

MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY, JAMSHORO
DEPARTMENT OF TELECOMMUNICATION ENGINEERING

FRM-001/00/QSP-004, Dec. 01.2001

Tentative Teaching Plan

Name of Teacher: **Prof. Dr. A. Waheed Umrani**

Subject: **Wireless Communications**

Batch: **13TL Section I**

Year: **Final**

Term: **1st**

Term Starting Date: **04-01-2015**

Term Suspension date: **24-04-2015**

| S. No. | Topic | No. of lectures required |
|--------|---|--------------------------|
| 01 | Overview of Subject and its outlines | 01 |
| | Part I | |
| 02 | Introduction to Wireless System and their classifications | 02 |
| 03 | Wireless Propagation mechanisms | 02 |
| 04 | Large Scale propagation models | 02 |
| 05 | Small scale propagation models | 02 |
| 06 | Path Geometry: Plane Earth Model | 02 |
| 07 | Path Geometry: Curved Earth Model (Tutorial 1) | 01 |
| 08 | Path Geometry: Diffraction and Reflection | 02 |
| 09 | Measuring the Quality of Communication Link | 01 |
| 10 | Multipath Fading | 02 |
| 11 | Multipath Fading Models | 02 |
| 12 | Multipath Fading and its alleviation (Tutorial 2) | 02 |
| | Part II | |
| 13 | Introduction to Cellular Systems + Class Test | 01 |
| 14 | Cellular Concepts and Principles | 02 |
| 15 | Cellular Concepts and Principles (Contd.) | 02 |
| 16 | Performance Improvement Techniques in Cellular Systems (Tutorial 3) | 02 |
| 17 | Global System for Mobile Communications (GSM) | 03 |
| 18 | GPRS & EDGE | 02 |
| | Part III | |
| 19 | UMTS (Tutorial 4) | 02 |
| 20 | Wi-fi and Wi-Max System | 02 |
| 21 | LTE Systems and Beyond | 02 |
| 22 | Ultra-wideband communications | 01 |
| 23 | 5G Scenario (optional) + Assignment | 02 |
| | Total | 42 |

Signature of Teacher:

Date: 04-01-2015

Remarks of DMRC:

Signature of Chairman

Date: