium-sized of 75 g

Coffee cookie with sultanas (Suisse) - 1 piece of 75 g

Coffee cookie with pudding - 1 piece of 80 g

Lemonade/coke - 2 glasses of 150 ml

Mattentaart - 1 piece of 120 g

Gingerbread - 2 slices of 23 g

Pickles - 2 tablespoons of 15 g

Praline - 2 pralines of 15 g

Rice pie - 1 skewer of 140 g

Ice cream - 2 scoops of 50 g

Salami - 4 slices of 9 g

Whipped cream - 2 tablespoons of 12 g

Puffs, chocolate - 1 puff of 115 g

Speculoos - 4 speculoos of 7 g

Bacon, smoked - 4 slices of 15 g

Sugar - 2 tablespoons of 15 g

Waffle, Liège - 1 waffle of 55 g

Waffle, chocolate - 1 waffle of 60 g

Fruit

Strawberry - 10 pieces of 15 g

Apricot (seedless) - 1 medium-sized of 150 g

Pineapple (fresh)/pineapple (canned) - 1 slice of 100 g

Apple - 1 medium-sized of 140 g

Applesauce - 3 tablespoons of 40 g

Banana - 1 medium-sized of 130 g

Lemon - 1 medium-sized of 70 g

Clementine - 3 pieces of 35 g

Dates, dried (seedless) - 5 pieces of 9 g

Grape - 15 pieces of 7 g

Cherry (seedless) - 20 pieces of 4 g

Kiwi - 2 pieces of 75 g

Lychee - 10 pieces of 11 g

Tangerine - 2 pieces of 60 g

Mango - ½ piece of 200 g

Melon - ¼ piece of 540 g

Nectarine - 1 piece of 95 g

Papaya - 1 piece of 125 g

Passion fruit - 4 pieces of 15 g

Pear - 1 piece of 160 g

Peach, seedless - 1 piece of 125 g

Grapefruit - ½ piece of 200 g

Plum, seedless - 2 pieces of 55 g

Plum, dried - 5 pieces of 6 g

Sultanas - 1 handful of 12 g

Orange - 1 piece of 140 g

Fig, dried - 4 pieces of 20 g

Watermelon - 1/10 piece of 1125 g

3. Exercise

Framework:

What to train for (Colour code, see below charts Design p22)

- Cross country running:

2400m	-> Aerobic exercise
Bergham run	-> Aerobic exercise + muscular endurance
Long map-reading exercises with backpack	-> Aerobic exercise + muscular endurance
Orientation	-> Aerobic exercise

- Strength training:

Pulling up	-> Basic strength
Toes to bar	-> Basic strength

- Swimming:

Combat swimming	-> Anaerobic exercise

- Core training:

Side Bridge	-> Muscular endurance

- FTMA:

Milling	-> Anaerobic exercise / Explosive strength

- Ropes:

Rope-to-rope transition, …	-> Anaerobic exercise / Basic strength
Climbing	-> Anaerobic exercise / Basic strength

- Obstacle course:

Full course	-> Anaerobic/aerobic exercise / Explosive strength

- Prevention of common injuries
  - Shoulder
  - Elbow
  - Lower back
  - Knee
  - Ankle

The main causes of injuries are a lack of stability, a lack of mobility and less functional movement patterns (often as a result of the lack of stability, mobility or strength,...). In this programme, we will work on the lack of mobility and stability. Assessing and adjusting movement patterns can only be done through personal contact, which is why this could not be included in this programme. Improving stability and mobility will also have an impact on movement patterns. We recommend you consult a specialist if you experience any discomfort or inconvenience.

What equipment / facilities are available?

This programme does not require major investments.
Most barracks have a gym with sufficient equipment. In addition to this, you will need a swimming pool, obstacle course, rope course and a punching ball to execute all the workouts.

What are the goals of physical training: admission tests?

We try to prepare you to take these tests to the best of your ability (more than just passing)!

How much preparation time is available?

