

Jaypee Institute of Information Technology

M.Tech Biotechnology

Semester III

Course Descriptions

Detailed Syllabus
Lecture-wise Breakup

Course Code	17M17BT211	Semester ODD	Semester III, X (DD) Session 2020-21 Month from July to December
Course Name	Seminar and Term Paper		
Credits	4	Contact Hours	4

Faculty (Names)	Coordinator(s)	Dr Garima Mathur
	Teacher(s) (Alphabetically)	Dr Garima Mathur

COURSE OUTCOMES		COGNITIVE LEVELS
C212.1	Make use of existing literature to define a research problem.	Applying Level (C3)
C212.2	Survey the available scientific resources & databases to address the problem	Analyzing Level (C4)
C212.3	Evaluate and critique acquired knowledge	Evaluate Level (C5)
C212.4	Conclude through oral and written scientific presentations	Evaluate Level (C5)

Detailed Syllabus
Lecture-wise Breakup

Course Code	17M17BT212	Semester ODD	Semester III, X (DD) Session 2020-21 Month from July to December
Course Name	Project Based Learning-II		
Credits	4	Contact Hours	4

Faculty (Names)	Coordinator(s)	Dr Ashwani Mathur
	Teacher(s) (Alphabetically)	Dr Ashwani Mathur

COURSE OUTCOMES		COGNITIVE LEVELS
C201.1	Compare and contrast the existing literature and interpret the research problem	Understanding Level 2
C201.2	Make use of biotechnological and allied fields to explore different strategies	Applying Level 3
C201.3	Designing the research strategy	Create Level Level 6
C201.4	Conclude the research finding through presentation and technical report	Analyzing Level 4

Detailed Syllabus
Lecture-wise Breakup

Course Code	17M17BT213	Semester ODD	Semester III Session 2020-21 Month from July to December
Course Name	Dissertation		
Credits	4	Contact Hours	8

Faculty (Names)	Coordinator(s)	Dr Shweta Dang
	Teacher(s) (Alphabetically)	Dr Shweta Dang

COURSE OUTCOMES		COGNITIVE LEVELS
C213.1	Identify the research problem and select suitable scientific methods to solve the given research problem	Applying Level 3
C213.2	Formulate the plan and test for hypothesis	Create level 6
C213.3	Assess the key findings and interpret the data	Evaluate Level 5
C213.4	Compose the written scientific report and effectively present the data	Create level 6

Detailed Syllabus
Lecture-wise Breakup

Course Code	19M12HS211	Semester Odd (specify Odd/Even)	Semester III Session 2020-21 Month from July to December
Course Name	Cost Accounting for Engineering Projects		
Credits	3	Contact Hours	3-0-0

Faculty (Names)	Coordinator(s)	Dr. Praveen Kumar Sharma
	Teacher(s) (Alphabetically)	Dr. Praveen Kumar Sharma

COURSE OUTCOMES	
C201-1.1	Understand basic concepts of Cost Accounting
C201-1.2	Apply concepts of cost in project management
C201-1.3	Analyze cost behaviour for decision making
C201-1.4	Construct different budgets for controlling the cost

Module No.	Title of the Module	Topics in the Module	No. of Lectures for the module
1.	Introduction	Introduction & Overview of Cost Management Process	3
2.	Cost Concepts	Relevant Cost, Differential Cost, Incremental Cost, Opportunity Cost, Objectives of a costing system, Inventory Valuation, Provision of data for decision making	4
3.	Project execution	Meaning, Different types, why to manage, cost overruns centres, various stages of project execution: conception to commissioning. Project execution as conglomeration of technical and nontechnical activities. Detailed Engineering activities.	5
4.	Project Execution	Pre project execution main clearances and documents Project team: Role of each member. Importance Project site Data required with significance, Project contracts, Types and contents, Project execution, Project cost control, bar charts & network diagrams, Project commissioning	6
5.	Cost Behavior	Distinction between Marginal Costing and Absorption Costing; Break-even Analysis, Cost-Volume-Profit Analysis. Various decision-making problems.	6
6.	Profit Planning Marginal Costing	Standard Costing and Variance Analysis. Pricing strategies: Pareto Analysis. Target costing, Life Cycle Costing. Costing of service sector. Just-in-time approach	6

7.	Material Planning	Material Requirement Planning, Enterprise Resource Planning, Total Quality Management and Theory of constraints. Activity-Based Cost Management, Bench Marking; Balanced Score Card & value chain analysis.	6
8.	Budgetary Control	Flexible budgets, Performance budgets, zero based budgets, Measurements of divisional profitability pricing decisions including transfer pricing.	6
Total number of Lectures			42
Evaluation Criteria			
Components		Maximum Marks	
T1		20	
T2		20	
End Semester Examination		35	
TA		25 (Test +Quiz+ Assignment)	
Total		100	
Recommended Reading material: Author(s), Title, Edition, Publisher, Year of Publication etc. (Text books, Reference Books, Journals, Reports, Websites etc. in the IEEE format)			
1.	B. M. L. Nigam and I. C. Jain, <i>Cost Accounting: Principles And Practice</i> , PHI Learning Pvt. Ltd. PHI Learning Pvt. Ltd., 2010.		
2.	C. T. Horngren, <i>Cost accounting: A managerial emphasis</i> , 13/e Pearson Education India. Pearson Education India, 2009.		
3.	R. S. Kaplan and A. A. Atkinson, <i>Advanced management accounting</i> . PHI Learning, 2015.		
4.	A. K. Bhattacharyya, <i>Principles and practice of cost accounting</i> . PHI Learning Pvt. Ltd., 2004.		
5.	N. D. Vohra, <i>Quantitative Techniques in Management</i> , 3e. Tata McGraw-Hill Education, 2006.		

Detailed Syllabus
Lecture-wise Breakup

Course Code	19M13HS211	Semester Odd	Semester III Session 2020-21 Month from July to December
Course Name	Constitution of India		
Credits	2	Contact Hours	(2-0-0)

Faculty (Names)	Coordinator(s)	Dr. Chandrima Chaudhuri
	Teacher(s) (Alphabetically)	Dr. Chandrima Chaudhuri

COURSE OUTCOMES	
C202.1	Demonstrate an understanding of the conflict between the Fundamental Rights and Directive Principles as given in the Indian Constitution
C202.2	Assess the nature of the Indian constitution and its applicability in the study of politics in India.
C202.3	Assess the devolution of powers and authority of governance of the Union government and the local government
C202.4	Demonstrate an understanding of the powers and functions of the Indian executive, legislature and judiciary

Module No.	Title of the Module	Topics in the Module	No. of Lectures for the module
1.	History of Making of the Indian Constitution	<ul style="list-style-type: none"> History Drafting Committee-Composition & Working 	3
2.	Philosophy of the India Constitution	<ul style="list-style-type: none"> Preamble -Salient Features 	1
3.	Fundamental Rights and Directive Principles	<ul style="list-style-type: none"> Right to Equality Right to Freedom Right against Exploitation Right to Freedom of Religion Cultural and Educational Rights Right to Constitutional Remedies Directive Principles of State Policy 	5
4.	Organs of Governance	<ul style="list-style-type: none"> Parliament-Composition, Qualifications & and Disqualification ,Powers and Functions Executive- President , Governor , Council of Ministers Judiciary-Appointment and Transfer of Judges, Qualifications, Power and Functions 	8
5.	Local Administration	<ul style="list-style-type: none"> District's Administration head: Role and Importance Municipalities: Introduction, Mayor and role of 	8

		Elected Representative, CEO of Municipal Corporation ● Panchayati raj: Introduction, PRI: Zila Panchayat. Elected officials and their roles, CEO Zila Panchayat: Position and role. Block level: Organizational Hierarchy(Different departments), Village level, Importance of Grass root democracy	
6.	Election Commission	● Election Commission: Role and Functioning	3

Total number of Lectures

28

Evaluation Criteria

Components	Maximum Marks
Mid Term Examination:	30
End Semester Examination	40
TA	30 (Assignment and Presentation)
Total	100

Recommended Reading material: Author(s), Title, Edition, Publisher, Year of Publication etc. (Text books, Reference Books, Journals, Reports, Websites etc. in the IEEE format)

1.	Austin, G. (1996). <i>The Indian Constitution: Corner Stone of a Nation</i> . Oxford: Oxford University Press
2.	Bakshi, P.M.(2015). <i>The Constitution of India</i> . Delhi: Universal Law Pub. Co. Pvt. Ltd
3.	Bhuyan, D. (2016). <i>Constitutional Government and Democracy in India</i> . Cuttack:Kitab Mahal..
4.	Busi, S.N. (2016). <i>Dr. B. R. Ambedkar framing of Indian Constitution</i> . Hyderabad:Ava Publishers
5.	Basu, D.D. (2018). <i>Introduction to the Constitution of India</i> . Nagpur: Lexis Nexis
6.	Jayal, N.G. & Mehta, P.B. (eds.)(2010). <i>The Oxford Companion to Politics in India</i> . New Delhi: Oxford University Press.
7.	Kashyap, S.C.(1995). <i>Our Constitution/ Our Parliament/Our Judiciary</i> . New Delhi: NBT
8.	Raghunandan, J. R. (2012). <i>Decentralization and local governments: The Indian Experience</i> . New Delhi: Orient Black Swan
9.	Sharma, B.K. (2005). <i>Introduction to the Constitution of India</i> . New Delhi: Prentice Hall of India Prvt Limited
10.	Sikri, S.L.(2002). <i>Indian Government and Politics</i> . New Delhi: Kalyani Publishers