PROGRAMME SPECIFICATION

B.SC. IN BUSINESS INFORMATION SYSTEMS (SPECIAL) DEGREE

THE UNIVERSITY OF SRI JAYEWARDENEPURA

Programme Name	B.Sc. in Business Information Systems (Special)
Year of Commencement	2007
Department	Information Technology
Faculty	Management Studies and Commerce
University	University of Sri Jayewardenepura
SLQF Level	Level 06 - (120 credits after SLQF 2)
Programme Duration	4 years
Selection	50 students are selected from GCE (A/L) Commerce stream by the UGC based on the GCE (A/L) 'Z' score
Last revision	2015/2016
Next revision due in	2019/2020

Introduction to Degree Programme

The rapid development in Information Technology (IT) has enabled business organizations to exploit IT as a tool to obtain competitive advantages. A key ingredient in the formula for success in this endeavour is for business professionals to apply Information Technology in management practices. Graduates armed with appropriate knowledge in Management and Information Technology disciplines are desired by the industry to meet the national requirement. The launch of a new Special degree programme named B.Sc. in Business Administration (Information Systems) (Special) by the Faculty of Management Studies and Commerce, University of Sri Jayewardenepura in 2001 was aimed to meet this demand. This programme was the first of its kind in Sri Lanka that combined Management and Information Technology disciplines for students in the Advanced Level commerce stream. The Department of Information Technology and Decision Sciences was established in the Faculty to provide the organizational infrastructure for the degree programme.

In December 2007, the Department was split into two separate departments – namely Information Technology and Decision Sciences to facilitate the development of the separate disciplines. Subsequently, the existing degree programme offered by the Department of Information Technology was renamed as B.Sc. in Business Information Systems (Special) Degree. The renaming of the degree was carried out to better reflect the composition of the course structure and to address the evolving market needs.

Aims/Objectives of the Degree Programme

This degree programme is focused to provide sound theoretical and practical knowledge in the two disciplines of Management and Information Systems. By combining these two prominent disciplines, this programme will equip the students with cutting edge business management skills as well as information systems skills to work, manage and succeed in any business. This programme has been especially designed to meet the aspirations of students who are willing and seeking a career either in Management or in Information Systems fields.

Graduate Profile

A student who has successfully completed the B.Sc. in Business Information Systems degree will be a unique graduate who will possess a high level of knowledge in both management and information systems domains. They will be distinguished from others from their diversified knowledge, their generic skills and technical skills, their attitude, their flexibility and adaptability, and their desire for continuous learning over a lifelong career making them an ideal choice for today's dynamic and flexible organizations.

Graduate Attributes

The attributes of a B.Sc. in BIS graduate is based around four main domains of learning, as highlighted below. They represent the clusters of generic capabilities which the department seeks to foster in all graduates through the teaching and learning experiences of its degree programme.

Knowledge: BIS graduates will have in-depth subject and practical knowledge in the fields of Management and Information Systems which can be applied in both local and global contexts.

Skills: BIS graduates will develop a variety of generic skills which will be useful in starting their career and also in their career advancement.

Attitudes, Values, Professionalism, and Vision for life: BIS graduates will develop right thinking, behaviour, practices, and goals for the future.

Mind-set and Paradigm: BIS graduates will have a commitment to the on-going acquisition of new knowledge and new skills and they are expected to be lifelong learners.

Programme Learning Outcomes

On the successful completion of this degree programme, it is expected that students will be able to:

PLO1: Demonstrate knowledge and understanding in the primary business disciplines and in the general field of information systems and its related technologies

PLO2: Apply subject knowledge to business situations in a local and global environment.

PLO3: Communicate information, ideas, arguments and analyse effectively, both orally and in writing with diverse audiences in a range of media and formats.

PLO4: Work effectively both as the team leader and a team member.

PLO5: Apply theory, analysis, research and creativity to solve problems and make rational decisions.

PLO6: Establish a rapport and build collaborative relationships with individuals and groups.