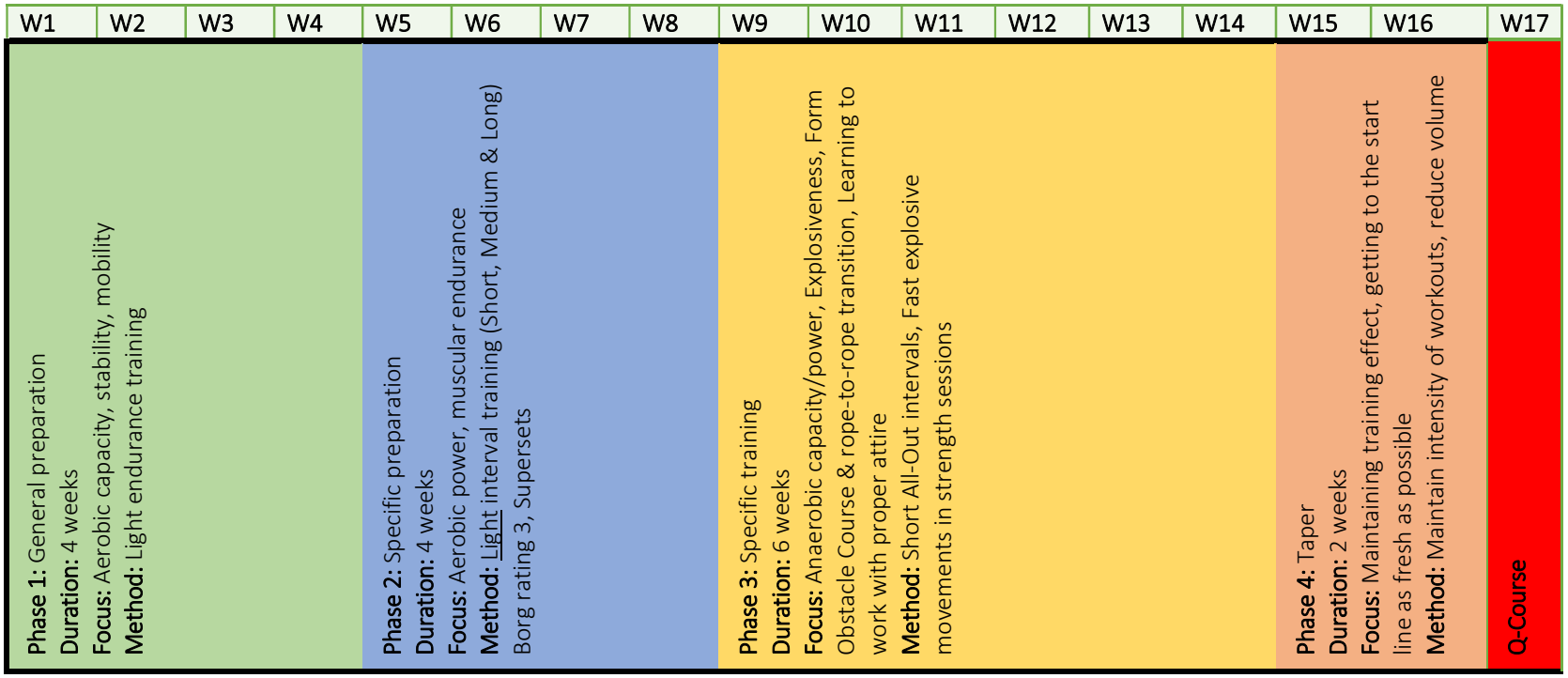
The preparation time is approximately 16 weeks. We consider this to be the minimum preparation time you will need to be ready for the start of the Q-course.
If you have more preparation time at your disposal, we recommend spending it on your weaker points. This period will then mainly include workouts that specifically improve your weaker areas, while maintaining your stronger traits.
Specialising in core stability / injury prevention can also be a very interesting preparation in order to prevent injuries later on.

When starting this programme, make sure you meet at least the minimum requirements as described in the programme (see introduction to the training programme) before you can start safely.

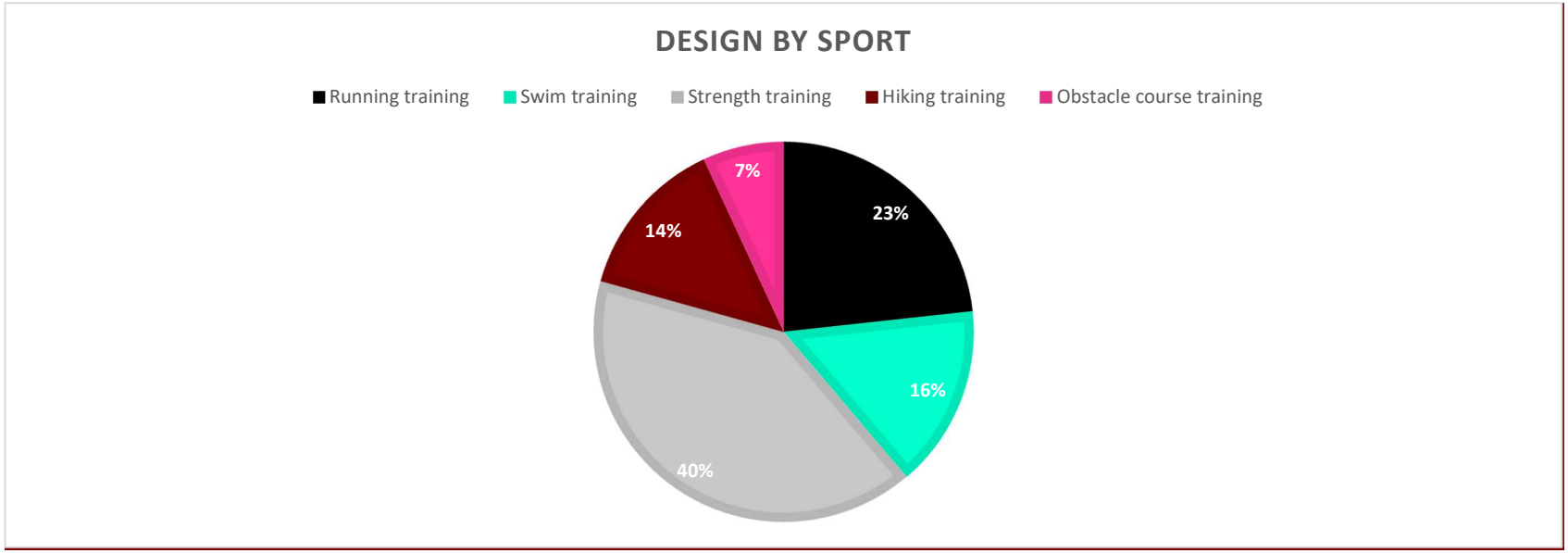
System:

Programme design

- Programme design by period



- Programme design <u>by sport</u>



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Most of the workouts are strength training workouts. You will find that these training sessions are necessary to safely prepare you for the tests you will have to take. Towards the end of the programme, you will also be specifically prepared for milling test during the strength sessions. Injury prevention is always front and centre in strength training sessions.

