IM SYLLABUS (2024)

HOME ECONOMICS AND HUMAN ECOLOGY IM 18

SYLLABUS

Home Economics and Human Ecology IM 18	(Available in September)
Syllabus	1 Paper (3 hours)

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 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.

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 lifecycle;
- 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 lifecycle;
- 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.

Concept	Expected Knowledge	Amplification
Family units and households	• The changing nature of families and lifestyles	• The concept of a family unit • Changes in the family unit structure (smaller families, one-parent families, same-sex parent families, mixed race/religion families, single parent households, young people moving away from home) and their implications for family lifestyle
Wellbeing of individual family members	• The optimum physical, social, emotional and intellectual development of children between 0 and 4 years	• 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
	• Responsibilities and rights of adults	• Responsibilities towards children, partners and elderly parents • Sharing family-related responsibilities within and outside the home (the playground and while travelling in cars) • Flexi-time, tele-working, job-sharing and reduced hours • Families coping with different situations (working parents [dual career], short-term illness, chronic illness, disability, shared accommodation with elderly relatives or between friends, unemployment)
	• Wellbeing of the elderly • Active ageing within the community - physical, social, emotional and intellectual development of the elderly • Retirement from work	• The concept of active ageing and its benefits for the individual, family members, the local community and the country. Suggestions of how the elderly can remain active within these spheres • The role of grandparents in enhancing young families' and children's quality of life • Financial planning in preparation for retirement

	• Support services provided by Aġenzija Appoġġ	• Support services for children provided by Aġenzija Appoġġ (to describe a maximum of 3 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

Concept	Expected Knowledge	Amplification
The nutrients	• The nutrients	• Functions of nutrients related to health and the main dietary and non-dietary sources
Protein	• The chemical composition of proteins • Types of proteins • Essential/ indispensable and nonessential/ dispensable amino acids • The biological value of protein foods • The complementary effect of plant proteins	• 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 • Identify plant sources of protein foods as an alternative to high biological value protein foods (textured vegetable protein, tofu, tempeh, soya milk, quinoa) • Examples of the complementary effect of plant protein foods
Carbohydrates	• The chemical composition of carbohydrates • Classification and food sources of the main groups of carbohydrates: sugars, starches and fibre/non-starch polysaccharides (NSP) • The relationship between monosaccharides, disaccharides and polysaccharides	• Chemical elements comprising carbohydrates • Food sources of different carbohydrates • Explaining the formation of disaccharides and polysaccharides from monosaccharides • Monosaccharides as end products of digestion

	• The function of carbohydrates	• The contribution of each type of carbohydrate to health • Carbohydrates as the optimal source of energy • Impact of over-consumption of different types of carbohydrates • The effects of insoluble fibre/NSP on the digestive tract • The health implication of diets low in insoluble fibre/NSP • The health benefits of soluble fibre
Lipids	• The chemical elements and the basic structure of a triglyceride • Classification of lipids • Types of fatty acids • Hydrogenated 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	• Chemical elements and structure (triglycerides as being composed of glycerol plus 3 fatty acids) • Identify triglycerides, phospholipids and sterols • The basic description of a saturated and unsaturated fatty acid (monounsaturated and polyunsaturated) • Basic description of hydrogenated fats • Relationship of trans fatty acid to health • Food sources of the different lipids • Functions of the different lipids - triglycerides, cholesterol and phospholipids • Lipids as a concentrated source of energy; potential role in obesity, heart health and cancer • The functions of cholesterol; the role of cholesterol in relation to heart health (the function of HDL- and LDL-cholesterol) • The benefits of omega-3 and omega-6 fatty acids 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	• Definition, scientific names, classification and properties of vitamins	• Fat-soluble: A – beta-carotene, retinol; D – cholecalciferol; E – tocopherol; K - phylloquinone • Water-soluble: B_1 – thiamin; B_2 – riboflavin; B_3 - niacin; B_6 – pyridoxine; B_9 - folic acid/folate; B_{12} – cobalamin; C – ascorbic acid • Properties of fat-soluble and water-soluble vitamins • Common sources of the different vitamins

		● Main functions of the different vitamins
	● The need of folic acid during pregnancy according to the European Food Safety Authority (EFSA)	● Justification for higher recommended intake of folic acid during pregnancy.
	● The effect of insufficient and excessive intakes of vitamins	● The effects of low vitamin C and vitamin D intake on health ● The importance of taking dietary sources of vitamins
	● Vitamin supplements	● The role of vitamin supplements and ensuring a safe intake
	● Changes that occur during the preparation, cooking and serving of foods rich in vitamins	● 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	● Functions and main food sources of key minerals including trace elements	● The functions and common food sources of calcium, potassium, phosphorus, sodium, iron, iodine and fluoride
	● Justifications for higher intake of specific minerals for particular population groups according to EFSA	● Justification for higher recommended intakes of calcium and iron during various lifecycle stages with reference to EFSA recommendations
	● The effects of and prevention of insufficient intake of certain minerals	● Factors that hinder the absorption of minerals ● Individuals who require higher and lower intakes of sodium ● The effects of low dietary intakes of iron and calcium in the body and strategies to improve their absorption
Water and fluids	● Role of water in the body	● Basic functions of water in the body ● Balancing fluid intake with losses from the body
	● The importance of an adequate fluid intake	● Recommended daily fluid intake for adults (1.5 to 2 litres) (Refer to *Dietary Guidelines for Maltese Adults*, 2016) ● Population groups who require a higher fluid intake
	● Signs of dehydration	● Symptoms and effects of dehydration
Energy value of foods	● The energy value of foods	● 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

