



## Integral University, Lucknow

<b>Effective from Session:</b> 2020-21							
<b>Course Code</b>	AB518	<b>Title of the Course</b>	Research Methodology in Business Management	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	2	0	2	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>The objective of this course is to develop an understanding of research methodology. The focus will be on process and techniques of research.</li> </ul>						

Course Outcomes	
<b>CO1</b>	Students will learn objective and purpose of research
<b>CO2</b>	Learner will learn the methods of sampling and different types of sampling
<b>CO3</b>	Students will learn use of quantitative techniques in business decision making
<b>CO4</b>	Students will learn how to use equations, determinants, matrices in business decisions
<b>CO5</b>	Students will learn how to use statistics in analysis

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Meaning, Course Objective, types, and process of research; research methodology in management- exploratory, descriptive, experimental, diagnostic, Problem formulation, setting of Course Objective, formulation of hypotheses.	5	CO1
2	<b>Unit-II</b>	Scales of measurement - nominal, ordinal, interval, ratio, Likert scale and other scales; Primary and secondary data, sources of data, instruments of data collection, data editing, classification, coding, validation, tabulation, presentation, analysis.	5	CO2
3	<b>Unit-III</b>	Concept of Sampling, Probability and non-probability sampling techniques including Simple Random Sampling, Stratified Sampling, Multi-stage Sampling, Systematic Sampling, Purposive Sampling, Quota sampling, judgment sampling, and convenience sampling, sample size determination, sampling and non-sampling errors.	7	CO3
4	<b>Unit-IV</b>	Role and uses of quantitative techniques in business decision making, Use of Equations, Use of Determinants and Matrices in business decisions, Frequency Distribution, Measures of Central Tendency, Measures of Variation, Skewness and Kurtosis, Simple, partial, and multiple correlation, rank correlation, simple and multiple regression, Discriminant and dummy variable analysis	7	CO4
5	<b>Unit-V</b>	Index Numbers, Hypothesis testing, ANOVA, Factor analysis, cluster analysis, conjoint analysis, multi-dimensional analysis etc, Report writing: Types of report, essentials and contents of good report writing.	5	CO5

Reference Books:	
	• Cooper DR & Schindler PS. 2006. Marketing Research Concepts and Cases. Tata McGraw Hill.
	• Green PE, Tull DS & Albaum G. 1998. Research for Marketing Decisions. Prentice Hall of India.
	• Wilkinson & Bhandarker 1989. Research Methods in Social Sciences. Himalaya Publ. House.

e-Learning Source:	
	<a href="http://ecoursesonline.iasri.res.in/">http://ecoursesonline.iasri.res.in/</a>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	<b>CO1</b>	3	3	2	1	1	3	3	3	3	3			3	1	3	3	1	3
<b>CO2</b>	3	3	3	2	1	3	2	3	3	3			2	2	3	2	2	3	2
<b>CO3</b>	3	2	1	1	2	2	2	3	2	1			2	1	2	3	2	2	2
<b>CO4</b>	3	2	2	2	3	3	3	3	3	2			3	1	1	3	1	3	3
<b>CO5</b>	3	2	2	2	3	2	1	1	3	2			1	2	3	2	2	2	1

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session: 2020-21</b>							
<b>Course Code</b>	AB519	<b>Title of the Course</b>	Project Management and Entrepreneurship Development	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	2	0	0	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>The objective of this course is to expose the learner to the fields of project management and entrepreneurship development. Focus will be to train the students to develop new projects and encouraging them to start their own ventures</li> </ul>						

<b>Course Outcomes</b>	
<b>CO1</b>	Manage the scope, cost, timing, and quality of the project
<b>CO2</b>	Identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders
<b>CO3</b>	Apply appropriate legal and ethical standards
<b>CO4</b>	Appraise the role of project management in organization change
<b>CO5</b>	Adapt project management practices to meet the needs of stakeholders from multiple sectors of the economy

