

# Scheme of work

For each VTCT (ITEC) qualification, the lecturer/centre must complete a scheme of work for each unit indicating how the Lecturer is planning to cover the unit content throughout the course. Set out the planned sessions in terms of learning outcomes to be achieved. These should match those stated within the VTCT (ITEC) unit specification. Include all units of each course offered. Hours should meet the minimum guided learning hours listed within the unit specification.

**Unit title:** iUCT41 – Diet and nutrition for complementary therapists

**Total contact tuition hours proposed:** 100

**Lecturer(s) responsible:**

Learning objectives	Lecture content	Suggested resources	Approx. hours
Introductory session	<ul style="list-style-type: none"> <li>• College rules and regulations</li> <li>• College mission statement</li> <li>• ITEC rules and regulations</li> <li>• Health &amp; safety</li> <li>• Timetable</li> <li>• Dates – holidays etc.</li> <li>• Syllabus</li> <li>• Recommended books</li> <li>• Uniform</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Q&amp;A</li> <li>• Using all the documents listed to ensure the students understand the college expectations and their commitment to the course</li> </ul>	
<b>Know the anatomy, physiology and pathologies of the digestive system</b>			
Explain the structure and function of the organs and accessory organs of the digestive system	<ul style="list-style-type: none"> <li>• Alimentary canal</li> <li>• Salivary glands</li> <li>• Tongue</li> <li>• Epiglottis</li> <li>• Oesophagus</li> <li>• Stomach</li> <li>• Small intestine (jejunum, ileum, duodenum)</li> <li>• Appendix</li> <li>• Large intestine</li> <li>• Rectum</li> </ul>	<ul style="list-style-type: none"> <li>• OHP/Whiteboard</li> <li>• Lecture</li> <li>• Q&amp;A</li> <li>• Homework</li> <li>• Test:</li> </ul>	

	<ul style="list-style-type: none"> <li>• Anus</li> <li>• Accessory organs <ul style="list-style-type: none"> <li>- Liver</li> <li>- Gall bladder</li> <li>- Pancreas</li> </ul> </li> </ul>		
<p>Explain the digestive process and absorption of nutrients</p>	<ul style="list-style-type: none"> <li>• Enzymes</li> <li>• Proteins</li> <li>• Peptones</li> <li>• Polypeptides</li> <li>• Amino acids</li> <li>• Carbohydrates</li> <li>• Monosaccharides</li> <li>• Disaccharides</li> <li>• Polysaccharides</li> <li>• Fats</li> <li>• Fatty acids</li> <li>• Glycerol</li> <li>• Action of rennin, hydrochloric acid and pepsin in the stomach</li> <li>• Action of pancreatic juice, i.e. trypsin, lipase, amylase on peptones, fats and polysaccharides</li> <li>• Action of bile on fat to include the action of intestinal juice – maltase, sucrose, lactase on disaccharides</li> <li>• Process of absorption of nutrients by the villi and lacteals contained in the small intestine</li> </ul>		
<p>Explain the interrelationship of the digestive system with other systems of the body</p>	<ul style="list-style-type: none"> <li>• Circulatory</li> <li>• Endocrine</li> <li>• Lymphatic</li> <li>• Muscular</li> <li>• Nervous</li> </ul>		
<p>Explain diseases and disorders of the digestive system and their causes</p>	<ul style="list-style-type: none"> <li>• Appendicitis</li> <li>• Cirrhosis of the liver</li> <li>• Jaundice</li> <li>• Heartburn</li> <li>• Irritable bowel syndrome (IBS)</li> <li>• Ulcer</li> <li>• Hernia</li> <li>• Stress</li> <li>• Constipation</li> <li>• Gall stones</li> </ul>		

	<ul style="list-style-type: none"> <li>• Diarrhoea</li> <li>• Candida</li> <li>• Diverticulitis</li> <li>• Crohn's disease</li> <li>• Coeliac disease</li> <li>• Ulcerative colitis</li> </ul>		
Explain metabolism and Basal Metabolic Rate (BMR)	<ul style="list-style-type: none"> <li>• Metabolism</li> <li>• Basal metabolic rate</li> <li>• Factors affecting metabolism</li> </ul>		

