PANJAB UNIVERSITY, CHANDIGARH-160014 (INDIA)
(Estd. under the Panjab University Act VII of 1947-enacted by the Govt. of India)

FACULTY OF BUSINESS MANAGEMENT AND COMMERCE

OUTLINES OF TESTS SYLLABI AND COURSES OF READING

FOR

MASTER OF BUSINESS ADMINISTRATION
(BIOTECHNOLOGY)

MBA (BIOTECHNOLOGY)

(3rd AND 4th SEMESTER)
For the Session 2015-2016
SYLLABI FOR MASTER OF BUSINESS ADMINISTRATION (BIOTECHNOLOGY ) FOR THE EXAMINATION OF 2015-16

Note:
1. Examination in each subject will be of 3 hours duration except for Strategic Management (MBABT7101).
2. The duration of Strategic Management (MBABT7101) will be 4 hours.
3. Maximum Marks for external/written examination is 50 marks and internal assessment is 50 marks except for seminar and workshop courses.

Instructions to the paper setters: (Except for MBABT7101: Strategic Management).

IF THERE ARE TWO UNITS: Set 10 questions in all. Five questions from each unit. The students are required to answer five questions in all selecting at least 2 questions from each unit.

IF THERE ARE FOUR UNITS: Set 10 questions in all. Two or three questions from each unit. The students are required to answer five questions in all selecting at least one question from each unit.

N.B: Use of non-programmable calculators by the students in the Examination Hall is allowed. The calculators will not be provided by the University.

THIRD SEMESTER

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<tr>
<th>Course Code</th>
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<th>Marks</th>
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<tbody>
<tr>
<td>MBABT7101</td>
<td>ENTREPRENEURIAL DEVELOPMENT AND NEW ENTERPRISE MANAGEMENT</td>
<td>100</td>
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<tr>
<td>MBABT7102</td>
<td>PROJECT PLANNING, ANALYSIS AND MANAGEMENT</td>
<td>100</td>
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<tr>
<td>MBABT7103</td>
<td>BUSINESS PROCESS RE-ENGINEERING</td>
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<td>MBABT7104</td>
<td>GLOBAL SUPPLY CHAIN MANAGEMENT</td>
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<td>MBABT7105</td>
<td>SEMINAR ON PRINCIPLES OF BIOTECHNOLOGY</td>
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<tr>
<td>MBABT7110</td>
<td>STRATEGIC MANAGEMENT</td>
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<td><strong>TOTAL</strong></td>
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FOURTH SEMESTER

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<tr>
<th>Course Code</th>
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<tr>
<td>MBABT7202</td>
<td>CUSTOMER RELATIONSHIP MANAGEMENT AND SALES MANAGEMENT</td>
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<td>MBABT7203</td>
<td>TOTAL QUALITY MANAGEMENT</td>
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<td>MBABT7204</td>
<td>SEMINAR ON BIOTECHNOLOGICAL PROCESSES</td>
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<td>MBABT7206</td>
<td>COMPREHENSIVE VIVA-VOCE****</td>
<td>100</td>
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<td>MBABT7207</td>
<td>SEMINAR ON INTELLECTUAL PROPERTY RIGHTS AND BIOTECHNOLOGY</td>
<td>50</td>
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<td>MBABT7208</td>
<td>WORKSHOP ON INSTRUMENTATION IN BIOTECHNOLOGY</td>
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<td>MBABT7209</td>
<td>HUMAN VALUES AND BUSINESS ETHICS</td>
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<td><strong>TOTAL</strong></td>
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* At the end of the examination of 2nd Semester the students will undergo compulsory summer training for a period of 6-8 weeks. Every student will submit the Summer Training Report within two weeks from the start of teaching for 3rd Semester.

**** Comprehensive Viva-Voce of the 4th Semester would be based on papers taught in 3rd and 4th Semester.
THIRD SEMESTER

MBABT7101: ENTREPRENEURIAL DEVELOPMENT AND NEW ENTERPRISE MANAGEMENT

Objective: The objective of the course is to provide conceptual and theoretical understanding about the development of entrepreneurship and its significance in Indian economy, and to highlight issues in new enterprise management.

