



# MCAST

Malta College of Arts, Science & Technology

**MQF Level 6**

**Bachelor of Arts (Honours) in Spatial Design**

**AD6-08-19**

**Course Specification**

## Current Approved Programme Structure

<b>Unit Title</b>	<b>ECVET/ECTS</b>
Contextual Studies in 3D Design	6
3D Modelling and Animation	6
Communicating through Computer Aided Design	6
Commercial Model Making	12
Digital Visualisation and Post Production	6
Visual Communication in Design	6
Idea Generation & Development in Design	12
Critical Studies & Research Methods	6
Design Principles & Methods	12
Sustainable Spatial Design	6
Residential Design	6
Landscape Design	6
Performance Design	6
Retail Design	12
Professional Practice in 3D Design	6
Project Management	6
Building Technology for Spatial Design	6
Environmental Design	6
Exhibition Design	6
Open Project in 3D Design	6
Furniture Design	6
Entrepreneurship	6
English	6
Critical Thinking	6
Dissertation	12
<b>Total ECVET/ECTS</b>	<b>180</b>

# Contextual Studies in 3D Design

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

Contextual Studies is a theoretical unit that enables learners to locate their own design practice in historical and social contexts. The evolution of design practice will be explored with reference to key events, significant figures and tendencies in the history of Three-Dimensional Design.

The unit also links 3D design to other design, architectural and artistic practices. Lectures which provide introductions to the content of each aspect of the course will be accompanied by seminars, workshops, discussions and screenings, which will enable learners to consider historical developments in relation to contemporary design practice, and their own work.

The unit compliments the practical, visual components of the HD 3-D Design course by providing an arena where relevant contemporary issues can be discussed in relation to historical developments. It aims to underpin and enrich learner's visual practice by providing a secure grounding in key discourses in the evolution of design.

The analysis of specific design examples will be an important focal point, and the unit aims to deepen learners understanding of formal visual language through close examination of historical and contemporary design products. Tasks are set throughout the unit, which are intended to deepen learner's independent research skills.

## Learning Outcomes

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

- 1. Present written evidence of independent research into historical developments in design.*
- 2. Collaborate with others to analyse historical 3D design practice in a social context.*
- 3. Demonstrate in a written case study an understanding of how visual language communicates meaning.*
- 4. Communicate in writing a historically informed understanding of issues arising from contemporary design practice.*

# 3D Modelling and Animation

**Unit level (MQF): 6**

**Credits: 6**

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## Unit Description

The unit is designed to allow learners to gain an understanding of the methodology process and techniques in 3D computer modelling and animation specific for interior design and product design. The purpose of this unit is to introduce the learner to the basic techniques involved in the creation and implementation of a 3D computer model to eventually build a scene and produce an animation for a design brief. This will allow the learner the opportunity to explore a range of 3D designs, 3D model creation and manipulation as well as import from a model library and complete final renders for animation.

The learners will acquire experience by creating a 3D computer model project to a given brief. They will create objects-standard/extended geometry and shapes/splines to build a scene. The learner will import or merge relevant models from library source or 3D model internet sites specific to a 3D scene. The learner will also be able to set up camera views and produce high resolution rendering techniques for animation and export them in the relevant file format.

On completion of this unit the learner will produce a 3D computer scene to a given design brief. As well as create a rendered animation sequence saved in the relevant format and combined in post-production software.

## Learning Outcomes

**On completion of the Unit learners should be able to:**

1. *Identify how the use of 3D computer modelling and animation facilitates the product and interior design industry.*
2. *Produce a 3D model to a given design brief.*
3. *Build a 3D scene and produce an animation to a given design brief.*
4. *Produce a 3D rendered animation sequence saved in the relevant format and combined in post-production software.*

# Communicating Through Computer Aided Design

**Unit level (MQF): 5**

**Credits: 12**

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## Unit Description

Computer Aided Design (CAD) together with image manipulation software are an important means of communicating visual information in many industry sectors, particularly engineering, manufacturing, interior design and product design. In recent years, advances in computer technology and in the software programs themselves have allowed users to create increasingly complex and realistic technical drawings, models and presentation visuals. As with many skills across the design sectors, this technology needs to be underpinned by an understanding of traditional 2D drawing and visualization techniques, as well as an understanding of the appropriate use of the technology within the scope of design projects.

