

AM SYLLABUS (2015)

HOME ECONOMICS AND HUMAN ECOLOGY

AM 18

SYLLABUS

Home Economics and Human Ecology AM 18 Syllabus

(Available in September)

Paper I (3 hours)+Paper II (3 hours)+Paper III (Coursework)

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 a selection of Option Areas: *Food Technology, Child Development, Senior Members of Society, Hospitality Services* and *Textile Studies*.

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 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.

Part i. Food Study Task (5% of the total mark)

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

- a related experiment AND
- a food production task or culinary skill.

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 (Appendix III).

Part ii. Investigation (20% of the total mark)

Candidates are required to submit one Investigation chosen from one of the Option Areas. Candidates are expected to use two different research techniques which are different from those used in the Food Study Task. 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 Home Economics and Human Ecology tutor for supervision and guidance. Home Economics teachers who have taught Home Economics for at least five years since 1994 are also eligible as tutors for AM Home Economics and Human Ecology private candidates.

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.

It is important that the candidate’s particulars on the Mark Sheets for the Food Study Task and Investigation are duly completed (Appendix V and VI, respectively). The authentication by the supervising tutor is also required on each of above forms.

A declaration of authenticity by the candidate must also be completed for the Food Study Task and for the Investigation (Appendix VII).

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"> ▪ The changing nature of families and lifestyles 	<ul style="list-style-type: none"> - The concept of a family unit - Changes in the family unit structure (e.g. fewer offspring, one-parent family, adopting, fostering, mixed-race, young people moving away from home) and their implications for family lifestyle

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Wellbeing Of Individual Family Members	<ul style="list-style-type: none"> ▪ Wellbeing of individual family members at different stages of the life-cycle and in different circumstances ▪ The inter-relationship of paid and unpaid work and leisure and the need to balance them for individual and family wellbeing ▪ Poverty and social exclusion 	<ul style="list-style-type: none"> - Indicators of family quality of life - Family-based strategies for promoting a good quality life - Efficient management of resources to contribute to smooth running of the family and to avoid stress and conflict among family members - The management of the household: shared responsibilities, coping with different situations (working parents, short-term illness, chronic illness, disability, shared accommodation with relatives) - The implications of the success or otherwise of balancing paid and unpaid work and leisure time - The importance of pursuing a variety of leisure time activities for personal development and family quality of life - The concept of voluntary work - Introduction to causes of, and remedies to, poverty and social exclusion [National Action Plan on Poverty And Social Exclusion]
Children's Wellbeing	<ul style="list-style-type: none"> ▪ The optimum physical, social, emotional and intellectual development of children ages 0-4 years 	<ul style="list-style-type: none"> - Key developmental stages with a focus on physical, social, emotional and intellectual development - Providing a variety of experiences to promote children's holistic development to the maximum of their potential - The importance of play in a stimulating environment - The importance of social interaction both with immediate family members and with individuals and organisations outside the home (e.g. childminders, nurseries, kindergarten, schools and clubs) - Infant and childhood health and safety (e.g. basic needs, immunisation, a safe physical environment) - Support systems for children within the family - Provision and basic regulations regarding child care centres

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Children's Wellbeing cont.	<ul style="list-style-type: none"> ▪ Support services provided by the state and NGOs 	<ul style="list-style-type: none"> - Provisions of the welfare system including Children's Allowance, free medical services (immunisation, paediatrician, School Health Services), Child Care centres, Adoption and Foster Care Services, Disabled Child Allowance and support services for children provided by APPOGG (to describe a max. of 3 services) - The role and function of the office of the Commissioner for Children
Adolescents' Wellbeing	<ul style="list-style-type: none"> ▪ Physical, social and emotional development ▪ Transition from adolescence to adulthood 	<ul style="list-style-type: none"> - Recognising and managing physical, social and emotional changes - Peer pressure and conflicting values - Socialisation with different age groups - Gaining independence and becoming responsible adults
Adults' Wellbeing	<ul style="list-style-type: none"> ▪ Responsibilities and rights of adults ▪ Support services provided by the state and NGOs 	<ul style="list-style-type: none"> - Responsibilities towards children, partners and elderly parents - Sharing family-related responsibilities within and outside the home - Welfare benefits, allowances and services targeting adults, including their responsible use (ante- and post-natal classes, single-mother benefits, Sickness Allowance, Unemployment Allowance, ETC employment and training services, employment-related family friendly measures [maternity leave, parental leave, flexi-time, tele-working, job-sharing], lifelong/adult education courses
Elderly Wellbeing	<ul style="list-style-type: none"> ▪ The continuing physical, social, emotional and intellectual development of the elderly 	<ul style="list-style-type: none"> - Preparation for and enjoying retirement: making beneficial use of time, maintaining self esteem, managing financial issues - Maintaining a healthy and active lifestyle in the senior years - Participation within the family, local community and society - The role of grandparents in enhancing young families' and children's quality of life - Types and causes of elderly abuse and neglect and related remedies - Housing options for the elderly with a focus on the physical, financial and social aspects

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Elderly Wellbeing cont.	<ul style="list-style-type: none"> ▪ Support services provided by the state and NGOs 	<ul style="list-style-type: none"> - Aspects of the welfare system related to the elderly (pensions, Home Help, Meals On Wheels, Handyman Service, Telecare, <i>Kartanzjan</i>, MMDNA, Free medication [pink and yellow cards], Day Centres, rehabilitation hospitals, University of the Third Age) - Support systems in the community (local parish groups, Local Councils, CARITAS)
Individuals And Families With Special Needs	<ul style="list-style-type: none"> ▪ Different situations where special assistance is required for family wellbeing ▪ Support services provided by the state and NGOs 	<ul style="list-style-type: none"> - Individuals and families who may have special needs (family where breadwinner/s is/are unemployed, single parents, foster families, families where there is chronic illness) - The definition and function of 'means testing' in relation to eligibility for welfare services and/or benefits - Aspects of the welfare system related to special needs and circumstances (<i>Kummissjoni Persuni B'Dizabilita</i>, Transport for Disabled Persons [TDP], Blue Card [free parking place], Disability Allowance/Pension, <i>Aġenzija Support</i>) - Community /NGO support services related to special needs and circumstances (<i>Inspire</i>, <i>Arka Foundation</i>, <i>Dar il-Kaptan</i>, <i>Id-Dar tal-Providenza</i>)
Substance Abuse Within The Family	<ul style="list-style-type: none"> ▪ Family well-being and tobacco use and substance abuse in the family ▪ Prevention and support services provided by the state and NGOs 	<ul style="list-style-type: none"> - Physical and social health implications, and financial implications of tobacco use and alcohol use and abuse for users/abusers and family members - Awareness of the basic prevention and support services offered by <i>Aġenzija Appogg</i> and <i>Sedqa</i>.
Influences on Individual And Family Lifestyles	<ul style="list-style-type: none"> ▪ The social, cultural, economic and technological influences on individual and family lifestyles 	<ul style="list-style-type: none"> - The implications of the following factors for individual and family lifestyles: <ul style="list-style-type: none"> - <i>Social (shifting values and changes in family household structure)</i> - <i>Cultural (mixed denominational marriages, inclusion of refugees and immigrants within the community, the impact of tourism and family holidays)</i>

