Fundamentals of Fitness Nutrition

Course Curriculum

Fundamentals of Fitness Nutrition Overview

Unit	Content
1	Introduction to Fitness Nutrition
2	Diet recommendations
3	Micro-nutrients: vitamins, minerals and antioxidants
4	Digestive process
5	Food chemistry
6	Metabolic assessment
7	Olympic Committee guidance: eating for performance
8	Analysing your food diary and fluid intake

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Unit	Content
9	Planning a Training Diet
10	How the body stores energy and fat
11	Carbohydrates: fuel for exercise
12	Protein and amino acids: muscle repair and growth
13	Body fat and essential fatty acids for performance
14	Introduction to hydration strategies
15	Replacing sweat losses: effects of hydration on performance
BONUS 16	The science of supplements and engineered sports foods

Introduction to Fitness Nutrition

Unit	Here's what you'll learn	Extra support materials
1.1 Introduction to nutrition for physical activity	▪ Why exercise alone isn't the solution to good health ▪ The importance of exercise, diet, and supplements ▪ The risks of nutritional deficiencies ▪ How to assess your diet and make recommendations	▪ Diet Assessment Questionnaire ▪ Diet Score and Recommendations ▪ Useful online resources and websites ▪ Test your knowledge exercises

Diet Recommendations

Unit	Here's what you'll learn	Extra support materials
2.1 Nutritional recommen-dations for physical activity 2.2 Micro-nutrients: vitamins, minerals and antioxidants	▪ What is good nutrition? ▪ The 50 essential nutrients that your needs ▪ Stamina and nutrient breakdown ▪ The 10 rules for a healthy diet ▪ What C.R.A.P. foods are (and why you should limit them!) ▪ The role of vitamins and minerals for exercise ▪ Which nutrients athletes need the most ▪ Are supplements always necessary?	▪ The 10 Rules for a Healthy Diet ▪ The 50 Essential Nutrients Table ▪ Additional resources online ▪ Test your knowledge exercises

Food Chemistry

Unit	Here's what you'll learn	Extra support materials
3.1 Digestive process: understanding the digestive system 3.2 Food chemistry: understanding macronutrients	▪ What are macronutrients? ▪ Where do calories come from? ▪ Why do we need carbohydrates? ▪ Why do we need protein to survive? ▪ Do we need fat to survive? ▪ What are electrolytes? ▪ Are sports drinks bad for your tooth enamel? ▪ What's the "osmolality" of a drink? ▪ What are "contamination supplements"? ▪ The process of digestion ▪ Digestion of carbohydrates, fat, and protein ▪ What's the digestive system? ▪ Organs involved in digestion	▪ Additional resources online ▪ Test your knowledge exercises

Metabolic Assessment

Unit	Here's what you'll learn	Extra support materials
4.1 Metabolic assessment 4.2 Olympic Committee guidance: eating for performance	▪ The role of diet on fitness, athletic performance, and recovery ▪ Dietary guidelines or sports and exercise ▪ The International Olympic Committee opinion on nutrition ▪ Energy availability and exercise expenditure ▪ The importance of calculating your energy requirements ▪ The 3-step process to assess your ideal caloric intake ▪ How to calculate your BMR ▪ Physical activity intensity and energy expenditure	▪ Olympic Committee Guide to Eating for Health and Performance ▪ Additional resources online ▪ Test your knowledge exercises

Analysing a Food Diary

Unit	Here's what you'll learn	Extra support materials
5.1 Analysing your food diary and fluid intake	▪ Why it's important to analyse your diet ▪ Methods to record dietary intake and their efficacy ▪ Food frequency questionnaire ▪ 24-hour recall ▪ Daily food diary ▪ How to analyse a food diary (step-by-step) ▪ The 5 questions to evaluate your fluid intake	▪ Food Frequency Questionnaire Template ▪ 24-hour Food Recall Diary ▪ Daily Food Diary ▪ Diet Analysis ▪ Practical assignments