Two dimensional (2D) and three dimensional (3D) CAD artwork, technical drawings and artistic visuals can be rendered and manipulated using a range of software programs, some of which can be integrated, and these visuals can be shared as digital files across computer networks. 3D CAD artwork can be rendered as photo-realistic representations, and animated to produce moving views of products and scenes.

The unit will enable learners to use CAD software programs and Image manipulation programs to produce a variety of 2D and/or 3D drawings, visuals and technical drawings. Learners will also investigate the use of CAD and image manipulation in industry, and identify the range of computer aided design software and their specific use. Learners will evaluate their own use of the technologies within their project work.

This unit has practical outcomes and is intended for delivery as part of a group award, as the learner will use CAD software and image manipulation software to create digital artwork throughout the course, the unit can be integrated into course projects in conjunction with other units.

## Learning Outcomes

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

1. *Research the use and potential of CAD and Image Manipulation software in 2D and 3D Design.*
2. *Use CAD and Image Manipulation software in a design project to produce appropriate 2D and/or 3D artwork, technical drawings and/or artistic visuals.*
3. *Present ideas and design work using 2D applications.*
4. *Evaluate the use of software programmes in a design project.*

# Commercial Model Making

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

The aim of this unit is to introduce learners to various tool, techniques and technologies to build scaled models specifically targeted for the Spatial and Product Design industry. Learners will develop the ability to communicate their projects through physical scaled models.

Learners will initially gain knowledge of the tools, techniques and technologies available to them, through a series of lectures and workshops on both traditional tools to produce test models and using new technologies to produce test models. The learner will also have the opportunity to produce 2D drawings and plans for the commercial production of a model in response to a given brief.

The learners test models, 2D drawings, ideas and planning stage materials will be collated to maintain a record of their development, design and communication skills. The learner will also have time to work independently in studios and workshops, and will communicate their progress through written and verbal dialogues.

Once the learner has received a given design brief or live case scenario from a client, they will have the opportunity to research and analyse the requirements of the brief. Consequently, the learner will then show a clear understanding of the planning and design process, by creating and presenting a detailed model as a finished product. The learner will show they have selected the best option from a variety of choices which they have carried forward to a final design.

Consideration will have to be given to the use of space, practicality, purpose and form as well as budget requirements and health and safety requirements. It is important that the learner is able to communicate all the stages in the production of their final model to maximise the quality of their finished work.

Finally, the learner will have the opportunity to evaluate the success of their final piece and also their progress throughout the unit.

## Learning Outcomes

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

1. *Explain the technological principles of model making in a commercial context.*
2. *Plan a model for a given commercial production.*
3. *Produce test models using traditional tools and new technologies.*
4. *Produce detailed models in response to a brief by employing professional practice in commercial model making.*

# Digital Visualisation and Post-Production

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

In only recent times the design and production of visualisations for 3D Design was almost solely undertaken by visualisation specialists some of whom may have previously studied or been employed as 3D Designers before choosing to branch out into this area. The mass advancement and diversification of software alongside the reduction in cost of both software and hardware has led to a whole range of types of designers developing visualisation skills themselves to communicate their ideas with much greater impact and functionality directly. So much so that the majority of design courses at Colleges and Universities now include core units or modules of study concerned with the development of the skills as a core feature of the designers' toolbox.

With the extent of development of the tools used the gap between standards expected from designers and those expected by cinema going audiences is ever narrowing and photo-realism a must as standard in many visualisation applications.

This unit provides an opportunity for learners to develop crucial skills in research, design, and the full range of production of visualisations for 3D design though it specifically primarily places a keen focus on composition, materials, and lighting to develop distinctive results of a competitive standard. The most significant impact in the ability of visualisations to inform and promote can often be achieved most efficiently by focusing on the power of convincing representation of materials and lighting combined with quick manipulation of renders and combination with live action stills and footage to present filmic or cinematographic visualisations of products in context.

## Learning Outcomes

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

- 1. Identify and examine how 3D visualization is used in the creative industries.*
- 2. Create a photorealistic visual of a 3D scene or a 3D product.*
- 3. Manipulate and enhance rendered visuals using 2D post production software.*
- 4. Set up and render a fly through animation.*

# Visual Communication in Design

**Unit level (MQF): 6**

**Credits: 6**

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## Unit Description

Through this unit the learner will develop their practical and theoretical knowledge and skills in visual communication techniques by utilising various media. The unit then directs learners to apply these skills to their chosen specialism. These specialist disciplines naturally include other units covered by the Higher Diploma in 3D Design course, for example, Computer Aided Design, CGI, Exhibition Design, Performance Design and Product Design. (This list may be amended to adjust to learner or programme needs). The fundamental skills presented in this unit thereby underpin the design process as a whole. Through this unit learners are presented with the opportunity to build upon and refine their traditional visual communication skills, which will then be placed in context and evaluated with reference to their application to contemporary design studio practice. This unit can be used as a stand-alone resource as a point of departure for further specialist studies, while remaining integral to the Higher Diploma in 3D Design course.