UNIT I

Entrepreneurship: Concept and definitions, entrepreneurship and economic development, classification and types of entrepreneurs, entrepreneurial competencies, factors affecting entrepreneurial growth: Economic, non-economic factors, traits/qualities of entrepreneurs, intrapreneur, manager v/s entrepreneur, The Role of the Entrepreneur, Entrepreneurs and Myths about entrepreneurs.

UNIT II

Entrepreneurial Finance: Debt financing: Types of debt, sources of debt financing, creative ways to structure long-term debt, debt financing for working capital, equity financing: Sources of equity capital, private placement, venture capital, private equity firms, international private equity, small-business investment companies, initial public issue, public equity process, direct public offerings, angel financing, Social Entrepreneurship and Rural Entrepreneurship

UNIT III

Definition of MSME (micro, small and medium enterprises), rationale, objective, scope, role of MSME in economic development of India, significant provisions of MSME Act, 2006, mechanics of selling of new enterprise: Size and location, optimum units: Its meaning and determinants, size of industrial units in India, feasibility studies, technical, marketing and finance, managerial problems of new enterprises, production purchasing, financing, labour and marketing problems, facilities provided by different institutions and agencies in India, role of SMEs in global environment.

UNIT IV

Elements for a programme, entrepreneurial training and development programmes, entrepreneurship orientation and awareness programme, evaluation of various EDP programmes, women entrepreneurs, steps taken by government, to promote EDPs, institutional entrepreneurial environment in India, Role of support institutions: of director of industries, DIC, SIDO, SIDBI, small industries. development corporation (SIDC), SISI, NSIC, NIESBUD, state financial corporation (SFCs).
References:


Objective: The objective of this course is to promote a sound understanding of the theory and practice of project management. More specifically it introduces students to the purpose, principles, problems and challenges, concepts, techniques, and practice of project management and its various facets; impart skills in project planning, execution and control methods; introduce students to project management software and applications.

UNIT I
Planning and analysis overview: phases of capital budgeting, levels of decision making, resource allocation framework, key criteria for allocation of resource, elementary investment strategies, portfolio planning tools, strategic position and action evaluation, aspects relating to conglomerate diversification, interface between strategic planning and capital budgeting, generation and screening of project ideas: generation of ideas, monitoring the environment, regulatory framework for projects, corporate appraisal, preliminary screening, project rating index, sources of positive NPV, qualities of a successful entrepreneur, porter model for estimation of profit potential of industries.

UNIT II
Market and demand analysis: situational analysis and specification of objectives, collection of secondary information, conduct of market survey, characterization of the market, demand forecasting, market planning, technical analysis: study of material inputs and utilities, manufacturing process and technology, product mixes, plant capacity, location and site, machinery and equipment, structures and civil works, project charts and layouts, work schedule.

Financial analysis: estimation of cost of project and means of financing, estimates of sales and production, cost of production, working capital requirement and its financing, estimates of working results, projected cash flow statement, projected balance sheet, project cash flows, basic principles of measurement of cash flows, components of the cash flow streams, viewing a project from different points of view, definition of cash flows by financial institutions and planning commission, biases in cash flow estimation, appraisal criteria (net present value,
benefit cost ratio, internal rate of returns urgency, payback period, and accounting rate of returns), investment appraisal in practice.

UNIT III

Types and measure of risk: simple estimation of risk, sensitivity analysis, scenario analysis, Monte Carlo simulation, decision tree analysis, selection of project, risk analysis in practice, special decision situations: choice between mutually exclusive projects of unequal life, optimal timing decision, determination of economic life, inter-relationships between investment and financing aspects, inflation and capital budgeting, analysis of firm and market risk: portfolio theory and capital budgeting, capital asset pricing model, estimation of key factors, CAPM and capital budgeting, social cost benefit analysis (SCBA): rationale for SCBA, UNIDO approach to SCBA, little and mirrlees approach to SCB, multiple projects and constraints: constraints, methods of ranking, mathematical programming approach, linear programming model.

