

**West Bengal State University**  
**Draft Syllabus of the 4-year Undergraduate Programme**  
**(Honours)**

**Subject: Agriculture and Rural Development**

**With effect from the Session 2023–24**



**DEPARTMENT OF RURAL STUDIES**  
**WEST BENGAL STATE UNIVERSITY**  
**2023**

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**Draft Syllabus of the 4-year Undergraduate Programme (Honours)**

**Subject: Agriculture and Rural Development**

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**Structure : Semester-wise and Course category-wise structure of syllabus**

<b>SEM</b>	<b>Major(DSC)</b>	<b>Minor</b>	<b>MDC</b>	<b>AEC</b>	<b>SEC</b>	<b>VAC</b>	<b>Internship</b>
<b>I</b>	<b>ARDDSC101M:</b> Fundamentals of Agriculture (3+2)	ARD MA-1: Livestock Production & Management (3+2)	<b>ARDMDC101T</b> Fundamentals of Agriculture & Rural Development (3)	AE-1 (3)	<b>ARDSEC101M :</b> Computer Application (3)	VA-1 (3)	
<b>II</b>	<b>ARDDSC202M:</b> Basics of Rural Development (3+2)	ARD MA-2: Rural Women Empowerment (3+2)	MD-2 (3)	AE-2(3)	<b>ARDASEC202M</b> Introduction to Field Work (3)	VA-2 (3)	(4**)
<b>III</b>	<b>ARDDSC303M:</b> Rural Institutions & Rural Development Programmes (3+2)	ARD MA 3: Integrated Farming (3+2)	MD-3 (3)	AE-3(3)	<b>ARDSEC303M:</b> Village Study & Community Planning (3)		
<b>IV</b>	<b>ARDDSC404M:</b> Animal Husbandry & Livestock						(4**)

	<p>Production (3+2)</p> <p><b>ARDDSC405M:</b> Fundamentals of Horticulture, Sericulture &amp; Fishery (3+2)</p> <p><b>ARDDSC406M:</b> Rural Economics (3+2)</p> <p><b>ARDDSC407M:</b> Rural Sociology (3+2)</p>						
<b>V</b>	<p><b>ARDDSC508M:</b> Agricultural Production and Plant Protection (3+2)</p> <p><b>ARDDSC509M</b> Rural Marketing &amp; Farm Business Management (3+2)</p> <p><b>ARDDSC510M:</b> Fundamentals of Agricultural Extension (3+2)</p>						

	<b>ARDDSC511M</b> Research Methodology and Elementary Statistics (3+2)						
<b>VI</b>	<b>ARDDSC612M</b> Rural Entrepreneurship Development (3+2) <b>ARDDSC613M</b> Environment & Natural Resources (3+2) <b>ARDDSC614M</b> Sustainable Agriculture (3+2) <b>ARDDSC615M</b> Rural Livelihood (3+2)						(4**)
<b>VII</b>	<b>ARDDSC716M</b> Field Survey (3+2) <b>ARDDSC717T</b> Women & Rural Development (4+1)	SM-1 (5) SM-2 (5)					
<b>VIII</b>	<b>ARDDSC818T</b> Rural Health (4+1)						<b>ARDRES 801P</b> Dissertation (P15)##

	<b>ARDDSC819M</b> Population Studies (3+2)						
	<b>ARDDSC820M</b> Agriculture Botany (3+2) (+)						
	<b>ARDDSC821M</b> Rural Culture & Heritage (3+2) (+)						
<b>Credit</b>							

All DS courses are of 5 credits/ each

\*\* Internship to take exit with certificate/Diploma/Degree

+ Course not applicable for 'Honours with Research'

## Research: Students who secure 75 % marks above in first six semesters and wish to undertake research at the undergraduate level have to complete 15 credit dissertation.

# SYLLABUS

## Semester-I

### ARDDSC101M : Fundamentals of Agriculture

Theory: 3 credits      Practical: 2 Credits

<b>Unit I: Basics of Agriculture</b>	<b>Credit</b>
<ul style="list-style-type: none"><li>• Agriculture-Concept, history, Present scenario of agriculture in India</li><li>• Concept of agricultural land and land holding, land units, irrigated and non-irrigated land, Agro-climatic zones</li><li>• Crop classification, Major agricultural season</li></ul>	1
<b>Unit II: Crop Production Techniques</b> <ul style="list-style-type: none"><li>• Crop production techniques of major crops in India: Paddy, Wheat, Jute</li><li>• Fertilizer-concept, classification, Different types of Inorganic fertilizers and organic manures, method of fertilizer application</li><li>• Integrated nutrient management: concept and importance</li></ul>	1
<b>Unit III: Soil and its composition</b> <ul style="list-style-type: none"><li>• Soil: origin, types, properties of soil: chemical, physical, biological</li><li>• Soil consistency, soil density, ion exchange capacity of soil, soil pH</li><li>• Soil nutrients- concept, types, deficiency symptoms</li><li>•</li></ul>	1
<b>Practical:</b> <ul style="list-style-type: none"><li>• Identification of different field crops and fertilizers, manure</li><li>• Soil testing (N,P,K, Soil pH, organic carbon)</li></ul>	2