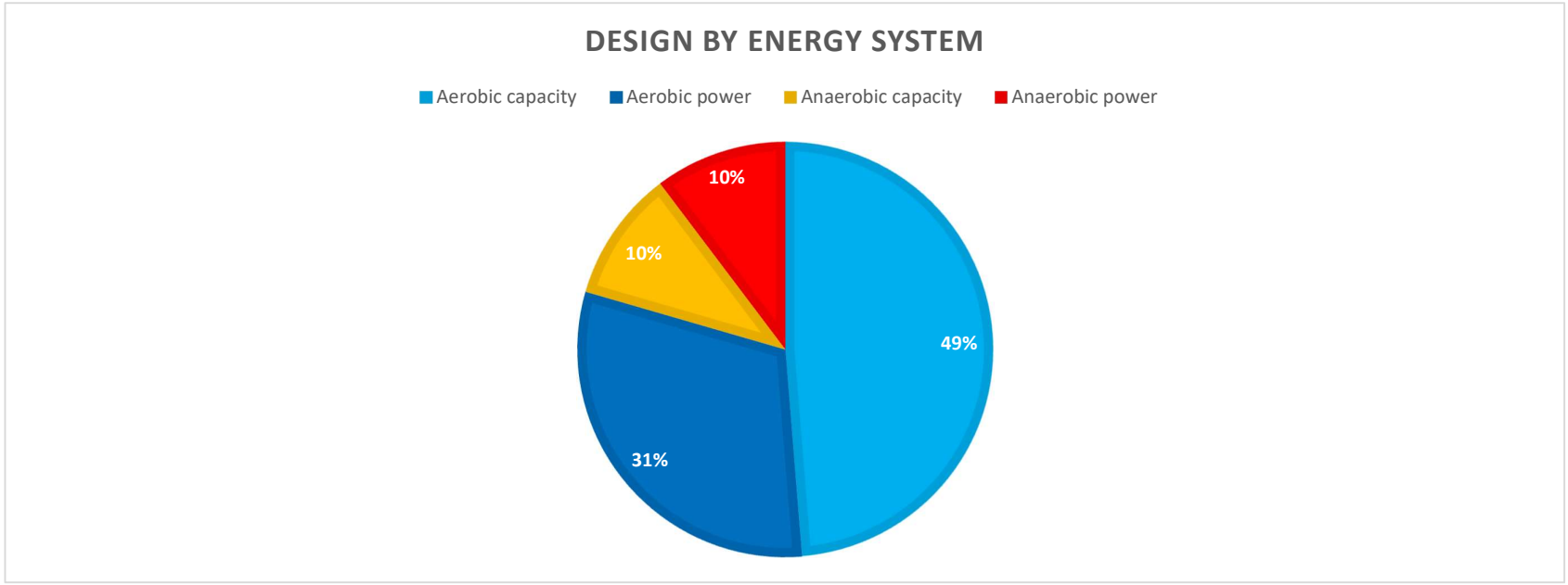
The 2nd largest block of your programme consists of running training. If you look at the tests, you will notice that there are at least four tests where running is crucial. Hence the large proportion of running in the programme. These workouts are ideal for developing your different energy systems. The running workouts will always focus on your aerobic development. This is because, during the running tests you will have to take, you will mainly use the aerobic system.

16% of training sessions are swimming sessions. If you look at the tests, you will notice that there is only one swimming test. So this programme will definitely prepare you well for this test. However, there is another explanation for the relatively high proportion of swimming training in your programme. This is because swimming is a low-impact sport with minor strain on your bones and joints. Moreover, the fitness acquired during swim training can be transferred to other sports. For this reason, swimming sessions will be used in the beginning to progressively build up the load of running workouts. Later, swimming workouts will be scheduled to give your body a rest. Only at the end of the programme will we work specifically towards the swimming test. Therefore, the swimming workouts in this programme can also be seen as a means of increasing volume without putting you at too great a risk of injury.

The programme will prepare you for long hikes (14% of training sessions). These workouts will increase your aerobic capacity to get you ready for the many hikes and orientation exercises ("droppings") that await you. You can add an extra dimension to these training sessions by practising your map-reading skills during the training.

The programme also includes several training sessions on the obstacle course. The primary aim of these training sessions will always be to learn how to cross obstacles safely and using the right form. In addition, aerobic power will be sharpened during these workouts.

