LET Diploma in Lighting Design

Course Brochure

LIGHTING EDUCATION TRUST

Introduction

The LET Diploma in Lighting Design is a 2-year distance e-learning course in Lighting Design and is an industry-recognised and valued professional qualification in lighting.

Whether you are new to lighting or already have some general understanding of the subject, the LET Diploma in Lighting Design will provide a platform for further academic and professional progression for your career in lighting.

The Diploma seeks to produce within the student a comprehensive knowledge in all aspects of the art and science of lighting design. To facilitate this aim, the student will need to convert learning into knowledge; that is, the ability to recall, adapt and apply the various subject matters to all lighting design applications. In parallel to gaining this knowledge, the student must seek to increase, develop and enhance the other two inherent abilities of any lighting design, namely: experience and vision.

The course is divided into distinct learning modules, covering all of the subject areas in manageable segments. These are made available through a dedicated LET website, so progressing through the learning modules, whilst challenging, should be both smooth and satisfying.

Many modules include case studies and personal feedback questionnaires (for your own peace of mind) and there is a total of four course assignments, spread across the two-year course, plus a final design project and with a written examination at the end of the second year.

The course equates to approximately 8-10 hours of online learning per week.

The course is administered by the Lighting Education Trust and moderated by University College London (UCL). The course is further recognised by the Society of Light & Lighting (SLL), the Institution of Lighting Professionals (ILP) and the International Association of Lighting Designers (IALD). It is also recognised by University College London (UCL) as part of the academic requirements for the MSc in Light and Lighting.

Lighting design

As Malcolm Innes says, "Lighting is both an art and a science - and the science element is often clouded by technical terms, complex physics and mathematics!"[1]

As you might expect the fundamentals part of the course explains the physical properties of light and its physiological effect on humans. It will therefore cover some of the physics of light and some of the lighting mathematics by way of lighting calculations that today are performed by modern lighting design software.

Do not be too concerned if you feel a little lost with the mathematics, especially if it has been some time since you last studied such things as equations and trigonometry; it should not impede your ability to succeed on the course.

In professional practice you will be using software to undertake the necessary design calculations, you will not be doing difficult calculations 'by hand'. All we are expecting of you is that you appreciate the principles behind these calculation methods.

Again quoting from Innes, "Successful lighting projects rely on the intelligent application of simple principles". The lighting designer must therefore first choose the lighting effects they desire to create and only then, select the lighting equipment to deliver that vision, before finally using lighting design software to perform the necessary calculations and to verify and visualise the result.

It's not the technology that creates great lighting - it's the lighting designer.

> "Successful lighting projects rely on the intelligent application of simple principles."

[1] Innes M, (2012), 'Lighting for Interior Design', Lawrence King Publishing, London

Course content

Introduction
This introduces the student to the inspirational nature of lighting design through a series of images put together by one of the country's leading lighting designers. Lighting is considered in terms of what is needed to see a task clearly; create mood; to assist with movement about a space; to reveal the architecture of the space and to play with perception. Light is also considered in terms of quantity and quality. You then learn how to create a design by understanding what is going on; how much light is required and what sort of contrast is needed for a particular task.

Module A: Lighting Design
This module outlines the principles behind lighting design practice. We look at the different aspects which are drawn together in successful lighting design and the processes involved at all stages of a project.

Module B: Light Sources & Luminaires
We look at the variety of light sources and the way light is produced by various different forms of light sources (tungsten halogen, low- and high-pressure discharge lamps and LEDs); and the luminaires (light fixtures) that house these light sources and direct the light they produce to where it is needed.

Module C: Human Factors In Lighting
This describes in simple terms the effect of light on a person. You will be introduced to the visual system; the eye and brain how they receive light and what that system does under changing conditions. Understanding this will enable the student to consider how much light is needed, contrasts between task and background and how light affects our health.

Module D: Fundamentals
At its most basic level, as Isaac Newton showed, white light is a mixture of many wavelengths of light, each with their own characteristic colour - a feature which is replicated in every rainbow we see. In the fundamentals of light, we will also explore how we see, what affects this ability and how we ensure we have enough light to perform a task. This module is discussed in both objective and scientific terms; this includes the lighting units & language of light.

Module E: Natural Light
This introduces sunlight and daylight to the student. For most buildings daylight is the starting point for any lighting design so understanding what it is how it performs and how to estimate the amount is very important. Some buildings require the designer to prevent sunlight entering a space, how to deal with this and how to design for daylight are all covered.

Course content (cont.)

Module F: Interior Lighting
This illustrates the different lighting techniques this module has been split into 5 sections covering lighting for offices, retail, Museums and galleries, leisure and a final miscellany of different building types. Extensive use is made of case studies to back up the explanation and techniques described.

