

## CURRICULUM

# Understand 5G System Fundamentals (3GPP R17) | TP00003-K-1701

Last Updated 11/16/2023 Duration 7 hours, 30 minutes  4

## Details

### Brief Description:

- 5G is the latest generation of radio systems and network architecture delivering extreme broadband and ultra-robust, low latency connectivity and massive networking for the Internet of Things to enable the programmable world, which will transform our individual lives, economy and society. This in-depth 5G Fundamentals training is designed for a technical audience who will be providing support on the 5G Network. The course is based on the 3GPP Release 17.

### Target Group:

- Personnel working in Service Fulfillment who will be supporting 5G

### Learning Objectives:

The learner will be able to:

- discuss the motivation, new technologies and standardization progress for 5G
- explain 5G end to end Network Architecture
- explain 5G Core Network principles
- explain 5G New Radio principles

### Prerequisite:

- General telecommunications background (not enforced)
- TP00001-K-1701 (not enforced)

### Contents:

- 1 - 5G Standards, Use Cases and Requirements
  - 1.1 - 5G Key Drivers and Requirements
- 2 - 5G Core Network Principles
  - 2.1 - 3GPP 5G System Architecture
  - 2.2 - Service Based Architecture
  - 2.3 - 5G Core Network Functions
  - 2.4 - 5G System Procedures
  - 2.5 - 5G System QoS
  - 2.6 - 5G System Security
  - 2.7 - 5G Network Slicing
  - 2.8 - 5G Services to Verticals and Industry 4.0 - Part 1
  - 2.9 - 5G Services to Verticals and Industry 4.0 - Part 2
  - 2.10 - 5G Services to Verticals and Industry 4.0 - Part 3
  - 2.11 - Other 5G Specific Services - Part 1
  - 2.12 - Other 5G Specific Services - Part 2
- 3 - 5G New Radio Principles
  - 3.1 - 5G NG - RAN Architecture
  - 3.2 - Multi-Radio Dual Connectivity
  - 3.3 - 5G NR Spectrum
  - 3.4 - Multiple Access
  - 3.5 - 5G NG - RAN Protocols
  - 3.6 - Massive MIMO and Beamforming
  - 3.7 - Beam Management
  - 3.8 - Device Enhancement

Provider	NokiaLearn
Version	23.0
Available Language(s)	English (US)
Subject(s)	<a href="#">5G Technology</a>

## Contents 22 Trainings

<b>5G STANDARDS, USE CASES AND REQUIREMENTS</b>	
<b>ONLINE CLASS</b>	5G Key Drivers and Requirements   TP00003-W-1701-01
<b>5G CORE NETWORK PRINCIPLES</b>	
<b>ONLINE CLASS</b>	3GPP 5G System Architecture   TP00003-W-1701-02
<b>ONLINE CLASS</b>	Service Based Architecture   TP00003-W-1701-03
<b>ONLINE CLASS</b>	5G Core Network Functions   TP00003-W-1701-04
<b>ONLINE CLASS</b>	5G System Procedures   TP00003-W-1701-05
<b>ONLINE CLASS</b>	5G System QoS   TP00003-W-1701-06
<b>ONLINE CLASS</b>	5G System Security   TP00003-W-1701-07
<b>ONLINE CLASS</b>	5G Network Slicing   TP00003-W-1701-08
<b>ONLINE CLASS</b>	5G Services to Verticals and Industry 4.0 - Part 1   TP00003-W-1701-09
<b>ONLINE CLASS</b>	5G Services to Verticals and Industry 4.0 - Part 2   TP00003-W-1701-10
<b>ONLINE CLASS</b>	5G Services to Verticals and Industry 4.0 - Part 3   TP00003-W-1701-11
<b>ONLINE CLASS</b>	Other 5G Specific Services - Part 1   TP00003-W-1701-12
<b>ONLINE CLASS</b>	Other 5G Specific Services - Part 2   TP00003-W-1701-13
<b>5G NEW RADIO PRINCIPLES</b>	
<b>ONLINE CLASS</b>	5G NG - RAN Architecture   TP00003-W-1701-14
<b>ONLINE CLASS</b>	Multi-Radio Dual Connectivity   TP00003-W-1701-15
<b>ONLINE CLASS</b>	5G NR Spectrum   TP00003-W-1701-16
<b>ONLINE CLASS</b>	Multiple Access   TP00003-W-1701-17
<b>ONLINE CLASS</b>	5G NG - RAN Protocols   TP00003-W-1701-18
<b>ONLINE CLASS</b>	Massive MIMO and Beamforming   TP00003-W-1701-19
<b>ONLINE CLASS</b>	Beam Management   TP00003-W-1701-20
<b>ONLINE CLASS</b>	Device Enhancement   TP00003-W-1701-21
<b>ASSESSMENT</b>	
<b>TEST</b>	Understand 5G System Fundamentals (3GPP R17)   TP00003-E-1701