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Concept, characteristics of projects, types of projects, project identification, and Project's life cycle.	5	CO1
2	<b>Unit-II</b>	Project feasibility- market feasibility, technical feasibility, financial feasibility, and economic feasibility, social cost-benefit analysis, project risk analysis.	6	CO2
3	<b>Unit-III</b>	Network Methods: Meaning, Network Analysis, Requirements for Network Analysis, Critical Path Method (CPM), Programme Evaluation and Review Technique (PERT), Project scheduling and resource allocation	6	CO3
4	<b>Unit-IV</b>	Financial appraisal/evaluation techniques- discounted/non-discounted cash flows; Net present values, profitability index, Internal rate of returns; Cost benefits ratio; Accounting rate of return, Payback period, Project implementation; Cost overrun, Project control and information system.	7	CO4
5	<b>Unit-V</b>	Entrepreneurship, Significance of entrepreneurship in economic development qualities of entrepreneur, entrepreneurship development programs and role of various institutions in developing entrepreneurship, life cycles of new business, environmental factors affecting success of a new business, reasons for the failure and visible problems for business, Developing effective business plans, Procedural steps in setting up of an industry.	7	CO5

<b>Reference Books:</b>	
<ul style="list-style-type: none"> <li>Chandra P. 2005. Project Management. Tata McGraw Hill.</li> <li>Gopal Krishan P &amp; Nagarajan K. 2005. Project Management. New Age.</li> <li>Hisrich RD &amp; Peters MP. 2002. Entrepreneurship. Tata McGraw Hill.</li> <li>Kaplan JM. 2003. Patterns of Entrepreneurship. John Wiley &amp; Sons.</li> <li>Nandan H. 2007. Fundamentals of Entrepreneurship Management. Prentice Hall.</li> <li>Rama Moorthy VE. 2005. Textbook of Project Management. MacMillan</li> </ul>	
<b>e-Learning Source:</b>	
<a href="http://coursesonline.iasri.res.in/">http://coursesonline.iasri.res.in/</a>	

<b>Course Articulation Matrix: (Mapping of COs with POs and PSOs)</b>																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	<b>CO1</b>	2	3	1	2	1	1	1	1	1	2			1	1	2	3	1	2
<b>CO2</b>	2	2	1	3	2	1	2	1	2	3			2	2	2	2	2	3	2
<b>CO3</b>	2	3	2	3	2	2	3	1	2	2			2	2	2	2	2	1	2
<b>CO4</b>	1	2	2	2	2	1	2	2	2	2			3	1	3	3	1	3	3
<b>CO5</b>	1	2	3	2	2	2	1	1	3	2			2	2	2	2	2	1	2

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session: 2018-19</b>							
<b>Course Code</b>	BE561	<b>Title of the Course</b>	Food Technology & Processing Management	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	2	0	0	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>The objective of this course is to acquaint the students with different food processing techniques and their management.</li> </ul>						

Course Outcomes	
<b>CO1</b>	Able to learn different food processing techniques and their management
<b>CO2</b>	Know the status of food industry
<b>CO3</b>	Know the basic principles of food processing and food preservations by manipulation of parameters
<b>CO4</b>	Analysis of costs in food organization, risk management, laws and regulations
<b>CO5</b>	Know the various types of food industries and their case studies

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Present status of food industry in India; Organization in food industry; Introduction to operations of food industry; Deteriorative factors and hazards during processing, storage, handling and distribution.	7	CO1
2	<b>Unit-II</b>	Basic principles of food processing and food preservation by manipulation of parameters and factors and application of energy, radiations, chemicals and biotechnological agents; Packaging of foods.	8	CO2
3	<b>Unit-III</b>	Analysis of costs in food organization; Risk management; Laws and regulations related to food industry and food production and marketing; Quality management – quality standards, PFA, ISO, etc.	8	CO3
4	<b>Unit-IV</b>	Case studies on project formulation in various types of food industries – milk and dairy products, cereal milling, oil-seed and pulse milling, sugarcane milling, honey production, baking, confectionery, oil and fat processing, fruits and vegetable storage and handling, processing of fruits and vegetables, egg, poultry, fish and meat handling and processing, etc.	8	CO4, CO5

