



**MCAST**

**MQF Level 4**

**CA4-A2-21**

**Advanced Diploma in Cultural Heritage Skills**

**Course Specification**

## **Course Description**

This course addresses the needs of the Cultural Heritage sector in order to support the management, conservation and preservation of such heritage. Successful candidates will be able to ethically collaborate with relevant stakeholders, and would work under the supervision of one of these. Initially, the programme of studies provides the necessary applied theoretical material and ethical background for further training in technical aspects of cultural heritage and heritage skills. Options in the second and third year of the programme, which are open subject to demand and viability, include stone, metals, books, paper and textiles heritage skills, with training being carried out in workshops, laboratories and on site.

## **Programme Learning Outcomes**

At the end of the programme the learner will be able to:

- 1. Follow and communicate procedures and processes in the cultural heritage workplace;*
- 2. Demonstrate skills linked to the understanding of collections and/or sites;*
- 3. Demonstrate technical and/or craft-based skills to support cultural heritage professionals;*
- 4. Apply knowledge, skills and competences in cultural heritage ethically.*

## **Entry Requirements**

MCAST L3 Diploma

or

4 SEC/O-Level/SSC&P (Level 3) passes;

## **Other Entry Requirements**

Applicants are asked to sit for an interview.

## **Current Approved Programme Structure**

<b>Unit Code</b>	<b>Unit Title</b>	<b>ECVET</b>	<b>Year</b>
CACLH-403-2101	Cultural Heritage: Theory & Ethics	3	1
CACLH-406-2102	Contextual Studies	6	1
CACLH-403-2103	Understanding Collections & Sites I	3	1
CACLH-406-2104	Documentation Techniques	6	1
CACLH-406-2105	Exhibition Preparation	6	1
CACLH-403-2106	Prevention and Maintenance	3	1
CACLH-409-1607	Science for Cultural Heritage I	9	1
CACLH-406-2107	Care of Collections	6	1
CACLH-403-1609	Introduction to Materials, Processes and Technical Skills	3	1
CACLH-403-2108	Health and Safety at Work	3	1
CDKSK-406-2001	English	6	1
CDKSK-406-2109	Information Technology	6	1
CACLH-406-2109	Understanding Collections & Sites II	6	2
CACLH-406-2110	Science for Cultural Heritage II	6	2
CACLH-403-2111	Storage and Exhibition Skills I *	3	2
CACLH-403-2112	Books, Paper and Textiles Heritage Skills *	3	2
CACLH-406-1613	Wood Heritage Skills *	6	2
CACLH-406-2113	Stone Heritage Skills *	6	2
CACLH-406-2114	Metal Heritage Skills *	6	2
CACLH-406-2115	Understanding Collections & Sites III	6	2
CACLH-406-2116	Science for Cultural Heritage III	6	2
CACLH-403-2117	Storage and Exhibition Skills II **	3	2
CACLH-409-2118	Books & Paper Heritage Skills **	9	2
CACLH-409-2122	Textiles Heritage Skills **	9	2
CACLH-412-2119	Wood Heritage Skills II **	12	2
CACLH-412-2120	Stone Heritage Skills II **	12	2
CACLH-412-2121	Metal Heritage Skills II **	12	2
CDKSK-404-1915	Employability and Entrepreneurial Skills	4	2
CDKSK-402-2104	Community Social Responsibility	2	2
CDKSI-406-1901	Il-Malti għall-Istitut tas-Servizzi fil-Komunità, tax-Xjenzi Applikati u għall-Arti Kreattiva	6	2
<b>Total ECVET</b>		<b>120</b>	<b>/</b>

\* During the second year of the programme students are to choose from 2 possible options:

- **Option 1**- Storage and Exhibition Skills + Books, Paper and Textiles Heritage Skills + Wood Heritage Skills
- **Option 2**- Stone Heritage Skills + Metal Heritage Skills

The above units will fall under the Apprenticeship Scheme

\*\* During the second year of the programme, students are to choose from 5 possible options

- **Option 1**- Storage and Exhibition Skills II + Books & Paper Heritage Skills
- **Option 2**- Storage and Exhibition Skills II + Textiles Heritage Skills
- **Option 3**- Wood Heritage Skills II
- **Option 4**- Stone Heritage Skills II
- **Option 5**- Metal Heritage Skills II