UNIT IV

Project financing in India: means of finance, norms and policies of financial institutions, SEBI guidelines, sample financing plans, structure of financial institutions in India, schemes of assistance, term loans procedures, project appraisal by financial institutions, project management: forms of project organization, project planning, project control, human aspects of project management, prerequisites for successful project implementation, network techniques for project management, development of project network, time estimation, determination of critical path, scheduling when resources are limit, PERT and CPM models, network cost system, project review and administrative aspects: initial review, performance evaluation, abandonment analysis, administrative aspects of capital budgeting, evaluating the capital budgeting system of an organization.

References:


**MBABT7103: BUSINESS PROCESS RE-EENGINEERING**

**Objective:** The objective of this course is to develop the abilities of the students to design and to evaluate management and its existing structure and select the right frame for Reengineering.

**UNIT I**

Definition of reengineering, time for reengineering, why business process start to fail, explanation of change theory, reengineering mission and scope, reengineering cost, survival and growth strategies, rethinking business processes.

**UNIT II**

The new world of work, the enabling role of information technology, perspectives on the customer, understanding markets, customer research within markets, service and specifications from the customer, insights from customer analysis.

**UNIT III**

Understanding the influences in the background, perspectives on the background, dynamic nature of the industry, competitive intelligence: Bringing the background into focus, mapping the way work gets done, identifying areas for improvement.

**UNIT IV**

Planning for change, refined mission and scope, design options and alternatives, filling in the line details, mapping the new process, developing business policies, information channels and communications, feedback for continuous improvement, implementing system and structural changes, selecting the right frame, the horns of the downsizing dilemma, maximizing the chances for reengineering success, resistance to change, the transition process, revitalizing the organization for long term durable change, reengineering experience.
References


**MBABT7104: GLOBAL SUPPLY CHAIN MANAGEMENT**

**Objective:** The Course explores the main Issues in global supply chain management (SCM) to underline their strategic importance to firms. The course helps students develop understanding about the significance of SCM in international business; understand the key operational issues involved in global supply chain management; have the knowledge of managing SCM in international trade operations; and examine the levels of risk, efficiency, and sustainability of a supply chain.

**UNIT I**

Introduction to global supply chain management: concept and role of SCM services; international purchasing & distribution; SCM networks; inventory management and its components as SCM system; logistics providers (3PLs, 4PLs); reverse logistics; international logistics centres.

**UNIT II**

Transportation and its services in SCM; transportation services in international market and different transport modes; optimization of transportation process; role of multimodal transport in global SCM.

**UNIT III**

Warehousing and inventory management: role of warehousing in global SCM, functions of warehousing, types of warehouses; lean management (manufacturing), it systems (MPS,
MRP, MRPII, ERP, DRP), material handling; Packaging; inventory management under conditions of certainty and uncertainty.

UNIT IV
International forwarding; material requirements planning; economic order quantity (EOQ), Wilson’s formula, silver meal method, Wagner within method, determination of safety inventory; SCM networks its features & networks owned by international corporations, leadership network, partnership network, configuration and management of SCM networks; green SCM, recent trends in global SCM.

References

MBABT7105: SEMINAR ON PRINCIPLES OF BIOTECHNOLOGY

Objectives: Introduce the students to the basic concepts of biotechnology

UNIT-I
Structure of bacteria, viruses & fungi, Bacterial growth and nutrition, Nutrient media (lab. and industrial), Cell storage, Handling of microbes, Essential requirements of a Biotech-laboratories, Bio-safety levels, Microbial metabolism (anabolism and catabolism).
UNIT-II

Plant cell structure, Plant tissue culture, Media, Protoplast culture, Somatic hybridization, Production of haploid plants, Somaclonal variations, Micro propagation, Germplasm, Conservation, Cryopreservation.

UNIT-III

Primary culture and cell lines (fundamentals, facilities, general considerations, media, biology and characterization, scale up, viability, cytotoxicity), Stem cell cultures, Cell transformation, Cell cloning, Organ and Histotypic cultures, Tissue engineering.

UNIT-IV

Pharma drugs, Dosage forms, Key concepts, types and classes, Delivery systems, General processing, Technological aspects, Quality control, Quality assurance, SOPS, GLP, cGMP, Regulatory affairs.

Suggested readings:


MBABT7110: STRATEGIC MANAGEMENT

Objective: The objective of this course on corporate strategy is to develop in the students an ability to analyse the strategic situation facing the organization, to access the strategic options available to the organization and to implement the strategic choices made by it. Extensive use of a variety of case studies will help in meeting the objectives of this course.