- Programme design by energy system



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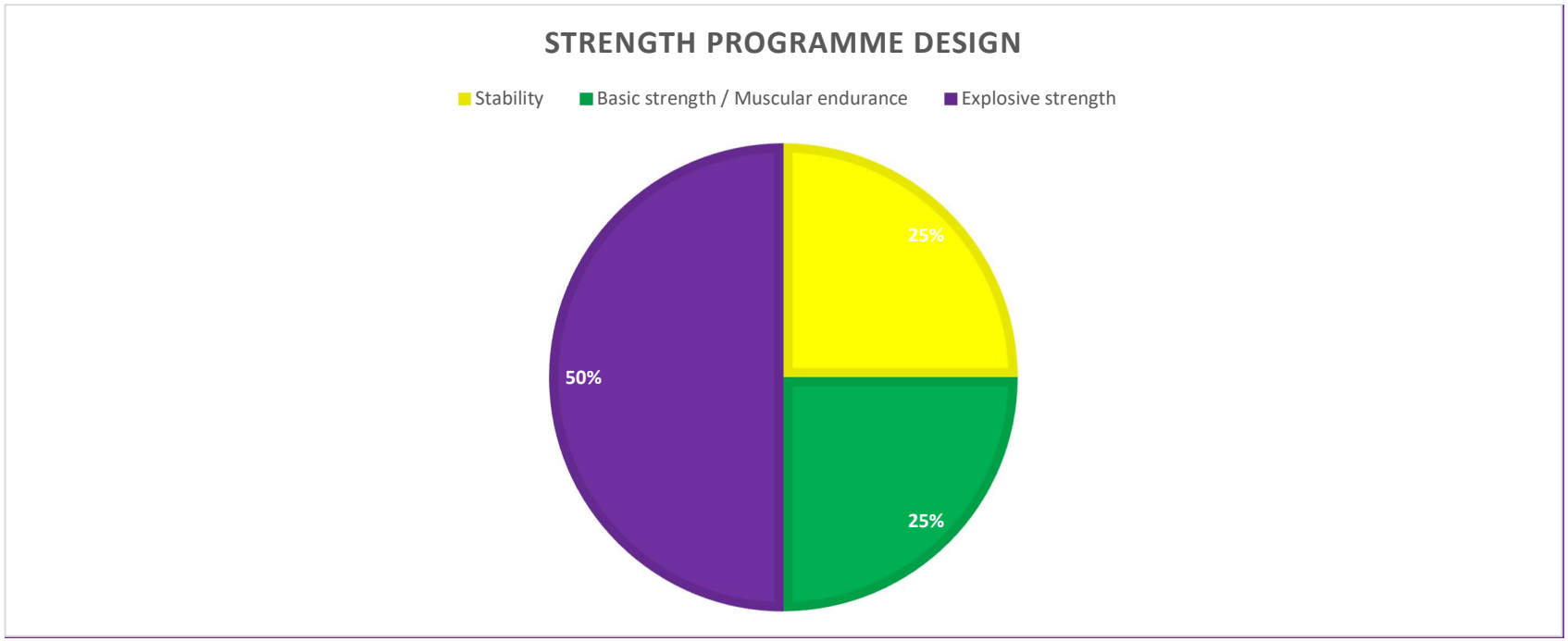
Almost half of the workouts will contribute to aerobic capacity development. This is an important capacity that can be considered fundamental. This foundation is essential before other capacities can be acquired. If you look at the tests (same colour code as the table above), you will notice that aerobic capacity will be an important performance-determining factor in several tests. This energy system will be developed mainly through running, swimming, and walking.

The development of aerobic power will be another major part of training. If you look at the tests, you will notice that the dark blue colour appears a lot, which means that aerobic power will be the main performance-determining factor there. This energy system will be developed mainly through running, swimming, and obstacle courses.

The development of anaerobic capacity and anaerobic power will each represent 10% of the total number of training sessions. Analysis of the tests shows these to be two important characteristics. However, it is best to build a strong foundation before venturing into that kind of training. In addition, these workouts require longer recovery and are very strenuous for the athlete. As much as possible, these systems will be developed in the sports for which you will need them at the tests, namely strength training, swimming and milling.

- Strength programme design



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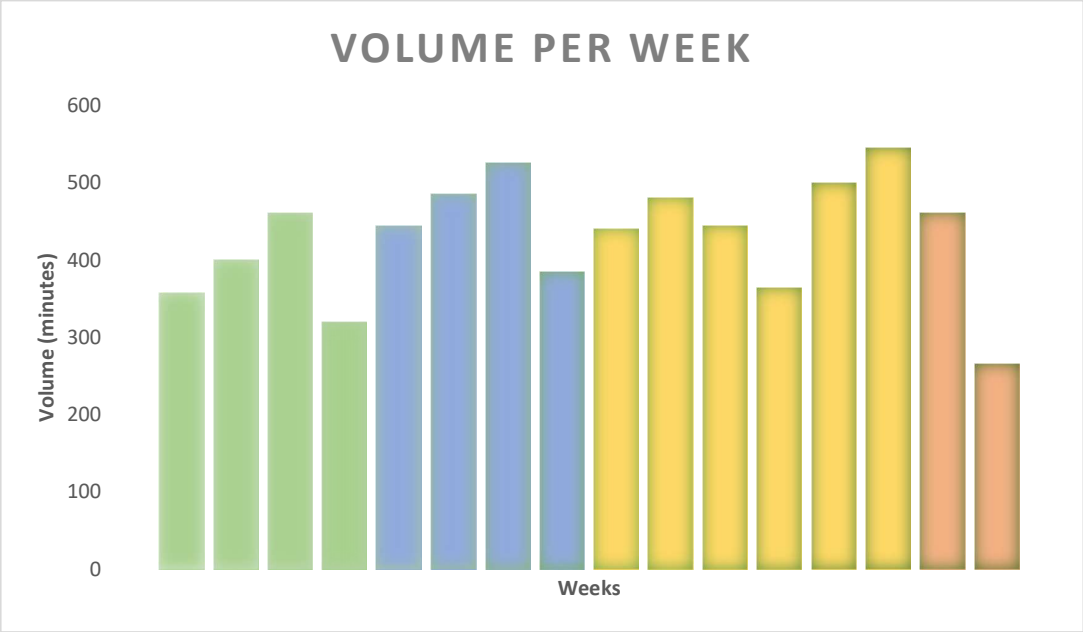
Four weeks are devoted to increasing stability. This is an important characteristic that contributes to the transmission and development of forces. In addition, stability ensures that you can withstand external forces. This period will also be used as an introduction to strength training and is ideal for mastering some basic techniques.