The above units will fall under the Apprenticeship Scheme

## **CACLH-403-2101 Cultural Heritage: Theory & Ethics**

**Unit level (MQF): 4**

**Credits: 3**

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### **Unit Description**

This unit will define cultural heritage and will introduce the distinction between its conservation and restoration; a discussion of values, including those tied to vandalism and repatriation, will be central to this introduction. The unit will address the broader principles of conservation theory and ethics. Attention will be given to the recognition and interpretation of cultural value, and how this may be universally assigned to monuments and sites, as well as artefacts. The unit will focus on the fundamental interpretation of specific, recurring concepts in conservation, such as the issues of contextuality and authenticity, and the treatment of patina and lacunae, and how these concerns have developed over the centuries. Furthermore, learners will familiarise themselves with the key legal implications of conservation in addition to International Charters and Conventions.

### **Learning Outcomes**

**On completion of this unit, the learner will be able to**

- 1. Describe the evolution of contemporary ethics and standards of practice in relation to the recent history of conservation theory in cultural heritage;*
- 2. Explain key recurring concepts in conservation;*
- 3. Analyze and distinguish between different values assigned to monuments, sites and artefacts;*
- 4. Synthesize aspects of national legislation and a number of International Charters in relation to the socio-cultural contexts from which they originate.*

## CAC LH-406-2102 Contextual Studies

Unit level (MQF): 4

Credits: 6

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### Unit Description

Practitioners in the cultural heritage sector need to be knowledgeable about historical, creative and cultural developments that influenced the history of art and architecture and the approaches to the way these were presented over time. Cultural Heritage practitioners also need to be familiar with inventorial standards to be able to describe art and architecture.

This unit revolves around the broad study of works of art and architecture within the context of social, political and technological developments and their impact on aesthetics. This unit also provides guidelines on the research, description and analysis of art and architecture in context from prehistory to today, with particular reference to art and architecture in Malta, together with landmark examples that illustrate the historical development of conservation-restoration theory.

### Learning Outcomes

On completion of this unit, the learner will be able to

1. *Describe works of art and architecture according to basic inventory standards*
2. *Conduct contextual research on the history of western art and architecture*
3. *Analyze significant examples of art and architecture that illustrate the historical development of conservation-restoration theory*
4. *Compare and contrast examples of the history of art and architecture in Malta to the history of western art and architecture*

## CACLH-403-2103 Understanding Collections & Sites I

Unit level (MQF): 4

Credits: 3

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### Unit Description

This unit introduces the learner to the various types of heritage collections and sites and their historical development. Furthermore, it explores the fundamentals and principles of their management and protection, together with the roles and responsibilities of different institutions and professionals. Moreover, through examples of good practice, it shows approaches and methods used within an ethical framework. Documentation will be given importance as will the effective balance between care and use of cultural property. The above is discussed in the light of national and international cultural heritage institutions and entities.

### Learning Outcomes

On completion of this unit, the learner will be able to

1. *Describe the values attached to various collections and sites;*
2. *Explain the fundamentals involved in the management and protection of various collections and sites;*
3. *Outline the underlying principles and practices applied to the understanding of cultural property;*
4. *Compare the different approaches and methods used in the management and protection of cultural property employed in various national and international institutions and entities*

## CAC LH-403-2106 Prevention and Maintenance

**Unit level (MQF): 4**

**Credits: 3**

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### Unit Description

This unit identifies the building which houses a collection as a buffer, following a basic introduction to building materials and construction. It also discusses building maintenance and housekeeping, and how they work together. It outlines what preventive care is and why it is important to preserve our cultural heritage.

Thus the unit highlights the importance of professionally maintaining the building within which a collection is kept. It stresses the value of identifying defects in a building that can lead to environmental instability which in turn affects the preservation of the art objects housed within.

The unit also focuses attention on the objects within the context of the internal environment. It discusses why objects age and deteriorate, outlining the manufacturing techniques of objects together with the sensitivity of materials used. The unit proceeds to introduce the risk factors, including the agents of deterioration associated with the surrounding environment such as RH, temperature, light & UV, pollutants, pests, handling, display, and transportation. The unit also makes learners aware of some instrumentation once the relevant underpinning science is covered.