PLO7: Apply the knowledge of ethics and ethical standards with a sense of responsibility within the workplace and community

PLO8: Set and achieve personal and professional goals for themselves

PLO9: Engage constructively with the local and international businesses and communities

PLO10: Work independently and manage their own learning over a lifelong career.

Programme Structure

The curriculum of the B.Sc. in Business Information Systems (Special) degree has been designed to meet the requirement of SLQF Level 6. The study programme consists of 121 credits and it includes both an internship training programme and a research study. The programme covers four academic years of learning. An academic year consists of two semesters. Evaluations are based on several assessment strategies as specified in a below section. Table 2 lists the course modules included in the study programme and it illustrates how each of the course module aligns with the program learning outcomes.

All undergraduate students enrolled in the Faculty of Management Studies and Commerce are required to follow a common curriculum in management in the first three semesters of

study. This is intended to provide the core business knowledge by teaching basic concepts in all functional areas in business.

Table 2: Programme Structure

Course Code	Course Title	Course Status	Contact Hours	Credit Hours
Year I - Semester I				
BUS 1340	Principles of Management	Core	45	03
DSC 1340	Business Mathematics	Core	45	03
ITC 1340	Introduction to Information Technology	Core	45	03
PUB 1240	Socio Political Environment	Core	30	02
COM 1240	Legal Environment	Core	30	02
BCC 1340	Business Communication I	Core	45	03
			Total No. of Credits — Semester I	16
Year I - Semester II				
HRM 1340	Human Resource Management	Core	45	03
DSC 1341	Business Statistics	Core	45	03
BEC 1340	Microeconomics	Core	45	03
ACC 1340	Financial Accounting	Core	45	03
BCC 1341	Business Communication II	Core	45	03
			Total No. of Credits — Semester II	15
			Total Credit Value for the First Year	31
Year II - Semester I				
BEC 2340	Macroeconomics	Core	45	03
FIN 2340	Financial Management	Core	45	03
MAR 2340	Marketing Management	Core	45	03
DSC 2340	Operations Management	Core	45	03
ACC 2340	Management Accounting	Core	45	03
BCC 2340	Business Communication III	Core	45	03
			Total No of Credits — Year II Semester I	18
Year II - Semester II				
ITC 2340	Computer Applications for Managers	Core	45	03
ITC 2341	Professional Ethics and Responsibility	Core	45	03
ITC 2342	Programming Concepts	Core	45	03
ITC 2343	Systems Analysis and Design	Core	45	03
BUS 2341	Organizational Behaviour	Core	45	03
ENT 2341	Introduction to Entrepreneurship and SMEs	Core	45	03

		Total No of Credits — Year II Semester II		18
		Total Credit Value for the Second Year		36
Year III - Semester I				
ITC 3340	Management Information Systems	Core	45	03
ITC 3341	Database Design and Development	Core	45	03
ITC 3342	Information Technology Project Management	Core	45	03
ITC 3343	Software Engineering	Core	45	03
DSC 3340	Operations Research	Core	45	03
Electives: One of The Following Two Courses				
ITC 3344	Object Oriented Programming with C#	Elective	45	03
ITC 3345	Object Oriented Programming with Java	Elective	45	03
		Total No of Credits — Year III Semester I		18
Year III - Semester II				
ITC 3346	Personality and Skills Development	Core	45	03
ITC 3347	Digital Business	Core	45	03
ITC 3348	Information and Communication Networks	Core	45	03
ITC 3349	Research Methodology	Core	45	03
ITC 3350	Software Quality Assurance	Core	45	03
ITC 3351	Web-based Application Development	Core	45	03
		Total No of Credits — Year III Semester II		18
		Total Credit Value for the Third Year		36
Year IV - Semester I				
ITC 4340	Independent Research Study	Core	45	03
ITC 4341	Software Development Project	Core	45	03
BUS 4340	Strategic Management	Core	45	03
		Total No of Credits — Year IV Semester I		09
Year IV - Semester II				
ITC 4342	Business Process Management	Core	45	03
ITC 4343	Enterprise Resource Planning Systems	Core	45	03
ITC 4344	Internship in Information Systems	Core	420	03
		Total No of Credits — Year IV Semester II		09
		Total Credit Value for the Fourth Year		18
		Total Credit Value for the Programme		121