### Suggested readings:

- Hand Book of Agriculture by Indian Council of Agricultural Research
- A Text Book of Soil Science by D.K. Das
- Agronomy (A Text Book) by S.S. Singh
- Introductory Soil Science by D. K. Das
- Soil and Fertilizers: at a Glance by I. L. Somani and P. C. Khantaliya
- Oxford Hand Book of Agriculture in India by Ray
- Indigenous Agricultural Practice by Sundaramani and Ranganatha

## ARDMDC101T: Fundamentals of Agriculture and Rural Development

Theory: 3 credits

<b>Unit I: Rural Development</b>	<b>Credit</b>
<ul style="list-style-type: none"><li>• Concept of rural development, rural-urban dichotomy, present status of rural India</li><li>• Rural institutions: Basic concept of Panchayati Raj Institutions,</li><li>• Cooperatives, Regional Rural Bank, Self-help group</li></ul>	1
<b>Unit II: Basics of Agriculture</b> <ul style="list-style-type: none"><li>• Agriculture: Concept, present scenario, types of crops,</li><li>• concept of horticulture and floriculture</li><li>• Cropping seasons, season wise major crops, Problems of Indian agriculture</li></ul>	1
<b>Unit III: Basics of Animal husbandry</b> <ul style="list-style-type: none"><li>• Animal husbandry: concept, scope, importance</li><li>• Major animal husbandry practices, Poultry, Duck, cattle, goat: basic concept, importance and varieties</li><li>• Concept of agricultural institutions: ICAR, KVK</li></ul>	1

## ARDSEC101M: Computer Application

Theory: 2 credits      Practical: 1 Credit

<b>Unit I: Computer Fundamentals</b>	<b>Credit</b>
<ul style="list-style-type: none"><li>• Introduction to Computer; Properties of computer, history of computer,</li><li>• Computer softwares and hardware, Computer memory, Operating system</li></ul>	1
<b>Unit II: ICT</b> <ul style="list-style-type: none"><li>• Computer as communication and Information Infrastructure,</li><li>• Computer and Rural Development: E-Governance, e-agriculture</li></ul>	1
<b>Unit III: Practical</b> <ul style="list-style-type: none"><li>• Microsoft Word, MS-Excel, Power point, Data Analysis in Excel, Concept of internet</li></ul>	1

## Semester-II

### ARDDSC202M: Basics of Rural Development

Theory: 3 Credits Practical: 2 Credits

<b>Unit I: Concept of Rural Development</b>	<b>Credit</b>
<ol style="list-style-type: none"><li>1. Concept of rural; Attributes/problems of rural India (demographic, economic, infrastructural, social, service delivery etc.), rural urban dichotomies.</li><li>2. Concept of Rural Development- meaning, nature &amp; scope, objectives, principles. Elementary concept of Rural Management.</li><li>3. Major rural development experiments in India (Nilokheri, Gurgaon, Marthandam, Sriniketan, Sevagram)</li></ol>	1
<b>Unit II: Agriculture in rural development</b> <ol style="list-style-type: none"><li>1. Role of agriculture in rural development</li><li>2. Land tenure system: Concept and issues with special reference to India</li><li>3. Land Reforms: concept, major components.</li></ol>	1
<b>Unit III: Major Rural Development Issues in India</b> <ol style="list-style-type: none"><li>1. Rural labour: concepts, types and problems.</li><li>2. Rural poverty and multidimensional poverty- basic concept</li><li>3. Sustainable Development Goals and rural development in India: basic overview</li></ol>	1
<b>Unit IV: Practical Assignment</b> <p>Submit a report on rural development based upon data collected in relation to social and economic infrastructure in a rural area. The study should seek to collect data on major indicators related to rural development, analyse the data, prepare suitable representations of the results and interpret the same to prepare a well organised report.</p>	2

### Suggested Readings

- Rural Development: Concept & Recent Approaches by SujitKumarPaul, Concept Publication, New Delhi (2015)
- Sustainable Development Goals and Panchayats edited by Rajesh Kumar Sinha, Rawat Publications (2018)
- Systematic Agricultural Geography by Majid Hussain,
- Agricultural Geography by AlkaGautam
- Dutt&Sundaram's Indian Economy by Gaurav Dutt and Ashwani Mahajan, S. Chand Publishing, 2015.
- Human Development Report 2010



**Course: ARDSEC202M**

**Course Name: Introduction to Field Work**

Theory: 2 credits      Practical: 1 Credit

<b>Unit I: Introduction to field research</b>	Credit
<p>Context of rural research: fundamental attributes of rural (eg. urban bias in service provisioning, developmental deficits, rural-urban divide), developing country contexts that makes enumeration challenging.</p> <ul style="list-style-type: none"><li>• Approaches to rural research: basic concept of quantitative and qualitative framework, elements of subjectivity and objectivity in research design</li><li>• Concept of field</li></ul>	1
<p><b>Unit II: Field research process</b></p> <ul style="list-style-type: none"><li>• Steps in conducting field work: entry into field, immersion into field, exit from field; role of digital revolution in field research.</li><li>• Role of researcher and reflexivity in field work</li><li>• Ethics in field research</li></ul>	1
<p><b>Unit III: Practical</b></p> <ul style="list-style-type: none"><li>• Collection and analysis of secondary data from Government departments working with rural development.</li><li>• Field methods: Preparation of data collection tools (questionnaire), data collection techniques (sampling, household survey).</li><li>• Data compilation and preparation of report.</li></ul>	1

Evaluation of SEC course would be based upon continuous evaluation.