

IM SYLLABUS (2011)

HOME ECONOMICS AND HUMAN ECOLOGY

IM 18

SYLLABUS

<p>Home Economics and Human Ecology IM 18 Syllabus</p>	<p>(Available in September) 1 Paper (3 hours)</p>
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The broad and multidisciplinary nature of Home Economics and Human Ecology enables candidates to demonstrate their abilities to transfer knowledge, understanding and skills for further studies in fields such as higher education, health sciences, communications/media, agriculture and the hotel, leisure and food industries. The course will also provide a coherent, satisfying and worthwhile area of study for those students who do not wish to continue with further studies.

The course is designed to provide progression for students who have studied Home Economics at SEC level and it is assumed that all students taking this course will have a SEC level of knowledge. The aim of the Intermediate syllabus is to consolidate previous knowledge and to extend it to include more advanced concepts, which are dealt with in a broad manner. Most of these concepts are included to provide a general and coherent view of the subject, and will not be treated with the same rigour and at the same depth as in the Advanced level course in Home Economics and Human Ecology

The course is divided into three areas: The Family in Society, Food Science and Nutrition, and Consumer Issues and Concerns. Although the content is written as separate areas it is to be noted that examination questions will reflect the interlinking between the areas in accordance with the holistic nature in the teaching of Home Economics and Human Ecology.

1. AIMS

The course aims to:

Increase the students' understanding of the complex factors that influence people's life-styles, eating practices and choice of goods and services

Develop the students' ability to think and reason, make informed decisions and choices, and develop skills for the effective organisation and management of resources

Encourage students to respond effectively to rapid technological changes and the growth of scientific understanding

Enable students to acquire transferable skills that could be used for various situations experienced throughout the life-cycle

Broaden the students' fields of knowledge and encourage them to critically appreciate the inter-relationships of the three content areas.

2. ASSESSMENT OBJECTIVES

Candidates will be assessed for demonstrating:

The knowledge, understanding and application of specific information, principles and concepts relevant to Home Economics and Human Ecology

The ability to analyse given information, present ideas, descriptions and arguments, clearly and logically in order to reach justified decisions and conclusions

An awareness and understanding of contemporary issues and developments and to recognise their implications for individuals, families and the environment

The ability to recommend strategies for effectively managing inevitable situations throughout a person's life-cycle

The use of correct terminology, language and grammar to convey information, principles and concepts, effectively, appropriately and coherently.

3. SCHEME OF ASSESSMENT

The examination will consist of one three hour written paper of 100 marks divided into two sections. Candidates are required to answer all the questions in Section A which is made up of one word- or short-answer type questions for a total of 40 marks. In Section B candidates are required to answer three questions from a choice of four, with 20 marks allocated for each question. The questions in Section B will be structured essay-type questions drawing on the knowledge, understanding, application and evaluation of principles and concepts from all areas of the syllabus in accordance with the holistic nature of the subject.

Candidates will qualify for a pass if they obtain grade A, B, C, D, or E. Candidates who do not qualify for a pass will be unclassified.

4. GRADE DESCRIPTORS

The following grade descriptors indicate the level of attainment characteristic of the given grade at Intermediate Matriculation level. They give a general indication of the required learning outcomes at each specific grade. The descriptors should be interpreted in relation to the content outlined in the syllabus; they are not designed to define the content.

Grade A

Candidates demonstrate a *very well developed ability to:*

Analyse, interpret and evaluate social, scientific and technological concepts together with current, relevant local trends, regulations and developments and clearly demonstrate the interrelationship of subject matter

Apply knowledge and understanding to a range of situations within a theoretical and practical context

Formulate coherent and logical opinions based on sound evidence

Use technical terms accurately and confidently, in a concise, logical and relevant manner.

Grade C

Candidates demonstrate a *satisfactory ability to:*

Analyse, interpret and evaluate social, scientific and technological concepts with basic evidence of the interrelationship of subject matter

Apply knowledge, with reasonable understanding, to different theoretical and practical situations

Explain and evaluate concepts and situations with satisfactory evidence of the knowledge of the underlying principles

Use technical and general terminology appropriately.

Grade E

Candidates demonstrate a *limited ability to:*

Analyse, interpret and evaluate social, scientific and technological concepts with restricted evidence of relevant local situations

Apply knowledge and understanding to different situations

Understand the underlying principles in order to explain and evaluate concepts and situations and use examples or points to illustrate arguments

Use technical terms appropriately.

5. CONTENT

The Family in Society

This area focuses on changing family structures, the factors affecting them, and the support services provided by local agencies. It also covers the identification of the developmental needs of different family members throughout the life cycle.

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
The Family Structure And The Factors Affecting It	<ul style="list-style-type: none"> ▪ Family patterns and lifestyles 	<ul style="list-style-type: none"> - The concept of a family unit - Changes in the family unit structure (e.g. fewer offspring, one-parent family, adopting, fostering, young people moving away from home) - The management of the household: shared responsibilities, coping with different situations (e.g. working parents, short-term illness, chronic illness, disability, shared accommodation with elderly relatives, unemployment)
The Needs Of Individual Family Members	<ul style="list-style-type: none"> ▪ The optimum physical, social and emotional development of children aged 0-4 years 	<ul style="list-style-type: none"> - Key developmental stages with a focus on physical, social and emotional development - Providing a variety of experiences to develop the above-mentioned areas of development - The importance of play in a stimulating environment
	<ul style="list-style-type: none"> ▪ Responsibilities of adults 	<ul style="list-style-type: none"> - Responsibilities towards children, partners and elderly parents - Managing family and work responsibilities - Sharing family-related responsibilities within and outside the home
	<ul style="list-style-type: none"> ▪ The continuing social, emotional and intellectual development of the elderly 	<ul style="list-style-type: none"> - Preparation for and enjoying retirement - Maintaining a healthy and active lifestyle - Participation within the family, local community and society - The role of grandparents in enhancing young families' and children's quality of life
	<ul style="list-style-type: none"> ▪ Support services provided by state and local agencies, with a focus on children and the elderly 	<ul style="list-style-type: none"> - Support services for children and the elderly (5 state provided and 2 non-state provided for each population group). - Fostering and adoption services

Food Science and Nutrition

This area deals with factors affecting food choices, the relationship between diet and health, the scientific principles in the production, processing and preservation of foods. Through research and practical activities students will gain insight into current technological changes.

Nutrition

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Nutrient groups	<ul style="list-style-type: none"> ▪ Nutrient groups and food substances 	<ul style="list-style-type: none"> - Functions related to health, requirements for the different population groups, and the main dietary sources for each nutrient group
Protein	<ul style="list-style-type: none"> ▪ The physical structure of proteins ▪ Amino acids as the final products of digestion ▪ Essential/indispensable and non-essential/dispensable amino acids ▪ The biological value of protein ▪ The complementary effect of plant proteins 	<ul style="list-style-type: none"> - Chemical elements and physical structure - Some examples of proteins in the body - Examples of essential/indispensable and non-essential/dispensable amino acids - The need for adequate daily intake of essential/indispensable amino acids - Examples of foods of high and low biological value - Examples of the complementary effect of plant protein foods
Carbohydrates	<ul style="list-style-type: none"> ▪ The basic physical structure of carbohydrates ▪ Classification of the main groups of carbohydrates: sugars, starches and non-starchy polysaccharides (NSP) ▪ The relationship between monosaccharides, disaccharides and polysaccharides ▪ Monosaccharides as end products of digestion. ▪ The function of carbohydrates 	<ul style="list-style-type: none"> - Chemical elements and physical structure - Examples of food sources of carbohydrates and the contribution of each type of carbohydrate - Recommended daily fibre intake - Carbohydrates as the optimal source of energy - Impact of over-consumption of different types of carbohydrates - Food sources of NSP and the health implication of diets low in NSP - The effects of NSP on the digestive tract