Teaching and Learning Methods and Strategies

Study programme utilizes a variety teaching and learning strategies to make the teaching and learning process an effective process. They include: Large group teaching, Small group teaching, Demonstrating in computer labs, Team-based learning, Case studies, Role-plays, Problem-based learning, Work-based learning (industrial training) and Active learning (self-learning)

Assessment Methods and Strategies

Study program utilizes several assessment strategies to measure the performance of students. They include: Examinations (Mid-semester, and End-semester), Group work, Presentations, Dissertations and projects, Software projects, Continuous assessments (e.g. in-class Assessments), and Viva

Employment Opportunities

Graduates of this degree programme have two main avenues to choose for their career paths. They can decide either to select information systems field or to select the general management field. Graduates who opt for a career in information systems can expect to commence his/her career in a position such as Business Analyst, Systems Analyst, IS Manager, IT/ERP Consultant, Quality Assurance Manager or Project Manager. With further enhancements of Information Technology related knowledge and skills, a graduate can focus on positions such as Software Engineer, Database Administrator and Network Administrator.

Graduates who are willing a career in general management can find job positions in any of the functional areas such as Accounting, Marketing, Finance, Human Resource Management, Production Operations Management etc. Their skills in logical thinking, problem solving and IT applications should help them to perform better than others in those positions. Further studies in the relevant filed and other professional qualifications will support their career enhancement and personal development in the long run.

Professional Links

The department has signed a Memorandum of Understanding with Microsoft Sri Lanka (Pvt) Ltd., which has enabled the Department to get the membership of the Microsoft Developer Network Academic Alliance Programme. Under this programme, students of the department are provided with selected Microsoft Software free of charge for research purposes. The department also maintains close links with several other private sector organizations, which has allowed the department to nominate selected students for industrial placements. Links have also been established with the key Professional Associations which are related to IT Industry.

Awards and Scholarships

At the convocation, a gold medal is awarded by Microsoft Sri Lanka (Pvt) Ltd. to the student with the highest GPA gained over the entire degree programme. Scholarships will be arranged for the students with financial difficulties upon their request to the department.

Students' Association

Students' Association of Information Technology (S@IT) is the student body affiliated to the Department of Information Technology. The association carries out various academic and social activities such as arranging seminars, workshops, field visits and student gatherings to develop knowledge, skills and research abilities of students.

Alumni Association of the Department of Information Technology

The Alumni Association of the Department of Information Technology was formed in 2014. The graduates passed out from the department are eligible to be members of the Alumni Association. The office bearers are selected annually. The objectives of this association are to create, enhance and maintain a good relationship between the alumni members, the department and the corporate sector entities and to provide an opportunity for the graduates to maintain and enhance their relationships among their colleagues throughout their life time.

Facilities at the Department

The Department is located at the Soratha Building of the university. The department office is equipped with necessary infrastructure, furniture, and other equipment to provide support to both lecturers and students of the department. Each staff member has his/her room with necessary facilities for studying, research, and meeting with students. Students have a resource centre which they use for group activities, and also for various activities performed by their Students' Association. In addition, the department has its own Computer Lab with thirty state of the art workstations for exclusive use by students of the department. Students can use this lab freely for their software development, Internet access and other research work. In addition, students of the department utilize the IT Resource Centre of the FMSC for their regular lecture/practical sessions.

Course Descriptions

1. BUS 1340: PRINCIPLES OF MANAGEMENT

   This is an elementary Course. It aims to provide a comprehensive introduction to the key elements of an organisation, its environment and the process of Management. Along with an introduction to historical evolution of Management, the Course will facilitate you to gain a basic knowledge of the concepts, models and the theoretical foundations of Management. Therefore, knowledge gained through this Course will be beneficial for you to follow your Degree programme successfully.