The next four weeks are devoted to developing basic strength and muscular endurance. This appears to be an important characteristic, both for testing and in preparation for explosive movements.

The last eight weeks are devoted to training explosive strength. However, the strength diagram gives a distorted picture of the breakdown of strength training. In practice, stability will be a recurring theme in every strength training session and therefore the majority of strength training sessions will be used to train and maintain stability. This is extremely important for injury prevention and towards functionality of the rest of the strength training.
Stability should be seen as an essential foundation that is absolutely necessary to be able to functionally use the strength you learn to develop in the training sessions in your daily life and your future job.
Developing explosive strength is important to pass your tests and perform your future job. For this type of strength training, it is very important to respect sufficient rest periods as the training will cause a great strain on your body.

- Volume of the muscular endurance training



The volume of training was estimated in minutes. You will note that in the first two phases (green & blue) there is a three-week build-up in volume after which comes a recovery week that allows your body to recover from the exertion.
In phase three (yellow), this build-up is less noticeable because the intensity of training sessions increases (more intense sessions, training with more weight,...).
In phase four (orange), there will be a decrease in volume combined with maintaining intensity to ensure that you will arrive at the start of the Q-course in good condition and good shape.

In your programme, training volume will mainly be expressed in minutes (except for swimming workouts). We chose to express the volume in minutes because the training programme was developed for individuals with different levels. Individuals with a better condition will cover more distance in, say, 30 minutes of running compared to less-fit individuals. This way, we anticipate the difference in level and stronger individuals will have a greater training volume in terms of distance, but not in terms of time (which means training will always take place in the desired energy zone regardless of level). With this method, we are assuming that better-trained individuals can handle a greater volume in distance. However, this is not always the case for everyone.
That is why it remains important to adjust the volume to your needs. It is important to listen to your body and not ignore symptoms.

- Intensity of the programme

To determine the intensity of the workouts, we chose to rate the training sessions on a Borg scale. The number on the Borg scale is always a rating out of five. Workouts with a rating of 1 are very light and are used as recovery workouts. With these workouts, you feel you can perform them indefinitely. Borg rating 2 is a light aerobic workout that you can perform for a very long time. During a workout with a rating of 3, you are just below your anaerobic limit. You can sustain this effort for up to an hour. Workouts with a rating of 4 feel very heavy. This is just short of doing the maximum, you cannot sustain this intensity for more than a few minutes. Borg rating 5 means maximum effort. This level feels extremely heavy.
The advantage of this method is that the programme can be used by different athletes of different levels. If the Borg scale is respected then training, regardless of the athlete's level, will ensure similar outcomes across athletes (training a particular energy system). The downside to this system is that it takes some practice to learn how heavy a particular workout is on your subjective Borg scale. If you work with a trainer, you can have your heart rate zones or paces determined to reflect intensity in a more objective way. With these methods, however, it remains important to monitor the athlete because training remains subjective. Many factors can affect how training feels for an athlete (illness, fatigue, environment,...).

In strength training, intensity is shown as a percentage of your “one repetition maximum” (1RM). Your 1RM is the maximum weight you can move for one repetition in a specific exercise. You can determine this by testing it with each exercise. However, we recommend estimating the necessary weight by choosing one with which you can barely perform the last repetition of every set each time with correct form. You can then use the percentage of your 1RM more as an indication of how the weight you take should compare with the weight you take or took during another period of this programme. For example, you will notice that the intensity and therefore the weight will increase when fewer repetitions are requested on a particular exercise. To prevent injuries, we do not recommend determining your 1RM without guidance.

Programme execution

This document provides some background to the various training sessions. For the detailed programme, please refer to the other document containing your training assignments for each day.

- Running training:

You use the *warm-up time* of the running workouts to run leisurely. You then perform some form drills & dynamic stretching. Then do four to five accelerations of between 60m and 100m.
You use the *cool-down* to walk it off and stretch. When stretching, focus mainly on the lower body: calves, quadriceps, hamstrings, hip flexors, glutes.

Running training in phase 1

This phase involves slow and steady endurance runs to develop good basic condition (aerobic capacity). The intensity of these runs varies between a Borg rating of one or two out of five.

Running training in phase 2

In this phase, aerobic capacity is maintained through light endurance running. Aerobic power is developed through Fartlek (endurance running with tempo changes according to sensation), short-, medium- and long interval training (Borg rating 3).

Running training in phase 3 & 4

This phase aims at maintaining aerobic running condition. Training will include aerobic power and aerobic capacity workouts. You will progressively start running with military attire and backpack. Some running training sessions will be followed by form training on the rope course. This way, you already have the right attire on to work with the ropes and learn to apply the techniques in a somewhat tired state.