Module G: Lighting Controls
Covers lighting controls, why we should use them and what are their benefits? What to avoid if they are not to be a nuisance. Can they save energy and improve health and well-being.

Module H: DIALux Software
Visualisation and calculations using the DIALux 4 software, including both interior and exterior lighting scenes. This is in preparation for the exterior lighting assignment and the final design project.

Module I: Exterior Lighting (Functional)
This module covers aspects of the more functional exterior lighting applications, including car parks, lighting for sports, & road lighting. It also includes what is obtrusive light and how to minimise it to protect the night-time environment.

Module J: Architectural Exterior Lighting
This module is more aligned to the architectural aspects of exterior lighting, including landscape lighting, floodlighting of buildings and amenity lighting. A section on master planning is also included.

Module K: Environment
This module has an introduction by the Campaign for Dark Skies (CfDS) and will explore how light affects the natural world, environmental & ecological aspects of lighting and how this is affected by the built environment. This also covers impact assessment studies.

Module L: Emergency Lighting
An introduction to the criteria for designing a emergency lighting installations and the legislative requirements.

Module M: Electrical Installation
This module is an introduction to the electrical aspects associated with lighting installations and includes the commissioning of lighting installations.

Outline timetable

Year 1		Module A: Lighting Design
		Module B: Light sources & Luminaires
		Module C: Human Factors
		Module D: Fundamentals
		ASSIGNMENT 1 (3 weeks to complete)
		Module E: Natural Light
		ASSIGNMENT 2 (3 weeks to complete)
		Module F: Interior Lighting
		Module G: Lighting Controls
		ASSIGNMENT 3 (3 weeks to complete)

Year 2		Module H: DIALux software
		Module I: Functional Exterior Lighting
		Module J: Architectural Lighting
		Module K: Environmental Impacts
		ASSIGNMENT 4 (4 weeks to complete)
		Module L: Emergency Lighting
		Module M: Electrical installation
		DESIGN PROJECT (10 weeks to complete)
		Revision Period
		Final Examination

Support

The LET Diploma in Lighting Design course is fully supported by tutors and mentors: lighting designers and specialists in all subject matters. So, whilst in the first instance, reference to the course notes or to personal research should be your route to greater knowledge and understanding, where you are struggling or frustrated then you should contact the LET project tutors or the LET co-ordinator, who will be able respond with assistance to your problems and queries.

The suggested study time indicated for each module and chapter is intended as a guide, not a target! You may wish to spend considerably more time than suggested; equally, if you already have significant knowledge in some of the chapter subjects you may be able to reduce your study time from that suggested. You are the best person to decide – based upon your previous education, qualifications, employment and other time commitments.

Please be under no illusion, the LET Diploma in Lighting Design is a huge commitment to progress your education in lighting; the Diploma is an advanced education learning course and its outcome should be one of professional understanding encompassing the three attributes, of knowledge, experience and vision; learning ‘by rote’ at this level is not recommended - the secret is time investment, perseverance, discussion and above all, enjoyment.

It would also be of great benefit to you to become involved in professional lighting matters by attending seminars, events, and exhibitions. The simplest way to do this is by joining and being active in professional lighting associations. In undertaking the course you qualify for Student Membership of both the Society of Light & Lighting (SLL) and the Institution of Lighting Professionals (ILP) to help you on your way. Please note, although the provision is automatic, you still need to complete the relevant application forms; we encourage you to do this as, in addition to the hard copy SLL Code for Lighting and SLL Lighting Handbook which you will be given, you will also gain free access to the Knowledge Portal with access to hundreds of publications and lighting guides. There is also tremendous benefits to be had by joining the greater lighting community, so please do join.

A career in lighting

Lighting is fundamental to everything we encounter and interact with in our daily lives. By choosing to undertake the LET Diploma in Lighting Design, you will embark upon a path which should open extensive career opportunities in lighting.

Some will pursue the exploration, understanding and generation of light via development of light sources and lighting materials; others may concentrate upon luminaire development or lighting controls and the impact their use has upon our modern life, through environmental and energy saving opportunities. Many will use the knowledge gained to concentrate upon the application of lighting design, be that for interior or exterior environments, often both.

The career opportunities stemming from graduation in the LET Diploma in Lighting Design are endless; one of these might sectors be your future, others, without doubt, are yet to be discovered.

Architectural Lighting
Sports
Hospitals & Healthcare
Factories
Lighting Laboratories
Theatre
Airports
Luminaire design
Control Systems
Environmental design
Road & Rail
Offices
Hazardous Environments
Schools & Colleges
Events & Concerts
Retail
Artistic
Technology Development
City Beautification
Decorative Lighting

Testimonial: Matt Cargill

This course will give you the fundamentals required in all aspects of lighting and design - make no mistake it could completely change your career choices.