## Learning Outcomes

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

1. *Identify visual communication techniques.*
2. *Use various media to communicate design ideas.*
3. *Produce scaled models to develop and communicate ideas.*
4. *Present and communicate design ideas.*

# Idea Generation and Development in Design

**Unit level (MQF): 5**

**Credits: 12**

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## Unit Description

This is a skills based unit that will allow the learner to demonstrate the necessary skills and approaches to be able to produce and communicate ideas; by developing knowledge and understanding of how to think creatively and to generate and develop ideas. Learners will use research along with the analysis and selection of gathered materials as well as carry out exploration and development of concepts. This will enable the learners to effectively present ideas and solutions to a design problem with the use of a range of visual communication techniques.

The unit is relevant to learners wishing to develop their ability to generate, express and communicate, through graphic representation and/or 3D visualizing, an awareness of the creative process from inception through exploring possibilities of a range of ideas to a final concept. On completion of the Unit learners will understand how to generate and develop ideas, and select appropriate presentation methods to communicate a chosen concept. The Unit will provide the learners with the ability to gain inspiration to generate ideas, to explore ideas using a range of media and to understand the creative process employed by designers to analyse and produce concepts for different purposes.

Learners will carry out research activities in preparation for the creation of initial ideas, concept drawings and/or sketch models. Investigations of forms, shapes, colour and textures will develop the learners' ideas exploration and ability to identify and translate initial ideas to produce a solution that can potentially be fully realised. The learner will also develop a visual language illustrated through the exploration of a variety of mixed media, as well as a visual communication proficiency that demonstrates a knowledge and understanding of what is represented in a 2D or 3D form.

Finally, learners should have the underpinning knowledge and understanding to effectively interpret and represent a design concept through the selection of appropriate media and presentation techniques to effectively present and communicate the idea.

## Learning Outcomes

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

1. *Investigate a given topic to generate ideas and come up with a design solution.*
2. *Show appropriate use of different idea generation techniques throughout the design process.*
3. *Use a range of visual communication techniques to communicate and present ideas.*
4. *Evaluate critically the final creative solution.*

# Critical Studies & Research Methods

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

The unit is intended for use in a range of creative arts programmes and has both theoretical and practical outcomes in the form of personal research activity and the production of a proposal for a degree year dissertation.

The unit provides an overview of research theory and methodology, including primary, secondary, qualitative, and quantitative and practice led research methods. In addition to providing practical instruction on writing research proposals.

This unit also provide the learners with skills to critically analyse research findings and also see the differences between descriptive and critical writing as well as the accepted academic formats for writing essays, papers and reports using accepted academic referencing and citation systems.

In this unit, based upon lectures which present relevant content related to the creative arts theoretical contexts, learners will prepare and undertake practical activity in the preparation of a proposal for a vocationally relevant research study. Which will comprise of a planned literature review and the use of vocationally relevant methods to undertake primary research.

Learners will also undertake critical analysis of research findings and prepare written work to an accepted academic format using accepted citation and referencing. The work of the unit culminates in learners undertaking an individual self-evaluation of the effectiveness of their research processes and activity.

## Learning Outcomes

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

- 1. Organize the research gathered using research theory, methodology and practice led research for a potential dissertation topic*
- 2. Analyse critically the findings from own research and present it in an appropriate format.*
- 3. Produce in given format the research proposals in academic writing style using accepted academic referencing and citation systems.*
- 4. Present orally and in writing the final proposal for a vocationally relevant research study within own area of interest in the creative arts.*

# Design Principles and Methods

**Unit level (MQF): 5**

**Credits: 12**

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## Unit Description

This unit aims to help learners further their knowledge and skills in the development of products or services in their specialist pathway. Whilst building on the knowledge acquired through the unit 'Idea Generation and Development in Design', this unit delves more into different design strategies and methods, as well as puts more emphasis on the importance of design principles.