- Swim training:

The warm-up for a swim training is always made up of two parts: a swimming part and a mobility part. For the mobility part, you briefly explore the full range of motion of the shoulder in-between laps and loosen up the neck and back.

Swim training in phase 1

Swim training in this phase will focus on form and recovery. There is always a suggestion on which technique you can work on. It can be useful to look up in advance what exercises you can perform to improve a particular part of your swimming movement.

Swim training in phase 2

In this phase, aerobic interval training (Borg rating 3) will provide aerobic power development. Recovery & form training will ensure further improvement of technique and maintenance of aerobic capacity.

Swim training in phase 3 & 4

Swimming in phase three and phase four consists of interval training only. There are aerobic interval training sessions (Borg rating 3) to develop aerobic power. There will also be anaerobic power training sessions that will specifically prepare you for your swimming tests. At this stage you will also start swimming with clothes on.

- Walk training:

These workouts do not include a warm-up. Always take enough time to get into it before upping your pace.
The Borg rating is always 1. This means you walk at a relatively low intensity that you can sustain for a long time. This does not mean that the workouts should not get heavy towards the end. Here, it is mainly the duration that weighs heavily, not so much the intensity.
These training sessions can also be used to further develop orientation & map-reading skills. From the first session, it is best to do this training in military attire to prepare specifically with the mandatory equipment (including backpack!). The duration of training sessions increases progressively. There will be a short stagnation of duration to increase the weight of the backpack. After that, the duration will be pushed up again.

- Obstacle course training:

The first 10 minutes of the warm-up for obstacle course training sessions are similar to the warm-up for a running workout. You start by running leisurely. Then you perform some form drills & dynamic stretching. In obstacle course training, make sure to also train the upper body.
This is followed by four to five accelerations from 60m to 100m.
The next 10 minutes are used to warm up specifically on the track's obstacles. You choose some obstacles to cross using the correct form.
When training on the obstacle course (throughout the training!), be sure to pay attention to your technique when landing (bend the knees, as gently as possible -> practise on low obstacles first, only when you have mastered this can you move on to the higher obstacles). Before the test, you should go through the obstacle course without any time limit. We also advise you to stay in control during execution and to not take unnecessary risks (both during training and during the test). All obstacle course training sessions in this programme are below the anaerobic threshold (Borg rating 3). Technique above intensity! Protect yourself and your body, it is an important work tool in your future job!

- Strength training:

Strength training in Phase 1:

This table shows the number of sets & repetitions that usually occur in this phase.
In a rest week, the number of sets or the number of repetitions per set can be adjusted to give the body a chance to recover (in week 4, this will be the case). Check the training programme for specific guidelines.

Warm-up	**Stretching**	Self-Myofascial Release (SMR) & Static Stretching Purpose: Extend/relax muscles that are too short/active in order to eliminate movement restrictions.
	Core	2x 30" each exercise, 15" rest 1 exercise per chain (front, back, side) Purpose: Be able to withstand external forces, transfer forces
	Balance	2x (10x on each side) Rest 15" One-leg vertical upper body push One-leg lower body Hip dominant pull Purpose: Focus on balance (not intensity/weight), proprioception: where is my body in space
	Reactive Training	3x5 Rest 30" Two-leg Jump + Landing Purpose: Focus on landing mechanisms, Learning to control ground reaction forces
Core	**Strength**	3x15 Rest 30" Lower Body two-leg Push Two-arm Upper Body Horizontal push Total Body Pull
Cool-down	**Relax**	Return to a calm state Body/Breathing/Mind Purpose: Finding calm, reflecting on training session, learning from mistakes made

Strength training in Phase 2:

This table shows the number of sets & repetitions that usually occur in this phase.
In a rest week, the number of sets or the number of repetitions per set can be adjusted to give the body a chance to recover (in week 8, this will be the case). Check the training programme for specific guidelines.

Warm-up	**Stretching**	Self-Myofascial Release (SMR) & Active isolated stretching Purpose: Extend/relax muscles that are too short/active in order to eliminate movement restrictions.
	Core	3x 30" each exercise, 15" rest Anti-rotation forward Anti-rotation backwards Rotation Sideways Purpose: Be able to withstand external forces, transfer forces, generating forces
	Balance	3x (10x on each side) Rest 15" One-leg Lower Body Push One-leg Upper Body Rotation High To Low Purpose: Focus on balance (not intensity/weight), proprioception: where is my body in space
	Reactive Training	3x10 Rest 30" Two-leg Jump
	SAQ	SAQ = Speed Agility Quickness 2x (3x) Rest 30" Accelerate & decelerate 1 direction
Core	**Strength**	3x (12+12) Rest 30" Superset Lower Body Two-leg Push + Lower Body One-leg Push Superset Upper Body Two-arm Vertical Push + Upper Body Alternating Horizontal Push Superset Lower Body Hip Dominant Two-leg Pull + Lower Body Knee Dominant Two-leg Pull Superset Upper Body Two-arm Vertical Pull + Upper Body One-arm Horizontal Pull
Cool-down	**Relax**	Return to a calm state Body/Breathing/Mind Purpose: Finding calm, reflecting on training session, learning from mistakes made

Strength training in Phase 3 & 4:

This table shows the number of sets & repetitions that usually occur in this phase.
In a rest week, the number of sets or the number of repetitions per set can be adjusted to give the body a chance to recover (in week 12, this will be the case). After a few weeks, some exercises will evolve. For example, a heavy horizontal push will become an explosive horizontal push, and an explosive vertical push will then become a heavy vertical push. Some movements that are performed, for example, with 2 arms simultaneously will change to alternating unilaterally (alternating one side then the other). This is done to challenge the body even more. Check the training programme for specific guidelines.