I started the LET diploma with no understanding of lighting or lighting design. Coming from a engineering BMS controls background and working with lighting control systems, I was looking for a course which would develop my knowledge of lighting (if you don't understand it how can you control it!).

It became clear to me however, after a few months on the course that it was going to change my life and career options. The knowledge provided and the support of a mentor gave me the confidence to sit on the LUX awards judging team 2017 and make valid contributions even though I was surrounded by professional individuals that have been in the industry for years.

The LET diploma takes two years of discipline and dedication, but it's worth it in the long run and if like me you weren't in the industry at the start I guarantee you will be by the end.

> “Good luck, don't rush it and remember to enjoy the learning experience.”

Testimonial: Jamie Thompson

The LET Diploma in Lighting will give you the fundamentals required within the Light and Lighting industry.

You will learn about the science behind Lighting and the techniques required to undertake a Lighting design correctly and efficiently.

I signed up to the LET diploma in Lighting as I was willing to learn about lighting in depth. It has helped me no end, to become an Electrical Design Engineer/ Lighting Designer. I am now able to apply my knowledge and skills within my everyday job, also giving advise to Architects & Clients with ease.

The duration of the course was two years, you do have to be self-disciplined and very committed, but it is very rewarding upon completion of the course.

It has been a truly invaluable learning experience for me, and I would strongly recommend the course to any new starters to the industry, or for anyone who is wanting to embark on a career in Lighting.

> “The course was very well structured, and the support over the years from the tutors was excellent.”

Testimonial: Juliet Rennie

Having previously studied English Literature, I came to the LET course with no prior lighting, design or engineering knowledge. Whilst it was definitely challenging, it was incredibly rewarding to gain an understanding of the fundamentals of lighting design.

Whilst gaining a technical understanding of lighting calculations and software, the course also illustrated the importance of attention to detail and the steps involved within the design process, skills which can be usefully transferred to other aspects of working life.

Over the course of the two years, I went from feeling like I had bitten off more than I could chew to walking into spaces and understanding why certain lighting decisions would have been made.

The course is reliant on self-motivation but it is so worthwhile. I would recommend paying close attention to the recap questions at the end of each chapter and speaking up if you feel you're not quite grasping something. Help is at hand!

> "Since finishing the course I have already had opportunities to use what I have learnt and I look forward to many more!"

Course administration

Fees

Deposit (non-refundable)	£500
Year 1 tuition fees	£1,500
Year 2 tuition fees	£1,250
Total	£3,250

Assessment

Assignment 1: Fundamentals	10%
Assignment 2: Daylight	10%
Assignment 3: Interior Lighting	10%
Assignment 4: Exterior Lighting	10%
Design Project	30%
Examination	30%

Application form

Title

(Mr/Mrs/Miss/Ms/other)

First name(s)

Surname

Date of Birth

Address

Postcode

Telephone

Mobile

Email

Invoice amount - Please invoice:

☐ The full course fee: £3,250

☐ Deposit (non-refundable), plus first instalment: £2,000

Invoice recipient - Please issue the invoice to:

☐ Me ☐ My employer (if applicable)

If employer, please provide their:

Name

Email

Employer's name (if applicable)

Employer's address (if applicable)

Postcode

Please provide the following information if applicable:

Qualifications held

Membership of Professional bodies

I apply to enrol for the LET Diploma in Lighting distance learning course provided by the Lighting Education Trust in association with University College London.

Signed

Date

Please complete and return to LET@cibse.org or by post to:
The Secretary
The Lighting Education Trust
222 Balham High Road, London, SW12 9BS

Payment schedule: The full fee for the LET Diploma in Lighting Design is £3,250. Mainly for the benefit of students who are self funding, LET offers the facility for payment by instalments over the course of one year. Payments, in UK pounds, may be made by cheque, credit/debit card or BACS (bank transfer) and become due as follows: On acceptance, payment of the non-refundable deposit (£500) plus first instalment (£1,500), ensures the first year of the course will be issued. The second instalment (£1,250) paid within 10 months allows the remaining modules to be issued. Instalments are payable to the schedule with modules being issued according to progress but not before the appropriate payment has been received. Please consult the LET administrator, in strict confidence, over any difficulty in maintaining the payments. **Booking Conditions:** LET reserves the right to make changes to the programme. Acknowledged bookings are firm. Cancellations must be received in writing and can be made up to 4 weeks after the course start date subject to a charge of the initial deposit £500. No refund will be made if you subsequently do not complete all or any part of the course or if you fail any part of the course. The personal information you give on this form will be held on the CIBSE database. Your contact details may be used by us to contact you from time to time with offers on similar products and services. Registered Charity no. 1051939

☐ Please tick if you do NOT want to receive this information.

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Cover: UK Pavilion by Night with Visitors 2