This unit is directly related to Units 17 and 18. Units 21, 23 , 31 and 33 will build upon material covered in this unit.

### Learning Outcomes

**On completion of this unit, the learner will be able to**

- 1. Explain the relationship between building maintenance and housekeeping when dealing with cultural heritage collections;*
- 2. Define preventive care and its importance in the preservation of cultural heritage;*
- 3. Illustrate the sensitivity of materials used in the manufacture of objects;*
- 4. Assess the agents of deterioration of artefacts and common deterioration processes.*



## **CAC LH-409-1607 Science for Cultural Heritage I**

**Unit level (MQF): 4**

**Credits: 9**

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### **Unit Description**

This unit introduces the basics of chemistry, physics and biology relevant to cultural heritage.

It discusses the principles of chemistry including atoms, molecules, the periodic table, Relative Atomic Mass and Relative Molecular Mass, and atomic structure, together with an introduction to chemical formulae and equations, structure and bonding, states of matter, and reactions. The unit also outlines facts of chemistry, namely pure substances and mixtures, gases in air, together with water and solutions. A basic introduction to organic chemistry might also be provided.

The physics component of the unit introduces basics of motion (including linear motion) and forces (properties of forces and pressure exerted by forces), together with waves (light and optics), and matter (states of matter, density, heat transfer, conductors and emitters of heat, expansion, and evaporation).

The biology part of the unit introduces the living world (living and non-living organisms, the cell, and unicellular and multicellular organisms), and makes reference to the different types of plants associated with cultural heritage.

Whilst providing the underpinning science for Unit 16, this unit serves as the foundation upon which Units 22 and 32 are built.

### **Learning Outcomes**

**On completion of this unit, the learner will be able to**

- 1. Explain theory and basics of chemistry relevant to cultural heritage;*
- 2. Explain theory and basics of physics relevant to cultural heritage;*
- 3. Explain theory and basics of biology relevant to cultural heritage;*
- 4. Relate science to damage and prevention in cultural heritage.*

## CAC LH-406-2107 Care of Collections

Unit level (MQF): 4

Credits: 6

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### Unit Description

This study unit is intended to familiarise learners with the various materials and manufacturing techniques found within historic houses, museums and archival collections, with an emphasis on the importance of preventive conservation which is essential in order to maintain stability of such collections. This knowledge will give the learner the necessary tools to identify the aesthetical and olfactory tell-tale signs of deterioration in its early stages.

This unit includes recommended housekeeping methods, usage of appropriate labelling materials and methods, ways of assessing the collection in order to identify the presence of deterioration in its early stages and understanding when it is important to contact the conservator-restorer for guidance.

This unit is directly related to Unit 16.

### Learning Outcomes

On completion of this unit, the learner will be able to

1. *Distinguish between the various materials present in a collection and describe the preservation problems related to these materials;*
2. *Identify the presence of deterioration and determine when there is the need to contact a conservator-restorer;*
3. *Select the appropriate housekeeping method depending on the materials composing the artefact;*
4. *Label an artefact appropriately using suitable materials and methods.*

## **CAC LH-403-1609 Introduction to Materials, Processes and Technical Skills**

**Unit level (MQF): 4**

**Credits: 3**

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### **Unit Description**

This unit will briefly introduce learners to various materials, techniques and processes, with particular reference to those materials that compose cultural heritage objects. Such materials, techniques and processes will be the focus of in-depth study and practice in the second and third years of the programme. Hence, this unit will support learners in their choice of area of study, for the second year.

Learners will familiarise themselves with a small range of different types of traditional textiles, paper, wood, metal and stone. They will be introduced to their essential properties and characteristics, as well as be taught how to use basic and machine tools and equipment, and simple techniques in order to perform simple practical tasks related to each of these materials.

Such tasks could include the manipulation of different metals such as brass, copper, cast and wrought iron, mild steel and aluminum, the carving of a profile in stone, the crafting of a wood carving/sculpted engraving in wood, together with lino printing and basic weaving, embroidery, macramé, fine hand stitching and printing on fabric.