Warm-up	**Stretching**	Self-Myofascial Release (SMR) & Dynamic Stretching Purpose: Extend/relax muscles that are too short/active in order to eliminate movement restrictions, prepare muscles for explosive movements.
	Core	3x 12” each exercise, 30” rest Anti-rotation Sideways + Rotation Shoulder Anti-rotation backward + Dynamic forward Purpose: Be able to withstand external forces, transfer forces, generating forces
	Balance	3x 12x Rest 30” One-leg Sideways Jump One-leg Forward Jump Purpose: Focus on balance (not intensity/weight), proprioception: where is my body in space
	Reactive Training	3x6 Rest 45” One-leg Jump
	SAQ	2x (3x) Rest 30” Acceleration & deceleration, different directions, (after some time, you could add reaction to external stimuli -> e.g. on signal 1 go to the right, on signal 2 go to the left)
Core	**Anaerobic Power**	2-6 x 30"/40"/50" all out Rest: 2’ -3’20’’ Purpose: Anaerobic power development, very short high-intensity efforts. A lot of rest is needed to keep exercise intensity sufficiently high (Work to rest ratio = 1<3-5 or in other words 3 to 5 times as much rest as effort). Method: The first 4 weeks, this type of endurance will be trained through combat training on a punching bag, the next 4 weeks this type of endurance will be trained in the swimming pool. This training systematically takes place on Tuesdays.
	Anaerobic capacity	2-6x 2’30” – 3’ Rest 2’30”– 5’ Purpose: Anaerobic capacity development, short high-intensity efforts. Here too, a lot of rest is needed (Work to rest ratio = 1:1 This means as much rest as effort) Method: For the first four weeks, this is trained through crossfit: 2-4x As Many Rounds As Possible Of (AMRAP): 10 KB Swings, 5 Explosive Push-Ups, 10 Burpees, 5 Explosive Pull-Ups. Over the next 4 weeks, this form of endurance will be developed through combat training on a punching bag (as the milling test will mainly take place in this energy system) This training systematically takes place on Fridays.

	Strength	Anaerobic Power workouts (Tuesdays) will often focus on technique in the strength section in preparation for Friday's Anaerobic Capacity workout (4x 5-8) Rest 1' + 3' Rest between sets Usually on Sundays, the strength section will consist of 4x (5+8) Rest 1' between exercises, 3' between sets & supersets): Superset Heavy Lower Body Two-leg Push + Lower Body Explosive One-leg Push Superset Heavy Two-arm Upper Body Horizontal Push + Explosive Two-Arm Upper Body Vertical Push Superset Heavy Lower Body Hip Dominant Two-leg Pull + Explosive Lower Body Hip Dominant Two-leg Pull Superset Heavy Upper Body Two-arm Vertical Pull + Explosive Upper Body One-arm Horizontal Pull
Cool-down	**Relax**	Return to a calm state Body/Breathing/Mind Purpose: Finding calm, reflecting on training session, learning from mistakes made

- What if I have to skip a workout?

Whether because of unforeseen circumstances or because the programme is too heavy, you may need to drop one or more training sessions per week. Of course, this is not a disaster, but which training session should you skip? And at what point is it recommended to have your programme adjusted because you have missed too many training sessions?

Phase 1

In phase 1, you can skip one strength training session of your choice. If you need to skip a second session, you can drop one aerobic capacity training session.

Phase 2

In this phase, you can skip one aerobic capacity training session of your choice. If you need to skip a second session, you can drop one strength training session.

Phase 3 & 4

In this phase, you can skip the third strength training session of the week. If you need to skip a second session, you can drop Wednesday's aerobic capacity training session. Note that when this happens in weeks 9, 10 and 11, there will have to be a new build-up to walking with military attire and backpack.

If you miss more than three training sessions for more than three weeks in a row, it is best to have your training schedule adjusted. Otherwise, the progressive nature of the build-up could be compromised.

- Should I respect the order of the programme?

It is recommended to follow the order of training sessions, as each type of training requires a different rest time. This was taken into account when drawing up the sequence of training sessions. Shaking up this sequence can lead to a lack of recovery and subsequent injuries.

4. Recovery

Framework:

Why is recovery so important?

The evolution of top-level sport in recent years has been characterised by a sharp increase in training intensity and training volume. Typically, this increases the risk of overuse, injuries and overtraining. There are a large number of parameters that affect whether or not an athlete gets hurt. There are internal risk factors (age, gender, previous injuries,...) that affect the likelihood that a certain athlete gets injured. There are also external risk factors (equipment, surface,...) that can make you susceptible to injury. Proper monitoring of training load according to your load capacity (training load management) reduces the risk of injury. It is thanks to the new understanding of training load management that people in today's top-level sports can train more and more intensively than before, without increasing the risk of injury.
Training load management consists of two main components: periodisation (the periodisation of this programme was done in pillar 3) and recovery. It appears that recovery is an important component that has not yet been described.

