

DEPARTMENT OF PRODUCTION ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech. Production Engineering		
Course Title	Supply Chain Management		
Course Code	PRPE38	No. of Credits	3
Course Code of Pre-requisite subject(s)	PRPC22 & PRPC24		
Session	July 2018	Section (if, applicable)	A & B
Name of Faculty	Dr.P.PARTHIBAN	Department	Production Engineering
Email	parthiban@nitt.edu	Telephone No.	9894366899
Name of Course Coordinator(s) (if, applicable)	---		
E-mail	---	Telephone No.	---
Course Type	<input type="checkbox"/> Core course <input checked="" type="checkbox"/> Elective course		
Syllabus (approved in BoS)			
<p>Evolution of supply chain-essentials of SCM-structure of supply chain, examples-process views-decision phases, issues - aligning supply chain with business strategy - supply chain decision variables, performance measures-new challenges – reverse logistics.</p> <p>Supply chain configuration design - factors involved - sourcing, models for strategic alliances – supplier selection, outsourcing and procurement process – facility location and capacity allocation - modeling approaches LP, MILP - network design in uncertain environment – evaluation using simulation models.</p> <p>Demand forecasting-collaborative forecasting models-bullwhip effect-information sharing - aggregate planning in supply chain- strategies-multi echelon inventory planning-models-discounting- risk pooling- centralized versus decentralized systems.</p> <p>Roles of transportation- tradeoffs in transportation design-modes of transportation and their design - vehicle routing and scheduling - models - packaging-pricing and revenue management.</p> <p>Role of IT in supply chain -IT infrastructure-CRM-SRM-e-business-RFID-supply chain collaboration-Decision Support System (DSS) for supply chain- selection of DSS for supply chain.</p> <p>TEXTBOOKS: 1. Supply Chain Management: Strategy, Planning and Operations-Sunil Chopra, Peter Meindl, Prentice Hall India , 3rd ed., 2007.</p>			

REFERENCES:

1. Designing and Managing the Supply Chain: Concepts, Strategies, and Cases-David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Tata McGraw Hill, 3rd ed, 2007.
2. Modeling the supply chain, J. Shapiro, Thomson, 2nd ed., 2002.

COURSE OBJECTIVES

To provide an insight on the fundamentals of supply chain strategy, logistics, sourcing and outsourcing supply chain networks, tools and techniques.

COURSE OUTCOMES (CO)

Course Outcomes	Aligned Programme Outcomes (PO)
1. Define structure of Supply Chain	PO1, PO2, PO3, PO5, PO6, PO7, PO11
2. Design Supply Chain configuration	PO1, PO2, PO3, PO5, PO6, PO7, PO11
3. Analyze the role of Transportation in SCM	PO1, PO2, PO3, PO5, PO6, PO7, PO11

COURSE PLAN – PART II**COURSE OVERVIEW**

The course Supply Chain Management summarizes the foundation for design and analysis of Supply chains and synthesizes advanced and specialized concepts, principles and models for operational and strategic improvement necessary in the Industrial environment that involves Production planning, Scheduling, Forecasting and Replenishment.

The course aids in learning major building blocks, functions, business processes, metrics and vital decisions in Supply Chain networks.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	Week 1 - 3 Hours	Introduction to Supply Chain Management	Chalk and talk with slides
2	Week 2 - 3 Hours	Evolution and Structure of supply chain	PPT slides
3	Week 3 - 3 Hours	Process View	Chalk and talk with slides
4	Week 4 - 3 Hours	Decision Phases	Black board

5	Week 5 - 3 Hours	Strategy alignment	Chalk and talk with slides
6	Week 6 - 2 Hours	Decision variables and Performance measures	Chalk and talk with slides
7	Week 7- 3 Hours	Logistics	Chalk and talk with slides
8	Week 8 - 1 Hour	Cycle test - 1	---
9	Week 9 - 3 Hours	Distribution & Transportation networks	Chalk and talk with slides
10	Week 10 - 2 Hours	Sourcing decisions in a Supply Chain	Chalk and talk with slides
11	Week 11- 3 Hours	Demand Forecasting	Chalk and talk with slides
12	Week 12- 2 Hours	Aggregate Planning	Black board
13	Week 13- 3 Hours	Role of transportation	Chalk and talk with slides
14	Week 14- 1 Hour	Cycle Test - 2	---
15	Week 15- 3 Hours	Role of IT in supply Chain	PPT slides
16	Week 16- 2 Hours	DSS for Supply Chain	Chalk and talk with slides
17	Week 17- 1 Hour	Revision	PPT slides

18	Week 17- 3 Hours	END SEMESTER EXAM	---	
COURSE ASSESSMENT METHODS (shall range from 4 to 6)				
S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Cycle Test 1	Week 8	1 Hour	20
2	Assignment-I	Week 10	1 Week	5
3	Assignment-II	Week 14	1 week	5
4	Cycle Test 2	Week 15	1 Hour	20
CPA	Compensation Assessment*	Week 16	1 Hour	20
5	Final Assessment *	Week 17	3 Hours	50
				Total = 100
*mandatory; refer to guidelines on the last page				
COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)				
Apart from analyzing the performance of students through continuous assessments, Class committee meetings, periodical interaction with students and the Class Representative enable evaluation of students' opinion and makes possible to react upon outcome of analysis made in reasonable time. The exit survey impacts on design and delivery of the course in ensuing years.				
COURSE POLICY (preferred mode of correspondence with students, compensation assessment policy to be specified)				
<u>MODE OF CORRESPONDENCE (email/ phone etc)</u>				
<ol style="list-style-type: none"> 1. NITT WEBMAIL would act as a channel. 2. Queries pertaining to the course shall be clarified with the teacher in the class room. 				
<u>COMPENSATION ASSESSMENT POLICY</u>				
Refer to the Guidelines at the end of the document and Regulations in the Institute website.				
<u>ATTENDANCE POLICY</u> (A uniform attendance policy as specified below shall be followed)				
➤ At least 75% attendance in each course is mandatory.				

- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION

Queries may also be emailed to the Course Coordinator directly at parthiban@nitt.edu and discussion outside the classroom is very much welcome and appreciated.

FOR APPROVAL

Course Faculty  CC-Chairperson  HOD 

Guidelines:

- a) The number of assessments for a course shall range from 4 to 6.
- b) Every course shall have a final assessment on the entire syllabus with at least 30% weightage.
- c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered. Details of compensation assessment to be specified by faculty.
- d) The passing minimum shall be as per the regulations.
- e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.
- f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.
- g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.