

IM SYLLABUS (2016)

HOME ECONOMICS AND HUMAN ECOLOGY

IM 18

SYLLABUS

Home Economics and Human Ecology IM 18 Syllabus	(Available in September) 1 Paper (3 hours)
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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 Intermediate Matriculation (IM) Home Economics and Human Ecology course will provide a coherent, satisfying and worthwhile area of study for those students who do not wish to continue with further studies.

The IM course is designed to provide a brief review of fundamental nutrition, health, family and consumer aspects of the Home Economics SEC level and to extend this to include more advanced concepts, which are also dealt with in a broader 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. It is expected, however, that students not having a Home Economics SEC qualification will work to reach a SEC level of Home Economics knowledge early on in the IM course.

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 lifestyles, 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, mixed-race families, young people moving away from home) and their implications for family lifestyle
The Needs Of Individual Family Members	<ul style="list-style-type: none"> ▪ The optimum physical, social, emotional and intellectual development of children ages 0-4 years 	<ul style="list-style-type: none"> - Key developmental stages with a focus on physical, social, emotional and intellectual development - Providing a variety of experiences to develop physical, social, emotional and intellectual development - The importance of play in a stimulating environment
	<ul style="list-style-type: none"> ▪ Managing family and work responsibilities 	<ul style="list-style-type: none"> - Adults' responsibilities towards children, partners and elderly parents - Children's contribution to family and household management - Sharing family-related responsibilities within and outside the home - Families coping with different situations (e.g. working parents [dual career], short-term illness, chronic illness, disability, shared accommodation with elderly relatives or between friends, unemployment)
	<ul style="list-style-type: none"> ▪ Elderly well-being ▪ The continuing social, emotional and intellectual development of the elderly ▪ Issues related to retirement 	<ul style="list-style-type: none"> - Elderly stereotypes - Retirement and making beneficial use of time, maintaining self esteem, managing financial issues - Maintaining a healthy and active lifestyle in the senior years - Participation of the elderly within the family, local community and society - The role of grandparents in enhancing young families' and children's quality of life

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
The Needs Of Individual Family Members cont.	<ul style="list-style-type: none"> ▪ Support services provided by the state and NGOs, with a focus on children, teenagers and the elderly 	<ul style="list-style-type: none"> - Support services for children provided by <i>APPOĠĠ</i> (to describe a max. of 3 services) - Support services for the elderly provided by the state (to describe a max. of 3 of Home Care, Meals on Wheels, Handyman Service, Telecare, MMDNA, <i>Kartanzjan</i>) - Support services provided by NGOs for elderly and for youth (e.g. parish and youth groups)

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 of nutrients 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 chemical composition of proteins ▪ Types of proteins ▪ 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 comprising proteins - Some examples of proteins in the body - Three 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 - Soya protein as an alternative high biological value protein - Examples of the complementary effect of plant protein foods
Carbohydrates	<ul style="list-style-type: none"> ▪ The chemical composition of carbohydrates ▪ Classification and food sources of the main groups of carbohydrates: sugars, starches and fibre/non-starchy polysaccharides (NSP) ▪ The relationship between monosaccharides, disaccharides and polysaccharides 	<ul style="list-style-type: none"> - Chemical elements comprising carbohydrates - Food sources of different carbohydrates - Explaining the formation of disaccharides and polysaccharides from monosaccharides - Monosaccharides as end products of digestion

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Carbohydrates cont.	<ul style="list-style-type: none"> ▪ The function of carbohydrates 	<ul style="list-style-type: none"> - The contribution of each type of carbohydrate to health - Carbohydrates as the optimal source of energy - Recommended daily fibre intake - Impact of over-consumption of different types of carbohydrates - The effects of fibre/NSP on the digestive tract - The health implication of diets low in fibre/NSP
Lipids	<ul style="list-style-type: none"> ▪ The chemical composition and the basic physical structure of fats ▪ Classification of lipids: fats and oils ▪ The main types of fatty acids ▪ Hydrogenated oils and trans fats ▪ The main sources of dietary fats ▪ The function of lipids in the diet (including cholesterol, and omega fatty acids) ▪ The modification of fat intake in accordance with the dietary guidelines 	<ul style="list-style-type: none"> - Chemical elements and basic physical structure of a saturated and unsaturated fatty acid - Fatty acids as the end products of digestion - Basic description of hydrogenated oils and trans fats - Food sources of the different lipids - Functions of the different lipids - Lipids as a concentrated source of energy; potential role in obesity, heart health - The role of cholesterol in relation to heart health (the function of HDL- and LDL-cholesterol) - The benefits of omega 3 and omega 6 with respect to heart disease risk prevention - 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"> ▪ Scientific names, classification and properties of Vitamins ▪ The functions and main sources of vitamins ▪ Vitamin requirements by different population groups 	<ul style="list-style-type: none"> - Fat soluble: A (Retinol versus Carotene) D, E, K - Water soluble: Thiamin (B₁), Riboflavin (B₂), Niacin / Nicotinic Acid (B₃), Folic Acid / Folacin / Folate (B₉), Pyridoxine (B₆), Cobalamin (B₁₂), Ascorbic Acid (Vitamin C) - Basic properties of fat-soluble versus water-soluble vitamins - Main functions of the different vitamins - Common sources of the different vitamins - The need for Folic acid / Folacin / Folate during pregnancy to reduce the risk for birth defects in infants and birth complications (namely: cleft palate, spina bifida, premature labour)