Supercompensation

Exercise and recovery form a closed chain and determine the nature and extent of exercise effects. Every training session leads to fatigue resulting in a temporary drop in performance. The stressed muscles and organs need to recover after the imposed strain. In the recovery phase, energy sources are not only replenished back to the starting level, but in addition, the body gets a temporary exercise effect with an increase in energy sources. By administering a training stimulus at this moment, you create an increase in level.

System:

Factors with a negative impact on the recovery process

We must learn to control the following factors because they can slow down the recovery process:

- Imbalance between training and recovery
- Inadequate diet or insufficient fluid intake
- Sleep deprivation
- Illness
- Use of medication
- Travel
- …

Methods to promote recovery

There are no miracle drugs to speed up recovery. The most important factors for a good recovery remain sleep and nutrition. What constitutes sufficient sleep depends on the individual (often between 7 and 9 hours). For dietary guidelines, please refer to the second pillar. It comes down to taking in enough fluids and replenishing energy sources. In addition, various methods (massage, cooling,...) exist to promote recovery, but their effect is not always clearly established. Recovery varies from one individual to the next, and if you have a method that works for you, it is interesting to apply it.

Recovery in my training process

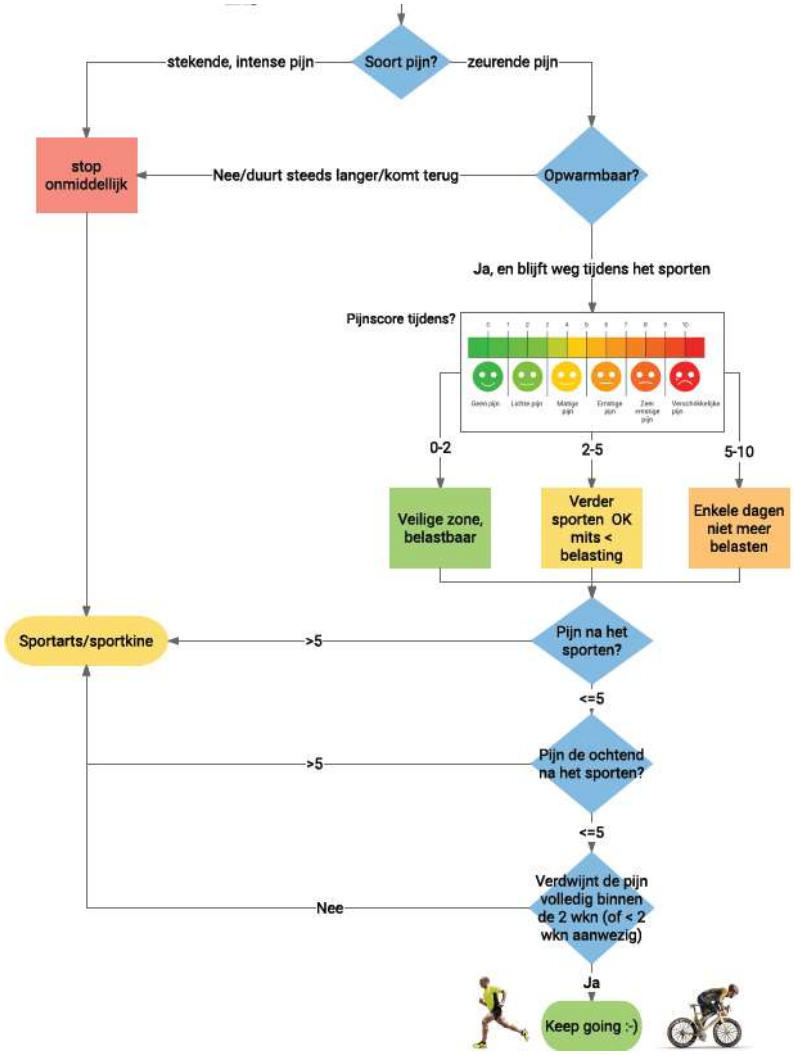
The training programme was structured in such a way as to alternate exertion and recovery in order to give the body a chance to build itself up. Recovery can be found in the form of rest days and recovery training or deload weeks (e.g. weeks 4, 8 and 12). It is important to know that the training programme was designed based on an ideal situation: you always sleep well and long enough, you eat well and drink enough, you are not ill, you are not on any medication and you can execute the training at the planned times. However, we are aware that this is a utopian situation that will never occur in reality. For this reason, it remains important to re-evaluate the programme daily and adapt it to your personal needs. It does not make sense to carry out the next training session without having recovered sufficiently from a previous one (e.g. because of illness,...). Make no mistake: it is not always the intention that you fully recover from a workout before starting a new one (it can happen that three heavy days are scheduled in a row with only one rest day afterwards to fully recover from the heavy consecutive workouts). Balance remains the key to success.

Conclusion

With this information at hand, you are ready to get started with the programme. It is important to pay special attention to previous injuries because we could not take these into account in this programme. (For example, by incorporating stretching or training an additional muscle group in the warm-up,...). Always listen to your body and seek a good balance between the four pillars.

In order to carry out this training schedule responsibly, we would like to give you some advice on how best to deal with pain during your training sessions:

I experience pain before or during training



Good luck with your preparation!

With friendly and sporting regards,

Pieter Maes