### **Learning Outcomes**

**On completion of this unit the learner will be able to:**

- 1. Record a variety of materials, techniques and processes related to textiles, paper, wood, metal and stone;*
- 2. Use basic tools and simple techniques related to textiles, paper, wood, metal and stone;*
- 3. Compare and contrast a variety of materials and their properties;*
- 4. Evaluate the result of own practical tasks.*

## **CAC LH-403-2108 Health and Safety at Work**

**Unit level (MQF): 4**

**Credits: 3**

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### **Unit Description**

This unit provides a broad introduction to the general principles of health and safety at work. It outlines the common occupational hazards and risks, and accounts for specifics related to heritage skills sites and workshops, and general science laboratories. Furthermore, this unit enables the learner to work in a manner that improves health and safety in the place of work.

The unit outlines basic EU legal principles in occupational health and safety in accordance with Maltese legislation, and discusses the causes and consequences of inadequate health and safety control. It introduces learners to aspects of accident prevention within the workplace. Furthermore, it discusses workplace conditions and facilities, and equipment (including hazards and control). The unit also goes into the basics of risk assessment. Moreover, it tackles the health and safety matters linked to manual handling, lifting and carrying, hazardous substances, and ergonomics and workplace design.

The unit also provides the learner with the necessary basics in first aid. It defines the roles and responsibilities of a first aider. It provides the knowledge and skills in carrying out a basic assessment of an incident, and through this unit the learner will also know how to examine a casualty, recognise common injuries and types of ill-health and provide appropriate first aid treatment.

The unit also introduces the learner to the principles of firefighting. It discusses fire, its classes, and the way it spreads. Moreover, it outlines the different types of fire extinguishers and their uses and colour codes with a view to the appropriate selection of fire extinguishers in given circumstances as applicable to cultural heritage. It also demonstrates how fire extinguishers are safely used.

### **Learning Outcomes**

**On completion of this unit the student will be able to:**

- 1. Explain occupational health and safety and its importance;*
- 2. Assess, in a basic way, risk at the workplace;*
- 3. Apply basic first aid principles;*
- 4. Apply basic firefighting principles.*

## **CAC LH-406-2109 Understanding Collections & Sites II**

**Unit level (MQF): 4**

**Credits: 6**

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### **Unit Description**

This unit builds upon the basic procedures taken into consideration when managing cultural heritage collections and sites, and discusses these in relation to values, and ethical standards set by recognised national and international cultural heritage organisations. Case studies will be discussed to understand local and foreign examples of good and bad practice.

This unit also treats the management of collections in terms of the basics of preventive care. It gives importance to the teamwork involved in the assessment of a building and its collection within various contexts (both ordinary and extraordinary e.g. fire, floods, theft, vandalism) with a view to identifying risk and possible consequences on a macro and micro scale. In this unit, particular importance will be given to aspects of light, humidity and temperature.

Learners will learn to collaborate with professionals, responsible for the management and protection of a collection and the building within which it is housed, to determine possible preventive solutions that will help reduce the identified risks.

This unit builds on Units 13, 16 and 18 and is directly related to Unit 23. Units 31 and 33 will build upon material covered in this unit.

### **Learning Outcomes**

**On completion of this unit the student will be able to:**

- 1. Argue how procedures in the management of cultural heritage sites relate to the ethical standards established by competent cultural heritage organizations;*
- 2. Categorise care and conservation policies that influence the management and understanding of collections of cultural heritage value;*
- 3. Assess, as part of a team, a building and its collection to identify risk and possible consequences on a macro and micro scale;*
- 4. Determine, possible preventive solutions that help reduce identified risk.*

## CAC LH-403-2111 Storage and Exhibition Skills I

Unit level (MQF): 4

Credits: 3

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### Unit Description

This study unit is designed to further learners' knowledge and skills on the procedures and tasks involved in storage and exhibitions with an emphasis on the importance of preventive conservation in collaboration with and under the supervision of professionals in the field. Skills will be developed in accordance with standards in occupational health and safety.

Sessions will deepen learners' knowledge and skills on the administration, logistics and documentation involved in the storage and exhibition of artefacts. They will also cover materials and methods used in packing and storing different artefacts. This unit will also develop various box-making techniques, conservation mounting and framing, housing of both two-dimensional and three-dimensional objects, correct packing and handling of artefacts during moving and transport.