<b>Know the role and sources of nutrients required for a balanced diet to maintain good health and influencing factors</b>			
Explain units of food energy	<ul style="list-style-type: none"> <li>• Kilocalories (Kcal)</li> <li>• Kilojoule (kj)</li> <li>• The food energy value of protein, fat and carbohydrate</li> </ul>	<ul style="list-style-type: none"> <li>• OHP/Whiteboard</li> <li>• Lecture</li> <li>• Q&amp;A</li> <li>• Handout</li> <li>• Homework</li> <li>• Test:</li> </ul>	
Explain the effect of influencing factors on dietary requirements	<ul style="list-style-type: none"> <li>• Influencing factors, e.g.: <ul style="list-style-type: none"> <li>- Age</li> <li>- Body size</li> <li>- Gender</li> <li>- Occupation</li> <li>- Lifestyle e.g. active, sedentary</li> <li>- Pregnancy</li> <li>- Menopause</li> </ul> </li> </ul>		
Explain the role of protein in the diet	<ul style="list-style-type: none"> <li>• Sources and function of protein</li> <li>• Protein</li> <li>• Peptones</li> <li>• Polypeptides</li> <li>• Amino acids</li> <li>• Essential and non-essential amino acids</li> <li>• Recommended daily allowances/intake</li> <li>• The effects of over and under consumption</li> <li>• Complete and incomplete proteins</li> <li>• Methods of combining foods to obtain complete proteins</li> </ul>		
Explain the role of fats/lipids in the diet	<ul style="list-style-type: none"> <li>• Sources and function of fats/lipids</li> <li>• Fats</li> <li>• Fatty acids</li> <li>• Glycerol</li> </ul>		

	<ul style="list-style-type: none"> <li>• Saturated, unsaturated, monounsaturated, polyunsaturated fatty acids and essential fatty acids: <ul style="list-style-type: none"> <li>- Gamma linolenic acid</li> <li>- Omega 3 &amp; 6</li> <li>- Trans fats</li> </ul> </li> <li>• Recommended daily allowances/intake</li> <li>• The effects of over and under consumption</li> <li>• Process of hydrogenation and chemical changes</li> <li>• Free radicals and their effects</li> <li>• Methods of combating free radicals</li> <li>• Storage methods used to preserve stability of fats</li> </ul>		
<p>Explain the role of cholesterol in the diet</p>	<ul style="list-style-type: none"> <li>• Definition of cholesterol</li> <li>• Functions and sources of cholesterol</li> <li>• High density lipoprotein (HDL)</li> <li>• Low density lipoprotein (LDL)</li> <li>• The effects of over and under consumption</li> <li>• Lifestyle and factors which affect cholesterol</li> <li>• Dietary measures to reduce cholesterol</li> <li>• Relationship between dietary levels of cholesterol and cholesterol levels in the blood</li> </ul>		
<p>Explain the role of carbohydrates in the diet</p>	<ul style="list-style-type: none"> <li>• Sources and function of carbohydrates</li> <li>• Simple and complex carbohydrates</li> <li>• Starch</li> <li>• Monosaccharides</li> <li>• Disaccharides</li> <li>• Polysaccharides</li> <li>• Non-starch polysaccharides</li> <li>• Recommended daily allowances/intake</li> <li>• The effects of over and under consumption</li> </ul>		
<p>Explain the role of fibre in the diet</p>	<ul style="list-style-type: none"> <li>• Soluble and insoluble fibre</li> <li>• The effect of fibre on the digestive system</li> </ul>		
<p>Explain the role of vitamins in the diet</p>	<ul style="list-style-type: none"> <li>• Definition of vitamin</li> <li>• Oil soluble vitamins</li> <li>• Water soluble vitamins</li> <li>• Details of function, sources, deficiencies, recommended daily allowances, over intake (and dangers arising from it e.g., toxicity) for the following vitamins: <ul style="list-style-type: none"> <li>- A</li> <li>- C</li> <li>- D</li> </ul> </li> </ul>		

	<ul style="list-style-type: none"> <li>- E</li> <li>- B1</li> <li>- B2</li> <li>- B3</li> <li>- B6</li> <li>- B12</li> <li>- Folic acid</li> <li>- K</li> </ul>		
Explain the role of minerals in the diet	<ul style="list-style-type: none"> <li>• Definition of mineral/macro mineral/micro mineral</li> <li>• Details of sources, functions and signs of deficiencies</li> <li>• Describe any dangers arising from deficiency of the following minerals:</li> <li>• Macro minerals <ul style="list-style-type: none"> <li>- Calcium</li> <li>- Magnesium</li> <li>- Phosphorus</li> <li>- Sodium</li> <li>- Potassium</li> <li>- Iron</li> </ul> </li> <li>• Micro minerals <ul style="list-style-type: none"> <li>- Chromium</li> <li>- Zinc</li> <li>- Copper</li> <li>- Selenium</li> <li>- Sulphur</li> <li>- Manganese</li> <li>- Iodine</li> </ul> </li> </ul>		
Explain the role of antioxidants in the diet	<ul style="list-style-type: none"> <li>• Sources, functions and effects of antioxidants in the diet</li> </ul>		
Explain the role of pre and probiotics	<ul style="list-style-type: none"> <li>• Sources and effects</li> </ul>		
Explain the dietary/nutritional value of common foods	<ul style="list-style-type: none"> <li>• Eggs</li> <li>• Fish</li> <li>• Fruit and juices</li> <li>• Grains and legumes</li> <li>• Meat and meat products</li> <li>• Nuts</li> <li>• Seeds</li> <li>• Sugars</li> </ul>		

