

**AM SYLLABUS (2023)**

**HOME ECONOMICS AND HUMAN ECOLOGY**

**AM 18**

***SYLLABUS***

<b>Home Economics and Human Ecology AM 18</b> <b>Syllabus</b>	(Available in September) Paper I (3 hours)+Paper II (3 hours)+Paper III (Coursework)
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This syllabus provides an advanced course of study in Home Economics and Human Ecology, building upon knowledge and skills learnt within the Home Economics discipline at Secondary Education Certificate (SEC) level. It thus assumes a knowledge of Home Economics at a level equivalent to that defined by the SEC syllabus and attempts to extend and consolidate this knowledge base by integrating the essential principles of the field of study within a core section: *The Family, Home and Society* and *Food, Nutrition and Health*, together with coursework experience in one area of study from any topic specifically mentioned in the syllabus, including Textiles, Fashion and Interiors and the Hospitality and Tourism Industry.

The study of Home Economics and Human Ecology may lead to careers in the Hospitality, Food and Textile Industries, Paramedical and Caring Professions, Consumer Services, Education and other related careers.

## 1. AIMS

The aims listed below reflect the methodology to be adopted for teaching the subject. They highlight the knowledge, skills, attitudes and values required for the study of Home Economics and Human Ecology at Advanced Matriculation Level.

- To encourage an investigative approach to study and an ability to evaluate, manage and make economical, environment-friendly and safe use of resources.
- To develop the ability to make informed decisions.
- To provide experiences of problem-solving, research methodology and practical application when working to a design brief.
- To promote an awareness of design and develop aesthetic appreciation and creative skills.
- To foster a sensitive, caring attitude that will lead to the identification and realisation of people's needs.
- To sustain positive health attitudes for individual and family wellbeing.
- To further the concern for the natural environment.
- To create an awareness of the impact of rapidly changing technology on the family and society and to develop the skills required to efficiently manage this impact and related lifestyle changes.

## 2. ASSESSMENT OBJECTIVES

Candidates will be assessed for demonstrating:

- The knowledge, understanding and application of subject-specific information, principles and concepts relevant to Home Economics and Human Ecology;
- An awareness and understanding of contemporary issues, initiatives, current developments and their implications for Home Economics and Human Ecology;
- The use of investigative, experimental, managerial and manipulative techniques to gather, organise and present information, ideas, descriptions and arguments, clearly and logically, in order to reach justified decisions and conclusions;
- The ability to appreciate critically the interdependence between creativity and aesthetic principles and identify and evaluate factors and relate them to specific needs;

- To demonstrate aesthetic awareness, and be creative when communicating ideas and decisions.

### 3. SCHEME OF ASSESSMENT

The examination will consist of three papers: Paper I and Paper II will be written examination papers and Paper III will comprise Coursework as outlined below.

Candidates must satisfy the Markers' Panel in **all** sections of the examination.

#### Paper I: The Family, Home and Society

This is a written examination paper of three hours duration. The maximum mark is 100 and will contribute to 37.5% of the overall mark of the examination.

Candidates are required to answer five out of six structured, essay-type questions.

#### Paper II: Food, Nutrition and Health

This is a written examination paper of three hours duration. The maximum mark is 100 and will contribute to 37.5% of the overall mark of the examination.

Candidates are required to answer five out of six structured essay-type questions.

#### Paper III: Coursework

The Coursework consists of Part i and Part ii and will contribute to 25% of the overall mark of the examination. Both components of the coursework have to be presented, that is, the Food Study Task and the Investigation. If a school candidate fails to present both coursework components, the school administration has to inform MATSEC in writing which coursework component has not been submitted.

##### Part i. Food Study Task (10% of the total mark)

Candidates are required to carry out a Food Study Task focusing on one food commodity and comprised of:

- a food experiment AND
- a food production.

Guidelines for the Food Study Task are in Appendix I. This work will be assessed internally according to the Assessment Criteria for the Food Study Task (Appendix III).

##### Part ii. Investigation (15% of the total mark)

Candidates are required to submit one Investigation from any topic specifically mentioned in the syllabus, including *Textiles, Fashion and Interiors* and the *Hospitality and Tourism Industry* as stipulated in the Areas of Study (Section 8). Guidelines for the Investigation are in Appendix II. The Investigation will be assessed internally according to the Assessment Criteria for the Investigation (Appendix IV).

Further details for the Food Study Task and the Investigation are given in Section 7 of this syllabus.

The tutor's assessment for the Food Study Task and the Investigation must be completed and submitted to the MATSEC Examination Board by the date determined by the same Board, and is subject to moderation by the Markers' Panel.

#### **4. GRADE DESCRIPTIONS**

The following grade descriptors indicate the level of attainment characteristic of the given grade at Advanced Matriculation (AM) 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 that content.

##### Grade A

Candidates demonstrate a *very well developed* ability to:

- Analyse and interpret social, scientific and technological concepts together with the recognition of the complex inter-relationships within the syllabus;
- Apply knowledge, understanding and skills to different situations within a theoretical and practical context;
- Select and organise material discriminately from a wide range of sources and use this to forward justified arguments, judgements, choices and conclusions;
- Use effective research methods to explore and develop ideas creatively and intuitively, to communicate ideas clearly and accurately in a concise, logical and relevant manner, and to critically evaluate outcomes.

##### Grade C

Candidates demonstrate a *satisfactory* ability to:

- Analyse and interpret a good range of social, scientific and technological concepts and show some recognition of the inter-relationships within the syllabus;
- Apply knowledge, understanding and skills to a range of situations within a theoretical and practical context;
- Select and organise material from a number of sources and use it to forward appropriate arguments, judgements, choices and conclusions;
- Use different research methods to communicate ideas in a relevant manner and to adequately evaluate outcomes.

##### Grade E

Candidates demonstrate a *limited* ability to:

- Analyse and interpret some social, scientific and technological concepts and show obvious recognition of the inter-relationships within the syllabus;
- Apply basic knowledge, understanding and skills to a restricted range of situations within a theoretical and practical context;
- Select and organise material from a limited number of sources and use it to forward arguments, judgements, choices and conclusions in a basic manner;
- Use different research methods to communicate ideas and evaluate outcomes at a low level.

#### **5. PRIVATE CANDIDATES**

Private candidates are expected to refer to a tutor for supervision and guidance.

Guidelines for the Food Study Task and Investigation are in Appendices I and II and the Criteria for the Assessment of the Food Study Task and for the Investigation are in Appendices III and IV.

A declaration of authenticity by the candidate must also be completed for the Food Study Task and for the Investigation (Appendix VII). The tutor must also complete the authentication form found on the MATSEC website.

Private candidates are to present their work for assessment by the markers' panel by the due date as instructed by the MATSEC office.

## 6. CORE SECTION (Papers I and II)

### **Paper 1: The Family, Home and Society**

The integration of the content, through the consideration of the needs of people and the strategies for meeting these needs, provides the means by which this course should be approached. The themes of human development, health, safety, protection, efficiency, values, aesthetics and the individual's interaction with the environment, form the focus from which the study should develop in the context of an economically, socially and culturally changing society.

### **CONTENT**

#### **Individual, Family and Household Groups in Society**

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Family units and households	<ul style="list-style-type: none"> <li>• The changing nature of families and lifestyles</li> </ul>	<ul style="list-style-type: none"> <li>• The concept of a family unit</li> <li>• 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</li> <li>• Similarities and differences between adoption and fostering, and their implications on the children and the family</li> </ul>
Wellbeing of individual family members	<ul style="list-style-type: none"> <li>• Wellbeing of families and households</li> <li>• Balancing life commitments (home, family and work)</li> </ul>	<ul style="list-style-type: none"> <li>• The identification of indicators of good quality of life for the family</li> <li>• Individual and family-based strategies for promoting a good quality life</li> <li>• Managing stress to maintain physical and mental health</li> <li>• Efficient use of resources (time, energy and money)</li> <li>• Sharing home, family and work responsibilities</li> </ul>

