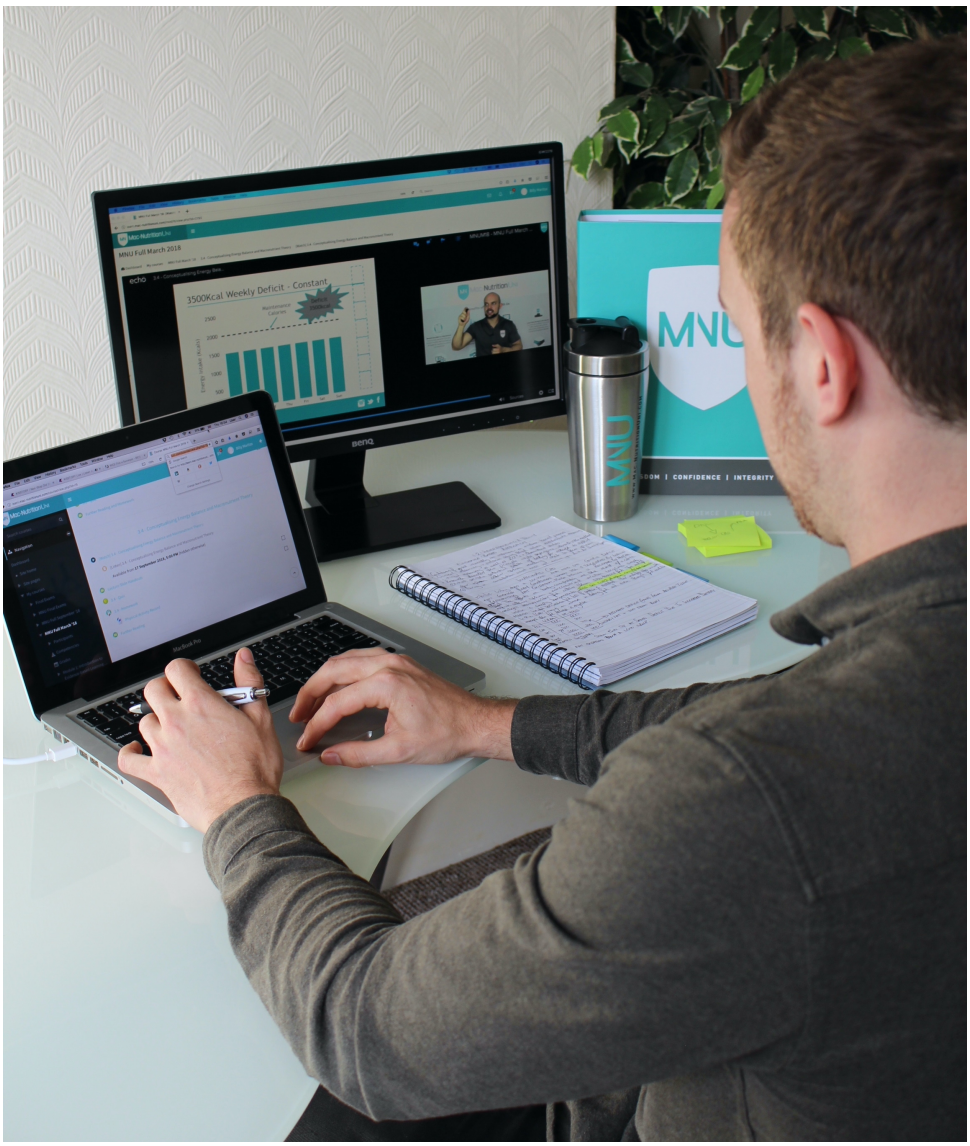
1st4sport Level 5 Diploma in Advanced Nutrition Science

Qualification Specification



About Us

Welcome to 1st4sport, established in 2000, 1st4sport are an industry specialist recognised awarding organisation regulated in England by the Office of the Qualifications and Examinations Regulator (Ofqual), in Wales by Qualifications Wales, and in Northern Ireland by the Council for the Curriculum, Examination and Assessment (CCEA) Regulation.

Serving the needs of the sport, physical activity and active leisure industry; our niche status is emphasised through our accomplished people, network of esteemed industry partnerships and our culture of excellence. We have an outstanding reputation; evidenced though the loyalty we receive from our trusted partners, recognised centres and most importantly our learners.

We have a proven track record; offering of valid, value-added, educational solutions and services and outstanding customer care. Our offer includes sector specific qualifications and pathways, and a range of relevant high-performing educational services; underpinned by leading digital solutions. The majority of these are developed and deployed in partnership with governing bodies of sport and other sector specific professional organisations. More than any other awarding organisation, our knowledge of the industry and our continuous cross-sector network enables us to understand the direction of our sector.

Our involvement in shaping our sector has been significant and we continue to be the awarding organisation that partner and representative organisations turn to for guidance on the direction of travel, as appropriate to the needs of our partners, centres, industry employers and learners.

Our Mission: To deliver excellent educational solutions and value-added services to sport, physical activity and the active leisure industry.

Our Direction: We aim to support the ongoing professionalisation of our industry; supporting employment, growth, sustainability and success. We embrace performance, participation and health agendas. Our objective is to continue to support our respected partners, providers and learners.

Qualification Specification

Title:	1st4sport Level 5 Diploma in Advanced Nutrition Science
Qualification Overview:	Develops learners' theoretical knowledge and understanding of nutrition, giving them the knowledge, skills and confidence to support clients to achieve their goals.
Qualification Code:	23QNUTDIP5
Qualification Regulation Number:	610/2771/6
Guided Learning Hours (GLH):	150
Total Qualification Time (TQT):	424
Credit Value (if applicable):	Not applicable
Operational Start Date:	04/12/2023
Qualification Review Date:	31/05/2025
Learner Registration Period:	4 years
Qualification Objective:	This qualification qualifies learners to use their knowledge of nutrition alongside other strategies to support clients to achieve their goals.
Qualification Purpose:	Prepare for employment in a broad occupational area.

