



### List of New Course(s) Introduced

**Department : Rural Technology and Social Development**

**Programme Name : M.Sc. and B.Sc. Rural Technology**

**Academic Year : 2019-20**

### List of New Course(s) Introduced

Sr. No.	Course Code	Name of the Course
1.	RT-103	Natural Products Processing Techniques
2.	RT-104	Laboratory Course (Based on RT-103)
3.	RT-107	Innovation Appraisal and action for Rural Development
4.	RT-108	Laboratory Course (Based on RT-108)
5.	RT-309	Seminar
6.	NR/RT/C-101L	Organic Manure Production Techniques
7.	NR /RT/C-101P	Practicals based on theory
8.	NR /RT/C-102L	Elementary Biology
9.	NR /RT/C-P-102P	Practicals based on theory
10.	NR /RT/GE-101/LS	Soil and Fertilizers
11.	NR /RT/GE-P-101/LS	Practicals based on theory
12.	NR /RT/AE-101/EC	English Communication / MIL (Hindi Communication)
13.		ECA-Extra-curricular activity/ Tour, Field visit/ Industrial training/ NSS/ Swachchhta/ Vocational Training/ Sports/ others
14.	NR /RT/C-203	Microbial Technology
15.	NR /RT/CP-203	Practicals based on theory
16.	NR /RT/C-204	Dairy Management and Products
17.	NR /RT/CP-204	Practicals based on theory
18.	NR /RT/GE-202/LS	Plant Propagation and Nursery Management
19.	NR /RT/GE-P-202/LS	Practicals based on theory
20.	NR /RT/AE-201/ES	Environmental Science
21.		ECA-Extracurricular activity/ Tour, Field visit/ Industrial training/ NSS/ Swachchhta / vocational Training/ Sports/ others
22.	NR/RT/C-301L	Sericulture
23.	NR /RT/C-301P	Practicals based on theory
24.	NR /RT/C-302L	Mushroom Production Techniques



NR /RT/C-P-302P	Practicals based on theory
NR /RT/GE-301/LS	Aquaculture
NR /RT/GE-P-301/LS	Practicals based on theory
NR /RT/GE-II A-301/EC	Integrated Pest Management
NR/RT/GE-301L	Practicals based on theory
NR /RT/SEC-1- 101P	Horticulture and Landscaping
NR/RT/C-401L	Rural Social Structure and Planning
NR /RT/C-401P	Practicals based on theory
NR /RT/C-402L	Poultry Production Techniques
NR /RT/C-P-402P	Practicals based on theory
NR /RT/GE-401/LS	Plant Morphology and Plant Reproduction
NR /RT/GE-P-401/LS	Practicals based on theory
NR /RT/GE-II B-401/EC	Economic Botany
NR/RT/GE-401L	Practicals based on theory
NR /RT/SEC-2-401P	Herbal Production Techniques



## Minutes of Meetings (MoM) of Board of Studies (BoS)

Academic Year : 2019-20

School : **School of Natural Resources**

Department : **Rural Technology and Social Development**

Date and Time : **July, 12, 2019 - 11:30 AM**

Venue : **Seminar hall**

DEPARTMENT OF RURAL TECHNOLOGY AND SOCIAL DEVELOPMENT  
गुरु घासीदास विश्वविद्यालय, बिलासपुर (छ.ग.)  
GURU GHASIDAS VISHWAVEDYALAYA, BILASPUR (C.G.)  
केन्द्रीय विश्वविद्यालय अधिनियम 2009 के अंतर्गत स्थापित विश्वविद्यालय  
(A Central University established by the Central Universities Act, 2009)  
Website www.ggu.ac.in

**MINUTES OF MEETING OF BOARD OF STUDIES HELD ON 12-07-2019**

A meeting of board of studies (BOS) of the department of Rural Technology and Social Development was held on 12-07-2019 with following members to discuss, review and modify the syllabus for the degree of B.Sc., M.Sc. and Pre Ph.D. in Rural Technology.