	<ul style="list-style-type: none"> <li>• Poverty and social exclusion</li> <li>• Support services</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of poverty and social exclusion. Causes of and remedies to poverty and social exclusion</li> <li>• Population groups at risk of poverty and social exclusion (families living on a restricted income, unemployed, persons with disabilities, elderly, irregular immigrants, substance abusers, persons suffering from chronic and mental illness)</li> <li>• Definition and the importance of means testing</li> <li>• Identification of the four state agencies and their main role (Aġenzija Appoġġ, Aġenzija Sedqa, Aġenzija Żgħażaġħ, Aġenzija Sapport)</li> <li>• The role and function of the office of the Commission of the Rights of Persons with Disability, the Commissioner for Children and JobsPlus</li> </ul>
Children's wellbeing	<ul style="list-style-type: none"> <li>• The optimum physical, social, emotional and intellectual development of children between 0 and 4 years</li> </ul>	<ul style="list-style-type: none"> <li>• Key developmental stages with a focus on physical, social, emotional and intellectual development</li> <li>• Providing a variety of experiences to promote children's holistic development (physical, social, emotional and intellectual) to the maximum of their potential</li> <li>• The importance of play in a stimulating environment</li> <li>• The advantages and disadvantages of being cared for by different members in society (parents, relatives, childminders, carers in childcare centres and kindergarten assistants)</li> <li>• The importance of immunisation (0-16 years)</li> <li>• Ensuring safety in and outside the home (playground and while travelling in cars)</li> <li>• Infant and childhood basic needs (healthy food, shelter, sanitation, affection, medical care, clothing and education)</li> </ul>
Adolescents' wellbeing	<ul style="list-style-type: none"> <li>• Physical, social and emotional development. Transition from adolescence to adulthood</li> </ul>	<ul style="list-style-type: none"> <li>• Recognising and managing physical, social and emotional changes</li> <li>• Peer pressure and conflicting values</li> <li>• Socialisation with different age groups</li> <li>• Gaining independence and becoming responsible adults</li> </ul>

Adults' wellbeing	<ul style="list-style-type: none"> <li>Responsibilities and rights of adults</li> <li>Family-friendly measures</li> </ul>	<ul style="list-style-type: none"> <li>Responsibilities towards children, partners and elderly parents</li> <li>Sharing family-related responsibilities within and outside the home</li> <li>Flexi-time, tele-working, job-sharing and reduced hours</li> <li>The provision of childcare centres as a family-friendly measure</li> </ul>
Wellbeing of the elderly	<ul style="list-style-type: none"> <li>Active ageing within the community - physical, social, emotional and intellectual development of the elderly</li> <li>Retirement from work</li> <li>Abuse and its effects</li> <li>Housing options for the elderly</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>The role of grandparents in enhancing young families' and children's quality of life</li> <li>Financial planning in preparation for retirement</li> <li>Types and causes of abuse of the elderly and neglect, and related remedies</li> <li>The concept of independent living Advantages and disadvantages of living alone, with relatives and residential homes</li> </ul>
Tobacco and alcohol abuse within the family	<ul style="list-style-type: none"> <li>Tobacco and alcohol use and abuse in the family</li> </ul>	<ul style="list-style-type: none"> <li>Physical, social and financial implications of tobacco and alcohol on the individual and the family</li> </ul>

### Habitat and the Environment

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Factors that affect the choice of a home	<ul style="list-style-type: none"> <li>Rationale for choice of locality and implications</li> </ul>	<ul style="list-style-type: none"> <li>The area chosen for setting up home and implications of such choice regarding privacy, proximity to work/study, space, accessibility within the home and access to amenities, parking, air quality, and proximity of recreational facilities</li> </ul>
Different types of living accommodation	<ul style="list-style-type: none"> <li>Different types of dwellings available locally</li> <li>Social Housing</li> </ul>	<ul style="list-style-type: none"> <li>Basic advantages and disadvantages of living in an apartment, maisonette, terraced house, house of character, or farmhouse</li> <li>Renting or buying a home - advantages and disadvantages of the two different ways of acquiring a home</li> <li>Definition and purposes of Social Housing (prevention of poverty, provision of equity, improvement in quality of life)</li> </ul>

	<ul style="list-style-type: none"> <li>• Identifying and accessing available housing</li> </ul>	<ul style="list-style-type: none"> <li>• Sources of information on availability of property for purchase or rental</li> <li>• Advantages and disadvantages of using different sources of information</li> </ul>
Housing needs	<ul style="list-style-type: none"> <li>• Suitable housing and layouts for different stages of the life-cycle, for different lifestyles and for different personal and family circumstances</li> <li>• Safety in the home</li> <li>• Security measures in the home</li> </ul>	<ul style="list-style-type: none"> <li>• Basic housing needs of different individuals, families and groups of people</li> <li>• Strategies for making the best use of space available</li> <li>• Strategies to ensure accessibility of homes considering the needs of persons with mobility limitations</li> <li>• The importance of safety in the design of living accommodation</li> <li>• Structural and design strategies, and installation of equipment to ensure security in the home</li> </ul>
Financial and legal aspects of acquiring housing	<ul style="list-style-type: none"> <li>• Financial and economic considerations and legal processes in relation to obtaining a home</li> </ul>	<ul style="list-style-type: none"> <li>• Economic factors that influence the type of home chosen</li> <li>• Costs incurred when buying a home (shell form, finished or furnished) - real estate agent fees, brokerage (<i>senserija</i>), notarial fees, architect's fees, bank's fees, stamp duty.</li> <li>• Ways of raising money for acquiring and finishing a home (bank home loans, short-term bank loans, borrowing from relatives)</li> <li>• Short- and long-term implications of borrowing money - stress related to unexpected life circumstances; the importance of budgeting while repaying the loan</li> <li>• Basic steps in the legal and formal process of buying a home</li> <li>• The meaning and functions of promise of sale, deed of sale, ground rent, home insurance policy, and life insurance policy</li> <li>• The importance of signing a lease in front of a notary when renting a home</li> </ul>
Environmental issues and protection	<ul style="list-style-type: none"> <li>• Responsibilities of nations, industry and consumers towards the global natural environment</li> </ul>	<ul style="list-style-type: none"> <li>• Global concerns - global warming, the depletion of the ozone layer, acid rain, an adequate supply of safe water and energy for all (definition, causes, effects and solutions to counteract the global concerns)</li> <li>• Alternative forms of energy production that are viable locally - solar energy, wind</li> </ul>

	<ul style="list-style-type: none"> <li>• Economic, environmental and health implications of pollution and related preventive measures</li> </ul>	<p>energy and biomass (methane/landfill gas and biofuel) and their impact at household and national levels</p> <ul style="list-style-type: none"> <li>• Basic advantages and disadvantages of solar water heating systems and photovoltaic panels</li> <li>• Chemicals which contribute towards global warming and outdoor pollution (carbon dioxide, carbon monoxide, lead, sulphur dioxide, nitrogen oxides, hydrocarbons, dioxins) and ways in which these can be reduced</li> <li>• Indoor pollutants (tobacco smoke, cleaning products)</li> <li>• Solid and liquid household waste disposal in Malta:             <ul style="list-style-type: none"> <li>▪ The function of water treatment plants (filtration to create second class water used for agricultural use, landscaping, industry and replenishing ground water)</li> <li>▪ Door to door collection of mixed, organic, recyclable waste</li> <li>▪ Collection of textiles</li> <li>▪ Bring-In Sites</li> <li>▪ Civic Amenity Sites</li> <li>▪ Bulky refuse collection</li> </ul> </li> <li>• Definition and purpose of engineered landfills</li> <li>• The impact of engineered landfills on the environment, nation's health and economy</li> </ul>
<p>Sustainability and the conservation of natural resources and energy</p>	<ul style="list-style-type: none"> <li>• Individual and family practices that contribute towards the sustainability of the local and global environment</li> </ul>	<ul style="list-style-type: none"> <li>• Definition of sustainability</li> <li>• The role of the individual and the family to conserve non-renewable sources of energy, water, soil and limestone</li> <li>• 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)</li> <li>• Practising the traditional 3 Rs - Reduce, Reuse, Recycle</li> <li>• Strategies for the conservation of:             <ul style="list-style-type: none"> <li>▪ potable and non-potable water - household, hospitality and national levels</li> </ul> </li> </ul>

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|  |  | <ul style="list-style-type: none"> <li>▪ sea water from pollution</li> </ul> |
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### Management of Resources