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Influences on Individual And Family Lifestyles cont.		<ul style="list-style-type: none"> - <i>Economic (striving for a higher standard of living, changing economic, domestic and child care roles of men and women, family members working or studying abroad)</i> - <i>Technological (the availability of new appliances, security services and household management strategies)</i> - <i>Leisure activities (greater variety in opportunities and facilities to use free time individually and as a family)</i>

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"> ▪ Rationale for choice of locality and implications of choice 	<ul style="list-style-type: none"> - The area chosen for setting up home (e.g. urban, village or countryside) and implications of such choice regarding privacy, space, accessibility to amenities, parking problems, air quality, proximity of green areas and open countryside
Different Types Of Living Accommodation	<ul style="list-style-type: none"> ▪ Different types of dwellings available locally ▪ Social Housing ▪ Identifying and accessing available housing 	<ul style="list-style-type: none"> - Basic advantages and disadvantages of living in an apartment, maisonette, terraced house, house of character, or farmhouse - Renting or buying a home - advantages and disadvantages of the two different ways of acquiring a home with reference to the Maltese context - Definition and purposes of Social Housing (prevention of poverty [financial issues, social exclusion], provision of equity [individuals with special needs - disabilities, elderly, families with young children], improvement in quality of life [individuals with special needs - disabilities, elderly, families with young children, families with members with chronic illness, structural changes in bathrooms, kitchens]) - Sources of information on availability of property for purchase or rental - Advantages and disadvantages of using the different sources of information

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Housing Needs	<ul style="list-style-type: none"> ▪ Suitable housing and layouts for different stages of the life-cycle, for different lifestyles and for different personal and family circumstances ▪ Safety in the home ▪ Security measures in the home 	<ul style="list-style-type: none"> - Basic housing needs of different individuals, families and groups of people - Different types of dwellings suitable for different lifestages (students, youth, young couples, young families and elderly persons), different lifestyles (persons who run a family business within the home, plus persons who work from home – office/desk-related; craft/hobbies-related; private tuition to small groups) and different circumstances (parent or sick relative moving in with family, family; family has a member who has special needs) - Strategies for making the best use of space available - Strategies to ensure accessibility of homes considering the needs of persons who are physically challenged and to meet specific circumstances in family lifestyles and lifestages, such as families who run a home-based business, or families with young children or elderly members - The importance of safety in the design of living accommodation in relation to children, persons who are physically challenged and the elderly - Structural and design strategies, and installation of equipment to ensure security of the family home
Financial And Legal Aspects Of Acquiring Housing	<ul style="list-style-type: none"> ▪ Financial and economic considerations and legal processes in relation to obtaining a home 	<ul style="list-style-type: none"> - Economic factors that influence the type of home chosen - Costs incurred when buying or building a home (real estate agent fees, <i>sensarija</i>, notarial and lawyer’s fees, stamp duty, different expenses incurred when buying shell versus finished property) - Ways of raising money for acquiring and finishing a home (e.g. bank home loans, short-term bank loans, borrowing from relatives)

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Financial And Legal Aspects Of Acquiring Housing cont.		<ul style="list-style-type: none"> - Short- and long-term implications of borrowing money (individual/ couple has to keep on working [perhaps even when there are infants and young children in the family]; a 40 year loan might still be being paid up till you reach retirement age; potential source of stress if repayments not possible due to extraordinary circumstances) - Basic steps in the legal and formal process of buying a home - The meaning and functions of promise of sale (<i>konvenju</i>), contract, ground rent, (<i>ćens</i>), home insurance, life insurance (Mortgage Protection Policy) - The importance of signing a lease in front of a notary when renting a home
Environmental Issues And Protection	<ul style="list-style-type: none"> ▪ Responsibilities of nations, industry and consumers towards the global natural environment ▪ Economic, aesthetic, environmental and health implications of pollution and related preventive measures 	<ul style="list-style-type: none"> - Global concerns, such as global warming, the depletion of the ozone layer, acid rain, an adequate supply of safe water and energy for all - Strategies which can be adopted on an international, national, family and personal level in order to deal with these problems - Basic definition and function of 'Environmental Impact Assessment' (i.e. assessing the impact of a physical structure on the quality of the natural environment and on the health [physical and social] of communities and individuals; to safeguard the quality and health of the natural environment and of communities and individuals) - Alternative forms of energy production and their impact at household and national levels: knowledge of various forms available internationally, but focus on more locally viable solar and wind energy, biomass and biogas (methane/landfill gas and biodiesel) - Basic advantages and disadvantages of solar water heating systems, photovoltaic panels, domestic wind turbines

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Environmental Issues And Protection cont.		<ul style="list-style-type: none"> - Chemicals which contribute towards global warming and outdoor pollution (to name a max. of 2 from carbon dioxide, carbon monoxide, lead, sulphur dioxide nitrogen oxides, hydrocarbons, dioxins) and ways in which these can be reduced - Indoor pollutants (to name 1 of tobacco smoke, cleaning products) - Solid and liquid household waste disposal in Malta: <ul style="list-style-type: none"> - <i>The function of water treatment plants (filtration to create second class water, water for irrigation)</i> - <i>Bring-in sites</i> - <i>Civic Amenity sites</i> - <i>Bulky refuse collection</i> - <i>Definition and purpose of engineered landfill</i> - <i>The impact of dumps and landfills (engineered and reclaimed quarries) on the environment and on the nation's health and economy</i>
Sustainability And The Conservation Of Natural Resources And Energy	<ul style="list-style-type: none"> ▪ Individual and family practices that contribute towards the sustainability of the local and global environment. 	<ul style="list-style-type: none"> - Definition of sustainability - The role of the individual and the family to conserve natural resources, mainly non-renewable sources of energy, water, soil and limestone - The choice of goods and services which safeguard the natural environment, namely: goods and services which help save on energy and water, and/or are derived from sustainable sources (wood, paper, food) - Practising the traditional 3 Rs, - Reduce, Reuse, Recycle
Water Quality	<ul style="list-style-type: none"> ▪ Sources of potable water and ensuring a safe supply 	<ul style="list-style-type: none"> - Sources and types of water available locally (tap, bottled, well water) - Safety issues (basic national regulations re water safety - chlorination, control of dissolved solids with particular reference to nitrates, sodium, chlorine, lead; ensuring safety within the home – securely covered water tanks; mains water for drinking/cooking); - In-home filtration (types of filters: filter jugs or domestic reverse osmosis units)

Management Of Resources

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Consumer Behaviour	<ul style="list-style-type: none"> ▪ Factors which influence consumer buying behaviour 	<ul style="list-style-type: none"> - 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, such as targeted advertising, direct mail, in-store promotion, e-marketing; the changing nature of retailing, such as tele-shopping, online shopping
Consumer information	<ul style="list-style-type: none"> ▪ Sources, regulation and use of different forms of consumer information 	<ul style="list-style-type: none"> - Types of, and advantages and disadvantages of, sources of information about goods and services: to include the mass media, online sources, printed material, family members, friends and sales personnel - Legislation regarding types of labelling of goods and services (food labelling, textile labelling, eco-labelling [recycled/ recyclability labels, green dot, energy label on electric appliances, EU eco-label], EC safety label): what should be included on packaging and labelling; understanding and interpreting this information - Features of misleading advertising and the role of the Consumer and Competition Division to regulate such type of advertising - The critical evaluation of advice and information on goods and making comparisons re toiletries and detergents, electrical appliances, clothing and toys - Criteria for choosing different home appliances; assessing suitability for family needs

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Financial Management	<ul style="list-style-type: none"> ▪ The family income ▪ Types, functions and implications of saving, investing, borrowing, credit and debt ▪ Types and functions of different insurances 	<ul style="list-style-type: none"> - Definitions of gross income, disposable income, non-wage income - Budgeting to suit different lifestages (teenagers, engaged couples, young families, families with older schoolchildren, families at pre-retirement, elderly couple, elderly individual) and situations (chronic/serious health problems, illness; single parenthood; unemployment) - Sources of financial advice for saving, investing, borrowing, credit and debt (commercial banks, MFSA, private companies) - Uses and limitations of saving and investing options to include key factors, such as long- and short-term costs, flexibility, risk and protection - Uses and limitations of a range of credit (borrowing) options currently available locally and their suitability for individuals and families at different lifestages. - Causes and implications of running into debt and living on credit - Different types of insurances (buildings and contents, car, health) and their use for individuals and families in different lifestages or having certain lifestyles - The function of life insurance versus life assurance policies
Shopping Venues And Purchasing Methods	<ul style="list-style-type: none"> ▪ Traditional and modern ways of purchasing goods ▪ Different ways of paying for goods and services 	<ul style="list-style-type: none"> - Advantages and disadvantages for different family members, different groups of people and different family lifestyles of traditional versus modern methods of purchasing (e.g. online shopping, tele-shopping, mail-order, chain stores, supermarkets, shopping malls) - Consumer rights in doorstep and distance shopping (e.g. delivery period, cooling down period) - Methods of payment and financial transactions: e.g. cash, debit cards, credit cards (including function of chip and pin), store/loyalty cards, pre-paid cards, tele-banking, internet banking - Function of EPOS and bar codes - Basic features of secure electronic transactions

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Consumer Rights And Responsibilities	<ul style="list-style-type: none"> ▪ Local regulations concerning the purchase and use of goods and services. ▪ Local statutory bodies and organisations which safeguard consumers rights 	<ul style="list-style-type: none"> - 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 a letter; through the Consumer and Competition Division; through special service/column offered by local newspapers - The function of the Consumer Claims Tribunal, Consumer Association, and European Consumer Centre (ECC)

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"> ▪ The basic chemical elements and physical structure of proteins ▪ Amino acids as the final products of digestion ▪ Essential/indispensable and non-essential/dispensable amino acids ▪ The biological value of protein ▪ The complementary effect of plant proteins ▪ The properties and digestion of proteins 	<ul style="list-style-type: none"> - Chemical elements and physical structure (chains of amino acids; fibrous and globular proteins) - Some examples of proteins in the body - Three examples of essential/indispensable and non-essential/dispensable amino acids, including histidine as the amino acid essential for children - The need for adequate daily intake of essential/indispensable amino acids - Examples of foods of high and low biological value - Soya protein as an alternative high biological value protein - Examples of the complementary effect of plant protein foods - Properties of proteins - The changes that occur to the structure of protein during preparation and cooking of food - The digestion and metabolism of Proteins
Carbohydrates	<ul style="list-style-type: none"> ▪ The basic chemical elements and physical structure of carbohydrates 	<ul style="list-style-type: none"> - Chemical elements and physical structure (simple diagram of a glucose unit and conversion of monosaccharides to disaccharides)

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Carbohydrates cont.	<ul style="list-style-type: none"> ▪ Classification and food sources of the main groups of carbohydrates: sugars, starches and fibre/non-starchy polysaccharides (NSP) ▪ The relationship between monosaccharides, disaccharides and polysaccharides ▪ The function of carbohydrates ▪ The properties and digestion of carbohydrates 	<ul style="list-style-type: none"> - Food sources of different carbohydrates - Explaining the formation of disaccharides and polysaccharides from monosaccharides - Monosaccharides as end products of digestion - The contribution of each type of carbohydrate to health - Carbohydrates as the optimal source of energy - Recommended daily fibre intake - Impact of over-consumption of different types of carbohydrates - The effects of fibre/NSP on the digestive tract - The health implication of diets low in fibre/NSP - Properties of sugars and starches - The changes that occur to the structure of carbohydrates during preparation and cooking of food - The digestion and metabolism of carbohydrates
Lipids	<ul style="list-style-type: none"> ▪ The basic chemical elements and physical structure of fats ▪ Classification of lipids – fats and oils, cholesterol, lecithin ▪ The main types of fatty acids ▪ Hydrogenated oils and trans and cis fats ▪ The main sources of dietary fats ▪ The value of lipids in the diet (including cholesterol and omega fatty acids) 	<ul style="list-style-type: none"> - Chemical elements and physical structure (fat as being composed of glycerol plus 3 fatty acids; saturated, unsaturated, polyunsaturated, trans and cis fatty acids; omega 3 and omega 6 fatty acids [including simple diagrams of each of these fatty acids]) - Basic description of hydrogenated oils and trans and cis fats - Fatty acids as the end products of digestion - Food sources of the different lipids - Lipids as a concentrated source of energy; potential role in obesity, heart health and cancer - Action of lipids in the body, with particular focus on arterial health; the role of cholesterol in relation to heart health (the function of HDL- and LDL-cholesterol) - The benefits of omega 3 and omega 6 with respect to heart disease risk prevention

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Lipids cont.	<ul style="list-style-type: none"> ▪ Properties and digestion of lipids ▪ The modification of fat intake in accordance with the dietary guidelines 	<ul style="list-style-type: none"> - The changes that occur to the structure of lipids during cooking of food - The digestion and metabolism of lipids - Methods of modifying the use and intake of dietary lipids to reduce the risk of dietary-related disorders and diseases
Vitamins	<ul style="list-style-type: none"> ▪ Definition, scientific names, classification and properties of Vitamins ▪ The main sources and functions of vitamins ▪ Recommended intake of specific vitamins for certain population groups according to National Dietary Guidelines and Nutrient goals and WHO CINDI recommendations ▪ The effect of insufficient and excessive intakes of vitamins ▪ Changes that occur during the preparation, cooking and serving of foods rich in vitamins 	<ul style="list-style-type: none"> - Fat soluble: A – beta-carotene, retinol; , D – cholecalciferol; E – tocopherol; K - phylloquinone - Water soluble: B₁ – thiamin; B₂ – riboflavin; B₃ - niacin; B₆ – pyridoxine; B₉ - folic acid/ folate/folacin; B₁₂ – cobalamin; C – ascorbic acid - Properties of fat-soluble versus water-soluble vitamins - Common sources of the different vitamins - Main functions of the different vitamins - Individuals and groups who have particular vitamin needs - Recommended nutrient intakes: Vitamin C for children, adults, pregnant mothers; folic acid for pregnant mothers - The effects of low and high intakes of vitamins on different population groups (focus on vitamins A, C, D) - The importance of taking dietary sources of vitamins - The role of vitamin supplements and ensuring a safe intake - External conditions (storage, preparation and processing of foods) affecting vitamin stability and the methods used to ensure maximum retention and availability of fat-soluble and water-soluble vitamins
Minerals	<ul style="list-style-type: none"> ▪ Functions and main food sources of key minerals including trace elements ▪ Recommended intake of specific minerals for certain population groups according to National Dietary Guidelines and Nutrient goals and WHO CINDI recommendations 	<ul style="list-style-type: none"> - The functions and common food sources of calcium, potassium, phosphorus, sodium, magnesium, iron, zinc, iodine and fluoride. - Recommended intakes of calcium for children, teenagers and pregnant and lactating mothers - Recommended intakes of iron for male and female adults and for pregnant mothers - Recommended maximum intake of salt (sodium chloride) and of sodium for adults and children

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Minerals cont.	<ul style="list-style-type: none"> ▪ Mineral requirements by different population groups ▪ The effects of and prevention of insufficient intake of certain minerals 	<ul style="list-style-type: none"> - Population groups who require higher intakes of iron (women, growing children, adolescents and the elderly) - Population groups who require higher intakes of calcium (children and adolescents, pregnant and lactating mothers) - Population groups who require higher (labourers, hot countries) 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	<ul style="list-style-type: none"> ▪ Role of water in the body ▪ The importance of an adequate fluid intake ▪ Signs of dehydration 	<ul style="list-style-type: none"> - Basic functions of water in the body - Balancing fluid intake with losses from the body - Recommended daily fluid intake for adults (2 litres) - Population groups who require a higher fluid intake - Symptoms and effects of dehydration
Energy Value Of Foods	<ul style="list-style-type: none"> ▪ The energy value of foods ▪ Food at fast food outlets 	<ul style="list-style-type: none"> - Foods which are high in calories (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 - Critical analysis of most popular fast foods for energy value

Food Habits And Needs

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Factors Affecting Food Choices And Eating Patterns	<ul style="list-style-type: none"> ▪ Psychological, social, economic and technological factors affecting food choices ▪ Availability, accessibility, retailing methods, market influences, global influences ▪ Personal preferences and peer groups 	<ul style="list-style-type: none"> - Understanding of differences in the relative importance and impact of psychological, social, economic and technological factors in the food choices of different groups and individuals - Causes and implications of changing dietary patterns (food availability, accessibility, retailing methods, marketing; global influences [e.g. sustainable consumption]) - Personal food preferences and influence of peer groups in different settings

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Nutrient Goals And Dietary Guidelines	<ul style="list-style-type: none"> ▪ Nutrient goals and dietary guidelines for the Maltese nation 	<ul style="list-style-type: none"> - Definition and function of nutrient goals and dietary guidelines - The WHO/CINDI Food Pyramid and CINDI dietary guidelines; justification of the 12 steps to healthy eating - Recommended percentage of energy intake from carbohydrates, sugars, proteins, fats and saturated fats - Recommended daily fibre intake and dietary cholesterol intake
Physiological Requirements For Nutrients	<ul style="list-style-type: none"> ▪ Specific and changing nutrient needs of individuals ▪ Adequacy of certain nutrient intakes for specific groups in various stages of the life-cycle 	<ul style="list-style-type: none"> - Pregnancy and lactation - Lactose intolerance - Coeliacs (Gluten-free) - Diabetics (Low in energy, sugar, fats, salt) - Hypertensives (Low salt) - Vegetarians - Elderly - Illness and convalescence (fever, gastroenteritis) - Comparing stated intakes to the recommended intakes of certain vitamins and minerals for specific population groups
Energy Needs Of Individuals	<ul style="list-style-type: none"> ▪ Energy balance and imbalance and the effects on health ▪ Factors which influence energy intakes ▪ Healthy weight management 	<ul style="list-style-type: none"> - Meaning of energy input and output - Effects of imbalance: Overweight and obesity versus wasting and their implications for health - BMI ranges and BMI as an indicator of increased risk for health problems - Changing energy needs throughout the life-cycle, focusing on level of activity, rate of growth, age, body size and gender; to include: <ul style="list-style-type: none"> - Babies (0-1 years) - Pre-school children (1-4 years) - Growing school children (5-10 years) - Adolescence (2nd growth spurt) - Pregnancy and lactation (foetal nutrition and production of milk, respectively) - Adults (sedentary vs. active) - Elderly (healthy or ill) - Healthy weight management practices: choice of diet and physical activity