End semester paper: The paper will be of four hours and will carry 50 marks. Section A will be of 20 marks consisting of five questions. 2 questions will be set from each unit. The students are required to answers two question selecting one from each unit. Section B will be of 30 marks consisting of a compulsory case.

UNIT I

Introduction to corporate strategy, an overview of formulation and implementation of strategy (including various models of strategy formation and implementation), mission including
various approaches to business model, environmental analysis (including various tools of analysis), corporate resources and core competencies, personal goals and aspirations of top management, social responsibility and corporate governance, corporate strategy (including diversification and vertical integration), execution of corporate strategy (Including strategic alliance and acquisitions).

UNIT II

Business level strategies (including various typologies for BLS), functional level strategies, strategic alternatives (including models for development of strategic alternative), strategic and technology, strategy and industry lifecycle, evaluation of strategy, implementation of strategy, organisation structure and strategy.

References

1. Ghosh, P.K., Strategic Planning and Management, Sultan Chand and Sons, New Delhi.
4. Hitt, Michael and Hoskisson, Robert E., Strategic Management: Competitiveness and Globalization, South Western Thomson.
FOURTH SEMESTER

MBABT7202: CUSTOMER RELATIONSHIP MANAGEMENT AND SALES MANAGEMENT

Objective: The course aims to develop in the students an understanding of the concepts, importance, benefits and principles of customer relationship management within the context of marketing strategy. It also aims to familiarize the students with the fundamentals of sales management so as to enable the students to effectively manage a sales force.

UNIT I

Introduction to CRM: definition, components, scope, evolution, importance and transformation of customers, touch point analysis, customer value, customer relationship styles, types of customers and customer value, customer lifetime value, customer value and customer satisfaction as precursors to CRM, value co-creation, customer value management, analysing profitability of customers: value chain analysis, customer defection, closed loop marketing, customer retention: importance, stages, measurement of customer expectations: managing and delivering, consumer research, CRM measurement, e-CRM: basic concepts, importance, benefits, steps and success factors in e-CRM, merging CRM and the internet, and barriers to internet adoption.

UNIT II

Developing and deploying CRM strategy: CRM program life-cycle, building blocks of CRM, components of CRM infrastructure: information, process, technology and people and their integration, technology for customer relationship, delivering the customer offer, issues in customer privacy, CRM measurement, Analysis of CRM strategies and approaches practised by successful business houses in India and abroad, emerging trends in CRM.

UNIT III

Introduction to sales management: nature, scope & its evolution, relationship between selling & marketing, selling strategies, selling & buying styles, selling skills, sales in the era of CRM, sales related marketing policies: product, distribution, pricing & personal selling policies, negotiation strategies.
UNIT IV

Sales organization: types of sales structure, management of sales territory, sales quotas, sales budget, sales control & cost analysis, organizing & staffing sales force: selection & recruitment of sales force, sales training, motivation & compensation, strategic role of information in sales management, ethical & legal issues in sales, evaluating of sales force performance.

References

4. Lancaster & Jobber, Selling & Sales Management, Pearson Education.

MBABT7203: TOTAL QUALITY MANAGEMENT

Objective: The course is designed to develop a sound understanding of how the application of TQM assists the pursuit of business excellence and provide skills and strategies in human dimensions of quality and in the tools and techniques applicable to TQM and business excellence.

UNIT I

Introduction to TQM: history, aims, objectives, benefits, gurus and their principles, TQM. reasons for use of TQM, proven examples and benefits, methods to assist the progress of TQM, introduction to tools and techniques: brainstorming, affinity diagram, benchmarking, fishbone diagram, check sheet, flow chart, line graph, run chart, histogram, Pareto diagram, FMEA, scatter diagram, control chart, QFD, tree diagram, force field analysis, seven w. and is/is-not questions, why-why diagrams, total quality control, quality assurance: practices and
techniques, TQM and management: new management challenges, trends and contribution of TQM.