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Consumer behaviour	<ul style="list-style-type: none"> <li>● Factors which influence consumer buying behaviour</li> </ul>	<ul style="list-style-type: none"> <li>● Personal influences: knowledge, ability, likes and dislikes, emotional factors, values</li> <li>● Social influences: gender, family roles, social status, cultural trends</li> <li>● Economic influences: income, price, interest charged for hire purchase, saving and borrowing patterns</li> <li>● Environment related influences: considerations of impact on the environment of purchasing decisions (food, clothing, personal hygiene, transport)</li> <li>● Marketing and retailing influences: promotional strategies and advertising</li> </ul>
Consumer information	<ul style="list-style-type: none"> <li>● Sources and use of different forms of consumer information</li> <li>● Labelling of goods</li> <li>● Advertising and choice of products</li> </ul>	<ul style="list-style-type: none"> <li>● Sources of information about goods and services and their advantages and disadvantages (online, printed material, billboards, family members, friends and sales personnel)</li> <li>● Identification and function of: <ul style="list-style-type: none"> <li>▪ labels on textile goods and detergents (phosphate free) and toiletries (not tested on animals)</li> <li>▪ environmentally friendly labels (recycling labels, Green Dot, EU energy label, EU eco-label), The Forest Stewardship Council (FSC), and The Energy Star</li> <li>▪ compliance label - CE mark</li> </ul> </li> <li>● Features of misleading advertising and the role of the Malta Consumer and Competition Affairs Authority (MCCAA) to regulate such type of advertising</li> <li>● Criteria for choosing different home appliances (cooker, microwave oven, refrigerator/freezer, dishwasher, tumble dryer and washing machine) and assessing suitability for family needs</li> </ul>
Consumer rights and responsibilities	<ul style="list-style-type: none"> <li>● Local regulations concerning the purchase and use of goods and services</li> </ul>	<ul style="list-style-type: none"> <li>● Knowledge of consumer rights and responsibilities</li> <li>● Legal and Commercial guarantees</li> </ul>

	<ul style="list-style-type: none"> <li>Local institutions and associations that safeguard consumers' rights</li> </ul>	<ul style="list-style-type: none"> <li>Methods of redress when problems arise (with retailer or service provider in person, over the phone, or via a letter or email; through the MCCA; and Consumer Associations)</li> <li>The function of the Consumer Claims Tribunal, Consumer Association, and European Consumer Centre (ECC)</li> </ul>
Shopping venues, purchasing methods and methods of payment	<ul style="list-style-type: none"> <li>Traditional and modern ways of purchasing goods</li> <li>Different ways of paying for goods and services</li> </ul>	<ul style="list-style-type: none"> <li>Advantages and disadvantages of different purchasing methods (online shopping, tele-shopping, chain stores, markets, shopping malls)</li> <li>Consumer rights in off-premises contracts and distance shopping (delivery period, withdrawal/cancellation period)</li> <li>Methods of payment and financial transactions - cash, local and international debit cards, credit cards, contactless cards, and internet banking</li> <li>Function of EPOS, Quick Response (QR) code and barcodes</li> <li>Outline three security measures when effecting electronic transactions</li> </ul>
Financial management	<ul style="list-style-type: none"> <li>The family income</li> <li>Types, functions and implications of saving, investing, borrowing, credit and debt</li> <li>Types and functions of different insurances</li> </ul>	<ul style="list-style-type: none"> <li>Definitions of gross income, disposable income, non-wage income</li> <li>Budgeting to suit different life-stages, population groups and challenging circumstances</li> <li>Sources of financial advice for saving, investing, borrowing, (commercial banks, Malta Financial Services Authority [MFSA], private companies)</li> <li>Advantages, limitations and uses of: shares, bonds, funds, life assurance policies and private pension schemes</li> <li>Uses and limitations of a range of credit options (hire purchase, short- and long-term loans, and credit cards)</li> <li>Causes and implications of running into debt and living on credit</li> <li>Different types of insurances - life, home (building and contents) and health</li> <li>The difference between a life insurance and a life assurance policy</li> </ul>

**Paper 2: Food, Nutrition and Health**

Food, nutrition and health are a closely related field of study. The study should integrate nutrition and food technology within the historical, social, economic, and scientific perspectives and through these develop an understanding of their application to modern society.

## CONTENT

### Nutrition

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Protein	<ul style="list-style-type: none"> <li>• The basic chemical elements and physical structure of proteins</li> <li>• Essential/ indispensable and non-essential/ dispensable amino acids</li> <li>• The biological value of protein foods</li> <li>• The complementary effect of plant proteins</li> <li>• The properties and digestion of proteins</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical elements and physical structure (fibrous and globular)</li> <li>• Some examples of proteins in the body</li> <li>• Three examples of essential/ indispensable and non-essential/ dispensable amino acids, including histidine (essential for children)</li> <li>• The need for adequate daily intake of essential/indispensable amino acids</li> <li>• Examples of foods of high and low biological value</li> <li>• Identify plant sources of protein as an alternative to high biological value protein foods</li> <li>• Examples of the complementary effect of plant protein foods</li> <li>• Properties of proteins</li> <li>• The denaturation of protein during the preparation and cooking of food</li> <li>• The digestion and metabolism of proteins</li> </ul>
Carbohydrates	<ul style="list-style-type: none"> <li>• The basic chemical elements and structure of carbohydrates</li> <li>• Classification and food sources of the main groups of carbohydrates: sugars, starches and fibre/non-starch polysaccharides (NSP)</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical elements and structure (diagram of a glucose unit)</li> <li>• Food sources of different carbohydrates</li> <li>• Explaining the formation of disaccharides and polysaccharides from monosaccharides</li> <li>• Monosaccharides as end products of digestion</li> </ul>

	<ul style="list-style-type: none"> <li>• The relationship between monosaccharides, disaccharides and polysaccharides</li> <li>• The function of carbohydrates</li> <li>• The properties and digestion of carbohydrates</li> </ul>	<ul style="list-style-type: none"> <li>• The contribution of each type of carbohydrate to health</li> <li>• Carbohydrates as the optimal source of energy</li> <li>• Impact of over-consumption of different types of carbohydrates</li> <li>• The effects of insoluble fibre/NSP on the digestive tract</li> <li>• The health implication of diets low in insoluble fibre/NSP</li> <li>• The health benefits of soluble fibre</li> <li>• Properties of sugars and starches</li> <li>• The changes that occur to sugars and starches when subjected to heat</li> <li>• The digestion and metabolism of carbohydrates</li> </ul>
<p>Lipids</p>	<ul style="list-style-type: none"> <li>• The chemical elements and basic structure of a triglyceride</li> <li>• Classification of lipids – triglycerides, phospholipids and sterols</li> <li>• Types of fatty acids</li> <li>• Hydrogenated oil and trans fats</li> <li>• The main sources of dietary fats</li> <li>• The value of lipids in the diet (including cholesterol and omega fatty acids)</li> <li>• Properties and digestion of lipids</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical elements and structure (triglycerides as being composed of glycerol plus 3 fatty acids; saturated and unsaturated [including diagrams of stearic acid and oleic acid])</li> <li>• The basic description of a saturated and unsaturated fatty acid (monounsaturated and polyunsaturated)</li> <li>• Basic description of hydrogenated oils and trans fats</li> <li>• Food sources of the different lipids</li> <li>• Lipids as a concentrated source of energy; potential role in obesity, heart health and cancer</li> <li>• The functions of cholesterol; the role of cholesterol in relation to heart health (the function of HDL- and LDL-cholesterol)</li> <li>• The benefits of omega-3 and omega-6 fatty acids with respect to heart disease risk prevention</li> <li>• The changes that occur to the structure of lipids during cooking of food</li> <li>• The digestion and metabolism of lipids</li> <li>• Fatty acids and glycerol as the end products of digestion</li> </ul>

