Aston CPD Centre
BIRMINGHAM

Designing Infrastructure for Cyclists

Post Experience Certificate in 'Cycle-Friendly Design'

Distance learning course. Flexible Start Dates

The Chartered Institute of Logistics and Transport (UK)
CPD

Part A: Distance Learning Training Modules

For the award of the Post Experience Certificate in Cycle-Friendly Design six modules out of 7 available modules must be completed together with coursework (report/analysis/worked case studies), within 18 months of registration. The principles covered in all of the modules have relevance outside the UK except for Module 7 which covers UK legislative processes. A certificate of achievement will be awarded upon satisfactory completion of each module. Start dates are flexible, with modules due for completion within 30 working days of receiving the course materials

The certificate will demonstrate an ability to evolve appropriate, practical solutions to design challenges that fully meet the needs of cyclists. Each module will involve approximately 25 hours of study. The formal assessment will form part of the hours of study including coursework. An external examiner will review the coursework.

Module 1: Designing infrastructure for cyclists – Basic principles

Module 1 opens by explaining that cycling is safe. In fact, it has been proven that the more cyclists there are within the road network the safer it is for all road users. It will also demonstrate that cyclists on supposedly safer cycle tracks are exposed to greater risk at side road crossings than if they had remained on the carriageway. Both of these points are fundamental to designing any measures for cyclists.

This module looks at how to determine design solutions through the hierarchical approach and the key principles that govern the design of infrastructure for cyclists. It also examines the different categories of cyclist, their needs and how all of these issues can affect network development and route improvement choices. Fundamental to creating a cycle friendly road network is the principle of reducing the volume and speed of vehicle traffic and giving exception to cyclists from measures introduced to control motor vehicles as part of network management proposals. These measures include road closures, one-way streets, banned turns, vehicle restricted areas etc. Students will be introduced to the principles of this approach; with the detailed covered by Module 3.

Module 2: Designing Infrastructure for Cyclists - General design parameters

Unlike other road users, cyclists rely on forward motion for stability. The ‘dynamic’ envelope that results is an important consideration for designers when determining such issues as traffic and cycle lane widths as well as the space required through build-outs and other forms of horizontal traffic calming.

Students will learn about the space cyclists can be expected to occupy within the carriageway and the distances they adopt away from fixed objects (wall, kerbs etc). They will also explore the size of motor vehicles and the distance they overtake cyclists at differing speeds. These all are essential elements in understanding and determining the carriageway profiles needed for cyclists to be overtaken in safety and comfort at different speeds. They also govern the room needed for cyclists to pass/overtake each other. Students will look at other general design parameters such as the size and turning circles of different types of cycle. Using their understanding of the space needed to maintain the safety and convenience of cyclists, students will also explore the impact on cyclists of speed and traffic reducing features such road humps, speed cushions, build-outs, central hatching and traffic islands.

Module 3: On-carriageway Solutions

Students will look at cyclists’ needs along links and discover at this point that cycle lanes are not the panacea they are all too often thought to be, especially when space is tight. By investigating their pros and cons, students will see that, as with all cycle infrastructure, these are measures that need to be applied in the right place, in the right manner and for the right reason and not as the default option. The same applies to adopting techniques from mainland Europe which need to be understood in the light of the statutory context that applies in the country of origin. This module will also fill in the details of contraflow cycling, with and without cycle lanes and other exemptions, first encountered in Module 1.

Roundabouts, especially large ones with multi-lane circulations are know to be a deterrent to cycling. In this context students will have the opportunity to examine both on and off-carriageway solutions including the introduction of ‘continental’ roundabouts. Also covered are facilities for cyclists at priority and signalised junctions, including advanced stop lines and cycle-only phases.

Module 4: Off-Carriageway Solutions

Students will be introduced to the issues of providing off-carriageway cycle facilities including current geometric guidance regarding widths, gradients, headroom, surfaces, turning circles, visibility splays, lighting and signing etc. They will also get to examine the potential challenges, and solutions, that arise from sharing space with pedestrians, on or alongside cycle tracks. Included in this will be how to address the needs of cyclists at crossings of side roads and mid-link crossings of other roads by means such as controlled (Toucan) and uncontrolled crossings.

This module will also cover the use of tactile paving, meeting the requirements of the Disability Discrimination Act and measures to control access by other vehicles.