Through this unit, learners will gain a better understanding of the complexities of the design development cycle. The unit looks into various design methods and creative thinking techniques to aid students in the generation and implementation of ideas. Such methods will encompass the process from initial concept through to development and production. Learners will explore the stages and methodology relating to design methods and apply them to their own work. They will also be encouraged to develop an analytical and methodical approach and to use evaluation and review to develop work. Learners will be expected to apply the fundamentals of design methods and to develop individual creative strategies to produce innovative solutions.

Apart from forming a better understanding of design methods and the development cycle, this unit will enable learners to develop knowledge and understanding of the issues that have informed debate on the purposes and processes of design. Learners will develop a deeper understanding of the principles underlying art and design processes and will become more aware of how the attitudes of designers influence the appearance and function of art and design products. Furthermore, they will analyse how the context within which the designer operates is influenced by the changing values of society and the ethics of commerce.

The unit encourages learners to question the roles of form, function, culture, context and concept in relation to materials, techniques and processes, sustainability and technology along with other factors. Through this analysis, learners will be able to create connections between subjects as well as understand the impact design has on the ever changing socio-cultural context. Finally, students will be able to formulate their own distinct approach to design in order to respond to design challenges in a more individual and responsible manner.

## Learning Outcomes

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

1. *Identify design principles and approaches in relation to cultural and contextual associations.*
2. *Develop own creative strategy for the development of products and spatial designs.*
3. *Develop concepts through the exploration of different design methods.*
4. *Apply good design principles to produce effective creative outcomes in response to a brief.*

# Sustainable Spatial Design

Unit level (MQF): 5

Credits: 6

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## Unit Description

The aim of this unit is to make learners aware of sustainability with a main focus on spatial design. Interior designers and architects play a key role in influencing the environmental and social impact of a space and can contribute positively to a sustainable future. This unit introduces students to sustainable principles and practices in spatial design.

Sustainable design is concerned not only with the environment, but also with social, cultural and economic issues. This unit raises awareness about sustainable materials & construction processes. It will look at renewable versus non-renewable materials and the implications of using one material over the other.

Throughout these course learners are introduced to tools and methods available to ensure the environmental impact of a special design is carefully considered and minimised, and to promote socially responsible solutions.

Learners will be capable of producing design solutions that not only meet the expectations of the consumer in terms of desirability, suitability for purpose and commercial validity, but also promote a minimal adverse effect on the environment. To form feasible and valid designs, learners should also familiarise themselves with local laws, legislations and national related initiatives.

This unit will offer students the opportunity to apply the gained knowledge in a fictitious or a real life scenario and develop innovative concepts to inspire and promote sustainable living and developments

## Learning Outcomes

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

1. *Understand the principles and practices of sustainable spatial design.*
2. *Develop and communicate sustainable spatial design concepts.*
3. *Recognise the sustainable materials and production processes in spatial design.*
4. *Evaluate own design and possible social, cultural and environmental effects.*

# Residential Design

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

This unit is designed to enable students gain the basic skills and knowledge required to form design solutions for residential environments. In this unit, learners will develop underpinning knowledge in residential design and the contextual practical skills required to form a proposal for an interior space. Students will gain an understanding of the role of a professional interior designer whilst learning how to liaise and present information to both the client and contractors. Skills gained throughout the unit may include sketching, producing technical drawings, preparing visuals, mood boards, material boards, door & window schedules, surveying and understanding relevant legislations.

Upon completion of this unit, candidates shall form a thematic portfolio of largely practical assignments, driven from a client-specific design brief for a new residential project. The design brief may be for a single dwelling or a series of linked dwelling spaces. All assessments should be entirely design-driven and provide responses to a residential client brief. The outcomes are integrated and therefore assignment tasks addressing these outcomes should also be linked with each other.

This connection between assignment tasks will provide students with the opportunity to build on their ideas and develop initial concepts into resolved feasible designs. This format will therefore mirror workplace practice. The completed work by the students should be design driven and fulfil the requirements of the brief.