- I. Dr. P.R.Singh (Chairman)
- II. Prof. A.K. Gauraha (External Expert)
- III. Dr. R. Mehta (Member)
- IV. Dr. S.K. Nirala (Member)
- V. Dr. D.K.Patel (Member)
- VI. Dr. Bhaskar Chaurasia (Member)
- VII. Dr. Alka Mishra (Member)
- VIII. Dr. Dilip Kumar (Member)
- IX. Mr. Sanjeev Kumar Bhagat (Special Invitee)
- X. Mr. Prasoon Soni (Special Invitee)
- XI. Mr. Kamal Kumar Sen (Special Invitee)

The chairman of BOS Welcomed the BOS Members and following resolutions were passed:

1. The BOS invited few passed out students (namely Mr. Sanjeev Kumar Bhagat, Mr. Prasoon Soni) of this department and stakeholder Mr. Kamal Kumar Sen (M.Sc. Rural Technology Passed out from Baster Vishwavidyalaya, Jagdalpur) to give their inputs as per their past experiences to improve course curriculum of the programmes running under the department of Rural Technology and Social Development.
2. After the discussion with all the members of the BOS, the existing choice based credit system (CBCS) syllabus of B.Sc. I and II Sem. had been improved which was implemented from 2018-19. Syllabus for B.Sc. III and IV Sem. has been proposed for implementation from 2019-20 in continuation of 2018-19.
3. The CBCS based scheme for B.Sc. Rural Technology for all the six semesters was approved by the BOS. (Scheme is attached herewith).

4. Existing Syllabus of M.Sc. I and II Semester of Rural Technology has been improved and syllabus of M.Sc. III -IV semester was approved by BOS for implementation from session 2019-20. (Scheme is attached herewith).

5. Syllabus for Pre Ph.D. of Rural Technology approved by the BOS to be implemented from session 2019-20 and onwards.

Meeting ended with vote of thanks by BOS chairman.

Prof. A.K. Gauraha  
Dr. R. Mehta (Member)  
Dr. S.K. Nirala (Member)  
Dr. D.K. Patel (Member)  
Dr. Bhaskar Chaurasia (Member)  
Dr. Alka Mishra (Member)  
Dr. Dilip Kumar (Member)  
Dr. P.R.Singh (Chairman)  
Mr. Sanjeev Kumar Bhagat (Special Invitee)  
Mr. Prasoon Soni (Special Invitee)  
Mr. Kamal Kumar Sen (Special Invitee)



## Scheme and Syllabus

Department of Rural Technology & Social Development  
Guru Ghasidas Vishwavidyalaya, Koni-Bilaspur (C.G.)  
Semester-wise syllabus for PG Course

### SEMESTER SCHEME Master of Science of Rural Technology 2019-20

#### M. Sc. I SEMESTER

Subject Code	Course	Marks Distribution			Marks
		Theory	Sessional	Practical	
RT-101	Soil and Water Conservation Engineering <sup>III Sem</sup>	60	40	-	100
RT-102	Laboratory Course (Based on RT-101)	-	20	30	50
RT-103	Natural Product Processing Techniques <sup>III Sem</sup>	60	40	-	100
RT-104	Laboratory Course (Based on RT-103)	-	20	30	50
RT-105	Instrumentation and Techniques	60	40	-	100
RT-106	Laboratory Course (Based on RT-105)	-	20	30	50
RT-107	Innovation, Appraisal and action for Rural Development <sup>title changed/II Sem</sup>	60	40	-	100
RT-108	Field Work/ Survey (Based on RT-107)	-	20	30	50
	Total	240	240	120	600

#### M. Sc. II SEMESTER

Subject Code	Course	Marks Distribution			Marks
		Theory	Sessional	Practical	
RT-201	Fundamentals of Medicinal Plant	60	40	-	100
RL-202	Laboratory Course (Based on RT-201)	-	20	30	50
RT-203	Application of Remote Sensing and GIS-I <sup>III Sem</sup>	60	40	-	100
RT-204	Laboratory Course (Based on RT-203)	-	20	30	50
RT-205	Rural Waste Management <sup>title changed</sup>	60	40	-	100
RT-206	Laboratory Course (Based on RT-205)	-	20	30	50
RT-207	Research Methodology <sup>III Sem</sup>	60	40	-	100
RT-208	Laboratory Course (Based on RT-207)	-	20	30	50
	Total	240	240	120	600



Department of Rural Technology & Social Development  
Guru Ghasidas Vishwavidyalaya, Koni-Bilaspur (C.G.)  
Semester-wise syllabus for PG Course

**M. Sc. III SEMESTER**

Subject Code	Course	Marks Distribution			Marks
		Theory	Sessional	Practical	
RT-301	Drug Formulation and Extraction	60	40	-	100
RT-302	Laboratory Course (Based on RT- 301)	-	20	30	50
RT-303	Geospatial Technology and its application	60	40	-	100
RT-304	Laboratory Course (Based on RT-303)	-	20	30	50
RT-305	Concepts of Statistical Analysis	60	40	-	100
RT-306	Laboratory Course (Based on RT-305)	-	20	30	50
RT-307	Lac and Apiculture	60	40	-	100
RT-308	Laboratory Course (Based on RT-307)	-	20	30	50
RT-309	Seminar	-	20	30	50
Total		240	260	150	650

For the quality of work. Pract.  
Innovation in industry  
involvement in craft  
Production of natural food.

