CORNING

TechClass Academy

Course Name:

Fiber Optics Basics

Correspondencia con Ciclos formativos de Formación Profesional:

Fibre Optic Basics is the first course offered by the **Corning Network IQ** education program to train students and professionals on basicknowledge and skills of Optical Communication. It combines the real-world experience of working professionals, Corning's latest technology and blended learning specialists – as well as taking into account the needs of companies employing installers and telecommunications engineers. It has been developed following instructional design guidelines that encourage both interactivity and practical learning.

Target Audience

- **Teachers and students** of telecommunications, electricity and computer science at vocational and higher education institutions.
- **Engineers and professional installers** to update their knowledge and skills in Fiber Optics technologies.

Objective

The main objective of the course is to provide a **comprehensive learning in basic fibre optics** so as to provide participants with the knowledge and skills base in optical communications infrastructure installation.

Course Content Structure

Chapter 1. Fibre Basics	Introduction to fiber optics and safety instructions Optical fiber vs. Copper The making of optical fiber Principles of transmission System performance parameters Optical sources
Chapter 2. Fibre cables	Single-mode vs. Multimode transmission Areas of installation, applications and requirements Different cable designs: outdoor, indoor and indoor/outdoor cables Cable designations Cable quality testing methods
Chapter 3. Fibre Terminations	Fiber optic connections Insertion loss Fiber connectors and adapter modules Color coding of fiber components Preparation and termination methods Cleaning Installation accessories
Chapter 4. Fibre optic hardware	How to use hardware to protect fibres and splices Analyze the different usage alternatives
Chapter 5. Fibre Standards	Cabling standards worldwide, and new standards/updates Key standards for structured cabling Fiber optic classes Duplex system polarity
Chapter 6. Fibre measurements & troubleshooting	Reasons for testing Testing standards Optical testing procedures and documentation Troubleshooting

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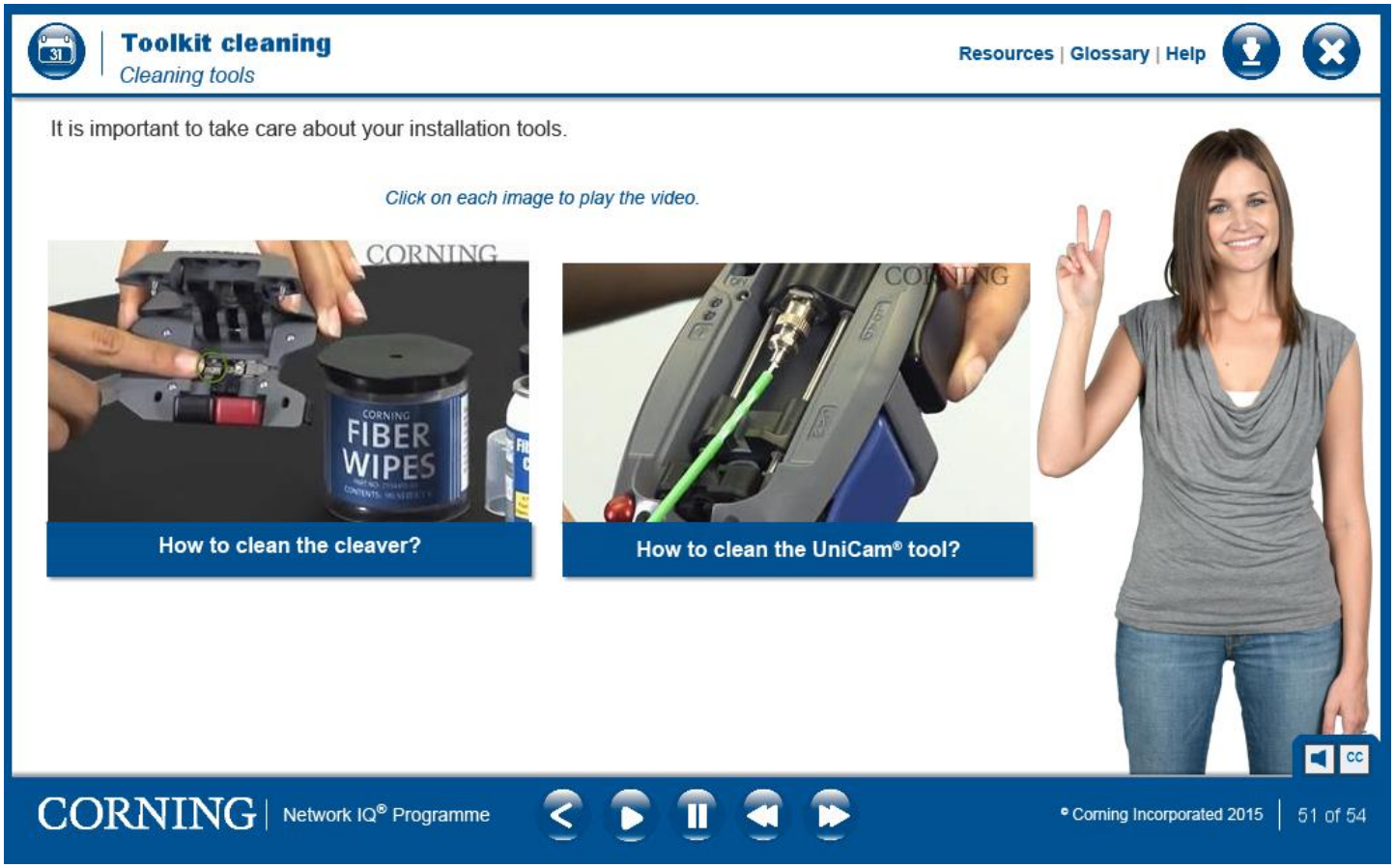
Learning Content Sample

The learning content is available through TechClass.Academy "TCA Campus", the eLearning platform selected by Corning to deliver this course content. It is presented as eLearning material that can be used in different learning environments such as Classroom Instructor Led Training, individidual distance learning, and blended learning. The following image is an example of how the learning content looks on screen. The learning resources are highly interactive to stimulate the course participants to get the knowledge and skills.