UNIT II

Customer focus: defining external and internal customers, steps in customer analysis, methods of getting customer inputs, methods of measuring customer satisfaction, continuous improvement process: what is continuous improvement, the importance of continuous improvement, and principles of continuous improvement, processes, how to manage processes, role of TQM’s control and improvement process, designing for quality: opportunities for improvement in product design, early warning, concept and design assurance, designing for basic functional requirements, reliability, availability, safety, manufacturability, cost and product performance, workforce teams: team work for quality, types of teams and tasks involved, characteristics of successful and unsuccessful teams, barriers to team work, benchmarking: defining, importance and benefits, types, basic steps, pitfalls, JIT: definitions, benefits, JIT cause and effects, JIT implementation in manufacturing.

UNIT III

TQM for Marketing Function: quality in marketing and sales, factors for excellence, BPR and IT: business process management, quality control SQC/SPC: statistical process control, change management, technology and product quality, quality of after sales services: quality measurement in customer service, organization for quality: quality circles, self managing teams, quality director, reliability of quality characteristics, quality leadership: developing a quality culture, technology and culture, motivation quality linked productivity.

UNIT IV

References


**MBABT7204: SEMINAR ON BIOTECHNOLOGICAL PROCESSES**

**Objectives:** To expose the students to the protocols adopted by industry for production of biotech products.

**UNIT-I**
Antibiotics, Biotransformations, Vaccines, Therapeutic proteins, Alcoholic beverage, Dairy products (cheese and yoghurt), Mushroom

**UNIT-II**
Bioflavors, Vitamins, Citric acid, Enzyme immobilizations, Biosensors, Bioplastics, Transgenic animals (mice, cattle, sheep, pigs), Animal cloning, Gene therapy.

**UNIT-III**
Transgenic plants: Insect resistance, Microbial resistance, Abiotic resistance, Improvements in crop yield and improved nutrition, Transgenic plants as bioreactors, Biofertilizers.

**UNIT-IV**
Industrial production of phytopharmaceuticals (alkaloids, paclitaxol, colchicine), Industrial production of dosage and forms of active pharmaceutical ingredient (API), Tablet formation, Emulsions, Suspensions, and other liquid formulations.

**Suggested readings:**


MBABT7207: SEMINAR ON INTELLECTUAL PROPERTY RIGHTS AND BIOTECHNOLOGY

Objective: The focus of this paper is to sensitise the participants on the intellectual properties its various kinds of infringements and the legal remedies available for its protection. Emphasis is on the case-laws for better understanding and assimilation of salient provisions concerning intellectual property protection.

UNIT I

Intellectual Property: definition and scope, nature and scope of intellectual property law, its role in Economic and Industrial Development, general features of Pans Convention, 1967; Trade and Merchandise Marks Act, 1958; Trade Marks Act, 1999; definition of trade mark, registration of trade mark, infringement of trade mark and suits for infringement.

UNIT II

Patents Act, 1970; Copy Rights Act, 1957; nature, rights conferred by copyrights; infringement and remedies for infringement, World Trade Organisation, consultative machinery at WTO, salient provisions regarding TRIPS and TRIMS, good manufacturing practices.

References:


MBABT7208: WORKSHOP ON INSTRUMENTATION IN BIOTECHNOLOGY

Objectives: To expose the students to the instruments used in the field of Biotechnology

UNIT-I

Bioreactors: Introduction to a bioreactor design, Control panels of a bioreactor, Types of bioreactors, Operation of bio-reactors. Microscopy: Light microscope, Florescent microscope, Phase contrast microscope, AFM, TEM, and SEM.

Spectrophotometery (UV/Visible spectrophotometer), Mass spectroscopy- Infrared and Raman spectroscopy, NMR, GCMS, LCMS.
UNIT-II


Suggested readings:


MBABT7209 : HUMAN VALUES AND BUSINESS ETHICS

Objective: To sensitize students regarding the importance of human values and ethics in business.

Unit I


Unit II

Unit III

Indian value system and values, Indian ethos in management, creating ethical corporate structures, ethical leadership, law and ethics, work ethics: nature and scope, ethical issues at workplace, cross cultural ethics, ethical dilemmas.

Unit IV

Ethics in business disciplines: HRM (downsizing, balance of power, compensation, conflicts), marketing (commodity culture, pricing, advertising), finance and accounting (stock market, financial reporting, insider trading), technology (privacy at workplace, genetically modified foods).

References: