

DWDM Introduction

DWDM today is the key technology for all high capacity data transmission networks. Data rates in the range of Terabits are only possible with this technology. In today's highly competitive market it is essential to be able to rate advantages and disadvantages.

This introduction provides an overview of concepts and parameter you need to understand before visiting vendor specific trainings since system related trainings take these basics as prerequisite.

Prerequisites

Basic knowledge of transmission networks is a prerequisite for this course.

Target group

This course is addressed to those who are involved in planning, administration and maintenance of optical networks and strategies.

Course Content

Motivation for the DWDM technique

- Bandwidths, costs, increase in efficiency
- Simplification of the network architecture, reliability
- Transmission diversity (SDH, Ethernet, Ficon, Fiberchannel)

Set-up of a telecommunication network

- General structure, partitions of a network
- Network hierarchies, data rates, protocols
- Theoretical calculation of the optical power level without tools
- State-of-the-art vs. trends and near future demand

Basics of transmission technology

- Multiplexing methods
- Optical fibre/connectors
- DWDM vs. CWDM

Functional principle of DWDM

- Ambiguity of optical and electrical multiplexing
- Graduation of the wavelengths, bands, ITU-T standards
- DWDM network architecture, network elements, add/drop-multiplexer and optical amplifier, interfaces, alternative routes, protection concepts

Optical Transport Network (OTN)

- Optical Transport Hierarchy (OTH) and Optical Transport Network (OTN)
- Structure and Frames
- OTU, ODU und OPU frames
- Multiplexing in OTN

Duration:

2 days

Course number:

NF1142

Prerequisites:

Basic knowledge of
Transmission networks

Certification

Certificates are given to all participants at the end of the course about the successful completion.

Course Registration:

Please contact us via

- phone: +49 89 1894354-405
- email: training@tfk.de or
- via our website www.tfk.de/training

You will receive a confirmation of your registration. We can also advise you concerning the best combination of course contents.

For clients with special requirements the optimal training concept can be customized. Modules from our training portfolio can be combined to meet your company-specific needs.