Who is this qualification for?

Developed with employers such as MNU, the 1st4sport Level 5 Diploma in Advanced Nutrition Science is designed for sports and physical activity coaches, teachers, personal trainers, dietitians, sports and nutrition graduates, instructors, and those with a commitment in supporting healthier and sustainable lifestyle goals of clients and others. The qualification will be beneficial for those who are keen to offer nutrition guidance as an independent consultant or within their organisation. The qualification is also available to individuals to support their own lifestyle goals or who are seeking a career change. Applicants must hold a minimum of a level 3 qualification or equivalent within nutrition or sport science related subject that contains nutrition specific modules.

Qualification Progression

With this qualification, learners can progress onto nutrition, health, sport, leisure and well-being

qualifications in:

- nutritional counselling
- behaviour change
- health and fitness
- mental health and well-being
- sports performance.

They could also progress onto higher qualifications within their current environment, such as: coaching, teaching, or instructing in the sport and physical activity industry, or in the active leisure, learning, andwell-being industry.

This qualification may lead to paid or voluntary roles providing nutritional advice and guidance to support healthier and sustainable lifestyle goals of clients and others within the sport and physical activity industry or the health, leisure and well-being industry.

Entry Requirements

Learners must be a minimum of 18 years old at registration and 18 years old at certification.

Pre-requisite(s) or other entry requirements

The recognised centre is required to conduct an initial assessment of learners to ensure that pre-requisites to registration and certification and any barriers that may disadvantage a learner under the Equality Act 2010 are considered and outcomes recorded during the application process.

Prior to registration learners are required to:

- be accurately identified
- be at least 18 years of age
- be able to undertake this assessment in English or Welsh (if available)

Assessment Methods

The assessment methods used in this qualification are:
- Coursework (in 8 of 8 mandatory units)

Reasonable adjustments can be applied to these assessments in line with 1st4sport Policy Statement:Access Arrangments.

Grading Methods

This qualification will be graded Pass / Fail / Distinction.

Qualification Structure

Learners must successfully complete all mandatory units to achieve this qualification.

Mandatory Units

Unit ID	Unit Title	GLH
K/650/7392	Principles of evidence-based approaches and practices	15
L/650/7393	'Optimal' Health, Lifestyles and Diets	15
M/650/7394	Fundamentals of nutrition	18
R/650/7395	Systems within the human body	15
T/650/7396	Principles of nutritional support and advanced nutritional theory	20
Y/650/7397	Tools and techniques of nutritional practices	23
A/650/7398	Nutritional considerations for common clinical populations	29
D/650/7399	Performance nutrition programming	15

Optional Units

There are no optional units in this qualification

Pathway Units (where applicable)

There are no pathway units in this qualification

Unit Title	Principles of evidence-based approaches and practices
Unit Aim	To develop an understanding of the key terminology, concepts, methods and analysis of evidence-based approaches and practices, exploring different perspectives and be able to apply these to real-life client scenarios.
Unique Unit Number	K/650/7392
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand different methods of research	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Identify types of research studies	The characteristics of different types of research
1.2 Discuss the strength and weaknesses of different research methods	The strengths and weaknesses of the different type of research methods

Learning Outcome: 2. Understand the principles of an evidence-based approach	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Define evidence-based practice	What contributes to evidence-based practice Distinguish between evidence based and non-evidence-based information
2.2 Distinguish between research and experience	"The difference between research and experience The definition of clinical reasoning
2.3 Provide the benefits and challenges of an evidence-based approach	The benefits and challenges of evidence-based practice

Learning Outcome: 3. Be able to apply evidence-based approaches to real-life client scenarios	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Critically evaluate nutritional concepts and claims	How to interpret, analyse and evaluate information, ideas, data and concepts relating to nutrition: i.e. high protein diets and renal function organic foods in the context of health and weight loss sweeteners in diet drinks and the relationship between low-calorie sweeteners, BMI, weight loss and diabetes gluten intake in the context of coeliac disease, health, and weight loss fasted cardio in the context of fat loss and muscle retention protein
3.2 Select and apply appropriate research to inform client recommendations	How to select appropriate research to inform client recommendations How to apply research findings and data to real life scenarios to provide evidence-based recommendations
3.3 Implement ways to reduce personal bias	How to demonstrate that bias has been minimised, and considered when providing evidence-based recommendations to clients
3.4 Conduct academic referencing	How to carry out academic referencing within an essay

Unit Title	'Optimal' Health, Lifestyles and Diets
Unit Aim	To develop a learners understanding of nutrition and how diet and lifestyle types can influence 'optimal' health and use this information to inform client recommendations.
Unique Unit Number	L/650/7393
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam, and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand factors that can influence 'optimal' health	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Define the term, 'optimal' health	The definition of 'optimal' health from different perspectives
1.2 Discuss ways facets of health can influence overall health	The different facets of health and how they can impact a client's life
1.3 Differentiate between 'nature' and 'nurture'	The difference between the two terms and ways they influence a client's health
1.4 Compare the diets and health outcomes of people living in the blue zones with people from westernised countries	The blue zones and their relevance in optimal health discussions The common traits, diets and health outcomes of people from the blue zones and 'Westernised' countries, i.e. UK

Learning Outcome: 2. Understand how different diets can influence 'optimal' health	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Discuss diet types and trends	Modern dietary patterns and the western diet The 'If It Fits Your Macro's (IIFYM)' dietary approach The difference between diets for correcting disease vs maintaining health
2.2 Identify the health benefits and risks of diet types	The benefits and risks of different types of diets e.g. the potential nutritional consequences of vegan and vegetarian diets

Learning Outcome: 3. Understand the role of Nutrigenetics in relation to dietary recommendations	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Define the term 'nutrigenetics'	The definition of nutrigenetics
3.2 Describe the role of Nutrigenetics relating to the provision of dietary recommendations	Where the claims of creating a personalised plan which is based on genetics have evolved from and where the research is currently at