	<ul style="list-style-type: none"> <li>• Vegetables and juices</li> <li>• Milk and milk products</li> <li>• Soya products</li> <li>• Describe the best storage methods</li> </ul>		
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<b>Know how nutrients can be affected by cooking, processing and refining</b>			
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Explain the processes which effect the nutrient levels of food	<ul style="list-style-type: none"> <li>• Cooking</li> <li>• Storage</li> <li>• Freezing</li> <li>• Blanching</li> <li>• Re-heating</li> </ul>	<ul style="list-style-type: none"> <li>• OHP/Whiteboard</li> <li>• Lecture</li> <li>• Q&amp;A</li> <li>• Handout</li> <li>• Homework</li> <li>• Test:</li> </ul>	
Explain the systems of processing	<ul style="list-style-type: none"> <li>• Additives</li> <li>• Preservatives</li> <li>• Commercial antioxidants</li> <li>• Sequestrants</li> <li>• Flavour enhancers</li> <li>• Thickeners</li> <li>• Emulsifiers</li> <li>• Colourings</li> <li>• Awareness of health problems associated with processing</li> <li>• Awareness of nutrients lost through processing</li> </ul>		
Explain the role of refined and unrefined foods	<ul style="list-style-type: none"> <li>• Definition of refined and unrefined food</li> <li>• Methods of refining</li> <li>• Effects of refining: <ul style="list-style-type: none"> <li>- Colour</li> <li>- Texture</li> <li>- Taste</li> <li>- Nutritional value</li> </ul> </li> <li>• Vitamin and mineral losses incurred in refining</li> <li>• Medical conditions arising from high intake of refined foods</li> <li>• The additional vitamins and minerals needed to be taken to compensate for high intake of refined foods</li> </ul>		

Know the causes and effects of nutritional imbalance on health and wellbeing			
Explain the role of common anti-nutrients in the diet	<ul style="list-style-type: none"> <li>● Definition of the term anti-nutrients</li> <li>● Description of the anti-nutrient effects of: <ul style="list-style-type: none"> <li>- Tea</li> <li>- Coffee</li> <li>- Alcohol</li> <li>- Cigarettes</li> <li>- Man-made chemicals</li> <li>- Carbonated soft drinks</li> <li>- Tranquilisers</li> <li>- Antibiotics</li> <li>- Stress</li> <li>- Smoking</li> <li>- Medication</li> <li>- The contraceptive pill</li> <li>- Synthetic hormone residues</li> </ul> </li> <li>● Describe the effects of anti-nutrients on vitamin and mineral absorption</li> <li>● Identify the systems of the body which are affected by anti-nutrient intake</li> <li>● Describe mental and physical problems associated with prolonged intake of anti-nutrients</li> </ul>	<ul style="list-style-type: none"> <li>● OHP/Whiteboard</li> <li>● Lecture</li> <li>● Q&amp;A</li> <li>● Handout</li> <li>● Homework</li> <li>● Test:</li> </ul>	25
Explain the role of environmental pollutants	<ul style="list-style-type: none"> <li>● The effects of the following pollutants: <ul style="list-style-type: none"> <li>- Pesticides</li> <li>- CO2 emissions</li> </ul> </li> <li>● Other sources of pollutants and their effects on the body, mentally and physically in particular, from prolonged contact</li> <li>● People vulnerable to pollutants</li> </ul>		
Explain the possible side effects of food additives	<ul style="list-style-type: none"> <li>● Allergies/sensitivities</li> <li>● Attention deficit disorder</li> <li>● Hyperactivity</li> </ul>		
Explain common ailments related to nutritional imbalance and how diet may help	<ul style="list-style-type: none"> <li>● Common cold</li> <li>● Influenza</li> <li>● Cystitis</li> <li>● Water retention</li> <li>● Arthritis</li> <li>● Pre-menstrual syndrome</li> <li>● Sinusitis</li> <li>● Migraine</li> <li>● Asthma</li> <li>● Stress</li> <li>● Eczema</li> </ul>		

