**Course Syllabus**

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| **Code and Name** | EEE452 Engineering Economics |
| **Type** | Required, Lecture |
| **Credit Hours** | 3 |
| **Pre-requisites** | None |

**Course Summary**

Time Value of Money and the Mathematics of Finance, Figures of merit (NPV, IRR, BC, etc) in making engineering design and business decisions. After Tax Analysis (ATA) using the income statement format.  Risk analysis and assessment. Financial accounting. Focuses on the key aspects of the modern telecommunications and IT sector management, e.g. services engineering, billing, HR, operations, maintenance, planning, customer relations, supply chain, changing technologies, regulation policies, solution engineering, outsourcing, strategy development. Principles of engineering project management.

**Course Objectives**

The objectives of this course are to

1. interpret principles of Economics within the context of engineering, technology, and innovation management
2. explain estimation of production function, and infer role of technology on Economics of production and functioning of market
3. illustrate technology life cycle, nature of innovations, innovation diffusion pattern and management decision making to deal with them.
4. explain Telecommunication economics, relate network economics, dynamic competition, and regulation, and interpret their implications on competition scenario of telecom industry
5. explain economics of design for manufacturing (DFM)
6. explain the concept of financing such as risk and venture capital financing, time value of money, and intangible asset valuation, and relate them to management of technology and innovation projects.
7. illustrate principles of project management including planning, scheduling and resource allocation, project budgeting and cost control, and contract management.

**Textbooks**

1. Introduction to Microeconomics, David A. Besanko and Ronald R. Braeutigam, 4th Ed.
2. Industrial Organization, Jeffery Church and Roger Ware, 2000
3. Strategic Management of Technological Innovation, Melissa A. Schilling, 4th Ed.
4. Information Rules, Carl Shapiro Hal R. Varian, 1999

**Grading Policy**

As per NSU grading policy available at 

<http://www.northsouth.edu/academic/grading-policy.html>