<p>Vitamins</p>	<ul style="list-style-type: none"> <li>• Definition, scientific names, classification and properties of vitamins</li> <li>• The main sources and functions of vitamins</li> <li>• Justifications for higher intake of specific vitamins for particular population groups according to the European Food Safety Authority (EFSA)</li> <li>• The effect of insufficient and excessive intakes of vitamins</li> <li>• Vitamin supplements</li> <li>• Changes that occur during the preparation, cooking and serving of foods rich in vitamins</li> </ul>	<ul style="list-style-type: none"> <li>• Fat-soluble: A – beta-carotene, retinol; D – cholecalciferol; E – tocopherol; K - phylloquinone</li> <li>• Water-soluble: B<sub>1</sub> – thiamin; B<sub>2</sub> – riboflavin; B<sub>3</sub> - niacin; B<sub>6</sub> – pyridoxine; B<sub>9</sub> - folic acid/folate; B<sub>12</sub> – cobalamin; C – ascorbic acid</li> <li>• Properties of fat-soluble and water-soluble vitamins</li> <li>• Common sources of the different vitamins</li> <li>• Main functions of the different vitamins</li> <li>• Individuals and groups who have particular vitamin needs</li> <li>• Justification for higher recommended intakes of folic acid and ascorbic acid during various lifecycle stages with reference to EFSA recommendations</li> <li>• The importance of taking dietary sources of vitamins</li> <li>• The role of vitamin supplements and ensuring a safe intake</li> <li>• 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.</li> </ul>
<p>Minerals</p>	<ul style="list-style-type: none"> <li>• Functions and main food sources of key minerals including trace elements</li> <li>• Justifications for higher intake of specific minerals for particular population groups according to EFSA</li> <li>• The effects of and prevention of insufficient intake of certain minerals</li> </ul>	<ul style="list-style-type: none"> <li>• The functions and common food sources of calcium, potassium, phosphorus, sodium, magnesium, iron, zinc, iodine and fluoride</li> <li>• Factors that hinder the absorption of minerals</li> <li>• Justification for higher recommended intakes of calcium and iron during various lifecycle stages with reference to EFSA recommendations</li> <li>• Individuals who require higher and lower intakes of sodium</li> <li>• The effects of low dietary intakes of iron and calcium in the body and strategies to improve their absorption</li> </ul>

Water and fluids	<ul style="list-style-type: none"> <li>• Role of water in the body</li> <li>• The importance of an adequate fluid intake</li> <li>• Signs of dehydration</li> </ul>	<ul style="list-style-type: none"> <li>• Basic functions of water in the body</li> <li>• Balancing fluid intake with losses from the body</li> <li>• Recommended daily fluid intake for adults (1.5 to 2 litres) (Refer to <i>Dietary Guidelines for Maltese Adults, 2016</i>)</li> <li>• Population groups who require a higher fluid intake</li> <li>• Symptoms and effects of dehydration</li> </ul>
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### 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"> <li>• Physiological, psychological, cultural, social, economic and technological factors affecting food choices</li> <li>• Availability, accessibility, retailing methods, market and global influences</li> <li>• Personal preferences and peer groups</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> <li>• The value of traditional Maltese dishes in promoting identity, sustainability and health</li> <li>• Causes and implications of changing dietary patterns (food availability, accessibility, retailing methods, marketing and sustainable consumption)</li> <li>• Personal food preferences and influence of peer groups in different settings</li> </ul>
The Healthy Plate	<ul style="list-style-type: none"> <li>• Dietary guidelines for the Maltese nation</li> </ul>	<ul style="list-style-type: none"> <li>• Definition and function of dietary guidelines</li> <li>• 'The Healthy Plate': dietary guidelines for Maltese adults</li> <li>• The daily number of servings for cereals, vegetables, fruit and dairy products</li> </ul>
Meeting nutrient requirements of individuals	<ul style="list-style-type: none"> <li>• Specific and changing nutrient needs of individuals</li> </ul>	<ul style="list-style-type: none"> <li>• Pregnancy and lactation, lactose intolerance, coeliacs, diabetics, hypertensives, vegetarians and elderly</li> </ul>
Energy needs of individuals	<ul style="list-style-type: none"> <li>• Energy balance and imbalance and the effects on health</li> <li>• Factors which influence energy intakes</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning of energy input and output</li> <li>• Effects of imbalance: Overweight and obesity, muscle wasting and their implications for health</li> <li>• BMI ranges and BMI as an indicator of increased risk for health problems</li> <li>• Changing energy needs throughout the lifecycle, focusing on level of activity, rate of growth, age, body size and gender</li> </ul>

	<ul style="list-style-type: none"> <li>• Healthy weight management</li> </ul>	<ul style="list-style-type: none"> <li>• Healthy weight management practices: choice of a balanced diet and physical activity</li> </ul>
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### Applied Nutrition

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
The concept of a balanced diet	<ul style="list-style-type: none"> <li>• A balanced diet based on the dietary guidelines</li> <li>• Recipe modification to increase health value</li> </ul>	<ul style="list-style-type: none"> <li>• Menu and meal planning based on 'The Healthy Plate'</li> <li>• The importance of a balance in menu and meal planning to include: nutrients, energy value, colour, texture and flavour</li> <li>• Strategies for modifying recipes to make them healthier</li> </ul>
The relationship between diet and health	<ul style="list-style-type: none"> <li>• Common meal patterns, changing dietary practices and the effects on health</li> <li>• Diet-related disorders and diseases prevalent in Malta</li> <li>• Vegetarian diets and health</li> <li>• Dietary needs for different stages in the life cycle</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> <li>• The role of diet in the development and prevention of obesity, diabetes, coronary heart disease, hypertension, dental caries, diverticulosis, osteoporosis, constipation, iron deficiency anaemia, colorectal cancer, eating disorders</li> <li>• Food intolerances and food allergies: lactose intolerance and peanut allergy</li> <li>• Autoimmune disorders: Coeliac disease and Type 1 Diabetes</li> <li>• Types of vegetarian diets: lacto, lacto-ovo, pesco, vegans</li> <li>• The health benefits of vegetarian/ plant-based diets</li> <li>• Recommended food intake for maintaining health in different population groups: pregnant and lactating women, infants (0-1 years), pre-school children (1-4 years), growing school children (5- 10 years), adolescents, adults, the elderly</li> <li>• Identification of population groups at risk through low or high intakes of specific nutrients</li> </ul>

<p>Menu and meal planning</p>	<ul style="list-style-type: none"> <li>● Planning suitable menus and meals for specific conditions</li> <li>● Planning economical healthy meals</li> <li>● Nutritional evaluation of meals and recipes</li> </ul>	<ul style="list-style-type: none"> <li>● Special dietary requirements for diabetics, coeliacs, vegetarians, individuals on a calorie-reduced, or high-fibre, or low-fat, or low-salt, or low-cholesterol diet</li> <li>● Factors to be considered when planning economical healthy meals - the use of foods in season, use of cheaper cuts of meat, adding vegetables, pulses or soya bean products to extend a meat dish, taking advantage of special offers (buying in bulk and freezing)</li> <li>● Identifying good quality food (nutritional value for money)</li> <li>● Comparing prices per unit, weight, volume and shelf position</li> <li>● Use of energy-saving appliances and strategies when cooking food</li> <li>● Analysis of meals and recipes for key nutrients provided (also to meet specific dietary/health needs)</li> <li>● Recommending strategies for improving nutritional value of meals and recipes</li> </ul>
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### Food Production

<p>Trends and concerns in food production</p>	<ul style="list-style-type: none"> <li>● Awareness of present day trends and concerns in food production and distribution</li> </ul>	<ul style="list-style-type: none"> <li>● Current consumer concerns, such as the use of Genetically Modified Organisms (GMOs), pesticides, artificial fertilisers, additives, irradiation</li> <li>● Production, benefits and safety issues related to GMOs and functional foods</li> <li>● Process, advantages and disadvantages of organic farming, aquaculture and hydroponics</li> <li>● Humane animal rearing - free range and organic compared to intensive farming</li> <li>● Sourcing local food (familiarity with local food, higher freshness and nutritive value of food, appreciation of seasonality, sustaining local economy)</li> <li>● Food miles - impact on the environment</li> </ul>
<p>Commercial distribution and storage of food</p>	<ul style="list-style-type: none"> <li>● Safety of food during transportation</li> <li>● Storage of food in shopping outlets</li> </ul>	<ul style="list-style-type: none"> <li>● Food hygiene and safety in the transportation, of food (temperature control and humidity)</li> <li>● Safe food storage at shopping outlets: use of coolers/chillers/freezers, length of time in storage</li> </ul>

Food packaging	<ul style="list-style-type: none"> <li>• Food safety</li> </ul>	<ul style="list-style-type: none"> <li>• Food safe materials for food packaging</li> <li>• Migration of plasticisers</li> <li>• Tamper-proof seals</li> </ul>
Food labelling	<ul style="list-style-type: none"> <li>• Food labelling</li> <li>• Symbols on food labels and their impact on consumer choice and health</li> <li>• Claims and endorsements on food labels and their impact on consumer choice and health</li> </ul>	<ul style="list-style-type: none"> <li>• The importance of proper labelling</li> <li>• Basic EU regulations on food labelling - Best before, Use by, name and address of manufacturer, servings, method of storage, preparation and serving, weight, place of origin, nutritional information of certain foodstuffs and allergy warnings</li> <li>• Identification and use of Organic, Marine Stewardship Council, Gluten Free, Vegetarian and Fair Trade symbols</li> <li>• Recycling symbols</li> <li>• The proper and critical interpretation of health related claims on food labels that could lead to misleading messages (a low-fat product may be high in sugar and salt content)</li> </ul>