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Vitamins cont.	<ul style="list-style-type: none"> ▪ The effect of insufficient and excessive intakes of vitamins ▪ Changes that occur during the preparation, cooking and serving of foods rich in vitamins 	<ul style="list-style-type: none"> - The effects of low Vitamin C and Vitamin D intake on health - The importance of taking dietary sources of vitamins - The role of vitamin supplements and ensuring a safe intake - 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
Minerals	<ul style="list-style-type: none"> ▪ Functions and main food sources of key minerals including trace elements ▪ Mineral requirements by different population groups according to National Dietary Guidelines and Nutrient goals and WHO CINDI recommendations ▪ The effects of and prevention of insufficient intake of certain minerals 	<ul style="list-style-type: none"> - The functions and common food sources of calcium, potassium, phosphorus, sodium, iron, iodine and fluoride. - Recommended maximum intake of salt (sodium chloride) and of sodium for adults and children - Population groups who require higher intakes of iron (women, growing children, adolescents and elderly) - Population groups who require higher intakes of calcium (children and adolescents, pregnant and lactating mothers) - The effects of low dietary intakes of iron and calcium in the body and strategies to improve their absorption
Water and fluids	<ul style="list-style-type: none"> ▪ Role of water in the body ▪ The importance of an adequate fluid intake 	<ul style="list-style-type: none"> - Basic functions of water in the body - Balancing fluid intake with losses from the body - Recommended daily fluid intake for adults (2 litres) - Population groups who require a higher fluid intake
Energy Value Of Foods	<ul style="list-style-type: none"> ▪ The energy value of foods 	<ul style="list-style-type: none"> - Foods which are high in calories (foods rich in fats, low in water content) - Foods which are low in calories - Value of fruits and vegetables as foods with a high water content

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 and technological, factors affecting food choices ▪ Availability, accessibility, retailing methods, market influences, global influences ▪ Personal preferences and influences of peer groups 	<ul style="list-style-type: none"> - Understanding how psychological, social, economic and technological factors influence the food choices of different groups and individuals - Causes and implications of changing dietary patterns (food availability, accessibility, retailing methods, marketing; global influences [e.g. sustainable consumption]) - Personal food preferences and influence of peer groups in different settings
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; a basic understanding of the 12 steps to healthy eating¹ - Recommended percentage of energy intake from carbohydrates, sugars, proteins, fats and saturated fats
Energy Requirements Of Individuals	<ul style="list-style-type: none"> ▪ Energy balance and imbalance and the effects on health ▪ Factors which influence energy intakes ▪ Healthy weight management 	<ul style="list-style-type: none"> - Meaning of energy input and output - Effects of imbalance: Overweight and obesity versus wasting and their implications for health - BMI ranges and BMI as an indicator of increased risk for health problems - Changing energy needs throughout the life-cycle, focusing on level of activity, rate of growth, age, body size and gender - Healthy weight management practices: choice of diet and physical activity
The Relationship Between Diet And Health	<ul style="list-style-type: none"> ▪ Common meal patterns, changing dietary practice and health 	<ul style="list-style-type: none"> - Prevalence of snacking and skipping breakfast; the consistent use of convenience foods, take-out food and food consumption outside the home; awareness of health-related advantages and disadvantages of organic farming and GMOs; fad diets and eating disorders and how to make wise food choices to ensure healthy eating

¹ Questions in the exam will not be set on any specific food model due to the introduction of "The healthy eating plate" as a guideline for healthy eating in Malta.

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
The Relationship Between Diet And Health cont.	<ul style="list-style-type: none"> ▪ The role of traditional foods in promoting healthy diets ▪ Diet-related disorders and diseases common in Malta ▪ Vegetarian diets and health 	<ul style="list-style-type: none"> - The value of traditional Maltese dishes and how recipes can be modified to make them healthier if necessary (e.g. <i>bigilla</i>, <i>torti</i>, <i>brungiel/qarabaghli mimli</i>, <i>timpana</i>, <i>pulpetti tal-ħut</i>, <i>stuffat tal-fenek</i>, <i>soppa tal-armla</i>, <i>figolla</i>) - The role of diet in the development and prevention of obesity, diabetes, coronary heart disease, hypertension, dental caries, diverticulosis, osteoporosis, constipation, anaemia, some cancers (e.g. colorectal) - Food intolerances: lactose intolerance, gluten intolerance (coeliac) and peanut allergy - Types of vegetarian diets: lacto, lacto-ovo, pescio, vegans - The health benefits of vegetarian / plant-based diets