Reference Books:	
	<ul style="list-style-type: none"> <li>Acharya SS &amp; Aggarwal NL. 2004. Agricultural Marketing in India. Oxford &amp; IBH.</li> <li>Early R. 1995. Guide to Quality Management Systems for Food Industries. Blackie.</li> <li>Potly VH &amp; Mulky MJ. 1993. Food Processing. Oxford &amp; IBH.</li> </ul>
e-Learning Source:	
	<a href="http://ecoursesonline.iasri.res.in/">http://ecoursesonline.iasri.res.in/</a>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
<b>CO1</b>	3	3	2	1	1	3	3	3	3	3			3	1	2	2	2	2	3
<b>CO2</b>	3	3	3	2	1	3	2	3	3	3			2	2	2	2	3	2	2
<b>CO3</b>	3	2	1	1	2	2	2	3	2	1			2	2	3	3	3	2	2
<b>CO4</b>	3	2	2	2	3	3	3	3	3	2			2	1	3	1	3	1	2
<b>CO5</b>	3	2	2	2	3	2	1	1	3	2			2	2	2	2	2	3	2

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session:</b> 2017-18							
<b>Course Code</b>	AG561	<b>Title of the Course</b>	Management of Agro-chemical Industry	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	2	0	0	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To familiarize the students with the agrochemicals, their structure, classification and development and also how to manage the agro-chemical industries</li> </ul>						

Course Outcomes	
<b>CO1</b>	Students are well aware of agrochemical industry and may easily recognize different types of agro chemical
<b>CO2</b>	Students will be able to know different kind of plant protection Equipments and their usage in proper ways.
<b>CO3</b>	Students are aware about biomagnifications of pesticides and pesticidal pollution
<b>CO4</b>	Students are well aware of Indian economic system and agribusiness environment in country.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Agro-chemicals: Definition and classification; Basic knowledge of agrochemicals; role and status of agro-chemical industry in India; Pesticides – Classification and Introduction, knowledge of different pesticides.	7	CO1
2	<b>Unit-II</b>	Insecticides – Definition and classification based on (a) Mode of Entry (b) Mode of Action and (c) Chemical Structure with example; Insecticidal formulation; preliminary knowledge of mode of action of insecticides; knowledge of plant protection Equipments.	7	CO2
3	<b>Unit-III</b>	Fungicides – Classification and preliminary knowledge of commonly used fungicides; Biomagnifications of pesticides and pesticidal pollution	6	CO3
4	<b>Unit-IV</b>	Introductory knowledge about development of agro-chemicals; Insecticidal poisoning, symptoms and treatment; Main features of Insecticide Act.	7	CO4
5	<b>Unit-V</b>	Directorate of Plant Protection, Quarantine and Storage – A brief account of its organizational set up and functions; IPM Concept – Bio-pesticides – Plant products	7	CO4

**Reference Books:**

- Dhaliwal GS, Singh R & Chhillar BS. 2006. Essentials of Agricultural Entomology. Kalyani Publishers.
- Rajeev K & Mukherjee RC. 1996. Role of Plant Quarantine in IPM. Aditya Books.
- Hayes WT & Laws ET. 1991. Hand Book of Pesticides. Academic Press.

**e-Learning Source:**

<http://ecoursesonline.iasri.res.in/>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	<b>CO1</b>	3	3	2	1	1	3	3	3	3	3			2	2	1	2	3	2
<b>CO2</b>	3	3	3	2	1	3	2	3	3	3			1	2	2	3	2	3	1
<b>CO3</b>	3	2	1	1	2	2	2	3	2	1			2	2	2	2	2	2	2
<b>CO4</b>	3	2	2	2	3	3	3	3	3	2			3	3	2	2	3	1	3

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session:</b> 2020-21							
<b>Course Code</b>	AB522	<b>Title of the Course</b>	Seed Production Technology and Management	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	2	0	0	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To apprise students regarding principles and efficient management of seed production technology</li> </ul>						

Course Outcomes	
<b>CO1</b>	Students will be able to know what are the basic technologies involved in seed production technology and how might be used for commercial seed production
<b>CO2</b>	Students will be able to know how to produce and maintain genetic purity of different types of seed
<b>CO3</b>	Students are bestowed with basic knowledge of seed marketing, IPR and its related aspects
<b>CO4</b>	Students are aware of seed control act, seed legislation etc.
<b>CO5</b>	Students are well aware of different seed programs executed in country