Learning Outcome: 4. Be able to recommend diets to support client's 'optimal' health	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Assess a client's diet	Identifying areas for improvement within a client's diet

Learning Outcome: 5. Know dietary guidelines and recommendations	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Provide dietary recommendations for various populations	Different dietary recommendations for a variety of populations: - Athletes - Young people - Women - Elderly
5.2 Explain dietary recommendations for common medical conditions	Common medical conditions: - High cholesterol - Lactose intolerance - Gluten intolerance - Blood glucose control>

Learning Outcome: 6. Know ways hydration can influence health and performance	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Discuss the role and functions of fluids within the human body	The role of fluids within the human body and their importance Functions of water within the human body What is total body water made up of
6.2 Explain how fluid balance is regulated	How fluid balance is maintained and regulated The different electrolytes and how they impact hydration status What osmolality levels are and how this affects absorption
6.3 Outline the relationship between hydration and body weight	The impact of total body water on body weight The impact of hydration status on weight loss
6.4 Provide methods to monitor hydration	How to estimate sweat rate
6.5 Identify factors that can influence monitoring hydration status	The factors affecting sweat rate The individual differences in sweat rates
6.6 Discuss the effect of dehydration on health and performance	The physiological response to dehydration The symptoms of dehydration The impact of dehydration on health and performance outcomes The diuretic effects of alcohol and caffeine

Learning Outcome: 7. Be able to provide hydration recommendations based on the client	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Provide hydration recommendations based on client needs	Practical recommendations to monitor and maintain hydration status The osmolarity of sport drinks and their impact on performance The impact of different drinks on hydration status, using the beverage hydration index Rehydration strategies for athletes What is hyponatremia and what causes it

Learning Outcome: 8. Understand the impact of meal timing and frequency in relation to health and performance	
Assessment Criteria The learner can:	Indicative Delivery Content
8.1 Outline how the frequency of meals may influence a client's health and weight loss	The impact of meal frequency on metabolism The impact of meal frequency on hunger The impact of meal frequency on fat loss and body composition The impact of meal frequency on health
8.2 Explain ways carbohydrate bunching can improve metabolic health	The concept of carbohydrate bunching The metabolic impact of carbohydrate bunching
8.3 Discuss the health implications and practical considerations of shift work in relation to health and weight loss	The negative health consequences of shift work and circadian misalignment The practical application of chrononutrition strategies
8.4 Identify the impact of breakfast on metabolic rate, appetite, cognition and weight loss	How breakfast consumption impacts health How breakfast impacts hunger and energy intake The role of breakfast in relation to cognitive function

Unit Title	Fundamentals of nutrition
Unit Aim	To develop the learners understanding of the types and functions of biochemical reactions, macronutrients, micronutrients within the human body to support 'optimal' health and be able to conduct nutritional calculations to inform client recommendations.
Unique Unit Number	M/650/7394
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam, and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Know the types and functions of biochemical reactions within the human body	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 >Identify types of biochemical reactions within the human body	The different chemical reactions within the human body
1.2 Explain the functions of biochemical reactions within the human body	Which type of chemical reactions produce energy and which consume energy

Learning Outcome: 2. Know the types and functions of macronutrients	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 >Explain the functions of macronutrients within the human body	Functions of carbohydrates, protein and fats. The role of dietary fibre and resistance starch in gut health The role of fat and cholesterol in the human body
2.2 Distinguish between protein types	Complete and incomplete proteins Different sources of protein (plant vs animal) and their impact on muscle protein synthesis and the adaptive response to exercise
2.3 Analyse the benefits of protein for different populations	The health and performance benefits associated with adequate protein intake
2.4 Outline protein requirements for different populations	The different protein requirements for different populations Identify requirements of protein for athletic population
2.5 Identify the elements of carbohydrates	The chemical structure of carbohydrates
2.6 Analyse the benefits of carbohydrates	The health and performance benefits associated with adequate carbohydrate intake
2.7 Differentiate between glycaemic index and glycaemic load	The difference between glycaemic index and glycaemic load and their relevance in personalised nutrition
2.8 Distinguish between types of fat	The different types of fat and their differential effects on health Essential and non-essential fatty acids
2.9 Distinguish between types of amino acids	The difference between essential and non-essential amino acids The branched chain amino acids

Learning Outcome: 3. Understand macronutrient digestion, absorption and metabolism	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Outline the biochemistry and structures of macronutrients	The biochemistry of different macronutrients The structure of different macronutrients
3.2 Explain how macronutrients are digested, metabolised and absorbed within the human body	How protein, carbs and fat is digested and absorbed within the human body Protein, carbohydrate and fat metabolism and metabolic pathways

Learning Outcome: 4. Understand ways macronutrients can support optimal health	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Outline the health benefits of macronutrients for specific populations	The benefits of protein within specific populations including older adults
4.2 Describe ways protein can influence weight loss	The evidence surrounding the benefits of protein on weight loss and body composition e.g. appetite and muscle retention

Learning Outcome: 5. Know the types and functions of micronutrients	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Identify types of micronutrients	What micronutrients are and the different types of micronutrients
5.2 Explain the role and functions of micronutrients	The role and function of key micronutrients
5.3 Identify how to measure a clients micronutrient status	How an individual's micronutrient status can be measured
5.4 Identify symptoms and health conditions associated with micronutrient deficiencies	Common symptoms associated with micronutrient deficiencies Conditions that are associated with micronutrient deficiencies including rickets and scurvy When and how to refer a client if a micronutrient deficiency is suspected

Learning Outcome: 6. Know the types and functions of vitamins and minerals	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Clarify types of vitamins and minerals	The different types of vitamins and minerals and how they are classified The antioxidant properties of certain vitamins
6.2 Identify the guidelines and recommendations for vitamins and minerals	Vitamin and mineral Reference Nutrient Intakes (RNI)'s in line with public health guidelines

Learning Outcome: 7. Be able to carry out nutrient calculations	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Carry out nutrient calculations	How to calculate the amount of the following within certain foods: - Protein - Carbohydrates - Fats How to convert salt (NaCl) to sodium (NA)