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
Food Poisoning	<ul style="list-style-type: none"> ▪ Food poisoning organisms and susceptible foodstuffs ▪ Process and symptoms of bacterial food poisoning ▪ High-risk situations ▪ Safe and unsafe food handling practices in different common settings 	<ul style="list-style-type: none"> - Causes, process (including incubation period) and symptoms of bacterial food poisoning (namely: salmonella, bacillus cereus and E Coli) - Common situations with potential for food poisoning outbreaks - Basic strategies for safe food handling at school, at work, at the beach, during picnics or BBQs, in food kiosks or food stalls - Implications of unsafe food handling practices for health

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>
Consumer Information And Consumer Behaviour	<ul style="list-style-type: none"> ▪ Sources and use of different forms of consumer information ▪ The labelling of goods and services ▪ Influences on consumption choices and related lifestyles 	<ul style="list-style-type: none"> - Types of, and advantages and disadvantages of, sources of information about goods and services, to include the mass media, online sources, printed material, family members, friends and sales personnel - EU Legislation on labelling of goods and services (food labelling, textile labelling, eco-labelling [recycled/recyclability labels, green dot, energy label on electric appliances, EU eco-label], EC safety label) - Awareness of the pressures of peers, the mass media and different marketing strategies on the choice of individual and family lifestyles (formed by purchasing different goods and services)
Consumer Rights And Responsibilities	<ul style="list-style-type: none"> ▪ Local regulations concerning the purchase and use of goods and services ▪ Local statutory bodies which safeguard consumers rights 	<ul style="list-style-type: none"> - Knowledge of the basic consumer rights and responsibilities. - Legal and commercial guarantees - Methods of redress when problems arise (with retailer or service provider in person, over the phone, or via a letter; through the Consumer and Competition Division; through special service/column offered by local newspapers - The function of the Consumer Claims Tribunal and the European Consumer Centre (ECC)
Management Of Resources	<ul style="list-style-type: none"> ▪ Individual and family financial planning 	<ul style="list-style-type: none"> - Methods of payment and financial transactions: e.g. cash, debit cards, credit cards (including function of chip and pin), store/loyalty cards, pre-paid cards, tele-banking, internet banking - Basic features of secure electronic transactions - Differentiating between debit and credit - Budgeting and the value of saving - The implications of running into debt - The function of life insurance versus life assurance policies - Basic features and purpose of home, car and health insurances

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Management Of Resources cont.	<ul style="list-style-type: none"> ▪ Efficient use of family resources 	<ul style="list-style-type: none"> - The efficient use of human and physical resources within the family to improve family quality of life and to contribute to smooth running of the household - Strategies for avoiding stress and conflict in the family due to mismanagement of resources
Sustainability And The Conservation Of Natural Resources And Energy	<ul style="list-style-type: none"> ▪ Developing a sensitivity towards the impact of consumption on sustainability of the environment ▪ Individual and family practices that contribute towards the sustainability of the local and global environment ▪ Waste management services and use 	<ul style="list-style-type: none"> - Definition of sustainability - Understanding the impact of consumer choices on climate change, and global water and energy supply - The role of local authorities and local state services to protect and safeguard the environment - The role of the individual and the family to conserve natural resources, mainly non-renewable sources of energy, water, soil and limestone - The choice of goods and services which safeguard the natural environment, namely: goods and services which help save on energy and water, and/or are derived from sustainable sources (wood, paper, food) - Practising the traditional 3 Rs, - Reduce, Reuse, Recycle - Waste management services provided locally: <ul style="list-style-type: none"> - <i>Bring-in sites</i> - <i>Civic Amenity sites</i> - <i>Bulky refuse collection</i> - <i>Definition and purpose of engineered landfill</i> - <i>The impact of dumps and landfills (engineered and reclaimed quarries) on the environment and on the nation's health and economy</i>

Recommended Textbooks

OCR Home Economics for A2
 Food, Nutrition and Health Today (ISBN 978-0-340-97366-0)

OCR Home Economics for AS
 Food, Nutrition and Health today (ISBN 978-0-340-96803-1)

Useful Online Sources

Ministry for the Family & Social Solidarity Government of Malta
www.msp.gov.mt/services

Ministry for Social Policy
www.sahha.gov.mt

Infectious Disease Prevention and Control Unit
www.health.gov.mt

Ministry for Resources & Rural Affairs
<http://www.mrra.gov.mt/>

Ministry of Education
www.education.gov.mt

Employment Training Corporation (ETC)
www.etc.gov.mt

National Youth Council of Malta
www.knz.org.mt

Kummissjoni Nazzjonali Persuni B'Dizabilita`
www.knpd.org

Caritas Malta
www.caritasmalta.org

Oasi Foundation – Gozo
www.oasi.org.mt

Consumer & Competition Division - Malta
<http://www.gov.mt/frame.asp?l=2&url=http://finance.gov.mt/page.aspx?site=ccd&page=default>

European Consumer Center – Malta
<http://www.eccnetmalta.gov.mt/home>

Dolceta – Online Consumer Education
www.dolceta.eu