Applied Nutrition

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
The Concept Of A Balanced, Optimal, Prudent Healthy Diet	<ul style="list-style-type: none"> ▪ A balanced diet for all based on the national nutrient goals and dietary guidelines 	<ul style="list-style-type: none"> - Menu and meal planning based on the national and CINDI dietary guidelines - The importance of a balance in menu and meal planning to include: nutrients, energy value, colour, texture, flavour
The Concept Of A Balanced, Optimal, Prudent Healthy Diet cont.	<ul style="list-style-type: none"> ▪ Recipe modification to increase health value ▪ The role of traditional foods in promoting healthy diets 	<ul style="list-style-type: none"> - Strategies for modifying recipes to make them healthier - The value of traditional Maltese dishes and how recipes can be modified to make them healthier if necessary (e.g. <i>bigilla</i>, <i>torti</i>, <i>brunġiel/qarabagħli mimli</i>, <i>timpana</i>, <i>pulpetti tal-hut</i>, <i>stuffat tal-fenek</i>, <i>soppa tal-armla</i>, <i>figolla</i>)
The Relationship Between Diet And Health	<ul style="list-style-type: none"> ▪ Common meal patterns, changing dietary practice and health ▪ Diet-related disorders and diseases common and emergent in Malta ▪ Vegetarian diets and health ▪ Dietary needs for different stages in the life cycle 	<ul style="list-style-type: none"> - Prevalence of snacking and skipping breakfast; the consistent use of convenience foods, take-out food and food consumption outside the home; awareness of health-related advantages and disadvantages of organic farming and GMOs; fad diets and eating disorders and how to make wise food choices to ensure healthy eating - The role of diet in the development and prevention of obesity, diabetes, coronary heart disease, hypertension, dental caries, diverticulosis, osteoporosis, constipation, anaemia, some cancers (e.g. colorectal cancer), eating disorders - Food intolerances: lactose intolerance, gluten intolerance (coeliac) and peanut allergy - Types of vegetarian diets: lacto, lacto-ovo, pescio, vegans - The health benefits of vegetarian / plant-based diets - 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 - Identification of population groups at risk through low or high intakes of specific nutrients

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

Food Production

Trends And Concerns in Food Production	<ul style="list-style-type: none"> ▪ Awareness of present day trends and concerns in food production • Impact of source and transportation of food on the environment 	<ul style="list-style-type: none"> - Current consumer concerns, such as the use of GMOs, pesticides, artificial fertilisers, additives, irradiation - Production, benefits and safety issues related to GMOs and functional foods - Process, advantages and disadvantages of organic farming, aquaculture, hydroponics - Animal rearing and slaughtering procedures - Animal transmission of disease to humans - Sourcing local food (familiarity with local food, higher freshness and nutritive value of food, appreciation of seasonality, sustaining local economy) - Food miles (impact on energy use for transportation, impact on air pollution)
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<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Commercial Distribution And Storage Of Food	<ul style="list-style-type: none"> ▪ Means and safety of food transportation ▪ Storage of food in shopping outlets 	<ul style="list-style-type: none"> - Food hygiene and safety in transportation, with a focus on warehouse storage and refrigerated ships - Safe food storage at shopping outlets: use of coolers/chillers/freezers, length of time in storage - Safety standards: basic understanding of HACCP
Food Packaging	<ul style="list-style-type: none"> ▪ Food safety ▪ Environmental protection ▪ Cost to consumer 	<ul style="list-style-type: none"> - Modified atmosphere packaging - Vacuum packaging - Toxicity of materials - Migration of plasticisers - Tamper-proof seals - Sustainability of materials - Air pollution due to production process - Waste generation - Recyclability and (bio) degradability of packaging - Cost to consumers of different packaging material and of shelf-life of packaging
Food Labelling	<ul style="list-style-type: none"> ▪ Food labelling ▪ Symbols on food labels and their impact on consumer choice and health ▪ Claims and endorsements on food labels and their impact on consumer choice and health 	<ul style="list-style-type: none"> - The importance of proper labelling - Basic EU regulations on food labelling: e.g. 'Best before', 'Use by' and 'Expiry' dates; name and address of manufacturer; servings; method of storage, preparation and serving; weight; place of origin; nutritional analysis of food - Identification and use of Organic, Gluten Free, Vegetarian and Fair Trade symbols - Information about recycled and recyclability properties of packaging, including identification of symbols - Interpreting and using claims for making appropriate food choices - Potential for consumer miscomprehension: e.g. <ul style="list-style-type: none"> - A low-fat product may be high in sugar and salt content - A high fibre food may be high in salt - Iron deficiency may occur due to decrease of red meat/eggs often advised in relation to management of cholesterol - Excess fibre may lead to deficiencies due to binding with minerals

Food Commodities

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Different Foods	<ul style="list-style-type: none"> ▪ Classification of the food: <u>Plant sources</u> including wheat, rice, flour, potatoes, fruits, vegetables, pulses, TVP and soya products <u>Animal sources</u> including meat, poultry, rabbit, fish, eggs, milk, fermented dairy products (cheese [ricotta, <i>gbejniel</i>] and yogurt) ▪ Production of the food ▪ Products of the food ▪ Structure or composition of the food ▪ Different types of the food ▪ Nutrient content ▪ Consumer choice ▪ Uses of the food ▪ Methods of cooking the food and different outcomes 	<ul style="list-style-type: none"> - The main classification of different varieties within the food - The main steps in food production, outlining underlying scientific principles involved: whole grains vs. refined grains; different types of milk and their production; yoghurt and cheesemaking - Different fresh and preserved products of specific foods - The physical structure or composition of the food - Identification of different types of food within a particular classification (e.g. cod and plaice are different types of white fish) - Emphasis on the nutrients that are present in the food in high and useful amounts - Any key nutrients lacking in the food - Guidelines for consumers when purchasing the food - What to look for when checking for freshness - Different functions of the food. - Particular recipes where the food is a main ingredient. - Emphasis on traditional recipes using the food. - Different cooking methods that are used to cook specific foods, outlining underlying scientific principles. - Preparation of food for the different cooking methods - Effects of different cooking methods on the appearance, taste, smell, texture and nutritional value of the food.

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Different Foods cont.	<ul style="list-style-type: none"> ▪ Ensuring the retention of nutrients ▪ Storing the food 	<ul style="list-style-type: none"> - The effect of dry and moist heat on the retention of nutrients: <ul style="list-style-type: none"> - Steaming better than boiling - The use of a microwave oven or pressure cooker to reduce cooking time - Last-minute preparation of fruit and vegetables – no soaking in water - Proper storage of dry goods and perishable foods - Proper use of refrigerator and freezer - Appropriate storage to retain freshness and nutritional value of food

Food Spoilage And Preservation

<u>Concept</u>	<u>Expected Knowledge</u>	<u>Amplification</u>
Food Spoilage	<ul style="list-style-type: none"> ▪ The main types of food spoilage ▪ The principles underlying the growth and control of micro-organisms: bacteria, moulds and yeasts ▪ The beneficial and adverse effects of micro-organisms and enzymes in the production of foods 	<ul style="list-style-type: none"> - Common examples of microbial (fermentation), biological (over ripening) and chemical (oxidation) food spoilage - Types of micro-organisms and the conditions necessary for growth and multiplication - Principles underlying the effects of the use of micro-organisms and enzymes in specific foods, such as cheeses and yoghurt - Implications for consumer health
Food Poisoning	<ul style="list-style-type: none"> ▪ Food poisoning organisms and susceptible foodstuffs ▪ Process and symptoms of bacterial food poisoning ▪ High-risk situations ▪ Local regulations regarding food safety ▪ Definition and key features of HACCP 	<ul style="list-style-type: none"> - Causes, process (including incubation period) and symptoms of bacterial food poisoning (namely: salmonella, bacillus cereus and E Coli) - Common situations with potential for food poisoning outbreaks - Basic strategies for safe food handling at school, at work, at the beach, during picnics or BBQs, in food kiosks or food stalls - Food handling certification and food safety inspections, including basic features of HACCP; implications for consumer health and food handling practices
The Preservation Of Food	<ul style="list-style-type: none"> ▪ The scientific principles underlying different methods of preservation ▪ Home refrigeration and freezing 	<ul style="list-style-type: none"> - Dehydration, heat treatment, low temperatures (freezing and chilling), chemical preservatives (traditional and permitted), curing and irradiation. - Equipment and procedures for efficient and safe refrigeration/ freezing at home

Recommended Textbooks

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

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

Manual of Nutrition
MAFF: the Stationary Office (ISBN 0-11-242991-2)

Food and Nutrition
Anita Tull, Oxford University Press (ISBN 0-19-832766-8)

Cooking Explained
Barbara Hammond and Jill Davies, Longman (ISBN 0-582-30573)

Recommended Reference Book

Understanding Nutrition
Ellie Whitney & Susan Rady Rolfes, Thomson Learning Inc. (ISBN 0-534-62242-9)

Useful Online Sources

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

Ministry for Social Policy
www.sahha.gov.mt

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

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

Ministry of Education
www.education.gov.mt

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

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

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

Caritas Malta
www.caritasmalta.org

Oasi Foundation – Gozo
www.oasi.org.mt

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

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

Dolceta – Online Consumer Education
www.dolceta.eu

7. Coursework (Paper III)

Candidates will be required to present:

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

- a related experiment AND
- a food production task or culinary skill.

The Task may include a classic scientific experiment, a comparative experiment involving food production and testing or sensory analysis, and production of a food, dish or menu to apply nutrition knowledge and demonstrate particular culinary skills. Candidates are required to present a report outlining the whole process involved in the execution of their task and discussing aims, choice of procedures, realisation, outcomes and evaluation. The inclusion of graphical evidence is recommended.

Part ii. An *Investigation* based on one of the Option Areas: i.e. Food Technology, Child Development, Senior Members of Society, Hospitality Services and Textile Studies. Candidates are expected to use two different research techniques from the following: an argumentative researched essay, a report on a visit, an interview, a survey by questionnaire, a comparative survey of products and services, a textile scientific experiment, a case study, a product analysis, an audio-visual presentation, a practical demonstration, recipe development activities, an original product /production. The two techniques should be different from those used in the Food Study Task.

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.

For the Investigation, *Housing* and/or *Sustainability of the Environment* may be incorporated as underlying themes, or as secondary foci in any piece of research within the different Option areas.

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 coversheets 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. OPTION AREAS

A: Food Technology

This option area focuses on the ability to research, select, comprehend and interpret scientific evidence of current technological developments, applied to foodstuffs. The opportunity to encourage creativity is also provided.

Suggestions and Ideas:

- New and alternative methods for the production of foodstuffs (e.g. organic farming, biological pest control, hydroponics, genetic modification, aquaculture, humane animal rearing, the routine use of antibiotics, transmission of diseases through animals, etc.)
- The implications of technology on the processing, packaging and storage of foodstuffs (economic, environmental, nutritional and health perspectives)
- Food quality, safety and legislation
- Creating innovative food products/ processes/ packaging for specific purposes.

B: Child Development

This option area is concerned with the development and care of pre-school children (1-4 years) and primary school children (4-10 years) within the family environment and the community.

Suggestions and Ideas:

- The social, emotional, physical and mental development of the young
- Relationships, values, family life styles and parental responsibilities
- Provisions to meet the changing needs of children (health, safety, education and protection)
- The inclusion of children with special needs.

C: Senior Members of Society

This option focuses on the role and contribution of senior members to society. Adaptations to changing circumstances are also addressed.

Suggestions and Ideas:

- Preparation and coping with retirement
- The emotional, social and economic aspects throughout retirement
- Maintaining a healthy and active lifestyle
- The contribution and active participation within the family and the community
- Welfare provisions and support services

D: Hospitality Industry and Services

This option enables students to gain an insight into the importance of suitable, safe and pleasant environments in the hospitality service industries. The application of this knowledge can be used both in the home and in the community.

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 natural environment and environment-friendly practices of the hospitality industry

E: Textile Studies

This option enables students to develop scientific knowledge and creative skills in the field of fashion, textiles and technology. This knowledge forms the basis for the choice of suitable personal and household textiles, for use in a rapidly changing society.

Suggestions and Ideas:

- Structure and its effect on the properties of fibres, yarns and fabrics (e.g. insulation, resiliency, elasticity, absorbency, permeability, stability, flammability, resistance to abrasion, light and cleaning procedures, etc.)
- The evaluation of the physical and chemical properties of natural, regenerated and synthetic fibres.
- The selection, care and use of textiles for personal and household use.
- The re-use and recycling of textiles.
- The economic, cultural, social and technological influences on fashion and household textiles.
- The creative use and re-use of textiles.

GUIDELINES FOR THE FOOD STUDY TASK
Paper III (part i)
(50 marks - 5% 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 around the chosen commodity. Candidates are encouraged to carry out a scientific or comparative experiment, as well as some form of food production to demonstrate application of nutrition knowledge, innovation and/or culinary skills.

The emphasis is on the:

- Formulation of a plan of action
- Choice of resources and procedures
- Realisation of the plan of action
- Demonstration of initiative, creativity and originality
- Competency in organisational, technical and presentation skills
- 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 graphical (e.g. photo, video) evidence.

The Food Study Task report should be presented in line with the below template. The required length is of **approximately 8-10 pages** (excluding Title page).

REPORT TEMPLATE FOR THE FOOD STUDY TASK

The following template should be used to guide the writing up of the report for the Food Study Task. The recommended length is approximately **8-10 pages** (excluding Title page).

Title of Food Study	- Title, candidate's name, date	
Aims and Design (approx. 1 page) (max. 4 marks)	- Outline of aims and simple introduction to tasks (food experiment and food production/ culinary skill component). - Explanation of the process of the food study tasks.	
Implementation and Presentation of Results (approx. 4-6 pages) (max. 25 marks)	- Step-by-step record of the process (text and photographic evidence if appropriate) - For the experiment, should include the aim, apparatus required, method, results and conclusions. - For the food production or culinary skill component, should include a time plan, evidence of implementation, discussion of outcomes.	
Nutritional Analysis (of food product / dish / meal) (approx 0.5 page) (max. 8 marks)	Nutrient	Analysis (per item / portion / dish)
	Protein	
	Carbohydrates	
	<i>of which Sugars</i>	
	Fat	
	<i>of which Saturated Fats</i>	
	Sodium	
	Fibre	
	Other (Optional):	
Cost Analysis (of food product / dish / meal) (approx. 0.5 page) (max. 3 marks)	Item	Cost
		Total Cost=
Evaluation of task (approx. 2 pages) (max. 10 marks)	- Critical discussion of the various results of the study and of the actual procedures.	

GUIDELINES FOR THE INVESTIGATION

Paper III (part ii)

(100 marks - 20% of total mark)

As a general guide for a particular investigation marked out of 100, assessment should be based on the following criteria:

Title Analysis, Aims and Research Techniques (Max. 20 marks)

Candidates should be able to:

- select the topic or area of study and give a detailed analysis of all factors involved
- identify particular areas of priority and give a reasoned account for the chosen investigatory procedures

Research Design and Recording of Information (Max. 15 marks)

Candidates should be able to:

- justify use of a variety of methods of investigation thoroughly and well, and develop a worthwhile study
- collate and present data including local information

Planning, Organisation and Implementation of Investigative Techniques (Max. 25 marks)

Candidates should be able to:

- analyse the results from the initial research
- draw detailed conclusions and make well reasoned decisions
- show effective use of the evidence gained from preliminary findings to organise and plan further in-depth research and a worthwhile study
- clearly indicate the field of study, stating the priorities, and show the ability to make informed judgements based on the evidence found
- plan and organise the logistics to implement the research
- carry out a number of different, appropriate methods of enquiry at a high level
- demonstrate skilful realisation of investigatory work

Presentation and Discussion of Results (Max. 20 marks)

Candidates should be able to:

- present results accurately and effectively
- show linkages between results from different investigative techniques
- give a critical discussion of the results and their implications
- present justified overall conclusions

Evaluation (Max. 20 marks)

Candidates should be able to:

- present a critical analysis of the effectiveness of the study and of the course of action from which the study developed
- identify and outline possible future developments as a result of the research.

The Scope of the Investigation

The Investigation report should not exceed 40 pages (excluding the Appendices, Bibliography and pages showing solely Tables, Figures, diagrams, plates or photos.). 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.

In pursuit of efficiency it is recommended that candidates should:

- avoid titles of a general nature which will generate numerous wide-ranging activities;
- use the evidence from secondary research to select no more than three practical activities which can feasibly be undertaken within the allocated time;
- select titles which will limit the amount of secondary information recorded;
- limit the scope of their secondary research to those aspects which are specific to the assignment – wide-ranging research into every aspect of the topic is not expected.

Presentation of the Investigation Report:

It is recommended that the investigative activities undertaken by candidates should be written up in a report using a format similar to that set out below.

- **Title** – This should be focused and provide a concise summary of the main idea of the investigation. The investigation selected should offer appropriate intellectual challenge and be capable of being investigated at Advanced Matriculation standard. A title which is of a general nature and invites a project style approach should be avoided.
- **Introduction** – The area, problem or issue being studied should be specified and an explanation of why it is important provided. The introduction should indicate the connections and relationships between the specification content. Relevant theory which supports the issues being investigated should be included and used to clarify how and why the aim(s) were derived. The style should be in the form of an “argued essay”.
- **Statement of Aims (and/or objectives)** – The aim(s) of the research component should be stated in a clear, logical and focused manner which clarifies the title. One realistic and succinct aim is preferable to three or four aims which may be vague and unclear. The aim(s) should be capable of being realised in the allocated time.
- **Methods** – This section should include a description of what was done and why, and indicate how the investigation(s) undertaken have fulfilled the aim(s). The write-up should be concise yet sufficiently detailed to permit the replication of the investigation(s). The description of the design of the investigation might include:
 - identification of the main issues;
 - the method of approach and why this method was chosen, e.g. link with the aim(s) and the secondary research;
 - the procedures employed to collect the data, e.g. questionnaires, interviews, case studies, observation, sensory analysis, experimental work, recipe development activities, product analysis or development;
 - relevant characteristics of the participants, e.g. numbers, gender, age;
 - ethical considerations;
 - percentage response;
 - how the results compare with relevant secondary research;
 - the limitations of any procedure or method employed and any problems encountered;
 - some evaluation with reasoned justification and discussion of the issues.
- **Results and Discussion** – Data should be summarised and set out in a logical format. Tables and figures should be presented within the text, appropriately titled. Some interpretation and reasoned discussion of the results should be provided. The results should be compared with the relevant secondary research. Results should be evaluated realistically and critically.
- **Conclusions** – In relation to each aim, a statement of what has been concluded should be provided along with a reasoned explanation based on the theoretical evidence previously cited. Where an aim cannot be realised because of the findings or where the findings are contradictory, a reasoned explanation should be included. A brief evaluation of the strengths and weaknesses of the investigation and of the research process should be included along with suggestions for improvement. Areas or issues for future research might be suggested and justified.
- **Bibliography** – 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** – Include evidence to support and justify statements and decisions documented in the report. For example, an original questionnaire or interview schedule, primary research data, an example of letters written and received, relevant secondary research data and photographic evidence might be included.

Note: The text should be on one side of A4 paper only. It should be legible, in hand-written or printed form, and the pages numbered.

ASSESSMENT CRITERIA FOR THE FOOD STUDY TASK

For a Food Study Task marked out of 50, the following criteria should be adopted:

Aims and Design		(Max. 4 marks)
0-2	- Limited and unclear explanation of the aims and design of the food study tasks	
3-4	- Thorough and clear explanation of the aims and design of the food study tasks	
Implementation and Presentation of Results		(Max. 25 marks)
0-10	- Required considerable help in the formulation of a plan of action and choice of procedures - Showed low level of competence in management, organisational and technical skills - Poor and inaccurate presentation of results	
11-19	- Some assistance required in the formulation of a plan of action and choice of procedures - Showed competence in a number of management, organisational and technical skills - Appropriate presentation of results	
20-25	- Detailed formulation of a plan of action and choice of procedures carried out independently - Showed a high level of competence in management, organisational and technical skills - Accurate, concise and excellently presented results	
Nutritional Analysis		(Max. 8 marks)
0-4	- Required considerable help in analysing nutritional value of items prepared for practical session - Incomplete computation of nutritional value - Inappropriate and/or inaccurate presentation of results	
5-8	- Worked independently in analysing nutritional value of items prepared for practical session - Complete computation of nutritional value - Accurate and excellently presented results	
Cost Analysis		(Max. 3 marks)
0-1	- Incomplete shopping list and/or cost of ingredients/materials missing	
2-3	- Complete shopping list and accurate calculation of cost of ingredients/materials	
Evaluation		(Max. 10 marks)
0-4	- Limited and superficial evaluation with no identification of strengths and limitations for both practical session and experiment	
5-8	- Adequate evaluation with some strengths and limitations identified for the practical session and experiment	
9-10	- Thorough evaluation of both the practical session and experiment	

(Note: Mark obtained by candidate out of 50 marks, divided by 10 will give mark out of 5% which is the weighting of the Food Study Task.)