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Lipids	<ul style="list-style-type: none"> ▪ The basic chemical structure of fats Classification of lipids – fats and oils, cholesterol, lecithin ▪ Fatty acids as the end products of digestion ▪ The main types of fatty acids ▪ Hydrogenated oils and trans fats ▪ The main sources of dietary fats ▪ The value of lipids in the diet (including cholesterol, omega fatty acids, etc.) ▪ The modification of fat intake in accordance with the dietary guidelines 	<ul style="list-style-type: none"> - Chemical elements and physical structure, including saturated, unsaturated, polyunsaturated and omega fatty acids - Action in the body, with particular focus on arterial health - Food sources of the different lipids - Lipids as a concentrated source of energy; potential role in heart health, obesity etc. - Methods of modifying the use and intake of dietary lipids to reduce the risk of dietary related disorders and diseases
Vitamins	<ul style="list-style-type: none"> ▪ Changes that occur during the preparation, cooking and serving of foods rich in vitamins ▪ Definition, scientific names, classification and properties of Vitamins ▪ The functions and main sources of vitamins ▪ Vitamin requirements by different population groups ▪ The effect of insufficient and excessive intakes of vitamins 	<ul style="list-style-type: none"> - External conditions (storage, preparation and processing of foods) affecting vitamin stability and the methods used to ensure maximum retention and availability of fat-soluble and water-soluble vitamins - Fat soluble: A, D, E, K - Water soluble: Thiamin, riboflavin, niacin, folate, Vitamin B₆, Vitamin B₁₂, ascorbic acid. - Awareness of common sources of the different vitamins and that each vitamin has a number of functions - Individuals and groups who have particular vitamin needs - Recommended nutrient intakes for ascorbic acid and folic acid - The effects of low and high intakes on different population groups - The importance of taking dietary sources of vitamins - The role of vitamin supplements

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Minerals	<ul style="list-style-type: none"> ▪ Functions and main food sources of key minerals including trace elements ▪ Recommended intake of specific nutrients ▪ The effects of insufficient intake of certain minerals ▪ Mineral requirements by different population groups 	<ul style="list-style-type: none"> - The functions and common food sources of calcium, potassium, sodium, magnesium, iron, zinc, iodine, fluoride. - Recommended intakes for calcium and iron - Adequate intake of sodium - The effects of low dietary intakes of iron and calcium in the body - Population groups that require higher intakes of iron and calcium and lower intakes of sodium
Water	<ul style="list-style-type: none"> ▪ The importance of an adequate water intake 	<ul style="list-style-type: none"> - Basic functions of water in the body - Balancing intake with losses from the body
Energy Value Of Foods	<ul style="list-style-type: none"> ▪ The energy value of foods ▪ Food at fast food outlets 	<ul style="list-style-type: none"> - Foods which are high in calories; rich sources of sugars/fats - Foods which are low in calories - Value of fruits and vegetables as foods with a high water content - Analysis of most popular fast-foods for energy value

Food Habits And Needs

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Factors Affecting Food Choices And Eating Patterns	<ul style="list-style-type: none"> ▪ Psychological, social, economic, cultural and ethnic factors affecting food choices ▪ Availability, accessibility, retailing methods, market influences, global influences ▪ Personal preferences and peer groups 	<ul style="list-style-type: none"> - Understanding of differences in the relative importance of these factors for different groups and individuals
Nutrient Goals And Dietary Guidelines	<ul style="list-style-type: none"> ▪ Nutrient goals and dietary guidelines for the Maltese nation 	<ul style="list-style-type: none"> - Definition and function of nutrient goals and dietary guidelines - The WHO/CINDI Food Pyramid and CINDI dietary guidelines - Recommended percentage of energy intake from carbohydrates, sugars, proteins, fats and saturated fats

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Energy Requirements Of Individuals	<ul style="list-style-type: none"> ▪ Energy balance ▪ Factors which influence energy intakes ▪ Long-term effects of continual energy imbalance 	<ul style="list-style-type: none"> - Energy input and output - Changing energy requirements throughout the life-cycle, focusing on age, sex and physical activity and to include: A growing child (1st growth spurt) Adolescence (2nd growth spurt) Pregnancy and lactation (foetal nutrition and production of milk, respectively) Adults (sedentary vs. active) Elderly (healthy vs. ill) - Obesity versus wasting and their implications for health
The Relationship Between Diet And Health	<ul style="list-style-type: none"> ▪ Dietary needs for different stages in the life cycle ▪ Common meal patterns and changing dietary practice ▪ Diet-related disorders and diseases common in Malta 	<ul style="list-style-type: none"> - Recommended food intake for maintaining health in different population groups: pregnant and lactating women, infants (0-1 years), pre-school children (1-4 years), school children, adolescents, adults, the elderly - Identification of population groups at risk through low or high intakes of specific nutrients. - Prevalence of snacking and skipping breakfast; the consistent use of convenience foods, take-outs and food consumption outside the home; fad diets, eating disorders. - Obesity, coronary heart disease, hypertension, dental caries, diverticulosis, osteoporosis, constipation, anaemia, colo-rectal cancer)