Planning a Training Diet

Unit	Here's what you'll learn	Extra support materials
6.1 Planning a training diet	▪ How to plan a training diet ▪ Why the Eat Well Plate is not relevant to fitness ▪ The Training Food Pyramid™ (and how to use it) ▪ How to calculate portions ▪ Tips for each nutrient group	▪ Training Food Pyramid™ (with recommendations) ▪ Current Food Pyramid Template ▪ Eatwell Plate ▪ Additional resources online ▪ Practical assignment

How the Body Stores Energy

Unit	Here's what you'll learn	Extra support materials
7.1 How the body stores energy and fat	▪ Energy in food ▪ How the body stores carbohydrates ▪ How the body stores fat ▪ How the body stores protein ▪ Which fuels are needed for exercise	▪ Energy availability in the body per fuel type ▪ Additional resources online ▪ Test your knowledge exercises

Carbohydrates

Unit	Here's what you'll learn	Extra support materials
8.1 Carbohydrate: fuel for exercise	▪ How the body stores (and uses) carbohydrates ▪ How much carbohydrate should you consume ▪ How many carbs we need for post-exercise recovery ▪ Fuelling timing – before, during and after exercise ▪ Which carbs are the best fuel?	▪ Additional resources online ▪ Test your knowledge exercises

Amino Acids

Unit	Here's what you'll learn	Extra support materials
9.1 Protein and amino acids: muscle repair and growth	▪ The role of amino acids in a training programme ▪ How much protein is needed ▪ How to calculate protein requirements ▪ When you need to have protein ▪ Is a little "extra protein" harmful? ▪ The risks of excessive protein consumption	▪ Additional resources online ▪ Test your knowledge exercises

Fat

Unit	Here's what you'll learn	Extra support materials
10.1 Body fat and essential fatty acids for performance	▪ What's the ideal body fat? ▪ Body fat percentages per sport ▪ How much fat should athletes and exercisers have? ▪ Can Omega 3 improve athletic performance? ▪ Omega 3 (EPA, DHA): ○ health benefits ○ deficiency symptoms ○ best food sources ○ top supplements ▪ Omega 6 (GLA): ○ health benefits ○ deficiency symptoms ○ best food sources ○ top supplements	▪ Categorisation per body fat percentage ▪ Body fat percentages per sport ▪ Food sources of Omega 3 (g per 100g) ▪ Additional resources online

Replacing Sweat Losses

Unit	Here's what you'll learn	Extra support materials
11.1 Introduction to hydration strategies 11.2 Replacing sweat losses: effects of hydration on performance	▪ Why hydration is key to performance ▪ How much water is recommended for exercise ▪ Are sports drinks necessary? ▪ Why do we sweat when we move? ▪ How much water do we lose? ▪ Why do some people sweat more? ▪ Estimating your sweat losses ▪ Does dehydration affect performance? ▪ The dangers of dehydration ▪ Is it possible to reduce water loss? ▪ Exercise hydration strategies ▪ How do I know if I am dehydrated? ▪ Can sweatsuits or neoprene help with fat loss?	▪ "Dangers of Dehydration" table ▪ Additional resources online ▪ Test your knowledge exercises

Science of Sports Supplements

BONUS

Unit	Here's what you'll learn	Extra support materials
12.1 The science of supplements and engineered sports foods	▪ Are sports supplements effective? ▪ Can sports supplements speed your progress and give you a competitive edge? ▪ What are the most commonly used sports supplements? ▪ How do I know if they work? ▪ Are sports supplements safe? ▪ How to evaluate a supplement ▪ Anabolic androgenic steroids and prohibited stimulants ▪ Sports Supplements from A to Z: Effectiveness, side effects, who should take them, scientific research ▪ How to support immunity during training	▪ A to Z Guide – Supplements, performance enhancers and engineered sports foods

Summary Course Overview

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