## Learning Outcomes

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

- 1. Analyse and evaluate the residential design concept to operate in according to a client's brief.*
- 2. Respond to identified contextual needs and communicate ideas effectively.*
- 3. Generate artistic content to communicate ideas for the developed concept.*
- 4. Communicate resolved work through technical information with respective stakeholders.*

# Landscape Design

Unit level (MQF): 5

Credits: 6

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## Unit Description

The meaning of the term landscape design is so vast that a number of apparently unrelated disciplines come into play. Landscape design almost bicentennial formal written history and underlying theory cannot explain to this day the kind of interactions among the various stakeholders in formulating a well-defined design process strategical recipe. The layman's interpretation of the discipline is mostly limited to the old-fashioned traditional garden design. During the second half of the twentieth century, landscape design has, however, been transfigured from its basic meaning into something that "competes" with the mother of all arts, that is, architecture. At the present day, piazzas, cemeteries, seafront promenades, and other public/private open spaces are typical examples of what constitutes landscape design.

Learners reading for an undergraduate degree program in Spatial Design, will be introduced, through this unit, to the general discourse underpinning the landscape design process and project. In this unit, the main mechanisms influencing the analytical and generative design tools chosen are investigated at length when dealing with the context inventory and appraisal. The unit mainly involves the learners in conceiving, developing and presenting a master plan for a small scale site, before eventually detailing parts of the same in relation to soft and hard landscaping. Learners will be exposed to the communication skills pertaining to the different stages of a landscape design project of the aforementioned scale. The unit will help learners to get an in-depth understanding of how research and evaluation methods are carried out with respect to the specific techniques adopted by landscape design practitioners, as well as to the materials and construction methods used in this specialised design field.

## Learning Outcomes

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

1. *Research and evaluate the theory and conceptual approaches to landscape design at various scales.*
2. *Develop and produce conceptual design solutions for a given small scale site in light of local statutory legislations.*
3. *Apply landscape design techniques in the planning and finishing of a landscape design project.*
4. *Use professional communication skills to present own design process and project.*

# Performance Design

**Unit level (MQF): 5**

**Credits: 6**

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## Unit Description

This is a skills based unit that will allow the learner to demonstrate the necessary skills and approaches to be able to produce both 2D and 3D visual responses for a stage, TV or film set design for a performance; by developing a knowledge and understanding of the ‘behind the scenes’ of performance design, of staging a production and the responsibilities of the designer in communicating clearly the design solutions. Learners will use research, concept development, design exploration and final design presentation skills to be able to effectively communicate the solutions to a creative team involved in the production of a performance.

The unit is relevant to learners wishing to develop their ability to express and communicate, through graphic representation and 3D scale detailed models, an awareness of a stage set in providing a visual interpretation of a play or production by adding mood, atmosphere and spectacle, and meeting the requirements of the director, the actors on stage and satisfying the audience as a whole. On completion of the Unit learners will understand theatre, stage and television studio set technical terminology, about making a performance happen, the mechanics of the design and how to enhance the stage/set action. The Unit will provide the learners with the ability to produce drawings and models that convey a stage set design, as well as developing the understanding, knowledge and skills required to produce the design proposal. The learner will also develop a visual language illustrated through the exploration of a variety of mixed media and modelling techniques, as well as a visual communication proficiency that demonstrates a knowledge and understanding of what is being represented in a 2D and 3D form.

Learners will carry out research activities in preparation for the creation of concept drawings and sketch models. Investigations of forms, shapes, colour and textures will develop the learners’ ideas exploration and ability to identify and translate initial ideas to produce a solution that can be fully realised.

Finally, learners should have the underpinning knowledge and understanding to effectively interpret and represent a stage set or performance space design through the selection of appropriate drawing media and model making techniques to professionally and effectively present the proposal to a client with the production of accurate scale drawings and a detailed set design model.

## Learning Outcomes

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

1. *Define the role of a designer in performance design.*
2. *Research and produce initial design concepts for a set design.*
3. *Develop and produce a visual response for a set design.*
4. *Present a set design proposal for a given performance brief.*

# Retail Design

**Unit level (MQF): 5**

**Credits: 12**

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## Unit Description

This unit is designed to enable learners to identify and explain the major design considerations involved with the planning of retail environments.

Learners will be guided to apply their gained spatial design knowledge and abilities in a retail design context. They will also learn to analyse and value a number of factors which influence the success of a retail outlet. The Product, brand, target audience, user experience, location and client's needs are all subjects that will be weighed at research and analyses stage and manifested in the concept formation and design process.

By carefully planning a user experience considering and manipulating materials and integrating both aesthetics and functional factors learners will learn to manipulate the feel of the space, represent brand identities and create a positive retail experience for the user.