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Seed Technology – Role of Seed Technology, its Course Objective and goal, Seed Industry in India, National Seed Corporation – Tarai Seed Development Corporation, State Seed Corporations, National Seed Project and State Farms and their role.	7	CO1
2	<b>Unit-II</b>	Development and Management of Seed Programmes – Seed Village Concept, Basic Strategy of Seed Production and Planning and Organization of Seed Programme; Types of Seed Programme – Nucleus seed, Breeders seed, Foundation seed and Certified seed etc.	7	CO2
3	<b>Unit-III</b>	Maintenance of genetic purity – Minimum seed certification standard and Management of breeders & Nucleus seed; Management of seed testing laboratory and research and development.	7	CO3
4	<b>Unit-IV</b>	Management of seed processing plant, seed storage management; seed packaging and handling.	6	CO4
5	<b>Unit-V</b>	Seed Marketing; GM Crop seed, IPR, PBR, Patents and related issues and their impact on developing countries; Statutory intervention in the seed industry; Seed legislation and seed law enforcement, Seed act; Orientation and visit to seed production farms, seed processing Units, NSC, RSSC, RSSCA and seed testing laboratories	5	CO5

<b>Reference Books:</b>	
<ul style="list-style-type: none"> <li>Agrawal RL. 1997. Seed Technology. Oxford &amp; IBH.</li> <li>Desai BB, Katecha PM &amp; Salunkhe DK. 1997. Seed Handbook: Biology, Production, Processing and Storage. Marcel Dekker.</li> <li>McDonald MB Jr. &amp; Copeland LO. 1997. Seed Production: Principles and Practices. Chapman &amp; Hall.</li> </ul>	
<b>e-Learning Source:</b>	
<a href="http://ecoursesonline.iasri.res.in/">http://ecoursesonline.iasri.res.in/</a>	

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	<b>CO1</b>	3	3	2	3	1	3	3	3	3	3			2	1	2	3	3	1
<b>CO2</b>	3	3	3	2	1	3	2	3	3	3			3	2	2	2	2	2	3
<b>CO3</b>	3	2	2	2	2	2	3	3	2	1			2	2	2	2	2	1	2
<b>CO4</b>	3	2	2	2	3	3	3	3	3	2			3	1	3	1	3	1	3
<b>CO5</b>	3	2	3	1	1	2	2	3	2	2			1	2	1	1	2	2	1

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



# Integral University, Lucknow

<b>Effective from Session: 2020-21</b>							
<b>Course Code</b>	AB523	<b>Title of the Course</b>	Management of Agricultural Input Marketing	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	<b>2</b>	<b>0</b>	<b>0</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>The objective of this course is to give the students an understanding of different marketing concept and marketing system in context of agricultural inputs.</li> </ul>						

Course Outcomes	
<b>CO1</b>	To understand the importance and perspectives of Agricultural input marketing.
<b>CO2</b>	To understand about seed management and its importance.
<b>CO3</b>	To make students to understand about Chemical Fertilizers and its scenario in Indian market.
<b>CO4</b>	To make students to understand about Plant Protection Chemicals and its scenario in Indian market.
<b>CO5</b>	To learn about Farm Machinery

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Agricultural input marketing – meaning and importance; Management of distribution channels for agricultural input marketing; Agricultural Inputs and their types – farm and non-farm, role of cooperative, public and private sectors in agri input marketing.	8	CO1
2	<b>Unit-II</b>	Seed- Importance of seed input; Types of seeds- hybrid, high yielding and quality seeds; Demand and supply of seeds; Seed marketing channels, pricing, export import of seeds; Role of NSC and State Seed Corporation.	8	CO2
3	<b>Unit-III</b>	Chemical Fertilizers- Production, export-import, supply of chemical fertilizers, Demand/consumption, Prices and pricing policy; subsidy on fertilizers; marketing system – marketing channels, problems in distribution; Role of IFFCO and KRIBCO in fertilizer marketing.	8	CO3
4	<b>Unit-IV</b>	Plant Protection Chemicals- Production, export/import, consumption, marketing system – marketing channels; Electricity/Diesel Oil- marketing and distribution system; pricing of electricity for agriculture use; subsidy on electricity.	8	CO4
5	<b>Unit-V</b>	Farm Machinery- Production, supply, demand, Marketing and distribution channels of farm machines; Agro-industries Corporation and marketing of farm machines/ implements/Equipments.	8	CO5

