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| **logo University of Management & Technology**  School of Science & Technology  Department of Electrical Engineering | | | |
| EE485 Telecom Management | | | |
| **Lecture Schedule** | Monday & Wednesday 14:00– 15:30 | **Semester** | Spring 2013 |
| **Pre-requisite** | 1. Communication Systems 2. Telecom Switching and Transmission | **Credit Hours** | 3 |
| **Instructor(s)** | 1. Khalid Asghar | **Contact** | [Khalid.asghar@umt.edu.pk](mailto:Khalid.asghar@umt.edu.pk) |
| **Office** | 2nd Floor, South Block,  SST S3/41¹ | **Office Hours** | See office Door |
| **Teaching Assistant** | None | **Contact** | N/A |
| **Office** | N/A | **Office Hours** | N/A |
| **Course Description** | This is an undergraduate level course.. The course will cover; all types of telecommunication systems including the OSP,PSTN,Data Communications, traditional transmission media, Different Networks, IP services, next generation networks, Optical Networks, Broadband access Network, Wireless Networks, Emerging Wireless Applications. Transmission Transport, ATM. Network Management Systems which is applicable on all the modern telecom Networks. Project Management will also be introduced in addition to Telecom Standards, National and International. | | |
| **Expected Outcomes** | Upon completion of this course, students will:   * Have good understanding of all types of Telecom Systems. * Have familiarity with management concepts. * Understanding about the national and international telecom regulatory bodies. * Become familiar with Project Management . * The course strongly supports expected **outcomes** a, b, d, g and i of the HEC Electrical Engineering Curriculum. | | |
| **Textbook(s)** | **Recommended Text:**  1-Telecommunication Essentials second Edition by Lilian Goeeniewski.  2-Fundamentals of Telecommunications second Edition by Forger Freeman  3-Data communications and Networking by Behrouz A Frozouzan 4th edition  **Reference:** 1- Telecommunication Network Management by Salah Aidarous Thomas Plevyak.   1. Telecom Management Crash Course by P.J Louis 2. Telecommunication Expense Manangement by Michael Brosnan 3. Telecommunication Convergence by Steven Shepard | | |
| **Grading Policy** | * Assignments & Quizzes: 20% * Midterm: 20% * Project Presentation:10% * Final Exam: 50% | | |

**Course Schedule**

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| **Lecture** | **Topics** | **Textbook (TB) /**  **Reference (Ref) Readings** |
| 1-2 | Introduction, OSP and PSTN | TB: 2 |
| 3-4 | Communication Fundamentals | TB: 2,1 |
| 5-6 | Traditional Transmission Media | TB: 1,2 |
| 7-10 | The Transport Network Infrastructure including PDH and SDH Transmission Signaling system, Intelligent Network SS7 and Next Generation Network | TB: 1,2 |
| 11-15 | Data Networking and Internet and Wireless Communications | TB: 1,2 |
| **Mid Term Exam (8th Week)** | | |
| 17-20 | Next Generation Networks | TB: 1,2 |
| 21-22 | Optical Networks and Broadband Access Alternatives | TB: 1,2 |
| 23-24 | Fault Management, Configuration Management, Performance Management, Security Management, Accounting Management, Survivability Enhancement, Rapid Trouble Shooting. Aid in Network Management Provisioning, Communication Channels for the Network Management Systems. | TB: ,2 |
| 25-28 | Network Traffic Management Centre, Network Traffic Management Principles, Network Traffic Management Functions, Network Traffic Management Controls, introduction to Network Management Protocols, Remote Monitoring, SNMP Version 2, SNMP Version 3, Common Management Information Protocol. | TB: 2 |
| 29-30 | Telecom Protocols and Management Concepts | TB: 3 |
| **Final Term Exam (Comprehensive)** | | |