### Food Commodities

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Different commodities	<ul style="list-style-type: none"> <li>• Food commodities - vegetables, fruit, cereals, milk and milk products, eggs, pulses, nuts, meat, poultry, and fish</li> <li>• Production of the food commodity</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasis on the nutrients that are present in high and useful amounts</li> <li>• Any lacking nutrients</li> <li>• Guidelines for consumers when purchasing food</li> <li>• What to look for when checking for freshness</li> <li>• Different functions</li> <li>• Particular recipes where the food is a main ingredient</li> <li>• Emphasis on traditional recipes</li> <li>• Different cooking methods that are used to cook specific foods, outlining underlying scientific principles</li> <li>• Preparation of food prior to cooking</li> <li>• Effects of different cooking methods on the appearance, taste, smell, texture and nutritional value</li> <li>• The retention of nutrients during storage, food preparation and serving</li> <li>• The main steps in food production, outlining underlying scientific principles involved: flour and rice (whole grains versus refined grains); types of milk and</li> </ul>

		<p>its production; eggs (organic, free range, deep litter, battery)</p> <ul style="list-style-type: none"> <li>• Production of yoghurt and Maltese cheeselets (ġbejniet)</li> </ul>
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### Food Spoilage and Preservation

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Food spoilage	<ul style="list-style-type: none"> <li>• The main types of food spoilage</li> <li>• The principles underlying the growth and control of microorganisms: bacteria, moulds and yeasts</li> <li>• The beneficial and adverse effects of microorganisms and enzymes in the production of foods</li> </ul>	<ul style="list-style-type: none"> <li>• Common examples of microbial (fermentation), biological (over ripening) and chemical (oxidation) food spoilage</li> <li>• Types of microorganisms and the conditions necessary for growth and multiplication</li> <li>• Principles underlying the effects of the use of microorganisms and enzymes in specific foods, such as cheeses and yoghurt</li> <li>• Implications for consumer health</li> </ul>
Food poisoning	<ul style="list-style-type: none"> <li>• Food poisoning organisms and susceptible foods and symptoms</li> <li>• High-risk situations</li> <li>• Definition and key features of the Hazard Analysis and Critical Control Points (HACCP) system</li> </ul>	<ul style="list-style-type: none"> <li>• Food source and common symptoms of food poisoning (Salmonella, Clostridium botulinum, Listeria monocytogenes, Bacillus cereus and Escherichia coli, Staphylococcus aureus, Campylobacter)</li> <li>• Common situations with potential for food poisoning outbreaks</li> <li>• Basic strategies for safe food handling (at home, family outings, BBQs)</li> <li>• Food handling certification and food safety inspections, including basic features of HACCP; implications for consumer health and food handling practices</li> </ul>
The preservation of food	<ul style="list-style-type: none"> <li>• The scientific principles underlying different methods of preservation</li> <li>• Home freezing</li> </ul>	<ul style="list-style-type: none"> <li>• Dehydration, heat treatment, low temperatures (freezing and chilling), chemical preservatives - traditional and permitted (sulfites, nitrites, benzoates), curing and irradiation</li> <li>• Equipment and procedures for efficient and safe freezing at home</li> </ul>

## 7. Coursework (Paper III)

Candidates will be required to present:

Part i. A *Food Study Task* focusing on one food commodity and comprising of:

- a food experiment AND
- a food production

The *food experiment* should consist of an experiment, whereby candidates choose a food commodity, affect one variation to an ingredient, or a food preparation technique, or a cooking method, and compare the effects of the changes with the control recipe. Identification of the scientific principle underlying the results of the food experiment is to be carried out. A sensory analysis exercise could be organised to help candidates gain feedback from third parties about the outcome of the experiment.

The *food production* should be related to the main focus of the experiment. Where applicable, a healthier food substitute to the respective food commodity can be used. Candidates are to prepare, cook and serve a food item or meal that meets dietary needs of a particular individual or category of the population. Candidates should choose a recipe and conduct a recipe modification to follow current dietary guidelines. Candidates are also expected to identify any culinary skill/s employed and to comment on the suitability of the food item or meal chosen for the category of the population selected for the task by making reference to Dietary Reference Values.

Example:

- The food experiment - the candidate compares the function of yeast in cold and warm environments.
- The food production - the candidate modifies a recipe using yeast.

Part ii. An *Investigation* based on one area of study from any topic specifically mentioned in the syllabus, also including *Textiles, Fashion and Interiors* and the *Hospitality and Tourism Industry*. Candidates are expected to use one research technique from the following: a report on a visit, an interview, a survey by questionnaire, a comparative survey of products or services, product or service availability survey, a textile scientific experiment, a case study, a product analysis, an audio-visual presentation, a practical demonstration, and an original product/production.

Candidates are encouraged to:

- select appropriate research material;
- make use of local relevant information;
- plan an investigative procedure;
- decide on an appropriate course of action, taking into consideration the priorities identified;
- carry out a course of action by applying appropriate skills;
- discuss, assess and evaluate the effectiveness of the course of action.

Guidelines for the Food Study Task and for the Investigation are in Appendices I and II, and the Assessment Criteria for the Food Study Task and for the Investigation are in Appendices

III and IV. The Assessment Sheets for the Food Study Task and Investigation are in Appendices V and VI. Forms for candidate's declaration of authenticity are in Appendix VII.

## 8. AREAS OF STUDY

An *Investigation* based on one area of study from any topic specifically mentioned in the syllabus, also including *Textiles, Fashion and Interiors* and the *Hospitality and Tourism Industry*.

### A: Textiles, Fashion and Interiors

This option enables students to develop scientific knowledge and creative skills in the field of fashion, textiles and interiors. This knowledge forms the basis for the choice and use of items made from textiles in a rapidly changing society.

Suggestions and Ideas:

- Structure and its effect on the properties of fibres, yarns and fabrics (insulation, resiliency, elasticity, absorbency, permeability, stability, flammability, and resistance to abrasion, light and cleaning procedures);
- The evaluation of the physical and chemical properties of natural, regenerated and synthetic fibres;
- The selection, care and use of textiles;
- The use of textile crafts;
- Smart textiles and clothing;
- Sustainable and ethical fashion;
- The impact of fast fashion on the environment;
- The re-use and recycling of textiles;
- The economic, cultural, social and technological influences on fashion;
- The creative use and re-use of textiles;
- The influence of technology on shopping practices related to clothing and interiors.

### B: Hospitality and Tourism Industry

This option enables students to gain an insight into the importance of suitable, safe and pleasant environments in the hospitality industry. Research related to cruise liners, aeroplanes, hotels, restaurants, planning of events, and any additional fields within the tourism industry is accepted.

Suggestions and Ideas:

- The role and functions of different hospitality services in relation to customers' changing needs and expectations;
- The need for appropriate and effective interpersonal and communication skills;
- The efficient, economic, hygienic and safe use, control and management of resources;
- The overall effect of decor in the working and leisure environments;
- The selection and care of textiles, suitable for different purposes, with particular reference to: colour/light fastness, abrasion resistance, absorbency, water repellent properties, fire retardant properties, anti-static properties;
- The impact of tourism on the local environment and environment-friendly practices of the hospitality industry.

**GUIDELINES FOR THE FOOD STUDY TASK**

Paper III (part i)

(100 marks - 10% of total mark)

The Food Study Task focuses on a food commodity and aims to foster creativity and organisational, investigative, critical, technical and presentation skills in conducting a study on the chosen commodity. Candidates are encouraged to carry out two related tasks. One task consists of a food experiment and the other is a food production. For both components, candidates should demonstrate and apply scientific as well as nutritional knowledge, innovation and/or culinary skills. The emphasis is on the:

- demonstration of creativity and originality;
- competency in organisational, technical and presentation skills;
- identification of aims and plan of action of the food experiment and food production;
- planning and implementation of the food experiment and food production;
- presentation of results and the main conclusions of outcomes;
- demonstration of critical analysis of procedures and outcomes.