Learning Outcome: 8. Be able to give nutrient recommendations to clients based on their goals	
Assessment Criteria The learner can:	Indicative Delivery Content
8.1 Provide protein intake recommendations to meet client goals	Client-specific protein recommendations, relative to their profile, i.e. body weight, goals, dietary requirements, medical conditions, daily activities
8.2 Provide fat intake recommendations to meet client goals	Fat requirements for clients based on their goal Goal-specific nutritional priorities for sports performance, weight loss and clinical clients How to prioritise macronutrients for different client goals
8.3 Provide carbohydrate recommendations to meet client goals	.Carbohydrate requirements for clients based on their goal
8.4 Provide micronutrient recommendations	The differences in vitamin and mineral requirements for specific populations Micronutrient recommendations for different clients Provide micronutrient targets to clients

Unit Title	Systems within the human body
Unit Aim	To develop a learners understanding of the roles and functions of key systems; digestive, endocrine and energy system and energy balances within the human body and be able to conduct calculations to inform recommendations to support 'optimal' health.
Unique Unit Number	R/650/7395
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam, and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand the role of the digestive system within the human body	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Describe the role of the digestive system within the human body	What the digestive system is The role of the digestive system within the human body
1.2 Outline the functions of gastrointestinal tract organs	The role and functions of the digestive organs within the human body The functions of the stomach in the human body
1.3 Identify the purpose of mastication	The purpose of mastication (chewing) in the digestive process
1.4 Differentiate between digestive enzymes	The difference between the roles, types, where in the body digestive enzymes are produced and released Which substance stimulate the release of certain enzymes and what products are formed as a result

Learning Outcome: 2. Know how gastrointestinal issues can impact health	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Identify factors that can influence gastrointestinal issues	Nutritional factors that might worsen and improve the symptoms of gastroesophageal reflux
2.2 Describe the role of nutrition within digestive health	How dietary patterns impact digestion and gastric emptying How healthy eating can minimise the risk of acid reflux, constipation, and diarrhoea How to work within an appropriate scope of practice in specific clinical situations involving the digestive system

Learning Outcome: 3. Know the components and roles of the endocrine system	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Identify the glands and organs within the endocrine system	The organs and glands within the endocrine system Which organ produces/secretes hormones Which hormones are produced by the pituitary and adrenal glands
3.2 Explain the role of hormones within the human body	The role of hormones produced by the endocrine system within the human body Which hormones suppress or increase appetite
3.3 Describe factors that can impact hormone production	The impact of nutrition, exercise and sleep on hormones within the body
3.4 Explain the role of Thyroid-stimulating Hormone (TSH) within the human body	What hypothyroidism is, the role of, and UK reference ranges for, Thyroid Stimulating Hormone (TSH
3.5 Identify common symptoms of hypothyroidism	Symptoms of hypothyroidism

Learning Outcome: 4. Understand Energy Systems within the human body	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Differentiate between energy systems	The different energy systems including: ATP-PC, Anaerobic and Aerobic
4.2 Identify the by-products of energy systems	The different by-products of the energy systems

Learning Outcome: 5. Understand energy balance	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Explain energy balance within the human body	The fundamentals of energy balance as a dynamic process e.g. Calories In vs Calories Out Identify the components of energy balance How energy balance impacts health and body composition
5.2 Identify factors that influence the energy balance equation	What factors contribute to energy in and out within the energy balance equation The differences in the thermic effect of feeding (TEF) for different macronutrients
5.3 Outline the structure of a human cell	The human cell and the role of the key components of the human cell
5.4 Identify the structure of Adenosine triphosphate (ATP)	What ATP is made up of
5.5 Differentiate between calories and kilojoules	The difference between Calories and Kilojoules and how to convert one to the other
5.6 Explain pH levels within the human body	The regulation of pH within the human body Substances used to help regulate pH levels within the human body during exercise How pH levels are kept within range and regulated within the human body How exercise affects the pH levels of the human body i.e. muscle and blood pH
5.7 Discuss substrate utilisation	Factors that can affect substrate utilization The impact of exercise intensity on substrate utilisation and RER

Learning Outcome: 6. Be able to use energy systems to support a client's health	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Apply energy systems within client recommendations	The energy systems in relation to the individual client case studies

Learning Outcome: 7. Be able to conduct nutritional calculations to support a client's health	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Conduct nutritional calculations	Equations include: Exercise energy expenditure (EEE) Basal metabolic rate (BMR) Total Daily Energy Expenditure (TDEE)
7.2 Conduct calculations to estimate energy expenditure and recommend calorie targets for clients	How to calculate a client's BMR using predictive equations How to select an appropriate activity factor (PAL) for a specific client How to use metabolic equivalents (METs) to determine exercise energy expenditure (EEE)
7.3 Conduct calculations to convert macronutrient intake to energy intake	How to convert macronutrient data to energy intake

Unit Title	Principles of nutritional support and advanced nutritional theory
Unit Aim	This unit develops a learners understanding of advanced nutritional theory while developing learners skills to give nutritional recommendations to clients in order to support their health and performance goals.
Unique Unit Number	T/650/7396
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam, and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand the hormonal and biochemical effects of dietary protein	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Describe ways a high protein diet can influence weight loss and health	How a high protein carbohydrate diet can be effective for weight loss and health
1.2 Summarise the role of protein within exercise and performance settings	Protein recommendations for different goals Protein recovery strategies Protein synthesis, its mechanisms and how it occurs in the body Signalling pathways and the role of mammalian target of rapamycin (mTOR) Whole body vs muscle protein turnover