This unit will also further learners' knowledge and skills in housekeeping methods, and labelling materials and methods.

This unit builds on Units 13, 15, 16, 18 and 20, and is directly related to Unit 21. Unit 33 will build upon material covered in this unit.

### Learning Outcomes

On completion of this unit the learner will be able to:

1. *Apply procedures and methods used in storage and exhibition of artefacts;*
2. *Construct mounts and custom-fit enclosures to support and protect a variety of artefacts;*
3. *Apply appropriate packing and handling methods for movement and transportation depending on the artefact;*
4. *Use appropriate housekeeping methods depending on the material, size and shape of the artefact and its context.*

## CAC LH-403-21 12 Books, Paper and Textiles Heritage Skills I

**Unit level (MQF): 4**

**Credits: 3**

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### Unit Description

This unit provides an introduction to the vocational aspect of books, paper and textiles heritage skills, including an introduction to sewing using hand and machine, weaving (looms, different weaves and their purposes), printing techniques, and pamphlet making. The unit also introduces decoration on manmade organic substrates using pigments and dyes, together with gilding. The study of materials, technology and manufacturing processes also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding and preservation of collections. Ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance.

This unit builds on Units 11, 12, 14, 19 and 20 and is directly related to Units 21 and 22. Units 34 and 35 will build upon material covered in this unit.

### Learning Outcomes

**On completion of this unit the learner will be able to:**

- 1. Describe heritage skills associated with books, paper and textiles;*
- 2. Select materials appropriately according to manufacturing techniques associated with books, paper and textiles heritage skills;*
- 3. Illustrate technology and manufacturing processes associated with books, paper and textiles heritage skills;*
- 4. Apply basic books, paper and textiles heritage skills under supervision with attention to competence, ethics and safety.*

## **CAC LH-406-1613 Wood Heritage Skills**

**Unit level (MQF): 4**

**Credits: 6**

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### **Unit Description**

This unit provides an introduction to the vocational aspect of wood heritage skills, particularly wood types and their provenance, their processing, the basics of local carpentry and joinery, and wood carving, inlaying and marquetry. The unit also covers decoration on wood including gilding, and introduces historical surface coatings and finishes. The study of materials, technology and manufacturing processes also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding and preservation of a historic building/framed artefact. Ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance.

This unit builds on Units 11, 12, 14, 19 and 20 and is directly related to Units 21 and 22. Unit 36 will build upon material covered in this unit.

### **Learning Outcomes**

**On completion of this unit the learner will be able to:**

- 1. Describe wood heritage skills;*
- 2. Select wood appropriately according to construction and manufacturing techniques;*
- 3. Illustrate technology and manufacturing processes associated with wood heritage skills;*
- 4. Apply basic wood heritage skills under supervision with attention to competence, ethics and safety.*



## CAC LH-406-1613 Metal Heritage Skills

Unit level (MQF): 4

Credits: 6

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### Unit Description

This unit provides an introduction to the vocational aspect of metal heritage skills, particularly metals and their alloys, their provenance and processing, architectural metalwork, and basic blacksmithing (including riveting and welding techniques). The unit also covers decoration on metal in particular gilding. The study of materials, technology and manufacturing processes also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding and preservation of a historic building/monument. Ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance.

This unit builds on Units 11, 12, 14, 19 and 20 and is directly related to Units 21 and 22. Unit 38 will build upon material covered in this unit.

### Learning Outcomes

On completion of this unit the student will be able to:

1. *Describe metal heritage skills;*
2. *Select materials appropriately according to manufacturing technique in relation to metal heritage skills;*
3. *Illustrate technology and manufacturing processes associated with metal heritage skills;*
4. *Apply basic metal heritage skills under supervision with attention to competence, ethics and safety.*

## **CACLH-406-2115 Understanding Collections & Sites III**

**Unit level (MQF): 4**

**Credits: 6**

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### **Unit Description**

This unit discusses the roles, collaborative processes, and considerations involved in the interpretation of collections and sites. It evaluates the different possibilities in interpreting collections and sites of cultural heritage importance through narrative/s developed by the presentation of specific objects and corresponding onsite information. It discusses criteria for choices of works of art and recommendations for their storage/exhibition, taking into consideration their conservation, accessibility and public understanding, and the effective use of available space. Case studies will be used to illustrate the above and to facilitate discussion on ethical and cultural issues, and the communication of values and understanding.