Concept	Expected Knowledge	Amplification
Factors affecting food choices and eating patterns	• Physiological, psychological, cultural, social, economic and technological, factors affecting food choices	• Understanding of differences in the relative importance and impact of physiological, psychological, cultural, social, economic and technological factors in the food choices of different groups and individuals • The value of traditional Maltese dishes in promoting identity, sustainability and health
	• Availability, accessibility, retailing methods, market and global influences	• Causes and implications of changing dietary patterns (food availability, accessibility, retailing methods, marketing and sustainable consumption)
	• Personal preferences and peer groups	• Personal food preferences and influence of peer groups in different settings
The Healthy Plate	• Dietary guidelines for the Maltese nation	• Definition and function of dietary guidelines • 'The Healthy Plate': dietary guidelines for Maltese adults • The daily number of servings for cereals, vegetables, fruit and dairy products
Energy needs of individuals	• Energy balance and imbalance and the effects on health	• Meaning of energy input and output • Effects of imbalance: Overweight and obesity, muscle wasting and their implications for health
	• Factors which influence energy intakes	• BMI ranges and BMI as an indicator of increased risk for health problems • Changing energy needs throughout the lifecycle, focusing on level of activity, rate of growth, age, body size and gender
	• Healthy weight management	• Healthy weight management practices: choice of a balanced diet and physical activity
The relationship between diet and health	• Common meal patterns, changing dietary practices and the effects on health	• 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 (anorexia and bulimia nervosa) and how to make wise food choices to ensure healthy eating
	• Diet-related disorders and	• The role of diet in the development and prevention of obesity, diabetes, coronary

	diseases prevalent in Malta	heart disease, hypertension, dental caries, diverticulosis, osteoporosis, constipation, anaemia, colorectal cancer, eating disorders ● Food intolerances and food allergies: lactose intolerance and peanut allergy ● Autoimmune disorders: Coeliac disease and Type 1 Diabetes
	● Vegetarian diets and health	● Types of vegetarian diets: lacto, lacto-ovo, pesco, vegans ● The health benefits of vegetarian/ plant-based diets

Food Science

Concept	Expected Knowledge	Amplification
Food spoilage	● The main types of food spoilage	● Common examples of microbial (fermentation), biological (over ripening) and chemical (oxidation) food spoilage ● Types of microorganisms and the conditions necessary for growth and multiplication
	● The principles underlying the growth and control of microorganisms: bacteria, moulds and yeasts	● Principles underlying the effects of the use of microorganisms and enzymes in specific foods, such as cheeses and yoghurt
Food poisoning	● Food poisoning organisms and susceptible foods and symptoms	● Food source and common symptoms of food poisoning (salmonella, bacillus cereus and Escherichia coli)
	● High-risk situations	● Common situations with potential for food poisoning outbreaks
	● Safe and unsafe food handling practices in different common settings	● Basic strategies for safe food handling (at home, family outings, barbecues)

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.

Concept	Expected Knowledge	Amplification
Consumer behaviour	● Factors which influence consumer buying behaviour	● Personal influences: knowledge, ability, likes and dislikes, emotional factors, values ● Social influences: gender, family roles,

		social status, cultural trends ● Economic influences: income, price, interest charged for hire purchase, saving and borrowing patterns ● Environment related influences: considerations of impact on the environment of purchasing decisions (food, clothing, personal hygiene, transport) ● Marketing and retailing influences: promotional strategies and advertising
Consumer information	● Sources and use of different forms of consumer information ● The labelling of goods	● Sources of information about goods and services and their advantages and disadvantages (online, printed material, billboards, family members, friends and sales personnel) ● Identification and function of: ▪ labels on textile goods and detergents (phosphate free) and toiletries (not tested on animals) ▪ environmentally friendly labels (recycling labels, Green Dot, EU energy label, EU eco-label), The Forest Stewardship Council (FSC) and The Energy Star ▪ compliance label - CE mark
Consumer rights and responsibilities	● Local regulations concerning the purchase and use of goods and services ● Local institutions and associations that safeguard consumers rights	● Knowledge of 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 letter or email; through the Malta Consumer and Competition Affairs Authority [MCCAA]); and Consumer Associations ● The function of the Consumer Claims Tribunal, Consumer Association, and European Consumer Centre (ECC)
Shopping venues, purchasing methods and methods of payment	● Traditional and modern ways of purchasing goods ● Different ways of paying for goods and services	● Advantages and disadvantages of different purchasing methods (online shopping, tele-shopping, chain stores, markets, shopping malls) ● Consumer rights in off-premises contracts and distance shopping (delivery period, withdrawal/cancellation period) ● Methods of payment and financial transactions - cash, local and international debit cards, credit cards, contactless cards, and internet banking

		● Outline three security measures when effecting electronic transactions.
Financial management	● The family income	● Definitions of gross income, disposable income, non-wage income ● Budgeting to suit different life stages, population groups and challenging circumstances ● Causes and implications of running into debt and living on credit ● The importance of saving for retirement - private pension schemes
Sustainability and the conservation of natural resources and energy	● Individual and family practices that contribute towards the sustainability of the local and global environment	● Definition of sustainability ● Understanding the impact of consumer choices on climate change, water and energy supply ● The role of the individual and the family to conserve 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 and use	● Waste management services provided locally: ▪ Door to door collection of mixed, organic, recyclable waste ▪ Collection of textiles ▪ Bring-in sites ▪ Civic Amenity sites ▪ Bulky refuse collection ● Definition and purpose of engineered landfill ● The impact of engineered landfills on the environment, nation’s health and economy