	<ul style="list-style-type: none"> <li>• Psoriasis</li> <li>• Cellulite</li> </ul>		
Explain the problems that may be experienced with the digestion of gluten and diseases/disorders which may be associated with it	<ul style="list-style-type: none"> <li>• Foods to be avoided</li> <li>• Suitable alternatives</li> <li>• Maintaining a balanced diet</li> <li>• Various disorders e.g. gluten intolerance, non-coeliac gluten sensitivity</li> <li>• Coeliac disease</li> </ul>		
Explain the problems which may be associated with dairy intolerance	<ul style="list-style-type: none"> <li>• Produce to be avoided</li> <li>• Alternative sources of nutrients</li> <li>• Maintaining a balanced diet</li> <li>• Various disorders e.g. lactose intolerance</li> </ul>		
Explain the growing levels of nut intolerance	<ul style="list-style-type: none"> <li>• Possible reasons</li> <li>• Effects</li> <li>• Alternative sources of nutrients</li> </ul>		
Explain the condition of obesity	<ul style="list-style-type: none"> <li>• Definition of obesity</li> <li>• Contributing causes of obesity</li> <li>• Adverse effects of obesity i.e. medical conditions in which obesity is implicated</li> <li>• Healthy dietary strategies for reducing energy input</li> <li>• Healthy dietary strategies for increasing energy output</li> </ul>		
Explain the conditions anorexia nervosa and bulimia nervosa	<ul style="list-style-type: none"> <li>• Definition of anorexia nervosa</li> <li>• Definition of bulimia nervosa</li> <li>• Symptoms, physiological and psychological causes</li> <li>• The effect of lack of nutrition on the body, particularly vitamins and minerals</li> </ul>		
Explain the conditions hyperglycaemia and hypoglycaemia	<ul style="list-style-type: none"> <li>• Definition of hyperglycaemia</li> <li>• Definition of hypoglycaemia</li> <li>• Identifying the physical action when insulin is triggered</li> <li>• Recognising the symptoms and causes</li> <li>• Glycaemic index</li> <li>• Identifying foods able to maintain blood sugar levels</li> <li>• Identifying foods which adversely affect blood sugar levels</li> <li>• Identifying strategies for coping with hyperglycaemia and hypoglycaemia</li> </ul>		
Explain the condition diabetes	<ul style="list-style-type: none"> <li>• Definition of diabetes</li> <li>• The differences between type 1 and type 2 diabetes</li> <li>• The symptoms and causes of type 1 and 2 diabetes</li> <li>• Suitable and unsuitable foods and dietary methods of dealing with diabetes</li> <li>• The importance of control and management of diet for a diabetic</li> </ul>		

	<ul style="list-style-type: none"> <li>• The importance of weight loss to reduce insulin resistance</li> <li>• The importance of regular and even food intake at consistent levels</li> </ul>		
Explain the function of water in the diet and its effects	<ul style="list-style-type: none"> <li>• Hydration</li> <li>• Forms 95% of plasma</li> <li>• Bathes the tissues</li> </ul>		
Explain the effects of dehydration on the body	<ul style="list-style-type: none"> <li>• Thirst</li> <li>• Headaches</li> <li>• Toxicity and the strain placed on other organs, e.g. skin and liver</li> </ul>		

<b>Provide general information on healthy eating</b>			
Explain guidelines for healthy eating	<ul style="list-style-type: none"> <li>• Guidelines for healthy eating and preparation for a well-balanced diet</li> <li>• Best methods of preparation/storage/cooking of foods</li> <li>• Best sources of foods</li> <li>• Benefits of using fresh foods</li> <li>• Benefits of using organic foods</li> <li>• Nutritional values in foods</li> <li>• Effects of chemical and pesticides</li> <li>• Importance of checking nutritional information on labels particularly to identify additives, flavourings and colourings</li> <li>• Methods employed by manufacturers to prolong the life of food</li> <li>• Nutritional losses incurred in storage</li> <li>• Awareness of current debates on: <ul style="list-style-type: none"> <li>- Genetic engineering and other methods of food adulteration</li> <li>- Awareness of possible medical conditions arising from use of plastics and other food containers and utensils</li> <li>- Red/processed meat in the diet and its effects on cancer</li> <li>- Cholesterol</li> <li>- Dairy products and alternatives</li> <li>- Daily intake of milk or use of other sources of calcium in order to prevent osteoporosis</li> <li>- Tap water/bottled water</li> <li>- Water filters</li> <li>- Organic foods</li> <li>- Superfoods</li> <li>- Detoxifying diets/products</li> <li>- Pre and probiotics</li> <li>- 'Clean' eating</li> <li>- Intermittent fasting e.g. 5.2 diet, 16.8 diet, etc.</li> <li>- Vegan diet</li> <li>- Gut health – microbiome</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• OHP/Whiteboard</li> <li>• Lecture</li> <li>• Q&amp;A</li> <li>• Handout</li> <li>• Homework</li> <li>• Test:</li> </ul>	

	- Fried/burnt food		
Explain the importance of eating regularly	<ul style="list-style-type: none"><li>• Breakfast</li><li>• Lunch</li><li>• Dinner</li><li>• Healthy snacks</li><li>• Effects of eating regularly on metabolism and general health</li></ul>		

**Document History**

<b>Version</b>	<b>Issue Date</b>	<b>Changes</b>	<b>Role</b>
v1	10/01/2020	First published	Qualifications and Regulation Co-ordinator