Learning Outcome: 2. Understand the key hormonal and biochemical effects of dietary carbohydrate	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Define the role of insulin	The physiological effects of insulin on substrate utilisation How the insulin response differs in relation to different foods The insulin hypothesis
2.2 Explain ways sugar consumption can influence optimal health and weight	Sugar intake in relation to health and weight loss
2.3 Describe ways a low carbohydrate diet can influence weight loss and health	How a low carbohydrate diet can be effective for weight loss and health De Novo lipogenesis (DNL) and the impact on the body
2.4 Summarise the role of carbohydrates within exercise and performance settings	Carbohydrate recommendations for different intensities and durations of exercise Carbohydrate recovery strategies Carbohydrate periodisation and consequential physiological adaptations

Learning Outcome: 3. Understand the hormonal and biochemical effects of dietary fat	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Identify the health benefits associated with certain sources of dietary fat	The potential effects of dairy fat, omega 3 and coconut oil consumption
3.2 Explain how ketogenic diet impacts fat loss and health	What a ketogenic diet is The effect of a ketogenic diet on fat loss and health The benefits and limitations of ketogenic diets
3.3 Describe the relationship between dietary fat and sports performance	The importance of fat adaptation for endurance performance The limitations of ketogenic diets and sports performance
3.4 Explain calorie periodisation as a strategy for weight loss	The periodisation of Calories across the day/week/month to suit a client's preference and lifestyle How to create a calorie deficit daily/weekly
3.5 Summarise the remit of a Nutritionist in relation to client diets	How to work within an appropriate scope of practice and when to refer to a dietitian/medical professional, with specific reference to the restrictive nature of diets such as the ketogenic diet

Learning Outcome: 4. Understand adherence in fat loss	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Explain the role of Calories in relation to fat loss	The hierarchy of importance for fat loss The principles vs methods of fat loss
4.2 Identify key factors that can be manipulated for fat loss	The factors that can be manipulated to when working with a fat loss client
4.3 Summarise factors which may influence adherence	The physiological, psychological and social/environmental factors that may affect adherence to an energy deficit
4.4 Identify the different types of client adherence and non-adherence	Different types of adherent/non-adherent clients and their characteristics How to monitor and reduce non-adherence

Learning Outcome: 5. Be able to adapt diets to meet clients' needs	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Recognise if a client is psychologically and physiologically ready to diet	The factors that should be considered before working with a weight loss client What can they work on if weight loss is not appropriate at this time
5.2 Compare flexible and rigid dieting	The characteristics of rigid and flexible dieting The concept of clean eating
5.3 Compare and contrast tracking and non-tracking methods for dieting	The different types of tracking and non-tracking methods Advantages and disadvantages of tracking and non-tracking methods
5.4 Select and apply non-tracking and tracking methods to clients	Which types of tracking and non-tracking methods are most suited to which clients
5.5 Describe the nuances of food quality and quantity	The considerations of food quality and food quantity depending on a specific client goal
5.6 Distinguish between coaching to live and coaching to diet	The multiphasic approaches to dieting and lifelong habits

Learning Outcome: 6. Understand rates of weight loss, diet breaks and metabolic adaptation	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Compare and contrast rates of weight loss	The advantages and disadvantages of fast and slow rates of weight loss When to apply fast or slow rates of weight loss How rates of weight loss can influence lean body mass
6.2 Explore metabolic adaptation	The concept of metabolic adaptation The effect that weight loss has on hormones and energy expenditure
6.3 Explain how diet breaks and reverse dieting can be utilised in a weight loss protocol<,/p>	The evidence around the optimal protocol for reverse dieting The use of diet breaks as an aid during dieting
6.4 Recommend weight loss rates to clients	Assess whether fast rates or slow rates of weight loss are most appropriate

Learning Outcome: 7. Understand the key components of body composition	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Outline methods of measuring body composition	The components that make up the 4-compartment model The compartment models for assessing body composition The misconceptions surrounding body fat percentage The functionality of common methods of body composition measurement
7.2 Compare the benefits and limitations of body composition measurement methods	The advantages and disadvantages of common methods of body composition assessment

Learning Outcome: 8. Be able to apply composition assessment methods to client recommendations	
Assessment Criteria The learner can:	Indicative Delivery Content
8.1 Apply composition assessment methods to inform client recommendations	The most appropriate method of body composition assessment to recommend for a specific client situation
8.2 Analyse the results of a body composition assessment	How to interpretate body composition assessment data

Learning Outcome: 9. Understand advanced muscle gain techniques	
Assessment Criteria The learner can:	Indicative Delivery Content
9.1 Explain the muscle hypertrophy hierarchy	
9.2 Discuss ways protein feeding strategies can maximise muscle hypertrophy	The effect of protein frequency, type, and timing on muscle hypertrophy The importance of the leucine threshold and the refractory period in relation to muscle protein synthesis How to minimise weight gain during a calorie surplus

Learning Outcome: 10. Understand evidence-based supplementation for health and performance	
Assessment Criteria The learner can:	Indicative Delivery Content
10.1 Summarise the appropriate steps to take when determining the safety of a supplement	How to make safe and efficacy supplement recommendations Potential interactions between supplements and medications, and how to work within an appropriate scope of practice in specific situations where interactions may exist When it is necessary to use supplements that are batch-tested e.g. Informed Sport
10.2 Explain ways supplements can support optimal health	The potential benefits of supplementing with Omega 3 and Vitamin D and appropriate client-specific dosages and timings of each
10.3 Evaluate ways supplements could support sports performance	The potential benefits of caffeine, creatine monohydrate, beta alanine & sodium bicarbonate supplementation on sports performance

Learning Outcome: 11. Be able to recommend supplements to support clients' optimal health	
Assessment Criteria The learner can:	Indicative Delivery Content
11.1 Provide dosages and timing of supplement within client recommendations	How to determine individualised dosages and timing recommendations for caffeine, creatine monohydrate, beta alanine and sodium bicarbonate
11.2 Justify supplement recommendations to support clients' optimal health	The potential benefits of supplementation for optimal health