**Reference Books:**

- Singh AK & Pandey S. 2005. Rural Marketing. New Age.
- Singh Sukhpal 2004. Rural Marketing- Focus on Agricultural Inputs. Vikas Publ. House.
- Acharya SS & Agarwal NL. 2004. Agricultural Marketing in India. 4th Ed. Oxford & IBH.
- Broadway AC & Broadway Arif A. 2003. A Text Book of Agri-Business Management. Kalyani.

**e-Learning Source:**

- <https://web.iima.ac.in/exed/programme-details.php?id=MTkw>
- <https://youtu.be/jcLXPVmctmA>
- <https://icar.org.in/files/English-Unit/Social%20Sciences/MANAGEMENT%20OF%20AGRICULTURAL%20INPUT%20MARKETING.html>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
<b>CO1</b>	3	1	1	2	3	1	1	2	2	3			3	3	1	2	3	2	3
<b>CO2</b>	2	3	2	3	2	1	2	2	1	2			3	3	2	3	2	3	2
<b>CO3</b>	2	2	1	3	1	1	2	1	2	3			3	3	2	2	2	2	2
<b>CO4</b>	2	3	2	3	2	2	2	2	2	3			3	2	1	3	2	3	3
<b>CO5</b>	1	2	2	3	1	1	1	2	3	3			3	3	1	3	2	3	2

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session: 2020-21</b>							
<b>Course Code</b>	AB524	<b>Title of the Course</b>	Agri-supply Chain Management	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	<b>2</b>	<b>0</b>	<b>0</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>The course introduces students to the concepts and processes of agricultural supply chain management, framework for structuring supply chain drivers; network designs, demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain.</li> </ul>						

Course Outcomes	
<b>CO1</b>	Students should understand Supply Chain and its Changing Business Environment.
<b>CO2</b>	Students should understand Demand Management in Supply Chain and its types.
<b>CO3</b>	Students should know Procurement Management in Agri. Supply chain.
<b>CO4</b>	To understand History and Evolution of Logistics.
<b>CO5</b>	To understand IT Application in SCM.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit-I</b>	Supply Chain: Changing Business Environment; SCM: Present Need; Conceptual Model of Supply Chain Management; Evolution of SCM; SCM Approach; Traditional Agri. Supply Chain Management Approach; Modern Supply Chain Management Approach; Elements in SCM.	6	CO1
2	<b>Unit-II</b>	Demand Management in Supply Chain: Types of Demand, Demand Planning and Forecasting; Operations Management in Supply Chain, Basic Principles of Manufacturing Management.	5	CO2
3	<b>Unit-III</b>	Procurement Management in Agri. Supply chain: Purchasing Cycle, Types of Purchases, Contract/Corporate Farming, Classification of Purchases Goods or Services, Traditional Inventory Management, Material Requirements Planning, Just in Time (JIT), Vendor Managed Inventory (VMI).	6	CO3
4	<b>Unit-IV</b>	Logistics Management: History and Evolution of Logistics; Elements of Logistics; Management; Distribution Management, Distribution Strategies; Pool Distribution; Transportation Management; Fleet Management; Service Innovation; Warehousing; Packaging for Logistics, Third-Party Logistics (TPL/3PL); GPS Technology.	8	CO4
5	<b>Unit-V</b>	Concept of Information Technology: IT Application in SCM; Advanced Planning and Scheduling; SCM in Electronic Business; Role of Knowledge in SCM; Performance Measurement and Controls in Agri. Supply Chain Management-Benchmarking: introduction, concept and forms of Benchmarking.	7	CO5

