

## ACADEMIC SERVICES

### MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Human Nutrition				
Module Code	USSKBV-15-3	Level	3	Version	1.1
Owning Faculty	Health and Applied Sciences	Field	Department of Biological, Biomedical and Analytical Sciences		
Department	Applied Sciences				
Contributes towards	BSc Biological Sciences				
UWE Credit Rating	15	ECTS Credit Rating	7.5	Module Type	Standard
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	None		Module Entry requirements	N/A	
Valid From	September 2016		Valid to	November 2020	

<b>CAP Approval Date</b>	31/05/2016
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of the multidisciplinary nature of the 'science of nutrition' (A&amp;B)</li> <li>• explain the key principles of, and within, and the relationships between energy provision ; metabolism ; nutrient digestion and assimilation; diet in the healthy mature individual (A)</li> <li>• relate their knowledge of the above to the likely origins of selected nutritionally-related disorders and explain the major physiological consequences of such disorders (A&amp;B)</li> <li>• apply their knowledge of the above in demonstrating an understanding of different dietary requirements in different 'nutritional life stages' (A&amp;B)</li> </ul>
Syllabus Outline	<p><u>Concepts</u></p> <p>Human nutrition as a science with many facets, such as: physiology; biochemistry; health, exercise and clinical sciences; social science and nutritional anthropology-environmental and thus dietary factors in human evolution.</p>

	<p>Nutritional analyses within the science of nutrition: ABCDE (Anthropometric, Biochemical, Clinical, Dietary and Environmental), related to the scope of the module.</p> <p><u>Metabolism</u></p> <p>The need for energy. Energy balance, physical activity and body weight. Metabolic fuels. Metabolic pathways. Tissue fuel reserves. Metabolic assessment. Hunger and appetite.</p> <p><u>Nutrients</u></p> <p>The classification of nutrients. Macro- and micro- nutrients. Carbohydrates, fats and proteins. Organic and inorganic essential nutrients. Water, electrolytes and acid-base balance. Major minerals. Major vitamins. Requirements and reference intakes. Health and metabolic integrity.</p> <p><u>Digestion and Absorption</u></p> <p>The digestion of food and assimilation of nutrients. Sources and roles of selected major digestive enzymes. Absorption of, and transport mechanisms for, macro- and micro-nutrients.</p> <p><u>Nutritional Assessment</u></p> <p>Food analysis, food groups and food composition tables. Dietary assessment and nutritional status. 'Man', 'his' environment and diet. Environmental and thus dietary factors in human evolution, in overview.</p> <p><u>'Nutritional Disorders'</u> (selected examples)</p> <p>Desirable weight range. Anthropometric assessment and body composition analysis.</p> <p>Clinical nutritional assessment. The overweight and obese. Diet and the diseases of affluence; outline epidemiology. The underweight individual. Protein energy malnutrition. Anorexia nervosa and bulimia.</p> <p><u>Nutritional Life Stages</u></p> <p>Keynote aspects of infant feeding; childhood and adolescence; pregnancy and lactation; sports nutrition; nutrition and ageing; nutrition in the elderly.</p>
Contact Hours	<p>The contact hours (36) are distributed as follows:</p> <p>36 hours of lectures</p> <p>In addition to the described contact time, this material will be supported through online learning material, including technology enhanced lecture material.</p> <p><b>Independent learning:</b> Using defined TEL strategies includes hours engaged with essential reading, data handling, presentations etc.</p>
Teaching and Learning Methods	<p>The theoretical material will be delivered mostly as lectures reinforced by directed reading, practical activities and directed tasks. The practical work will support and extend lecture material, and may include simulation workshops and data interpretation.</p>

Tutorials and learning support may be offered at key times, as required. Blackboard will support the module, and will provide access to course documents, sample exam questions, and learning materials; there will be a focus on exploiting opportunities to use web-based support for learning.

**Independent learning:** In addition to lectures and practical sessions students are expected to engage in independent reading where core textbooks, journals and online resources are highlighted. This extended reading will help support student for examination preparation. The expected time given to this aspect is 114 hours.

Key Information Sets Information

Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.

**Key Information Set - Module data**

Number of credits for this module

15
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Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
150	36	114		150



The table below indicates as a percentage the total assessment of the module which constitutes a -

**Written Exam:** One unseen written exam

**Coursework:** One 1500 word essay

Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:

Total assessment of the module:

Written exam assessment percentage

Essay

50%
50%

100%

Reading Strategy

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

Any **essential reading** will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be

	<p>available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.</p> <p>If <b>further reading</b> is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.</p> <p>A detailed reading list will be made available through relevant channels, e.g. module handbooks, Blackboard, etc.</p>
Indicative Reading List	<ul style="list-style-type: none"> <li>• Bender, D (2007) <i>Introduction to Nutrition and Metabolism</i> 4th ed. Boca Raton, FL: CRC Press. with accompanying CD ROM</li> <li>• Resource of Nutrition websites, such as Arbor Nutrition Guide, British Nutrition Foundation, British Dietetic Association.</li> </ul> <p>(Numerous relevant websites are available)</p> <ul style="list-style-type: none"> <li>• Dashman, T. , Blocker, D. Baker, N. (1996) <i>Laboratory manual for Human Nutrition</i>. Amsterdam: Harwood Academic</li> <li>• Garrow, J. James, W. and Ralph, A. (2000) <i>Human Nutrition and Dietetics</i> 10th ed. Edinburgh: Churchill Livingstone</li> <li>• Ministry of Agriculture, Fisheries &amp; Food (1995) <i>Manual of Nutrition</i> 10th ed. London: HMSO</li> <li>• Mann, J. and Truswell, S. (2002) <i>Essentials of Human Nutrition</i> 2nd ed. Oxford: Oxford University Press.</li> <li>• Manore, M. Thompson, J. (2000) <i>Sport Nutrition for Health and Performance</i>. Leeds: Human Kinetics.</li> <li>• Silverthorn, D. (2006) <i>Human Physiology-An Integrated Approach</i> 4th ed. Harlow: Pearson.</li> </ul>

### Part 3: Assessment

Assessment Strategy	<p>The assessment will cover the broad curriculum via an examination at the end of the second semester.</p> <p>The essay will offer the students the opportunity to develop critical skills in evidence-based argument.</p>
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Identify final assessment component and element		
% weighting between components A and B (Standard modules only)	<b>A:</b>	<b>B:</b>
	<b>60%</b>	<b>40%</b>
<b>First Sit</b>		
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b> <b>(as % of component)</b>	
1. Examination (3hrs)	100%	

2.(etc)	
<b>Component B</b> <b>Description of each element</b>	<b>Element weighting</b> <b>(as % of component)</b>
1. Essay (1500 words)	100%
2.(etc)	

<b>Resit (further attendance at taught classes is not required)</b>	
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b> <b>(as % of component)</b>
1. Examination (3hrs)	100%
2.(etc)	
<b>Component B</b> <b>Description of each element</b>	<b>Element weighting</b> <b>(as % of component)</b>
1. Essay (1500 words)	100%
2.(etc)	
If a student is permitted an <b>EXCEPTIONAL RETAKE</b> of the module the assessment will be that indicated by the Module Description at the time that retake commences.	