Candidates need to show evidence of planning, implementation and evaluation through a written report, possibly accompanied with photographic evidence.

The Food Study Task report should be presented in line with the following template. The required length is of **approximately 10-12 pages**, excluding Title page.

<b>Front Page of Food Study Task</b>	<b>Name of food commodity in focus, candidate's name, date</b>	<b>Maximum marks 100</b>
Food Experiment	<ul style="list-style-type: none"> <li>• Name of food experiment.</li> </ul>	
Aims and Design (approx. 1 page)	<ul style="list-style-type: none"> <li>• Outline two/three aims of the food experiment.</li> <li>• Explain the process of the experiment.</li> <li>• Explain the scientific principle underlying the food experiment.</li> </ul>	5
Planning and Implementation (approx. 2-3 pages)	<ul style="list-style-type: none"> <li>• Identify the utensils, appliances, ingredients, items required for sensory exercise and other useful resources.</li> <li>• Explain the method of the food experiment.</li> <li>• Prepare a checklist to be used during the sensory analysis exercise.</li> <li>• Preferably, provide photographic evidence to show the execution of the food experiment.</li> </ul>	25
Presentation of Results and Conclusions (approx. 1 page)	<ul style="list-style-type: none"> <li>• Write a report about the observations made and the results from the experiment.</li> <li>• Draw conclusions to address whether the aims were achieved or not and the effectiveness of the food experiment.</li> </ul>	10

Evaluation (approx. 1 page)	<ul style="list-style-type: none"> <li>• Critical discussion of the various results of the experiment and of the actual procedures.</li> </ul>	10
Food Production	<ul style="list-style-type: none"> <li>• Write a title: Prepare, cook and serve a food item suitable for a category of the population (which may include people with specific dietary needs), which should be related to the main focus of the experiment. Where applicable, a healthier food substitute to the respective food commodity can be used.</li> </ul>	
Aims and Design (approx. 1 page)	<ul style="list-style-type: none"> <li>• Outline two/three aims for the food production.</li> <li>• Explain the process.</li> </ul>	5
Planning and Implementation (approx. 2-3 pages)	<ul style="list-style-type: none"> <li>• Write a time-plan. Identify the original and modified recipe, utensils, appliances, and other useful resources.</li> <li>• Give reasons for choice to justify the suitability of the food item for the dietary needs identified in the title, the recipe modifications implemented, and sustainable choice of resources.</li> <li>• Write the order of work to explain the method.</li> <li>• Conduct a nutritional analysis in table format. Find the nutritive value per serving, focusing on the content of protein, carbohydrate (including fibre and sugars), fat (of which saturated fat), sodium, a vitamin and a mineral.</li> <li>• Calculate the cost of the food item per serving.</li> </ul>	25
Presentation of Results and Conclusions (approx. 1 page)	<ul style="list-style-type: none"> <li>• Write a critical analysis of whether the nutritive value reflects that the dietary needs of the person identified or category of the population selected.</li> <li>• Draw conclusions that reflect the main findings of this task and whether the aims of the food production were reached.</li> </ul>	10
Evaluation (approx. 1 page)	<ul style="list-style-type: none"> <li>• Critical discussion of the results of the food production and of the actual procedure.</li> </ul>	10

**GUIDELINES FOR THE INVESTIGATION**

Paper III (part ii)

(100 marks - 15% of total mark)

***The Scope of the Investigation***

The Investigation report should be between 30-40 pages (excluding the Appendices, Bibliography and pages showing solely tables, figures, diagrams or images). The activity should address a clearly defined, focused area of the syllabus content and involve the use of primary and secondary sources. The investigation activity should provide opportunities for candidates to demonstrate their understanding of the connections and relationships between some of the aspects of Home Economics and Human Ecology represented in this area of the syllabus. It should also present opportunities for practical activities appropriate to the activity selected.

As a general guide, the investigation could be developed on the following guidelines:

***Title Analysis, Aims and Literature Review*****(Max. 25 marks)****1. Select the topic area of study****Objective/s:** Candidates should be able to select an area of study and a focused title.**Guidelines:**

- Choose one area of study from any topic specifically mentioned in the syllabus, also including *Textiles, Fashion and Interiors* and the *Hospitality and Tourism Industry*. Develop a focused research question/title that requires analysis, research and investigation. The title should be formulated in a way that provides a concise summary of the main idea of the investigation.

**2. Formulate a set of general Aims****Objective/s:** Candidates should be able to state the general aims of the investigation and literature review.**Guidelines:**

- Write a list of general aims (maximum 3) relevant to the study being investigated. The general aims need to clearly state what the candidates would like to learn from this study and the literature review.

**3. Write a comprehensive Literature Review****Objective/s:** Candidates should be able to read and analyse secondary sources of information as well as write a clear and concise review of literature that addresses the research question/title.**Guidelines:**

- The literature review should be an overview of what is available in local and/or international literature on the topic being investigated. This should include an introduction, main section with sub-headings and a conclusion. In writing a good literature review, it is advisable that candidates are selective in the choice of information and include appropriate referencing.

#### **4. Aims of Research Technique.**

**Objective/s:** Candidates should be able to list aims related to the chosen research technique.

**Guidelines:**

- Identify the chosen research technique and formulate relevant aims (maximum 3).
- Possible research techniques: a report on a visit, an interview, a survey by questionnaire, a comparative survey of products or services, product or service availability survey, a textile scientific experiment, a case study, a product analysis, an audio-visual presentation, a practical demonstration, and an original product/production.

#### **Research Design**

**(Max. 15 marks)**

**Objective/s:** Candidates should be able to justify use of the research method chosen.

**Guidelines:**

- Identify the research method used and justify the reason/s why it was chosen. Link with the aim(s) of the research method stated earlier.
- Compare the advantages and disadvantages/limitations of the chosen research procedure.
- State one ethical issue that needs to be considered while implementing the research procedure.
- Identify and give a reason for the choice of participant/s or sample of participants, such as number, gender, and age.
- Explain how the research procedure was employed to collect the data.
- Explain how problems in employing the research method were dealt with.

#### **Implementation, Presentation and Analysis of Findings of Investigative Technique**

**(Max. 20 marks)**

**Objective/s:** Candidates should be able to:

- show effective use of the evidence gained from preliminary findings to organise and plan further in-depth research and a worthwhile study.
- plan and organise the logistics to implement the investigative technique.
- carry out the investigative technique using an appropriate method of enquiry at a high level.
- present the results from the initial research.
- draw detailed conclusions and make well-reasoned decisions.
- show the ability to make informed judgements based on the evidence found.

**Guidelines:**

- There should be evidence of a planning procedure prior to the execution of the technique indicating that some reflection has been carried out. For example, a pilot study of the questionnaire/interview; preliminary sketches of designs, and trial of a presentation.
- In the section 'Presentation of Findings', present the results accurately, effectively and in a logical format.
  - For a report on a visit, write a journal of what was observed and information obtained from questions asked.
  - For an interview, present an empty and a filled copy of the interview which should consist of about ten questions. Include an empty consent form that indicated that the interview transcript will be presented in the investigation.

- The questionnaire should be distributed to 20 respondents. Include a copy of the questionnaire and a copy of the consent form when minors (under 18 years) are involved in the appendix.
- For a comparative survey of products or services, a product or service availability survey, and product analysis, present the information obtained.
- For a textile scientific experiment, identify the resources and equipment used, explain the method and safety precautions observed. Present the findings to show the comparison of two to three samples of fabric. The samples used should also be presented.
- For a case study, plan three to four visits, with one or more themes. Plan a set of questions, points to observe and activities to be carried out. Present a journal entry for each visit.
- For an audio-visual presentation, a practical demonstration, and an original product/production, identify the resources and equipment needed, explain the decisions taken during the process, and state the method how the article was created or made.
- To support the findings, where applicable, refer to photographic evidence (figures) and tables. These should be captioned appropriately. To adhere to ethical procedures, where applicable, present an unsigned consent form in the appendix.
- Candidates should analyse results and present them either separately or as part of the findings.

### ***Discussion of Results and Conclusions***

**(Max. 20 marks)**

**Objective/s:** Candidates should be able to:

- Give a critical and reasoned discussion of the results and their implications.
- Interpret and compare results with relevant secondary research.
- Present justified overall conclusions.