N

Not included  
- Drug formulation & evaluation  
- GIS application in Nat. res. management & planning.

**M. Sc. IV SEMESTER**

Subject Code	Course	Marks Distribution	Marks
		Dissertation	
RT-401	Dissertation ✓	250	250
Total			250

Dissertation must be compulsory for all students. Students will have liberty to complete his dissertation work either in the Department or any other Department or Institution. If student desires to complete his dissertation work outside the Department, he/she will have bear all expenses.

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Course Code	NATURAL PRODUCT PROCESSING TECHNIQUES	Marks
RT-103		100

**General Object:** To learn about the basics of lac, Mushroom, Honey production techniques and their importance in rural sector.

Students will also learn about the production of silk which is one of the important product of Chhattisgarh.

**Specific Object:** This course will promote the skills and entrepreneurship among the students.(2) as far as concern that the government jobs are less so it will promote self.

**Outcomes:** This course will promote entrepreneurship.

**Natural products:** Introduction, plants as a source of various products, types of natural products, natural products and tribal connection, dependence of tribes on forest, various method of collection, storage and marketing of natural products, .

**Fiber:** Introduction, classification of fibers, plant origin fibers, types, study of cotton, flax and jute fiber, various fiber industries and economic importance.

**Gum and Resin:** Introduction, classification, physical and chemical composition, plant origin gum and resins, collection techniques, processing and economic importance.

**Dye:** Sources, types of dyes, chemical nature, characteristics of natural dyes, preparation of natural dyes, extraction of dye, processing and uses.

Course Code	Laboratory course (Based on RT-103)	Marks
RT-104		50

**Laboratory exercises:**

1. Identification of fiber producing plant & herbaria formation.
2. Study of fiber processing techniques.
3. Identification of gum producing plants & characteristics.
4. Tapping & collection of gums from various plant sources.
5. Study of various types of resin & their sources
6. Identification of dye producing plants.
7. Study on dye Preparation methods.
8. Microscopic observation of fibres



1. Microscopic observations of Biological materials.
2. Separation of biological material using Centrifuge, paper chromatography and electrophoresis.
3. Biochemical analysis of samples using spectrophotometer.
4. Microtomy and preparation of permanent mounts.

<b>Course Code</b>	<b>INNOVATION, APPRAISAL AND ACTION FOR RURAL DEVELOPMENT</b>	<b>Marks</b>
RT-107		100

**General Object:** To learn the concept of technology, innovation Adoption of technology. Learn the communication and familiar with the model of communication.  
**Specific Object:** Students aware with the technology and its development and Improvement of technology also which is the need of today. It develops the skill among the student.

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Department of Rural Technology & Social Development  
Guru Ghasidas Vishwavidyalaya, Koni-Bilaspur (C.G.)  
Semester wise syllabus for PG Course

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**Outcomes:** Student will know the technology diffusion and Adoption of technology. Student identify the adopters and their categories. (1) Straight way was able to the students was attached with the rural society.

**Innovation:** Definition, Characteristic of innovation, importance of innovation in day today life. Technology diffusion - Definition, innovation decision process and factors that affect diffusion process.

**Adoption process:** concept, stages in adoption process, rate of adoption, Adopter categories, identification of adopters.

**Communication:** Definition, concepts and model of communication, types of communication Barriers. Transfer of Technology - Concept of Technology, Appropriate Technology- Definition and characteristics, different Models of technology transfer, barriers in Transfer of Technology.

**PRA:** Definition, Principles and Approaches of PRA, PRA Tools- Mapping, Types of mapping- social resource, land use pattern map, enterprise map, transect walk, time line, change and trends, Matrix ranking, Mobility map, Venn diagram, RRA and PLA: Introduction, foundation, process, difference between RRA and PRA, Project appraisal.

Reference Books



Course Code	Laboratory course (Based on RT-107)	Marks
RT-108		50
<b>Laboratory exercises:</b>		
1. Exercise based on PRA Approaches		
2. Visit to print media offices		
3. To study communication models.		
4. To study adoption process.		

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M.Sc. III SEMESTER		
Course Code: RT-308		Marks: 50
Course Title: Seminar		