Module 5: Cycle Audit and Review and Safety Audit and Risk Assessment

The government has recently gone on record as saying that all new road schemes will be 'cycle proofed'; this module sets out the key processes involved. Once students have learned the objectives and procedures that are covered by these processes, together with the principles set out in preceding modules, this will become a practical exercise in which students will be invited to source three practical projects to audit and comment on. These will cover the stages of outline brief, preliminary design and detailed design. In this way students will be able demonstrate an understanding that designing for cyclists requires a sensitivity and behavioural awareness not required for motorised modes of transport.

Module 6: Supporting Measures – 'End use', Soft Measures and Monitoring

This module addresses the range of measures that support the objective of increasing cycling including providing for cyclists at either end of their journey especially at public transport interchanges and new developments. Students will also learn how to employ publicity and other 'soft measures' to encourage cycling (in particular use of the facilities provided) and monitoring success through surveys of use.

Students will explore the principles of cycle parking at the beginning and end of each journey, including its management. This module will also cover other 'end use' supporting measures such as what should be included in travel plans in addition to cycle parking e.g. showers, lockers, users groups etc. Having learned how to do everything physical to encourage cycling, students will finish off by discovering how best to monitor the success of their endeavours including practical ways of measuring cycling such as introducing automatic cycle counters into their design projects, using cycle parking counts as a proxy for more extensive surveys and undertaking conflict assessments on shared-use paths.

Module 7: Legal procedures (UK)

Much of what designers seek to do is covered by some statute or other, from cyclists' use of the highway to the introduction of cycle parking. In order to understand these issues students will learn about the statutory procedures involved including those that must be completed to convert footways and footpaths to cycle tracks, and those covered by the Cycle Tracks Act 1984. As part of the latter, students will learn about the work required to provide a proof of evidence at a public inquiry arising from objections into orders made under the Act. They will also explore other legal issues concerning cycle use of public rights of way and those Acts which govern traffic regulation orders from which cyclists may be exempted.

Part B – Coursework and Reporting

The aims of coursework and assessment reports are to enable students to develop a broad and robust understanding of the factors affecting cycle-friendly design choices. Each module provides detailed guidance on achieving learning objectives from reasonable levels of study and requires completion of concise exercises that enable students to put study straight into practice.

Students must complete modules within given timescales and demonstrate their understanding of each topic through a concise assessment report/worked example which will also form a basis for reference in the working field. Guidance and support will be available to students throughout the coursework and assessment via internet/e-mail, to ensure students achieve individual Module aims and objectives.

Additional CPD accreditation

This course has been accredited by the Chartered Institute of Logistics and Transport. Each module attracts 20 hours of CPD. For more information about the Institute visit its website at www.cilt.org.uk.

Infrastructure	Module Description
Module 1	**Designing infrastructure for cyclists – Basic principles**
Module 2	**Designing Infrastructure for Cyclists-General design parameters**
Module 3	**On-carriageway Solutions**
Module 4	**Off-Carriageway Solutions**
Module 5	**Cycle Audit and Review and Safety Audit and Risk Assessment**
Module 6	**Supporting Measures – 'End use', Soft Measures and Monitoring**
Module 7	**Legal procedures (UK)**

CONTACT

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Website & Mailing Subscription: http://www.astoncpdcentre.co.uk
Please note that the programme is subject to change without prior notice.

Please enrol me on the following components of the **'Designing Infrastructure for Cyclists'** course, (Subject to terms & conditions)

Module # 1 @ £245 ☐ Module # 2 @ £245 ☐ Module # 3 @ £245 ☐
Module # 4 @ £245 ☐ Module # 5 @ £245 ☐ Module # 6 @ £245 ☐
Module # 7 @ £245 ☐ All six modules @ £1350 ☐

Please send all correspondence to:
Aston CPD Centre, Aston House, 6 Greville Drive, Edgbaston, Birmingham, B15 2UU

Please reserve ……. place(s) on the '**Designing Infrastructure for Cyclists**' course – as indicated above.

Delegate Name(s) ……

Company ……

Address ……

……

Tel No: …….. Fax No: ……

Email Address: ……

Do you wish to be invoiced? YES/NO……

Purchase Order No:. .....

Invoice address if different from above: .....

.....

Total Cost £…….. being for: Module 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

All six modules @ £1350 ☐

(Cheques should be made payable to Aston CPD)