2. DSC 1340: BUSINESS MATHEMATICS

   This course, which is the first course in Mathematics, introduces students to basic principles, laws and rules necessary to develop an overview of application capabilities of the subject matter in the field of business and economics. The course covers functions, differentiation of functions, maxima and minima of functions, partial derivatives, integration, and area under curve and between curves and mathematics of finance. The course also includes the applications of differentiation and integration in business and economics. Under the applications of differentiation, topics such as profit maximization, cost minimization, elasticity of demand, and marginal analysis are discussed. The major topics covered under applications of integration include marginal

revenue and marginal cost, consumer's surplus, producers' surplus, total change in revenue, etc.

3. ITC 1340: INTRODUCTION TO INFORMATION TECHNOLOGY

   This is an introductory level course consisting of both basic theory and practice relating to Information Technology. The theoretical module includes: Introduction to Computers, Computer Hardware, Computer Software, Internet and World Wide Web and network and Internet Security. The practical module provides the knowledge and operational skills on word processing software, spread sheet software which are frequently used in an organizational environment.

4. PUB 1240: SOCIO-POLITICAL ENVIRONMENT

   Socio-political environment and profit-oriented business are inter-dependent. In one hand, business are influenced by the socio and political forces while on the other hand, socio-political environment is influenced by the businesses. Accordingly, this introductory course unit is designed for the Management undergraduates to gain fundamental understanding about social and political environment in which every business operates. As prospective professionals and citizens who will interact with the societal and political institutions, it is necessary for an undergraduate to learn civic, social and political dimensions. This course facilitates learners to identify and respond to various social trends and changes in the political milieu, focusing on the substance of culture, socialization, social trends, social institutions, government, democracy, and interactions between different agents in the society. Further, it discusses the government mechanism which is currently being practiced in Sri Lanka.

5. COM 1240: LEGAL ENVIRONMENT

   This course is intended to help undergraduates attain a basic understanding of the concept - Law and legal system in Sri Lanka particularly as it relates to business organisations. Undergraduates must be able to appreciate the very effect of the various areas of law in their work and life. This course prepares them for instances where they would encounter legal issues and in business/commercial formation issues throughout their career.

6. BCC 1340: BUSINESS COMMUNICATION I

This course aims to help students reach the level of Band 4/5 of the UTEL. Upon completion of the course, students should be able to construct both simple and complex sentences accurately, express their views meaningfully in brief discussions and telephone conversations, obtain required information from auditory texts, read and extract information in texts for a variety of purposes, write short texts and business letters.

7. HRM 1340: HUMAN RESOURCE MANAGEMENT

An obvious interdependence exists between our society and organizations that produce goods and services in order to fulfill our needs. The standards of living and even survival of people in society depend on the goods and services of the organization. Thus, any society/nation wants organizations that need people to achieve organizational objectives. Human Resource Management (HRM) is managing these people in organizations. The main objective of this course is to provide a systematic and rational understanding of HRM, both conceptual understanding and job-oriented practical understanding. It focuses on a systematic and scientific approach to the analysis and handling of issues/problems in HRM with especial reference to the Sri Lankan context. The main areas covered are: Introduction to HRM, organization of the HR Department, job design, job analysis, human resource planning, recruitment, selection, hiring and induction, performance evaluation, pay management, training and development, employee movements, management of discipline, safety, health and welfare administration, grievances handling and management of labour relations.

8. DSC 1341: BUSINESS STATISTICS

This course provides an introduction to the fundamental concepts, principles and methods of Business Statistics. The topics include descriptive techniques, probability theory, probability distributions and inferential techniques. The major topics discussed under descriptive techniques include data collection, presentation and organization and statistical summary measures. Three important theoretical distributions, namely, Binomial, Poisson and Normal distribution are discussed under probability distributions. The major topics under inferential techniques include sampling and sampling distributions, estimation and hypothesis testing.

9. BEC 1340: MICROECONOMICS

This course is designed to introduce economic theories and tools and methods of analysis that are useful in the study of various economic issues and in business decision-making. It covers intermediate theory of demand and supply, theories of consumer behaviour and production, various market structures, factor market for labour, general equilibrium and welfare.