ASSESSMENT CRITERIA FOR THE INVESTIGATION

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

Title Analysis, Aims and Research Techniques		(Max. 20 marks)
1-5	<ul style="list-style-type: none"> - Needs help to select topic/area and briefly analyses title. - Presents a number of themes to be explored in the study without showing depth and understanding in presentation of arguments. - Requires help in choosing techniques and suggests some relevant aims for each technique. 	
6-13	<ul style="list-style-type: none"> - Independently selects topic/area and carries out a good analysis of title. - Presents a number of themes to be explored in the study, showing good argumentation. - Chooses techniques independently and presents some relevant aims for each technique. 	
14-20	<ul style="list-style-type: none"> - Shows creativity in selecting topic/area and presents a detailed title analysis. - Presents the main themes to be explored in the study comprehensively, showing very good argumentation when analysing and exploring the themes. - Chooses techniques independently and presents detailed and relevant aims for each technique. Shows clear evidence of understanding of initial research. 	
Research Design and Recording of Information		(Max. 15 marks)
1-5	<ul style="list-style-type: none"> - Outlines briefly the advantages and disadvantages of each chosen research technique and gives few suggestions on how problems could be overcome. - Presents a research chapter which deals with the topic in question, but is not sufficiently focused. - Limited reference to the local or international situation. 	
6-10	<ul style="list-style-type: none"> - Presents a discussion of advantages and disadvantages of each chosen research technique and gives suggestions on how problems could be overcome. - Presents a focused research chapter, which deals with the topic in question, but shows inadequate understanding of the research presented. - Some reference to the local or international situation. 	
11-15	<ul style="list-style-type: none"> - Presents a detailed discussion of advantages and limitations of each chosen research technique, outlining how the techniques complement one another, and gives practical suggestions on how problems could be dealt with. - Presents a focused and thorough research chapter, which deals with the topic in question and shows clear understanding of the research presented. - Makes good reference to the local or international situation. 	
Planning, Organisation and Implementation of Investigative Techniques		(Max. 25 marks)
1-8	<ul style="list-style-type: none"> - Presents a plan of action which is not detailed and which does not mention the most important factors which need to be considered during the study. - Techniques executed, but not necessarily in an efficient or logical manner and sequence. Shows limited planning and preparation for each technique. - Limited links between one technique and another. - Reports of techniques used are limited, showing that skills related to the use of the investigative methods have not been grasped. 	
9-16	<ul style="list-style-type: none"> - Presents a detailed plan of action, but which does not adequately refer to all the important factors which need to be considered during the study. - Techniques executed in a relatively efficient and logical manner and sequence, showing planning and preparation for each technique. - Shows links between one technique and another. - Detailed reports of techniques used are presented, showing that skills related to the use of investigative methods have been grasped and practised. 	
17-25	<ul style="list-style-type: none"> - Presents a detailed plan of action and refers to all the most important factors which need to be considered during the study. - Techniques executed, in an efficient and logical manner and sequence, showing thorough planning and preparation for each technique. - Amply presents links between one technique and another. - Very detailed reports of techniques used are presented, showing that skills related to the use of investigative methods have been grasped and effectively practised. 	

Presentation and Discussion of Results		(Max. 20 marks)
1-5	<ul style="list-style-type: none"> - Poor presentation and discussion of findings of each technique. - A limited final discussion in which the information obtained through research, knowledge gained through the techniques and personal opinions are poorly presented. 	
6-13	<ul style="list-style-type: none"> - Adequate presentation and discussion of findings of each technique. - A good final discussion in which the information obtained through research, knowledge gained through the techniques and personal opinions are adequately presented. 	
14-20	<ul style="list-style-type: none"> - Very good presentation of findings of each technique. - A very detailed final discussion in which the information obtained through research, knowledge gained through the techniques and personal opinions are comprehensively presented. 	
Evaluation		(Max. 20 marks)
1-5	<ul style="list-style-type: none"> - 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. - Makes limited reference to possible areas of further study resulting from this piece of work. - No or very limited List of References / Bibliography included. 	
6-13	<ul style="list-style-type: none"> - Provides a satisfactory assessment of the work undertaken and of the results, and analyses the contribution these make to the effectiveness of the study. - Identifies, giving basic reasons, possible areas of further study resulting from this piece of work. - Adequate List of References / Bibliography included. 	
14-20	<ul style="list-style-type: none"> - Provides a critical analysis of the effectiveness of the study and of the course of action from which it developed. - Identifies, with thorough justifications, an extensive range of possible areas of further study resulting from this piece of work. - Extensive List of References / Bibliography included. 	

(Note: Mark obtained by candidate out of 100, divided by 5 will give mark out of 20% which is the weighting of the Investigation.)

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.

Centre Name: _____ Centre Number: _____

Candidate’s Name: _____ Candidate’s Number: _____

Syllabus Number: _____ Paper Number: III Part i

Food Study Task Title: _____

		Tutor	Moderator	FINAL MARK
Aims And Design	4 marks			
Implementation And Presentation Of Results	25 marks			
Nutritional Analysis	8 marks			
Cost Analysis	3 marks			
Evaluation	10 marks			
Total Mark	(Max. 50 marks)			

FINAL MARK (max. 5%): _____

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 – 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.

Centre Name: _____ Centre Number: _____
 Candidate’s Name: _____ Candidate’s Number: _____
 Syllabus Number: _____ Paper Number: III Part ii
 Title: _____ Option Area: _____

	TUTOR	MODERATOR
Title Analysis, Aims and Research Techniques (20 marks)		
Research Design and Recording of Information (15 marks)		
Planning, Organisation and Implementation of Investigative Techniques (25 marks)		
Presentation and Discussion of Results (20 marks)		
Evaluation (20 marks)		
Total Mark (Max. 100 marks)		

FINAL MARK (max. 20%): _____

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)**

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)**

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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