#### **Guidelines:**

- Results should be evaluated realistically and critically. An interpretation and reasoned discussion of the results should be provided. Identify sub-headings of themes that emerged from the findings, discuss and reflect on the outcomes.
- The results should be compared with the relevant secondary research.
- In the section 'Conclusions', highlight what has been learned in response to the aim/s of the research technique and the research question.

### ***Evaluation***

**(Max. 15 marks)**

**Objective/s:** Candidates should be able to present a critical evaluation of the effectiveness of the study and of the course of action from which the study developed.

#### **Guidelines:**

- An evaluation of the strengths and weaknesses of the investigation and of the research process should be included along with suggestions for improvement.

### ***Fields for Further Studies***

**(Max. 3 marks)**

**Objective/s:** Candidates should be able to identify and outline possible future developments as a result of the research.

#### **Guidelines:**

- Suggest and justify three areas or issues for future research.

**References / Bibliography**

**(Max. 2 marks)**

**Objective/s:** Candidates should be able to cite the secondary sources of information appropriately.

**Guidelines:**

- References should be acknowledged within the text and itemised in a bibliography at the end of the report. Lack of references to sources may be regarded as plagiarism. The standard format for a bibliography should be followed. Details of all sources of information should be accurate.

**Appendices**

If applicable, include evidence to support and justify statements and decisions documented in the report.

Note: The text should be written or printed on one side of A4 paper. It should be legible and with numbered pages.

**ASSESSMENT CRITERIA FOR THE FOOD STUDY TASK**

**Note: Mark obtained by candidate out of 100 marks, divided by 10 will give mark out of 10% which is the weighting of the Food Study Task.**

**Total mark Awarded: \_\_\_\_\_**

For a Food Study Task marked out of 100, the following criteria should be adopted:

<b>FOOD EXPERIMENT</b>	
<b>Aims and Design</b> <span style="float: right;"><b>Max. 5 marks - Awarded _____</b></span>	
0-2	Limited and unclear explanation of the aims and design of the food experiment.
3-5	Outlines clear aims and gives a brief but correct explanation of the design of the food experiment.
<b>Planning and Implementation</b> <span style="float: right;"><b>Max. 25 marks - Awarded _____</b></span>	
0-8	Some of the points that are required to plan structured work are presented. A low level of competence in management, organisational and technical skills is shown during implementation.
9-16	The main points of the plan to be followed are mentioned, outlining most of the details needed to carry out appropriate procedures. Showed competence in management, organisational and technical skills.
17-25	The main points of the plan to be followed are detailed, including all points how to carry out procedures in an effective and efficient way. A high level of competence is shown in management, organisational and technical skills.
<b>Presentation of Results and Conclusions</b> <span style="float: right;"><b>Max. 10 marks - Awarded _____</b></span>	
0-3	Poor and inaccurate presentation of results. Little or no scientific explanation of results obtained. Poor conclusions drawn.
4-6	Appropriate presentation of results. Some scientific explanation of results obtained. Some relevant conclusions are drawn.
7-10	Accurate, concise and excellently presented results. Gives detailed scientific explanation of results. Relevant and detailed conclusions are drawn.
<b>Evaluation</b> <span style="float: right;"><b>Max. 10 marks - Awarded _____</b></span>	
0-3	Limited and superficial evaluation with no identification of strengths and limitations of the experiment and procedures carried out.
4-6	Adequate evaluation with some strengths and limitations identified for the experiment and course of action.
7-10	Thorough evaluation of the experiment and the procedures implemented during the course of action.

<b>FOOD PRODUCTION</b>	
<b>Aims and Design</b>	
<b>Max. 5 marks - Awarded _____</b>	
0-2	Limited and unclear explanation of the aims and process of the food production.
3-5	Outlines clear aims and gives a brief explanation of the process of the food production.
<b>Planning and Implementation</b> ( <i>marks can be obtained from different sections</i> )	
<b>Max. 25 marks - Awarded _____</b>	
0-8	<ul style="list-style-type: none"> <li>• <i>Planning (0-2 marks):</i> A basic time-plan with list of ingredients, equipment needed and order of work is presented.</li> <li>• <i>Reasons for choice (0-2 marks):</i> Poor reasons for choice with limited reference to the suitability of the dish for particular person/group with specific dietary requirements.</li> <li>• <i>Implementation (0-2 marks):</i> Limited skills demonstrated in the preparation of the dish chosen. The dish chosen shows little or no reflection on current dietary guidelines. A low level of competence in management, organisational and technical skills is shown.</li> <li>• <i>Nutritional analysis (0-1 mark):</i> The nutritional analysis is incomplete.</li> <li>• <i>Costing (0-1 mark):</i> Incomplete and inaccurate cost of ingredients.</li> </ul>
9-16	<ul style="list-style-type: none"> <li>• <i>Planning (2.5-4 marks):</i> The main points of the time-plan are mentioned, namely list of ingredients, equipment needed and order of work.</li> <li>• <i>Reasons for choice (2.5-4 marks):</i> Good reasons for choice and reasonable justifications why the dish is suitable for a particular person/group with specific dietary requirements. The main modifications in the recipe are made.</li> <li>• <i>Implementation (1.5-5 marks):</i> Some culinary skills are demonstrated. Prepares a healthy dish following current dietary guidelines. Shows competence in a number of management, organisational and technical skills.</li> <li>• <i>Nutritional analysis (1.5-2 marks):</i> A complete nutritional analysis but needs some corrections.</li> <li>• <i>Costing (1 mark):</i> Incomplete or inaccurate cost of ingredients.</li> </ul>
18-25	<ul style="list-style-type: none"> <li>• <i>Planning (4.5-6 marks):</i> A detailed time-plan with a list of ingredients, equipment needed and order of work.</li> <li>• <i>Reasons for choice (4.5-6 marks):</i> Very detailed reasons for choice with reference to the suitability of the dish for a particular person/group with specific dietary requirements. Ways in which the dish was designed to meet the nutritional goals and guidelines are mentioned.</li> <li>• <i>Implementation (4.5-7 marks):</i> A variety of culinary skills are demonstrated. Prepares a healthy dish following current dietary guidelines. A high level of competence is shown in management, organisational and technical skills.</li> <li>• <i>Nutritional analysis (2.5-4 marks):</i> A detailed and accurate nutritional analysis.</li> <li>• <i>Costing (2 marks):</i> Accurate calculation of cost of ingredients.</li> </ul>

<b>Presentation of Results and Conclusions</b>		<b>Max. 10 marks - Awarded _____</b>
0-3	Superficial analysis in comparing the nutritive analysis to the dietary needs of the person or category of the population selected. Little or no reference to value for money. Poor conclusions are drawn.	
4-6	Adequate analysis in comparing the nutritive analysis to the dietary needs of the person or category of the population selected as indicated in the title of the food production. Fair comments on value for money. Some conclusions are drawn with minimal reference to the aims of the task.	
7-10	Detailed analysis in comparing the nutritive analysis to the dietary needs of the person or category of the population selected as indicated in the title of the food production. Good reference to value for money. Well explained and realistic conclusions that are relevant to the aims.	
<b>Evaluation</b>		<b>Max. 10 marks - Awarded _____</b>
0-3	Limited and superficial evaluation with no identification of strengths and limitations of the food production and procedures carried out.	
4-6	Adequate evaluation with some strengths and limitations identified for the food production and procedures of the course of action.	
7-10	Thorough evaluation of the food production and the procedures implemented.	

**ASSESSMENT CRITERIA FOR THE INVESTIGATION**

**Note: Mark obtained by candidate out of 100, multiplied by 0.15 will give mark out of 15% which is the weighting of the Investigation.**

**Total mark Awarded: \_\_\_\_\_**

For an Investigation marked out of 100, the following criteria should be adopted:

<b>Title Analysis, Aims and Literature Review</b>		<b>Max. 25 marks - Awarded _____</b>
1-8	<ul style="list-style-type: none"> <li>Needs help to select topic/area.</li> <li>Presents one relevant aim for the study being investigated.</li> <li>Presents a number of themes to be explored in the Literature Review without showing depth and understanding.</li> </ul>	
9-16	<ul style="list-style-type: none"> <li>Independently selects topic/area.</li> <li>Presents two relevant aims for the study being investigated.</li> <li>Presents a number of themes to be explored in the Literature Review, showing good argumentation and understanding.</li> </ul>	
17-25	<ul style="list-style-type: none"> <li>Shows creativity in selecting topic/area. Presents three detailed and relevant aims for the study being investigated.</li> <li>Presents the main themes to be explored in the Literature Review comprehensively and makes good reference to the local and/or international situation.</li> </ul>	
<b>Research Design</b>		<b>Max. 15 marks - Awarded _____</b>
1-5	<ul style="list-style-type: none"> <li>Requires help in choosing a suitable research technique and suggests one relevant aim for the chosen technique.</li> <li>Outlines briefly the advantages and disadvantages of the chosen research technique and gives few suggestions on how problems could be overcome.</li> </ul>	
6-10	<ul style="list-style-type: none"> <li>Chooses research technique with some guidance and presents two relevant aims for the chosen technique.</li> <li>Presents a discussion of advantages and disadvantages of the chosen research technique and gives suggestions on how problems could be overcome.</li> </ul>	
11-15	<ul style="list-style-type: none"> <li>Chooses one suitable research technique and presents three detailed and relevant aims for the chosen technique.</li> <li>Presents a detailed discussion of advantages and limitations of the chosen research technique, gives practical suggestions on how problems could be dealt with, and identifies one ethical issue that could be considered.</li> </ul>	
<b>Implementation, Presentation and Analysis of Findings of Investigative Technique</b>		<b>Max. 20 marks - Awarded _____</b>
1-5	<ul style="list-style-type: none"> <li>Technique planned and executed, but not necessarily in an efficient or logical manner and sequence. Shows limited planning and preparation for the technique.</li> <li>Presentation of the results of the technique used is limited, showing that skills related to the use of the investigative method have not been grasped.</li> <li>The analysis of findings is superficial.</li> </ul>	
6-12	<ul style="list-style-type: none"> <li>Technique planned and executed in a relatively efficient and logical manner and sequence, showing planning and preparation for the technique.</li> <li>Presentation of the results of the technique used is included, showing that skills related to the use of investigative method have been grasped and practised.</li> </ul>	

	<ul style="list-style-type: none"> <li>The analysis of findings shows adequate understanding of results.</li> </ul>
13-20	<ul style="list-style-type: none"> <li>Technique planned and executed, in an efficient and logical manner and sequence, showing thorough planning and preparation for the technique.</li> <li>Very detailed presentation of the results of the technique used is included, showing that skills related to the use of the investigative method have been grasped and practised effectively.</li> <li>A detailed analysis of findings showing an in-depth understanding of results.</li> </ul>
<b>Discussion of Results and Conclusions</b> <span style="float: right;"><b>Max. 20 marks - Awarded _____</b></span>	
1-5	<ul style="list-style-type: none"> <li>Poor discussion of findings and general conclusions.</li> <li>A limited final discussion in which the information obtained through research, knowledge gained through the technique and personal opinions are poorly presented.</li> </ul>
6-12	<ul style="list-style-type: none"> <li>Adequate discussion and general conclusions.</li> <li>A good final discussion in which the information obtained through research, knowledge gained through the technique and personal opinions are adequately presented.</li> </ul>
13-20	<ul style="list-style-type: none"> <li>Very good discussion and general conclusions.</li> <li>A very detailed final discussion in which the information obtained through research, knowledge gained through the technique and personal opinions are comprehensively presented.</li> </ul>
<b>Evaluation</b> <span style="float: right;"><b>Max. 15 marks - Awarded _____</b></span>	
1-5	Provides a limited assessment of the work undertaken and of the results, and recognises to a basic level the degree to which this furthers the effectiveness of the study.
6-10	Provides a satisfactory assessment of the work undertaken and of the results, and analyses the contribution these make to the effectiveness of the study.
11-15	Provides a critical analysis of the effectiveness of the study and of the course of action from which it developed.
<b>Fields for Further Studies</b> <span style="float: right;"><b>Max. 3 marks - Awarded _____</b></span>	
1	Any reference to possible areas for further studies is of little relevance to the theme of the work presented. Very limited attempts are made to state why the area of study mentioned is important.
2	Identifies up to two possible areas for further studies resulting from this piece of work. Gives basic reasons why the suggested areas are important.
3	Identifies three possible areas for further studies resulting from this piece of work. Gives very good and valid reasons why the suggested areas are important.
<b>References / Bibliography</b> <span style="float: right;"><b>Max. 2 marks - Awarded _____</b></span>	
1	A very limited List of References / Bibliography included.
2	Adequate List of References / Bibliography included.

UNIVERSITY OF MALTA**ADVANCED MATRICULATION EXAMINATION****HOME ECONOMICS AND HUMAN ECOLOGY****Coursework – Assessment Sheet – Food Study Task (Paper III part i)****FOOD STUDY TASK MARK SHEET**

This sheet must be completed and signed by the Home Economics and Human Ecology tutor and placed on top of the candidate's work. A declaration of authenticity signed by the candidate must be attached to this sheet.

Candidate's Name: \_\_\_\_\_ Candidate's I.D. Number: \_\_\_\_\_

Paper Number: III Part i

Name of food commodity in focus: \_\_\_\_\_

	<b>Maximum 100 marks</b>	<b>Tutor</b>	<b>Moderator</b>	<b>Final Mark</b>
<b>FOOD EXPERIMENT</b>				
<b>Aims And Design</b>	5 marks			
<b>Planning and Implementation</b>	25 marks			
<b>Presentation of Results and Conclusions</b>	10 marks			
<b>Evaluation</b>	10 marks			
<b>FOOD PRODUCTION</b>				
<b>Aims and Design</b>	5 marks			
<b>Planning and Implementation</b>	25 marks			
<b>Presentation of Results and Conclusions</b>	10 marks			
<b>Evaluation</b>	10 marks			
<b>Total Mark</b>				

**FINAL MARK (max. 10%):** \_\_\_\_\_

AUTHENTICATION by the HOME ECONOMICS AND HUMAN ECOLOGY TUTOR

**I declare that the candidate's activities have been kept under regular supervision and that, to the best of my knowledge, no assistance has been given apart from any which is acceptable under the scheme of assessment and has been identified and recorded.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Name of Tutor (block letters):**

**Address of Tutor:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

UNIVERSITY OF MALTA

**ADVANCED MATRICULATION EXAMINATION****HOME ECONOMICS AND HUMAN ECOLOGY****Coursework – Assessment Sheet - Investigation (Paper III part ii)****INVESTIGATION MARK SHEET**

This sheet must be completed and signed by the Home Economics and Human Ecology tutor and placed on top of the candidate's work. A declaration of authenticity signed by the candidate must be attached to this sheet.

Candidate's Name: \_\_\_\_\_ Candidate's I.D. Number: \_\_\_\_\_

Option Area: \_\_\_\_\_ Paper Number: III Part ii

Title: \_\_\_\_\_

	<b>Maximum 100 marks</b>	<b>Tutor</b>	<b>Moderator</b>	<b>Final Mark</b>
<b>Title Analysis, Aims and Literature Review</b>	25 marks			
<b>Research Design</b>	15 marks			
<b>Implementation, Presentation and Analysis of Findings of Investigative Technique</b>	20 marks			
<b>Discussion of Results and Conclusions</b>	20 marks			
<b>Evaluation</b>	15 marks			
<b>Fields for Further Studies</b>	3 marks			
<b>References/Bibliography</b>	2 marks			
<b>Total Mark</b>				

**FINAL MARK (max. 15%):** \_\_\_\_\_

AUTHENTICATION by the HOME ECONOMICS AND HUMAN ECOLOGY TUTOR

**I declare that the candidate's activities have been kept under regular supervision and that, to the best of my knowledge, no assistance has been given apart from any which is acceptable under the scheme of assessment and has been identified and recorded.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Name of Tutor (block letters):****Address of Tutor:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**UNIVERSITY OF MALTA  
ADVANCED MATRICULATION EXAMINATION  
HOME ECONOMICS AND HUMAN ECOLOGY  
COURSEWORK – FOOD STUDY TASK (Paper III part i)**

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AUTHENTICATION by CANDIDATE

I declare that I have produced the work involved without external assistance apart from any which is acceptable under the scheme of assessment and is recorded.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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**UNIVERSITY OF MALTA  
ADVANCED MATRICULATION EXAMINATION  
HOME ECONOMICS AND HUMAN ECOLOGY  
COURSEWORK – INVESTIGATION (Paper III part ii)**

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AUTHENTICATION by CANDIDATE

I declare that I have produced the work involved without external assistance apart from any which is acceptable under the scheme of assessment and is recorded.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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