10. ACC 1340: FINANCIAL ACCOUNTING

This course aims at developing students' knowledge of accounting standards, and understanding of their application in the preparation and presentation of financial statements of a corporate entity. The areas covered are: overview of financial accounting; overview of accounting standard setting process; conceptual framework for financial reporting; preparation and presentation of financial statements of companies; fair value based measurement; revenue recognition and measurement; accounting for property, plant and equipment and investment property; accounting for intangible assets; impairment of assets; accounting for provisions, and contingent liabilities and assets; accounting for leases; and consolidated financial statements. The Accounting subject of GCE (Advanced Level) will provide the foundation for this course.

11. BCC 1341: BUSINESS COMMUNICATION II

This course aims to help students reach the level of benchmark Band 5/6 of the UTEL. This course introduces the students to language skills required in different business situations. Upon completion of this course, students should be able to participate in business meetings confidently and effectively, communicate effectively in a variety of situations, take down notes from auditory texts, read and respond to texts for a variety of purposes, write short formal texts and business letters, and use presentation techniques effectively and make brief presentations.

12. BEC 2340: MACROECONOMICS

This course intends to provide students with the basic understanding of the aggregate economic system: concepts of aggregate demand and supply, national income and product measures, consumption and investment, supply side economics and its applications, the government's role in an economy, use of fiscal, monetary, and

exchange rate policies to guide the economy, employment and inflation. It also encompasses macroeconomic analysis both in a closed and open economy, income-expenditure, IS-LM model and modern approaches.

13. FIN 2340: FINANCIAL MANAGEMENT

This course provides an introductory level understanding of a range of major concepts and techniques in Financial Management. This course is offered to the undergraduates reading for all degrees in the FMSC. The content of the course covers an introduction to financial management, analysis and interpretation of financial statements, financial environment, time value of money, risk and return, security valuation, cost of capital, capital budgeting, capital structure, dividend policy and working capital management.

14. MAR 2340: MARKETING MANAGEMENT

This is an introductory course on basic concepts and theories of marketing management .It familiarizes students with the marketing discipline .The course provides understanding of the nature and scope of marketing which includes marketing philosophies, the theoretical perspective of marketing strategies and analysing marketing opportunities.

15. DSC 2340: OPERATIONS MANAGEMENT

This course, which is the first course in Operations Management, introduces the students to key concepts, principles and design techniques that are essential to develop an appreciation of their uses in the field, and their interactions and relationships with parallel management activities in order to cultivate a general understanding of the field as a totality. Major topics include operations strategy and competitiveness, product design and process selection, total quality management, capacity management, layout planning, job design, work measurements, supply chain management, inventory control, business process reengineering and manufacturing and service strategy.

16. ACC 2340: MANAGEMENT ACCOUNTING

This introductory level course provides basic knowledge and skills in relation to management accounting. It will enable students to understand salient principles, concepts and practices in management accounting as well as to develop requisite skills. The areas covered are: overview of management accounting; cost concepts;

classifications and estimation; cost assignment; costing methods; cost-volume-profit (CVP) analysis; short-term decision making; capital investment decisions; budgeting; and standard costing.

17. BCC 2340: BUSINESS COMMUNICATION III

The objective of this course is to help students further develop their communication and business skills in order to use English for business communication confidently and effectively. The following areas will be covered: writing business letters for a variety of purposes, making brief presentations, taking down notes efficiently, communicating effectively and confidently in business related situations, writing summaries of business related texts, writing business reports, preparing formal documents, and conducting presentations.

18. ITC 2340: COMPUTER APPLICATIONS FOR MANAGERS

In today's business environment, software applications may provide managers with the required knowledge to take swift business decisions. This course builds upon the knowledge disseminated in ITC 1340 course offered in first year to provide the knowledge and skills required to use application software for organizational productivity and decision making. The course focuses on four areas: using spreadsheets as a decision-making tool, using databases for business intelligence, using online applications for information retrieval and information dissemination on the World Wide Web, and using Software Applications for collaboration in the workplace.