Food Science

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Food Spoilage	<ul style="list-style-type: none"> ▪ The main types of food spoilage ▪ The principles underlying the growth and control of micro-organisms: bacteria, moulds and yeasts 	<ul style="list-style-type: none"> - Common examples of microbial (fermentation), biological (over ripening) and chemical (oxidation) food spoilage - Types of micro-organisms and the conditions necessary for growth and multiplication

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Food Poisoning	<ul style="list-style-type: none"> ▪ Food poisoning organisms and susceptible foodstuffs ▪ Symptoms and process of bacterial food poisoning ▪ Local regulations regarding food safety 	<ul style="list-style-type: none"> - Causes, process (including incubation period) and symptoms of bacterial food poisoning (e.g. salmonella) and common situations with potential for resulting in food poisoning - Food handling certification and food safety inspections - Implications for consumer health and food handling practices
Food Technology	<ul style="list-style-type: none"> ▪ New and alternative methods for the production of foodstuffs 	<ul style="list-style-type: none"> - Organic farming, aquaculture, hydroponics, genetic modification

Consumer Issues and Concerns

This area helps students acquire knowledge of the rights and responsibilities of consumers together with the ability to assess and deal with various situations. Consumers need to be environmentally conscious and effective managers of resources.

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Sources Of Consumer Advice And Information	<ul style="list-style-type: none"> ▪ The labelling of goods and services ▪ Different forms of consumer information to include the media, advertisements, printed material and other sources of consumer information and advice 	<ul style="list-style-type: none"> - Legislation regarding labelling of goods and services (e.g. food labelling, textile labelling, eco-labelling and safety symbols) - Types of, and advantages and disadvantages of sources of information about goods and services - The critical evaluation of advice and information on goods such as: Chemicals used in toiletries and detergents, electrical appliances, clothing, food - Awareness of the pressures of peers, the media and marketing, on the choice of lifestyles, goods and services
Consumer Rights And Responsibilities	<ul style="list-style-type: none"> ▪ Local regulations concerning the purchase and use of goods and services 	<ul style="list-style-type: none"> - Knowledge of consumer rights and responsibilities. - Legal and commercial guarantees - Distance Selling Regulations - The Consumer Claims Tribunal - Methods of redress when problems arise

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Management Of Resources	<ul style="list-style-type: none"> ▪ Individual and family financial planning 	<ul style="list-style-type: none"> - Strategies for financial planning at different stages throughout the life cycle - Differentiating between debit and credit - Budgeting, saving, life insurance policies and retirement/pension plans - Home, car and health insurances - Life assurance policies
	<ul style="list-style-type: none"> ▪ Efficient use of family resources 	<ul style="list-style-type: none"> - The efficient use of human resources within the family to improve family quality of life - The wise choice and use of food and clothing for efficiency and improved quality of life
	<ul style="list-style-type: none"> ▪ Developing a sensitivity towards the impact of consumption on sustainability of the environment 	<ul style="list-style-type: none"> - The impact of individuals and families on the local environment and the contribution of this to the global environment. - Individual and family practices that contribute towards the sustainability of the local and global environment: <ul style="list-style-type: none"> - practising the traditional 3 Rs, - Reduce, Reuse, Recycle – as well as other Rs, such as Repair, Return, Refill - practising energy efficient daily living and transportation habits, - water conservation
Consumer Concerns	<ul style="list-style-type: none"> ▪ Local and global issues related to food, health and the environment 	<ul style="list-style-type: none"> - Definition and function of additives, pesticides, artificial fertilisers, genetically modified organisms, irradiation of foods, - The impact of the above substances and food production and processing methods on human and environmental health