Learning Outcomes

At the end of the course, students will be able to demonstrate a basic knowledge on fibre optics, including fibre cables, fibre termination methods, fibre hardware, fibre standards as well as measurement methods and troubleshouting procedures.
Upon the course completion, students will be able to:

- Design the installation depending on the context
- Carry out the installation of fibre optic
- Carry out the process of measurement and testing
- Identify troubleshootings and will be able to solve them

Professional opportunities

- Network installers
- Information Technology installation technician
- Cabling Specialist
- Networking Associates
- Network Designers
- System administrator
- Network maintenance technician
- Domestic telecommunications installation technician

For more information, visit our website at http://techclass.academy or contact us by email - info@techclass.academy / telf - (+34) 933 554 970
If you are an instructor register for free at https://techclass.academy/Registro-de-Instructores-y-Profesores and have a look at the learning content.

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Supplemental learning resources

- These are the supplemental learning resources available to students:
- Technical description of products
- Frequently asked questions list developed by Corning: http://www.corning.com/opcomm/nafta/en/products/faqs.aspx (Links to an external site.)
- Videos from Corning Youtube Channel (Links to an external site.)
- Technology examples from Corning and other companies such as FlukeToolkits and lab equipment for real practice with fibre optics

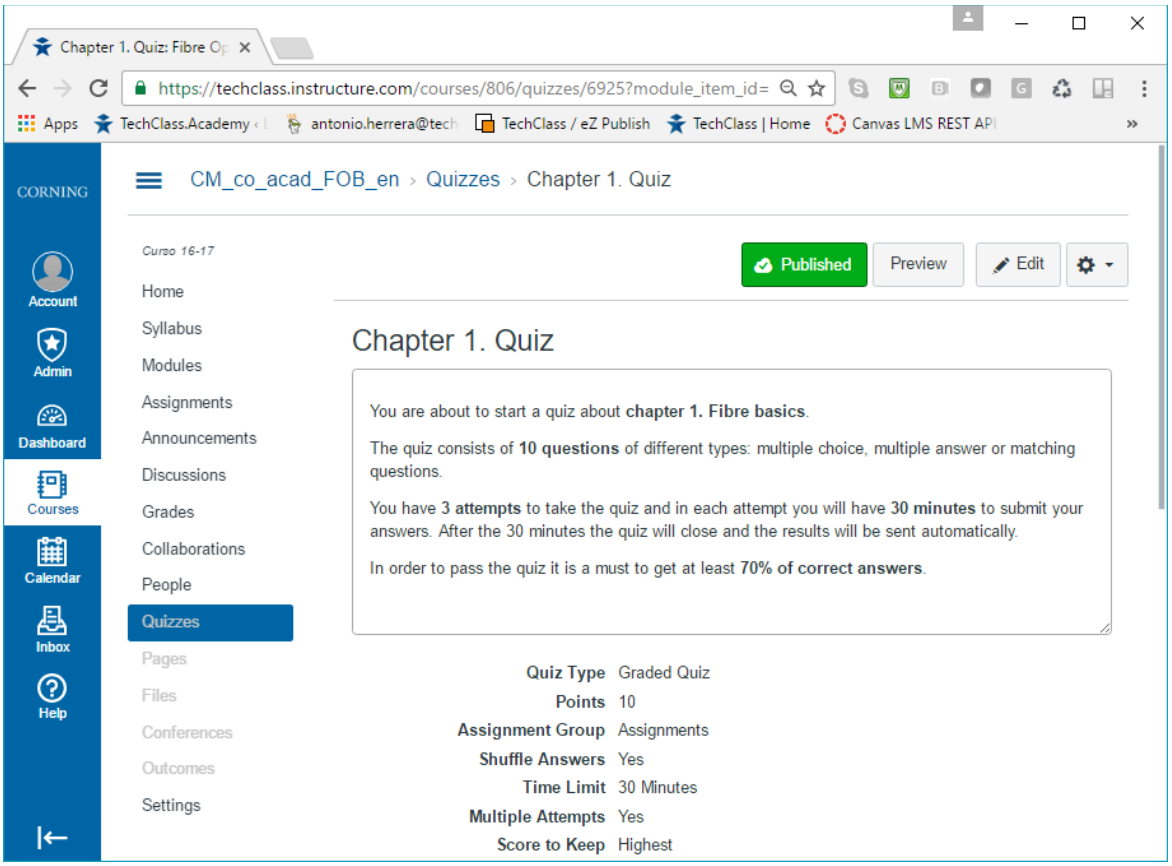
Asessment question banks

This couse contains assessment question banks to help instructors evaluate the student progress and allow participants to self assess their achievements.

Practical equipment

In order to carry out the lab activities and support the learning process, the course requires the use of practical equipment. Practical equipment is offered in three versions:

- Basic Package
- Extended Package
- Full package



Sample assessment cover page