19. ITC 2341: PROFESSIONAL ETHICS AND RESPONSIBILITY

Computer professionals and users are responsible for: maintaining relationships with and responsibilities toward customers, clients, co-workers, employees, and employers; making critical decisions that have significant consequences for many people; and determining how to manage, select, or use computers in a professional setting. This course is aimed at educating the students and providing them with necessary knowledge to face these challenges and overcome them with great responsibility.

20. ITC 2342: PROGRAMMING CONCEPTS

This course introduces the basic theoretical and practical knowledge required to follow a course in Object-Oriented Programming. The course consists of two modules. Module

- I is theoretical and builds upon the basic concepts of programming logic and design required for Object-Oriented Programming through the fundamentals of control structures, classes, and the OOP paradigm. The course covers an overview of computers and logic, OOP language fundamentals, classes and objects, decision structures, loops and files, methods, arrays, text processing and wrapper classes, and object-oriented programming. Module-II is the practical component and involves in the design and development of effective functional and Object-Oriented software modules.

21. ITC 2343: SYSTEMS ANALYSIS AND DESIGN

This course provides the knowledge and skills to analyze the business problems and formulate the suitable information system based solutions using both the structured and object-oriented system analysis and design tools and techniques. Major topics covered in this course include: The Context of Information Systems Development, Systems Analysis, Fact-Finding Techniques for Requirements Discovery, Data Modeling, Process Modeling, Feasibility Analysis, Systems Design, Modeling System Requirements with Use Cases, Object-oriented Analysis and Modeling using the UML and Object-oriented Design and Modeling using the UML. The practical component in this course provides the skills to apply the Microsoft Visio 2016 tool to support the system analysis and design.

22. BUS 2341: ORGANISATIONAL BEHAVIOUR

This is a core course in the field of Business Management. It deals with understanding human behaviour in organisations. It analyses and examines individual, group, and organisational processes. It recognises the fact that human beings are complex: The same person’s behaviour changes in different situations. Two people are not alike and often act very differently in the same situation. This complexity limits our ability to make simple predictions of human behaviour. Therefore, a systematic approach is required to understand human behaviour at work. The basis for using the systematic approach to study human behaviour in organisation is the belief that behaviour is not random and that we can offer reasonably accurate explanation and prediction of human behaviour in organisation. With this background, the contents of this Course address the key issues and the dynamics of individual and group behaviour in the organisational context. Thus, the students who follow this Course will be able to gain systematic

knowledge and understanding about behaviour of individual and group as well as organisational processes from a broader perspective.

23. ENT 2341: INTRODUCTION TO ENTREPRENEURSHIP AND SMEs

This is an introductory level course on basic concepts and theoretical foundations on the concept of Entrepreneurship and Small and Medium Scale Enterprises (SMEs). It discusses the meaning and definitions of entrepreneur, entrepreneurship and intra-preneurship, the nature characteristics and behaviour of the entrepreneur, entrepreneur's role as a leader in an enterprise, the role of entrepreneur in the economy, influences on entrepreneurship development. Moreover, the course aims at developing awareness among the students on the specific features of SMEs, especially in the Sri Lankan context. This involves a broad discussion of business environment of SMEs' in Sri Lanka, problems encountered by Sri Lankan SMEs, overcoming them and current issues in SME sector.

24. ITC 3340: MANAGEMENT INFORMATION SYSTEMS

This is an advanced course that deals with usage and application of information systems. This course covers information systems in global business today; e-business; information systems, organization and strategy; ethics and social issues in information systems; foundations of business intelligence; securing information systems and building information systems.

25. ITC 3341: DATABASE DESIGN AND DEVELOPMENT

This course provides specialized knowledge and skills in designing and development of databases. The course consists of two modules. The first module discusses the importance of the databases to different user groups, database development process, different modelling techniques, database designs and development and accessibility, data/database administration and data warehousing. The second module provides the necessary practical skills to strengthen the knowledge gained in the first module. During this module the students are exposed to database management systems currently available in the business environment.