Learners will learn how to schematically plan a space, go into detail and consider ergonomics, anthropometrics and construction methods and produce technical and artistic drawings to communicate concepts.

The unit covers skills in teamwork and communication in order to enable learners to work with others in the design process. Planning, organising and problem solving skills are required to apply design processes and to develop design ideas. Self-management and learning skills are applied to assess and reflect on the learner's individual design skills and identify areas for reflection and improvement.

## Learning Outcomes

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

- 1. Evaluate the client's brief and the allocated space for design.*
- 2. Create initial retail design concepts and communicate the concepts effectively to people concerned.*
- 3. Develop and communicate a retail design concept through both artistic and technical content.*
- 4. Present and evaluate own design concept and determine areas of self-improvement.*

# Professional Practice in 3D Design

Unit level (MQF): 6

Credits: 6

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## Unit Description

This unit is designed to allow learners to identify career opportunities available, help them develop and establish their career goals and to explore the relevant opportunities in their chosen area of design.

The initial stages of this unit will aid learners to further develop self-awareness and critical thinking skills. Learners will engage in self-reflection and critically evaluate own work in order to identify skills and competences, both design related as well as transversal/transferable ones. Such reflections will aid learners to identify their preferred career path as well as aid them to select and develop a collective body of personal design work that highlights their personal learning achievements and accomplishments.

Learners will ultimately develop a unique design identity through a range of self-promotional material, amongst which, they will produce a design portfolio for both print and screen. Such material is necessary to promote themselves as fully qualified and eligible professionals in their specialised design discipline. The selection of work should be critically analysed and evaluated in order to produce a well-curated design portfolio that is relevant to the learner's chosen career.

Through this unit, learners will learn to identify and develop interpersonal skills in relation to personal career goals. On completion of this unit, learners will also experience career interview techniques in preparation for real life opportunities within their specialised field.

## Learning Outcomes

On completion of the unit learners should be able to:

1. *Research career opportunities and establish own career goals.*
2. *Develop a unique design identity through a range of self-promotional material.*
3. *Produce a professional design portfolio that reflects career goals.*
4. *Use appropriate interview techniques to apply and sit for an interview.*

# Project Management

Unit level (MQF): 6

Credits: 6

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## Unit Description

Project management is a service which facilitates a designed intention to satisfy consumers. Knowing the full design development process and all its complexities allows the learner to visualize the entire process of a design. Project managers are proving that their competences determine the success of a design. Effective, efficient and clear communication between several stakeholders, time management, task management, surveying of works, are all roles that a project manager must undergo. Designers are not often in charge of the manufacturing and distribution of their work but once one is aware of such a framework he or she has the opportunity to manage their own work and design with manufacturing possibilities in mind. It is a job that demands a person to be very skilful in related fields, know of several companies and individuals who can collaborate in the realization of projects and most importantly be extremely efficient. Project managers improve their 'modus-operandi' with every project but every project is very uniquely challenging.

In this unit learners will get a taste of what a project manager does and try to come up with one's own project management plan. They will be exposed to scenarios and given the opportunity to exercise problem solving and organization, keeping in mind circumstances that can set the development off course. Learners are encouraged to investigate processes and learn terminology and applications related to their field of design specialization.

## Learning Outcomes

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

1. *Identify different design projects and outline their life cycle.*
2. *Outline the job role of a project manager in the light of a particular case study in own field of design specialisation.*
3. *Present own project management plan of a complete design project.*
4. *Compile all documentation in a professional manner and evaluate own strengths and weaknesses as a potential project manager.*

# Building Technology for Spatial Design

Unit level (MQF): 6

Credits: 6

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## Unit Description

If a designer sketches a concept, he needs a drawing medium and surface to communicate proposals. In whatever field designers work they require tools and media to facilitate intentions. No designer can design without being knowledgeable of manufacturing processes and material properties. Successful designers often reflect such competences in anticipating certain outcomes thus reducing design flaws and project errors. Being aware of building technologies will facilitate one to enrich, stretch and develop their creativity and possibilities in design.

Learners will explore common building materials and productions as well as their properties. This will enable them to understand applications and uses in a functional and creative manner. They will have to research and explore the various media used in spatial designs and finally show effective application in a design.

