Module Name: Finance & Business Environment (ELECGB12)

Module Acronym: B2

Module Manager: Keith Carrington

Module Summary:
This module provides a thorough examination of the generic principles of finance, but using telecommunications and ICT service providers as example companies. The objective is to give the students sufficient understanding of financial analysis so that they appreciate the financial implications of topics in subsequent modules, B3 and B4. Specific topics covered include: financial accounting, management accounting, business finance, and the construction of business cases. The latter item includes key business environmental issues relevant to the ICT industry e.g. Regulation, legal considerations and telecommunications infrastructure economics.

Learning Outcomes:
At the end of the course, students should be able to:

- Understand financial statements and how to read them, as well as the principles of amortisation and depreciation, \textit{ebitda}, profit, cash flow, cost of capital, share price dynamics and dividend policy.

- Understand what the concept of convergence in the ICT marketplace and be able to identify the opportunities and threats created for new and existing players.

- Understand the drivers and constraints involved in regulating the businesses and gain an appreciation of the legal principles involved.

- Understand how to construct business cases and their importance in aiding decision making in a corporate environment.

- Understand the cost dynamics of a telecommunications network and support-systems infrastructure, in terms of the effects of volume, quality of service, range of services supported, resilience, etc.
• Understand the key business drivers for next-generation networks (NGN) and the components of the supporting business case.

Module Content

1) Financial Management
The role of financial management in any business is described, with detailed application to the telecommunications network operators’ functions. Students will gain a thorough grounding in, and a good understanding of the application of, the following:

- Financial Accounting: The principles, application and practical use, including the unique telecommunications and ICT aspects – including amortisation and depreciation, **ebitda**, profit, cash flow, cost of capital, share price dynamics and dividend policy, and financial ratios.
- Management Accounting: The application of management accounting to the business so that students can apply the principles to their own company circumstances.
- Business Finance: The importance of creating, implementing and auditing a robust financial strategy, including the management of risk and the implications on share price.

2) The Regulatory and Legal Scene
The UK, European and World-wide legal and regulatory frameworks are presented, showing the constraints and opportunities offered to incumbent and other operators and service providers. Apart from interconnect issues, the UK Telecommunications Strategic Review is described and its impact analysed, together with the role of OFCOM in regulating what is becoming a converged market; this covers the vast range of broadcast, entertainment, and telecommunications applications. Students will understand the drivers and constraints involved in regulating the businesses, together with the opportunities that arise; they will also gain an appreciation of the legal principles involved.

3) Business Cases
The key aspects of a business case are introduced, covering its role in corporate governance, the essential content, the financial case and supporting evidence. Students will be able to create their own credible and plausible business cases for capital and current account projects, including the use of DCF techniques, evaluating the cost of capital and deciding on financing options. They will be able to analyse the regulatory and legal risks and plan to mitigate them.
3) **Infrastructure Economics**
Description of the cost dynamics of a telecommunications infrastructure, covering access and core – fundamental to all networks (including railways, airlines, electricity supply, etc), fixed and variable cost, effect of volume on unit cost, cost and revenue apportionment, and long-run costs. In particular, the lectures examine how the network size, structure and choice of technology, together with the systems support infrastructure, impact on the financial performance of a network operator. Students will understand the particular relevance of this to the development of next generation networks (NGN) and the provision of new-wave services.

**Assessment:**
At the end of the module students will be set a two and a half hour examination designed to assess their understanding of the financial and management accounting in today’s telecommunications business and to create appropriate business cases.

**Tutorials/Workshops:**
Two hour tutorial to address the main learning points of the module and to prepare the students for their examination.

**Guest Speakers:**
Several guest speakers will be invited to give the students the benefit of their experience on the practical aspects of the telecommunications business.