26. ITC 3342: INFORMATION TECHNOLOGY PROJECT MANAGEMENT

This course provides the opportunity to learn how to apply the project management theories and techniques for information technology (IT) projects. This course content is based on the project management framework and its applications to IT projects. The main topics include Introduction to IT Project Management, the Project Management and Information Technology Context, Project Management Process Groups and Project Management Knowledge Areas such as Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management and Project Quality Management. The practical component in this course provides the skills to apply the Microsoft Project 2016 tool to support the IT Project Management.

27. ITC 3343: SOFTWARE ENGINEERING

This is a specialized course on software engineering that focuses on the principles of software engineering, with an emphasis on the practical aspects of constructing large scale software systems. This course covers introduction, software life cycle models, software project management, requirement analysis and specification, software design, function-oriented software design, object modelling using UML, object-oriented software development, user interface design, coding and testing, software reliability and quality management, Computer Aided Software Engineering (CASE), software maintenance, reuse with emerging trends.

28. DSC 3340: OPERATIONS RESEARCH

This course is designed to give a basic introduction to fundamental concepts, methods and techniques of operations research (OR). The topics include definition of OR, scope of OR, the OR problem solving process, models and modelling in OR, model formulations of linear programming (LP), the graphical method and the Simplex method for solving LP problems, special cases of LP problems, definitions of the dual problem, primal dual relationship, economic interpretation of duality, dual simplex method, sensitivity or post optimal analysis, determination of starting solutions and solution of transportation problems, special cases of transportation problems, Hungarian method and an application of the assignment problem, project scheduling with certain activity time and time/ cost trade off in PERT/ CPM networks.

29. ITC 3344: OBJECT ORIENTED PROGRAMMING WITH C#

The objective of this course is to offer in-depth theoretical and practical knowledge in the area of object-oriented programming and extends the knowledge and skills acquired during the course of "PROGRAMMING CONCEPTS". The course consists of two modules. Module-I is theoretical and covers the advanced concepts of object-oriented programming using C# for component-based designed and development of software for console and web. This includes user-defined classes, methods, objects, interface, inheritance, polymorphism, operator overloading, delegates and events, console I/O operations, handling errors and exceptions, multi-threading and GUI applications. Module-II, the practical component, involves the design and development of effective fully-fledged software system.

30. ITC 3345: OBJECT ORIENTED PROGRAMMING WITH JAVA

The objective of this course is to offering depth theoretical and practical knowledge of JAVA in object-oriented programming and extends the knowledge and skills acquired through the course of "PROGRAMMING CONCEPTS". The course consists of two modules. Module-I is theoretical and covers Inheritance, Exceptions and Advanced File I/O, Recursion, Multi-threading, Databases, Graphical User Interfaces and GUI Applications needed for designed and development of software for console and web. Module-II, the practical component, involves the design and development of effective fully-fledged software system.

31. ITC 3346: PERSONALITY AND SKILLS DEVELOPMENT

This course is designed to enhance the personality and soft skills of the students of the department through recognizing their importance to become dynamic and successful managers in the business world. This includes practical and theoretical content exposed to personality theories, business etiquette, public speaking, physical and mental fitness, personal development and leadership. Outward bound training (OBT programme) which comes under this course unit is one of the annual events organized by the department for the students' personal development.

32. ITC 3347: DIGITAL BUSINESS

This is an advanced course that deals with the concepts and practice of digital business. The major topics covered in this course include: introduction to e-business and e-commerce, market place analysis for e-commerce, e-environment, e-business strategy, supply chain management, e-marketing and customer relationship management.

33. ITC 3348: INFORMATION AND COMMUNICATION NETWORKS

Communication networks are increasingly becoming a ubiquitous entity in information systems. The needs for instant access to large volumes of data are omnipresent. The skill to identify needs in networking computers, and consider communications technologies and standards available is required in IT Manager. This course provides the essential knowledge to make informed decisions regarding the selection, purchase, installation and maintenance of local area networks. The course also provides practical skills related in setting up network operating systems to provide basic network services.

34. ITC 3349: RESEARCH METHODOLOGY

In this course the student will become acquainted with social research methodologies. The areas covered include: the nature and scope of social research, formulation of the research problem, measurement and the problem of causality, selection of study design, sampling, and methods of data collection, analysis and interpretation of data, formulating the research proposal, and writing the research report.

35. ITC 3350: SOFTWARE QUALITY ASSURANCE

This course covers an introduction to quality assurance, planning for quality, assessing the quality plan, ensuring the quality in testing process, and experimental approaches in quality planning and quality standards for software systems in software production. This includes application of software quality assurance techniques in software projects that demands high-quality deliverables.

36. ITC 3351: WEB-BASED APPLICATION DEVELOPMENT

This is a specialized course that provides a comprehensive theoretical and practical knowledge in the area of web based applications. The course consists of two modules: theory and practical modules. Theory module covers the basic concepts of Internet

communication, fundamentals of web designing, and scripting languages. Practical module gives in-depth coverage of web-based application development including design and development of effective web pages and web-based applications.

37. ITC 4340: INDEPENDENT RESEARCH STUDY

This course imparts basic knowledge and understanding to the undergraduates about the nature and scope of information systems related research. The course will provide a conceptual framework for conducting research, a basic understanding about research process and how research and statistical tools can be used in information systems related research. The students are required to carry out a research study in the field of information systems and prepare a research report based on their study, under the guidance of a research supervisor appointed by the department.

38. ITC 4341: SOFTWARE DEVELOPMENT PROJECT

This course provides the opportunity for students to apply their conceptual knowledge obtained from the courses followed such as Systems Analysis and Design, Database Management Systems, Computer Programming, IT Project Management and Web-based Application Development etc. into practice. In this project, students have to select a problem from any organization and to develop an information system to solve the identified problem. At the end students are required to demonstrate the system developed and submit a report on it.

39. BUS 4340: STRATEGIC MANAGEMENT

This is an advanced and capstone course that draws upon knowledge of previous courses delivered at elementary and intermediary levels of the Degree Programme. The purpose of this course is to deliver a holistic understanding of corporate and business strategy that ties previous disciplines together at a strategic level, in determining the strategic direction of organisations in the context of the broad general and immediate competitive environment and how successfully these strategies could be executed to ensure long term business survival and growth. The emphasis will primarily be on the analysis of the external and internal environment of various organisations and industries using appropriate model, frameworks, theories and approaches. Students will be provided with multiple perspectives to view organisations or industries. The students

are thought to make the appropriate choice of future direction and alternative strategies to gain and retain competitive and corporate advantages.

40. ITC 4342: BUSINESS PROCESS MANAGEMENT

This is an advanced course that basically deals with aligning organizations with the wants and needs of clients. The course consists of three modules. The first module provides discussion on process management theories such as six sigma and business process reengineering (BPR) that lead to BPM. Second module provides an overview of the BPM concepts, BPM principles and BPM practices. In this context it shows how BPM is evolving to enable process enterprises. Third module provides an overview of BPM systems and then illustrates how BPM systems fulfil the role as an enabler of process enterprises. Finally based on lessons learned from theories, a methodology to improve BPM solutions is provided.

41. ITC 4343: ENTERPRISE RESOURCE PLANNING SYSTEMS

The objective of this course is to equip students with knowledge in basic concepts of ERP systems so that they can recognize the need for ERP systems and learn to integrate the business activities in an organization in order to utilize organizational resources effectively and efficiently. This course provides a broad introduction to ERP systems, focusing on the activities of an organization in different business functions. Areas covered include: ERP systems, ERP software, ERP vendors, implementation of ERP systems, integrating business functions in an organization, decision making under ERP systems, and current issues in ERP systems.

42. ITC 4344: INTERNSHIP IN INFORMATION SYSTEMS

The primary purpose of this internship programme is to expose the undergraduate students to the business world and to work in the practical environment. The department prefers the students to have a supervised learning and work experience preferably related to information systems, which enriches the degree programme.