This unit further treats the management of collections and sites in terms of basis of preventive care. It gives importance to the teamwork involved in the assessment of a building and its collection within various contexts with a view to rating risk and possible consequences on a macro and micro scale. In this unit, although particular importance will be given to dust, pollutants and biological pests, other risk factors treated in earlier units will be taken into consideration for a more integrated approach to risk management.

Learners will learn how to propose, as part of a team engaged in the management and protection of a collection and the building within which it is housed, an integrated risk management plan.

This unit builds on Units 21 and 23, and is directly related to Unit 33.

### **Learning Outcomes**

**On completion of this unit the student will be able to:**

- 1. Evaluate, as part of a team, the different possibilities in interpreting collections and sites of cultural heritage importance through narrative/s developed by the presentation of specific objects and corresponding onsite information;*
- 2. Compare and contrast the interpretation of collections of cultural heritage value and the dilemmas that arise in terms of exhibition and storage;*

3. *Rate, as part of a team, risks identified on a macro and micro level to a building and its collection;*
4. *Propose, as part of a team, a risk management plan for a building and its collection.*
5. *Apply basic metal heritage skills under supervision with attention to competence, ethics and safety.*

## CAC LH-409-2122 Textiles Heritage Skills

Unit level (MQF): 4

Credits: 9

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### Unit Description

This unit provides an introduction to traditional textile-making technology. It covers sewing, weaving, including traditional lacemaking, dying techniques, basic care and preservation techniques. In this unit learners will also become familiar with the study of associated traditional materials, technology and processes as well as an understanding of damage.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding, maintenance and preservation of textile collections. Legal issues, ethical standards, teamwork, research and documentation, and health and safety issues will also be discussed. Furthermore, the learner will acquire the fundamentals of workshop and studio maintenance.

This unit builds on Unit 24 and is directly related to Units 31 and 32.

### Learning Outcomes

On completion of this unit the student will be able to:

1. *Describe basic traditional textiles technology*
2. *Compare and contrast materials, technology, techniques and damage processes related to textiles heritage skills*
3. *Apply textiles heritage skills under supervision with attention to competence, ethics and safety*
4. *Formulate a report to document the damage, care and preservation of textiles*

## CAC LH-412-2119 Wood Heritage Skills II

**Unit level (MQF): 4**

**Credits: 12**

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### Unit Description

This unit provides an introduction to traditional woodworking technology. It covers wooden frames, apertures and fixtures found in historical buildings, and form work. The unit also further develops carpentry and joinery, and decorative and basic repair techniques. The study of associated traditional materials, technology and processes (including the visual understanding of damage) also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding, maintenance and preservation of frames, apertures and fixtures. Legal issues, ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance. Furthermore, the learner will learn the fundamentals of site, workshop and studio maintenance.

This unit builds on Unit 25 and is directly related to Units 31 and 32.

### Learning Outcomes

**On completion of this unit the student will be able to:**

- 1. Describe basic local traditional woodworking technology;*
- 2. Compare and contrast materials, technology, techniques and damage processes related to wood heritage skills;*
- 3. Apply wood heritage skills under supervision with attention to competence, ethics and safety;*
- 4. Formulate a report to document the repair and maintenance of traditional/historic wooden frames, apertures and fixtures.*

## **CAC LH-412-2120 Stone Heritage Skills II**

**Unit level (MQF): 4**

**Credits: 12**

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### **Unit Description**

This unit provides an introduction to local traditional construction technology. It covers stereotomy, plasters and mortars. The unit also further develops stone dressing techniques and introduces pointing and repair of limestone structures (such as piecing in and dowelling). The study of associated traditional materials, technology and processes (including the visual understanding of damage) also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding, maintenance and preservation of a traditional building/historic construction. Legal issues, ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance. Furthermore, the learner will learn the fundamentals of site, workshop and studio maintenance.

This unit builds on Unit 26 and is directly related to Units 31 and 32.

### **Learning Outcomes**

**On completion of this unit the student will be able to:**

- 1. Describe basic local traditional construction technology;*
- 2. Compare and contrast stone materials, and construction and manufacturing technology, techniques and damage processes;*
- 3. Apply stone heritage skills under supervision with attention to competence, ethics and safety;*
- 4. Formulate a report to document the repair and maintenance of traditional/historic limestone structures.*

## CAC LH-412-2121 Metal Heritage Skills II

**Unit level (MQF): 4**

**Credits: 12**

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### Unit Description

This unit provides an introduction to traditional metalworking technology. It covers metal apertures and fixtures found in historical buildings, wrought iron work, and metal casting techniques. The unit also further develops blacksmithing and decorative techniques, and introduces protection of metal structures (such as corrosion inhibitors and protective coatings). The study of associated traditional materials, technology and processes (including the visual understanding of damage) also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding, maintenance and preservation of metalwork of traditional buildings/historic monuments. Legal issues, ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance. Furthermore, the learner will learn the fundamentals of site, workshop and studio maintenance.

This unit builds on Unit 27 and is directly related to Units 31 and 32.

### Learning Outcomes

**On completion of this unit the student will be able to:**

- 1. Describe basic local traditional construction technology;*
- 2. Compare and contrast materials, technology, techniques and damage processes related to metal heritage skills;*
- 3. Apply metal heritage skills under supervision with attention to competence, ethics and safety;*
- 4. Formulate a report to document the repair and maintenance of traditional/historic metal apertures and fixtures.*

## CAC LH-406-2104 Documentation Techniques

Unit level (MQF): 4

Credits: 6

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### Unit Description

This unit introduces the student to the key importance of documentation and what defines heritage recording. The interpretation of objects in 2D will be explained and learners will be introduced to drawing and drafting techniques.

Photography as a heritage documentation tool will be explained and the learners will be introduced to the importance of information systems. Simple hand tools will be used, and the suitability of each individual tool will be addressed. Good data techniques will also be treated. Attention will be given to the reasons of 'WHY, WHAT, WHEN WHERE and HOW' we record. Case studies will be used to illustrate the different aspects of documentation.

### Learning Outcomes

On completion of this unit the student will be able to:

1. *Define heritage recording and documentation within the context of a historical outline of documentation.*
2. *Use various techniques, tools and equipment to document cultural property.*
3. *Operate data processing and information systems that are appropriate for documentation projects.*
4. *Explain 'WHY, WHAT, WHEN WHERE and HOW' recording of cultural property is required.*



## CAC LH-406-2105 Exhibition Preparation

Unit level (MQF): 4

Credits: 6

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### Unit Description

This study unit is designed to introduce learners with the tasks involved in exhibition preparation and the roles of different stakeholders in exhibitions. It is also intended to familiarise learners with exhibition and storage preparation for various artefacts. These include: drawings, prints and photographs; books and journals; costumes and other textiles; three-dimensional artefacts such as sculptures, vases.

Sessions will introduce learners to the administration, logistics and documentation involved in the preparation of exhibitions. They will also cover the importance of choosing the right materials and adequate packing methods depending on the artefact. This unit will also familiarise learners with various box-making techniques, conservation mounting and framing, housing of both two-dimensional and three-dimensional objects, adequate packing and handling of artefacts during transportation.

### Learning Outcomes

On completion of this unit the student will be able to:

1. *Apply basic approaches and methods used in exhibition preparation.*
2. *Construct simple mounts and custom-fit enclosures to support and protect a variety of artefacts.*
3. *Explain the importance of conservation-grade materials for both exhibition and storage purposes.*
4. *Choose the appropriate packing and handling methods for transportation depending on the artefact.*

## **CAC LH-406-2110 Science for Cultural Heritage II**

**Unit level (MQF): 4**

**Credits: 6**

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### **Unit Description**

This study unit furthers the insight of the learner into the relationship of science and cultural heritage from a material science perspective.

The study unit provides a comprehensive understanding of the different classes of materials including metals and their alloys, ceramics, polymers and composites. It aims to add on to more fundamental topics covered in Science for Cultural Heritage I and will highlight the difference between amorphous and crystalline material types at the microstructure level. Chemical and physical properties including mechanical and thermal properties of different materials classes commonly found in a cultural heritage setting will be discussed. A review of how these materials are obtained from the surrounding environment and processed into the final product will be explained.

The unit explores also the possibilities and limitations of materials and discusses the advantages and disadvantages of different manufacturing processes together with the materials used to bind, decorate, coat and finish the artifacts.

This unit ties in with the practical work the learners concurrently conduct in other units of the course which allows the learner to further understand why specific materials and manufacturing processes are selected, depending on the desired characteristics of the finished product.

This unit is an important foundation for the learner to progress to Unit: Science for Cultural Heritage 3 which will tackle the deterioration of materials in more detail from a scientific perspective.

## Learning Outcomes

On completion of this unit the student will be able to:

1. *Define a variety of organic and inorganic materials from a physical and chemical perspective.*
2. *Describe the basic composition and properties of binders, adhesives, pigments, dyes, coatings and finishings.*
3. *Relate scientific aspects of materials to manufacturing techniques in heritage skills.*
4. *Explain the scientific relationship between environmental conditions including light, humidity and temperature on the well-being of cultural property.*

## CAC LH-406-2116 Science for Cultural Heritage III

**Unit level (MQF): 4**

**Credits: 6**

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### Unit Description

This unit builds on ‘Science for Cultural Heritage 1 & 2’ to provide a more detailed understanding of the intrinsic and external deterioration factors affecting cultural heritage materials. Deterioration will be discussed in relation to specific attributes of different materials and finished objects, and how these agents of degradation interact with specific material types. The science behind chemical, physical and biological deterioration and degradation will be reviewed together with the properties of raw materials, weaknesses, and impurities during the manufacturing phase which can affect the stability of the final product.

The unit will also discuss basic scientific principles associated with the care of cultural heritage property and will give an overview of different types of non-invasive and invasive analytical techniques commonly used in the field of conservation for material identification and deterioration. Moreover, the scientific principles behind the correct display, packing, storage and movement of objects of cultural heritage value will be discussed. Learners will thus be provided with a scientific basis with regards to topics being learned in complimentary units.

Special attention will be given to how dust, pollutants and biological pests affect cultural heritage, since these will be the agents most commonly observed in display environments, and the measures which can be taken against such agents of deterioration will be reviewed.

### Learning Outcomes

**On completion of this unit the student will be able to:**

- 1. Explain damage caused to a variety of materials from a physical and chemical perspective.*
- 2. Discuss scientific aspects of damage to materials and manufacture in cultural heritage.*
- 3. Describe basic scientific principles associated with the care of materials used in cultural property.*

4. *Explain the impact of dust, pollutants and biological pests on the well-being of cultural property.*

## CACLH-412-2119 Wood Heritage Skills II

**Unit level (MQF): 4**

**Credits: 12**

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### Unit Description

This unit provides an introduction to traditional woodworking technology. It covers wooden frames, apertures and fixtures found in historical buildings, and form work. The unit also further develops carpentry and joinery, and decorative and basic repair techniques. The study of associated traditional materials, technology and processes (including the visual understanding of damage) also forms part of the unit.

In this unit knowledge and skills related to the above will be applied under supervision within the context of the management, understanding, maintenance and preservation of frames, apertures and fixtures. Legal issues, ethical standards, teamwork, research and documentation, and health and safety issues will be given due importance. Furthermore, the learner will learn the fundamentals of site, workshop and studio maintenance.

This unit builds on Unit 25 and is directly related to Units 31 and 32.

### Learning Outcomes

**On completion of this unit the learner will be able to:**

- 1. Describe basic local traditional woodworking technology;*
- 2. Compare and contrast materials, technology, techniques and damage processes related to wood heritage skills;*
- 3. Apply wood heritage skills under supervision with attention to competence, ethics and safety;*
- 4. Formulate a report to document the repair and maintenance of traditional/historic wooden frames, apertures and fixtures.*

*For further information, please contact us on [information@mcast.edu.mt](mailto:information@mcast.edu.mt)*