## Learning Outcomes

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

1. *Identify and explore the main properties of the building materials that are used for spatial design.*
2. *Determine the suitability of a material for a particular spatial design context.*
3. *Experiment with a particular material to understand its application and main properties.*
4. *Evaluate the chosen material to appraise its effective use and application.*

# Environmental Design

Unit level (MQF): 6

Credits: 6

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## Unit Description

Ethical and resourceful design practise would suggest that energy sources are consciously adopted with the scope of maximising the efficiency of a design. This unit explores the use of some passive or active design strategies in a spatial context with the aim of reducing energy consumption and efficiently utilising design in a scientifically measurable manner.

The learner will be asked to create an efficient spatial design adopting artificial or natural components by exploring relatable topics such as natural ventilation techniques, passive design strategies, systems of enhancing daylight etc. The choice of one's design strategy must prove efficiency through calculable means.

## Learning Outcomes

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

1. *Identify different energy-efficient spatial designs.*
2. *Apply passive or active design solutions in a spatial design.*
3. *Present evidence of own energy-efficient design strategy.*
4. *Evaluate the effect of the chosen design strategy.*

# Exhibition Design

**Unit level (MQF): 6**

**Credits: 6**

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## Unit Description

In this unit learners will develop a spatial awareness which will enable them to produce effective design solutions for exhibition design contexts. They will develop a level of competence in controlling the creative process from inception to design realisation culminating in the production of work suitable for presentation. Learners will be expected to develop and acquire the ability to communicate ideas through 2D drawing techniques, 3D modelling and prototyping skills thus allowing learners to demonstrate their ability to plan and propose to a client presentation.

The Unit will enable learners to develop a brief, plan an exhibition installation, create a design presentation and produce working drawings including the required details and specifications. Learners will be encouraged to work systematically and efficiently in planning their own work schedules, to manage their time to meet deadlines set by project briefs and individual tasks in order to achieve successful completion of this unit.

Learners will need to engage in integrated research to include analysis of the brief, preparation of initial ideas to access and disseminate information and have an understanding of legal requirements relating to the exhibition industry. Investigation should be undertaken into suitable materials, processes and techniques. Learners will need to explore the visual and tactile properties and characteristics of materials appropriate to exhibition design. They will also need to investigate contexts and demonstrate the ability to select and interpret research information through design development leading to completion of work.

## Learning Outcomes

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

1. *Research and investigate exhibition design spaces in relation to a given context.*
2. *Develop a design idea to address the exhibition design requirements.*
3. *Present a finalised design solution for an exhibition space in response to a brief.*
4. *Evaluate the effectiveness of own design proposal.*

# Open Project in 3D Design

Unit level (MQF): 6

Credits: 6

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## Unit Description

Design scholars investigate areas of design that when implemented improve our lifestyle. Arriving to identifying aspects that require investigation is as crucial to the success of a design as the actual solution. In this unit one will investigate and come up with a hypothesis, draw out a plan to further carry out such research, compile appropriate and sufficient research, plan, organize and manage this self-initiated project.

The learner will be supervised by a lecturer to identify appropriate research, explain their intentions and pose a statement. They will be guided and encouraged to write out a design brief and later identify design strategies that will help them address and validate their hypothesis with a design. Finally, they will come up with a design proposal on the basis of their hypothesis and in light of their research. Throughout this unit learners will be mainly guided to be selective, organised and factual.

## Learning Outcomes

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

1. *Evaluate the chosen research question and form a hypothesis.*
2. *Draw out a design brief for the hypotheses being investigated.*
3. *Identify own design strategy for the completion of a design.*
4. *Use findings to propose an initial design.*

# Furniture Design

Unit level (MQF): 6

Credits: 6

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## Unit Description

Spatial designers have several ways of how to convert a space into the required environment. One can devise a layout and then source all the components for incorporating them into that space. Sometimes sourcing readymade items is not the right or possible solution, thus the designer has to custom make a component/s to suit the need and space. The designer thus must be knowledgeable of several material uses and possibilities, local manufacturers and means of communicating effectively the proposed design.

In this unit learners will be exposed to the interior design practice of designing and communicating a made to measure piece in order to manage the implementation of such. The learner will be presented with a space, situation and furniture requirement for such space. The learner will then design a made to measure furniture and communicate such design intentions which can be implemented in a real life setting. Through this unit the learner will be presented relevant joinery methods and standard furniture dimensions.

## Learning Outcomes

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

1. *Research the application of custom-made furniture within the practise of spatial design.*
2. *Develop design ideas to address spatial design requirements.*
3. *Finalise design solutions for production.*
4. *Evaluate own furniture design critically determining ways of improvement.*