<b>Reference Books:</b>	
	<ul style="list-style-type: none"> <li>Altekar RV. 2006. Supply Chain Management: Concepts and Cases. Prentice Hall of India.</li> <li>Monczka R, Trent R &amp; Handfield R. 2002. Purchasing and Supply Chain Management. Thomson Asia.</li> <li>van Weele AJ. 2000. Purchasing and Supply Chain Management Analysis, Planning and Practice. Vikas Publ. House.</li> </ul>

<b>e-Learning Source:</b>	
	<a href="https://www.manage.gov.in/studymaterial/scm-e.pdf">https://www.manage.gov.in/studymaterial/scm-e.pdf</a>
	<a href="https://www.youtube.com/watch?v=PQ5K4ZAGsrY">https://www.youtube.com/watch?v=PQ5K4ZAGsrY</a>
	<a href="https://www.civildaily.com/supply-chain-management-in-indian-agriculture/">https://www.civildaily.com/supply-chain-management-in-indian-agriculture/</a>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
<b>CO1</b>	3	3	2	1	1	3	3	3	3	3			3	2	1	1	1	2	1
<b>CO2</b>	3	3	3	2	1	3	2	3	3	3			2	3	2	3	1	3	2
<b>CO3</b>	3	2	1	1	2	2	2	3	2	1			3	2	1	2	2	3	2
<b>CO4</b>	3	2	2	2	3	3	3	3	3	2			3	2	1	2	2	2	1
<b>CO5</b>	3	2	3	2	3	2	2	1	3	2			3	3	1	1	1	2	3

**1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation**



## Integral University, Lucknow

<b>Effective from Session:</b> 2018-19							
<b>Course Code</b>	PGS501	<b>Title of the Course</b>	Library and Information Services	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	II	<b>Semester</b>	III	<b>0</b>	<b>0</b>	<b>2</b>	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To study about the role of library in education, research and technology</li> <li>To obtain idea of Intricacies of abstracting and indexing services and to enlighten the students about the computerized library services.</li> <li>To give the knowledge of e resources and search engines</li> </ul>						

Course Outcomes	
<b>CO1</b>	The students will gain the knowledge about the library importance in different sites.
<b>CO2</b>	They gain knowledge of Intricacies of abstracting and indexing services.
<b>CO3</b>	They know about the computerized library services.
<b>CO4</b>	To provide knowledge of e resources.
<b>CO5</b>	To give basic information about search engines.

Practicals:		
	Contact Hrs.	Mapped CO
Introduction to library and its services; Role of libraries in education, research and technology transfer; Classification systems and organization of library; Sources of information- Primary Sources, Secondary Sources and Tertiary Sources; Intricacies of abstracting and indexing services (Science Citation Index, Biological Abstracts, Chemical Abstracts, CABI Abstracts, etc.); Tracing information from reference sources; Literature survey; Citation techniques/Preparation of bibliography; Use of CD-ROM Databases, Online Public Access Catalogue and other computerized library services; Use of Internet including search engines and its resources; e-resources access methods.	28	CO1, CO2, CO3, CO4, CO5

Reference Books:
<ul style="list-style-type: none"> <li>Singh G. Information Sources, Services and Systems, 2013 Edition. Prentice Hall India Learning Private Limited</li> <li>Library Science, 2018 Edition. Ramesh Publishing House</li> <li>Subhankar Biswas, Durga Sankar Rath. Cataloguing in the New Era: Gazing through the Bodleian Catalogues to RDA, 2017 Edition. Ess Ess Publications</li> </ul>

e-Learning Source:
<a href="https://www.youtube.com/watch?v=jQIGmtY3sUw">https://www.youtube.com/watch?v=jQIGmtY3sUw</a> (Role of libraries in education, research and technology transfer)

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																			
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	<b>CO1</b>	3	3	1	1	1	3	3	3	2	3			1	1	1	1	2	3
<b>CO2</b>	3	3	1	3	3	3	1	3	2	3			1	1	1	1	1	2	2
<b>CO3</b>	3	2	1	3	3	2	1	3	2	1			1	1	1	1	2	1	1
<b>CO4</b>	3	2	1	3	3	3	1	3	2	2			1	1	1	1	3	2	1
<b>CO5</b>	3	1	1	3	3	3	1	3	2	2			1	1	1	1	2	2	1

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