Unit Title	Tools and techniques of nutritional practices
Unit Aim	Unit aim To develop a learners' understanding of the scope of the role, tools and techniques to support nutritional practice.
Unique Unit Number	Y/650/7397
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam, and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand the scope of practice for Nutritionists	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Summarise the scope of practice of a Nutritionist	How to work within an appropriate scope of practice and when to refer to a dietitian/ medical professional, with specific reference to the restrictive nature of diets
1.2 Explain when to refer clients who are outside the remit of a Nutritionist	How to work within an appropriate scope of practice and when to refer clients to a medical professional How to support clinical populations as part of a multidisciplinary team, with specific reference to the principle of 'first do no harm', appropriate scope of practice & when to refer clients to a medical professional

Learning Outcome: 2. Understand the appropriate use of food diaries to support nutritional practice	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Discuss dietary assessment methods	The different methods of dietary assessment The advantages and disadvantages of each method
2.2 Evaluate the accuracy of food diaries	The accuracy of different food diaries How to improve the accuracy of a client food diary
2.3 Identify the benefits of using dietary assessments within practice	The benefits of using dietary assessment methods within practice

Learning Outcome: 3. Be able to apply different dietary approaches to different clients	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Differentiate between client nutrition strategies	What the different nutrition strategies are Advantages and disadvantages of different client strategies
3.2 Select and apply the correct nutrition strategies for different clients	How to apply different strategies to different clients and goals

Learning Outcome: 4. Understand the client consultation process	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Describe the benefits of asking a client to complete a consultation form prior to a consultation	The benefits of a pre-consultation form What information to include on a pre-consultation form
4.2 Outline key components of a client nutritional consultation	How to structure a nutrition consultation The type of information that can/should be obtained during a consultation

Learning Outcome: 5. Know how to apply motivational interview techniques	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Distinguish between types of questioning	The difference between open, leading and closed questions
5.2 Provide advantages and disadvantages of question types	The advantages and disadvantages of using each type of question
5.3 Select and apply the appropriate types of questions	The types of questions to use within a nutrition consultation to get the most valuable information from the client

Learning Outcome: 6. Know ways to build rapport with clients	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Identify techniques to build rapport with clients	Listening techniques and motivational interviewing skills

Learning Outcome: 7. Understand approaches for client nutrition strategies and programming	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Differentiate between nutrition strategies	What the different nutrition strategies are Advantages and disadvantages of different client strategies

Learning Outcome: 8. Know ways to monitor a client's progress	
Assessment Criteria The learner can:	Indicative Delivery Content
8.1 Evaluate methods for monitoring a clients' progress and when they should be used	What client monitoring is and why we need to do it The different methods of monitoring client progress including quantitative and qualitative methods When different methods of monitoring should be used
8.2 Explain how frequently measures should be taken when monitoring clients	How frequently different measures should be taken when monitoring clients and the effects of measuring certain measures more frequently
8.3 Provide ways to improve the accuracy of monitoring methods and techniques<,/p>	The factors that could affect adherence, change in body weight etc. How to improve the accuracy of monitoring techniques

Learning Outcome: 9. Know how to apply behaviour change theory to practice	
Assessment Criteria The learner can:	Indicative Delivery Content
9.1 Distinguish between theories of behaviour change	Why and when behaviour change is important The different theories of behaviour change, including The Transtheoretical Model, Self-Determination Theory, Motivational Interviewing theory and Cognitive Behavioural Therapy (CBT) and what they involve
9.2 Apply behaviour change theory to practice	How to use apply behaviour change theory into practice/p>
9.3 Recognise and assess a client's readiness to change	What readiness to change is How to assess a clients' readiness to change and how to help them further along the readiness to change continuum

Learning Outcome: 10. Understand ways to support client goals	
Assessment Criteria The learner can:	Indicative Delivery Content
10.1 Distinguish between goal types	The different types of goals, including outcome and process goals The advantages and disadvantages of different types of goals and when to use them with clients
10.2 Describe ways to improve clients goal attainment	How to improve goal attainment The use of implementation intentions to improve goal attainment
10.3 Explain ways to implement building habits with clients	How to help client's build habits
10.4 Select and apply the correct nutrition strategies for different clients	How to apply different strategies to different clients and goals

Learning Outcome: 11. Know ways to design client presentations	
Assessment Criteria The learner can:	Indicative Delivery Content
11.1 Describe factors to consider when creating client presentations	How to make corporate/group nutrition education presentations engaging, interactive and professional

Learning Outcome: 12. Know methods of conducting consultations and nutritional support	
Assessment Criteria The learner can:	Indicative Delivery Content
12.1 Compare and contrast types of coaching	What online, in-person and hybrid coaching involve What skills are applicable in both conventional and online coaching The similarities and differences between online and in-person coaching The advantages and disadvantages of each

Unit Title	Nutritional considerations for common clinical populations
Unit Aim	To develop a learners' understanding of common clinical situations and populations such as Polycystic Ovary Syndrome (PCOS), type 2 Diabetes, Irritable Bowl Syndrome (IBS), pregnancy, eating disorders, the elderly and the impact of nutrition within these situations, including the Nutritionists role in terms of remit, treatment and cure.
Unique Unit Number	A/650/7398
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand Irritable Bowel Syndrome (IBS) and Gut Health	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Outline healthy eating guidelines and recommendations	Healthy eating guidelines in relation to supporting good digestive health and which foods and dietary patterns may lead to clients experiencing common gut issues How to work within an appropriate scope of practice and when to refer to a dietitian/ medical professional, with specific reference to the restrictive nature of diets such as the low FODMAP diet
1.2 Compare the signs and symptoms of gut disorders	The different gut health issues The signs, symptoms and causes of IBS, Inflammatory Bowel Disease (IBD) and Coeliac Disease Alternative and non-evidence-based interventions that may get discussed in the health and fitness industry

Learning Outcome: 2. Understand nutritional considerations for pregnant clients	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Explain the key nutritional considerations during pregnancy	Why nutrition is important before, during and after pregnancy Foods to avoid or limit during pregnancy The benefits of supplementation before, during and post-pregnancy Recommended dosage of supplements at differing stages of pregnancy, i.e. during, before, after
2.2 Explain the national guidance in relation to healthy weight gain during pregnancy and the risks associated with overweight and underweight	The optimal weight before pregnancy and the risks of being overweight or underweight What gestational diabetes is and the potential risks involved Why gestational diabetes occurs and how to support the management of it
2.3 Outline nutritional considerations and requirements in breastfeeding clients>/p>	Fluid requirements during breastfeeding and foods and supplements to promote/limit during breastfeeding

Learning Outcome: 3. Understand nutritional considerations for clinically obese clients	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Compare types of client obesity	What obesity is and the different obesity classifications
3.2 Identify methods to assess client's obesity level	The methods of assessment used to classify if an individual is overweight or obese
3.3 Describe factors that may influence the development of obesity	Obesity as a multifaceted disease and the influence of genetic and environmental factors in the development of obesity
3.4 Outline the health risks for obese clients	The risks and diseases that are associated with obesity The relationship between Binge Eating Disorder (BED) and obesity
3.5 Compare types of dietary interventions for obese clients	The different dietary interventions that could be implemented with clients with obesity, including very low kcal diets, very-low carbohydrate diets, alternate day fasting and carbohydrate periodisation protocols
3.6 Outline the types and potential benefits of bariatric surgery	The types of bariatric surgery The benefits of bariatric surgery in obese populations
3.7 Outline the criteria a client must meet to qualify for bariatric surgery	The criteria required to qualify for bariatric surgery How to work within an appropriate scope of practice in specific clinical situations such as bariatric surgery qualification and aftercare

Learning Outcome: 4. Understand nutritional considerations and strategies for elderly clients	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Define anabolic resistance	
4.2 Describe sarcopenia, its relevance in elderly populations & how nutrition can reduce the risk of sarcopenia	What sarcopenia is, the health risks associated with it and its symptoms Nutritional strategies to reduce the risk of sarcopenia
4.3 Describe what osteoporosis is and clarify its relevance in elderly populations	The difference between low bone mineral density, osteopenia, and osteoporosis How nutrition and exercise can reduce the risk of osteoporosis
4.4 Outline supplements that might be beneficial for elderly clients and recognise symptoms that may suggest nutrient deficiencies	The potential benefits of supplements (including omega 3 fish oils, creatine, calcium, and vitamin D) on low bone mineral density, sarcopenia, age-related cognitive decline and neurodegenerative diseases Common symptoms of micronutrient deficiencies
4.5 Recommend practical ways to help an elderly client consume sufficient energy	Age-related weight loss, why it happens and what can be done about it How to work within an appropriate scope of practice in situations such as age-related weight loss

Learning Outcome: 5. Know the signs, symptoms and health implications of diabetes	
Assessment Criteria The learner can:	Indicative Delivery Content
5.1 Compare and contrast types of diabetes	The different types of diabetes The causes and diagnosis criteria of Type 1 diabetes The risk factors for, and symptoms of, Type2 diabetes
5.2 Identify the current diagnostic criteria for hyperglycaemia	The clinical methods of measuring blood glucose & current diagnostic criteria for hyperglycaemia How to work within an appropriate scope of practice in specific clinical situations such as pre-diabetes, and type 2 diabetes
5.3 Explain the physiology of insulin resistance	Where insulin resistance occurs in the body and factors that can help improve insulin sensitivity
5.4 Outline the health risks of chronic untreated hyperglycaemia and diabetes	The health consequences of not managing hyperglycaemia and diabetes
5.5 Recommend dietary management strategies for types of diabetes	How nutrition and weight management can support the management of blood glucose How lifestyle can support the management of blood glucose How to work within an appropriate scope of practice in specific clinical situations such as Type 1 and Type 2 diabetes and when to refer clients to a medical professional

Learning Outcome: 6. Know the signs, symptoms and health implications of Polycystic Ovary Syndrome (PCOS)	
Assessment Criteria The learner can:	Indicative Delivery Content
6.1 Identify the current diagnostic criteria for, and the symptoms of, Polycystic Ovary Syndrome (PCOS)	What Polycystic Ovary Syndrome (PCOS) is, how it is diagnosed and the prevalence and symptoms of Polycystic Ovary Syndrome (PCOS) How to work within an appropriate scope of practice in specific clinical situations such as PCOS
6.2 Evaluate ways to manage and potentially improve Polycystic Ovary Syndrome (PCOS) symptoms	How nutrition and lifestyle changes can help manage and potentially improve symptoms of PCOS
6.3 Explain the effect of PCOS on metabolism and fuel utilisation	Metabolic inflexibility, metabolic adaptation and the changes in substrate utilisation associated with PCOS

Learning Outcome: 7. Understand Cardiovascular Disease (CVD) and cholesterol	
Assessment Criteria The learner can:	Indicative Delivery Content
7.1 Explore the physiology of Cardiovascular Disease (CVD)	The physiology of cardiovascular disease including the role of cholesterol, lipoproteins and apoproteins How to interpret blood lipid results in relation to CVD risk and health
7.2 Identify the risk factors for Cardiovascular Disease (CVD)	The different risk factors for Cardiovascular Disease (CVD) including modifiable and non-modifiable risk factors
7.3 Describe strategies to help improve a client that has been diagnosed with high cholesterol	The differences between treatment and preventative measures The use of statins in treating high cholesterol and the side effects associated with statin treatment Nutritional interventions and supplementation to support high cholesterol and Cardiovascular Disease (CVD) risk How to work within an appropriate scope of practice in specific clinical situations such as CVD and high cholesterol

Learning Outcome: 8. Know ways to support clients with eating disorders	
Assessment Criteria The learner can:	Indicative Delivery Content
8.1 Identify predisposed psychological factors and key indicators associated with the development of eating disorders	Key indicators and psychological signs of eating disorders
8.2 Compare and contrast different types of eating disorder	The different types of eating disorders and their characteristics The evidence behind treatment options for eating disorders
8.3 Identify the signs of an eating disorders	Common behavioural signs of an eating disorder
8.4 Recognise when to refer a client to a qualified eating disorder specialist	When to refer a client to a qualified eating disorder specialist What practitioners should do to reduce the risk of someone developing an eating disorder when providing nutrition advice to healthy clients

Unit Title	Performance nutrition programming
Unit Aim	To develop a learners knowledge and skills to implement sport-specific nutrition programmes including fuelling and recovery strategies, dietary periodisation, competition protocols, and nutritional approaches to maximise training adaptations to a wide variety of disciplines and contexts.
Unique Unit Number	D/650/7399
Unit Assessment Method(s)	Coursework
Assessment Specification	The learner will undertake a centre set case study exam, written exam and a multiple-choice exam. The achievable grades for this unit are Distinction, Pass and Fail. The assessment scores determine the grading as detailed in the additional qualification requirements at the end of this document. Reasonable Adjustments can be applied to these assessments in line with 1st4sport Policy Statement: Access Arrangements

Learning Outcome: 1. Understand ways to nutritionally prepare bodybuilding clients for a bodybuilding show	
Assessment Criteria The learner can:	Indicative Delivery Content
1.1 Explain the physiological impact of chronic dieting and dieting to low levels of body fat	The hormonal and physiological impact of chronic dieting and dieting to low levels of body fat Factors masking changes in body weight with reductions in body fat
1.2 Conduct calculations regarding energy requirements of a physique athlete in relation to their energy expenditure and individual goals	How to calculate energy requirements for bodybuilding clients How to estimate exercise energy expenditure for bodybuilding clients
1.3 Implement a variety of dietary methods to maximise adherence to a bodybuilding fat loss diet	Different dietary methods and their application in the context of a fat loss phase within bodybuilding prep Dietary concepts such as the satiety index, which can be utilised to maximise adherence during a fat loss phase How to programme protein intakes and Calories to maximise muscle retention
1.4 Explain the benefits of a dietary refeed within a bodybuilding diet and describe ways to implement a dietary refeed	The physiological consequences and potential psychological benefits of a dietary refeed How to implement a dietary refeed within a bodybuilding diet
1.5 Outline the health risks involved with bodybuilding as a sport	Risk factors associated with bodybuilding and physique competitions

Learning Outcome: 2. Understand how to nutritionally support an endurance athlete within a training and competition setting	
Assessment Criteria The learner can:	Indicative Delivery Content
2.1 Explain energy availability in the context of endurance sport and the associated risks of low energy availability	How to calculate an athlete's energy availability The physiological effect of low energy availability (RED-S) How to work within an appropriate scope of practice in specific clinical situations such as hypothalamic amenorrhea caused by low energy availability
2.2 Explain the theory of fat adaptation and the practical application of low carbohydrate availability strategies	What fat adaptation is and the advantages/disadvantages of becoming fat adapted within endurance performance Protocols to implement to facilitate fat adaptation whilst maintaining glycolytic capacity How to programme low carbohydrate availability protocols into an athlete's training schedule
2.3 Describe pre-race and within race nutritional strategies	Contemporary views on carbohydrate loading and how to implement it How to programme nutrition & hydration strategies for endurance competition/events
2.4 Critically analyse the use of supplementation within endurance performance	Supplements that can aid endurance adaptation and performance Evidence-based ergogenic doses for supplements that can aid endurance adaptation and performance
2.5 Conduct the calculation for evidence-based ergogenic doses of supplements	How to calculate ergogenic doses for different supplements

Learning Outcome: 3. Understand how to develop a nutritional programme for a team sports athlete	
Assessment Criteria The learner can:	Indicative Delivery Content
3.1 Assess carbohydrate requirements for team sport athletes	How to calculate carbohydrate requirements for glycogen supercompensation The practicalities of programming meals/snacks to meet high carbohydrate requirements
3.2 Justify when an athlete should consume carbohydrate during a match	When (and how much) carbohydrate is appropriate to consume during a match/game
3.3 Describe nutritional and lifestyle factors that can benefit or impair team sports performance	Glycogen depletion and replenishment The impact of alcohol consumption on performance and recovery The impact of sleep on performance and recovery
3.4 Select and apply ways to periodise nutritional strategies during a season and implement them within a client scenario	How to periodise nutrition for athletes throughout the competitive year e.g., off-season, pre-season and within season

Learning Outcome: 4. Understand ways to support a weight-making athlete to safely make weight for a competition while maximising performance	
Assessment Criteria The learner can:	Indicative Delivery Content
4.1 Explain the different acute making weight strategies and when they are appropriate	Different acute weight making including removal of creatine, sodium restriction, glycogen depletion, fibre manipulation, safe/natural laxatives, safe levels of dehydration The difference between weight loss and fat loss in the context of weight making sports
4.2 Describe advanced dietary strategies to implement post-weigh-in	How to aggressively rehydrate and replenish glycogen stores post-weigh-in Supplements that may support the post-weigh-in period Specific practical recommendations for athletes with a 2-hour or 24-hour weigh-in window

Qualification Conditions: Delivery and assessment requirements

To complete the delivery, assessment, and internal quality assurance of the qualification, providers will be required to adhere to the guidance set out in the Recognised Centre Handbook.

Qualification Approval Conditions: Workforce requirements

In addition to the workforce requirements stated in the Recognised Centre Handbook, the following qualification specific requirements must be met and evidenced.

Tutor(s):

hold an MSc within a nutrition-related subject and must provide proof of completion of Mac Nutrition orientation before delivery.

Assessor(s):

hold the 1st4sport Level 5 Diploma in Advanced Nutrition Science or equivalent. Must provide proof of completion of Mac Nutrition orientation before delivery.

Internal Verifier(s) and Quality Assurer(s):

hold an MSc within a nutrition-related subject and must provide proof of completion of Mac Nutrition orientation before delivery.

Additional Qualification Requirements

Pass Distinction Sum of all Assessment Points Awarded 16-42 43-44

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