



**Programme Ordinance, POs, PSOs & Course Outcomes  
(Cos)**

**For**

**DIC Diploma/ Certificate Course**

**2015-2022**

**Bio-Design Innovation Centre  
Rani Durgavati University, Jabalpur (M.P.)**

**Approved by**  
Board of Studies in Biochemistry on 31/07/2021  
Standing Committee on

Faculty of Life Science on  
Executive Council on

## **Programme Outcomes**

(Academic Session 2015 – 2022)

### **Programme Ordinance, POs, PSOs & Course Outcomes (Cos)**

#### **Diploma Course (U084)**

#### **SYLLABUS PRESCRIBED FOR THE DIPLOMA COURSE IN BIODESIGNING OF SUSTAINABLE PRODUCTS FROM BIOLOGICAL SYSTEM AND PATENTIBILITY IN LIFE SCIENCES**

**Duration: 06 months Total Marks: 100**

**Theory: 60marks**

**CCE/Practical: 40marks**

#### **Unit-I**

##### **PO1 Basics of Bio-design**

- What is Bio-design?
- Scope and types of Bio-Design Products
- Currents status of Bio-design in India and the International market
- Biosynthesis and applications of nanoparticles.
- Bio-designing of Microbial fuel system through bacteria, Innovative methods for waste management and bioremediation of heavy metals.

#### **UNIT-II**

##### **PO2 Applied Bio-design**

- Cultivation of mushroom its importance and applications.
- Bio-designing of eco-cradle and mushroom paper
- Bio-designing of Latro-lamp and moss table

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- Hydroponics: Aquaponics and aeroponics types and design of hydroponics,
- Introduction to algae and various pigments in relation to Bio-design.

### UNIT-III

#### PO3 Understanding and Overview of IPR:

- Introduction to IPR
- Concept, Nature and Characteristics of IPR
- Kind of intellectual Property
- Impact of internet on IPR
- Patent Authorities under Patents Act, 1970: Controller General of India, Patent examiner, Patent agents etc.

### UNIT- IV

#### PO4 Patentability and Copyright Trademark

- Patentable subject matter and Patentability criteria: Patentable and non-patentable inventions, Novelty, Utility Inventiveness/Non-obviousness
- Rights of patentee, Procedure for granting a patent and obtaining patents, Working of Patents, Transfer of patent rights
- Procedure for filings of national and international Patents.
- Patent of Pharmaceutical products and its process, Patenting of Micro-organisms, other living organisms and genetic material.
- Protection of Plant Varieties and Farmer's Rights, Registration of varieties, Breeder's right v/s Farmer's rights.
- Copyrights: Concept, Nature and scope of Copyright, Plagiarism, Copyrights issues in digital world, Terms of Copyright, conditions for granting of copyright
- Trademark: Evolution and registration process of trademark in India, grounds of refusal, passing off.

### UNIT-V

#### PO5 Contemporary Issues in IPR and Grants of patents

- IPR and Sustainable development

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- IPR issues in Biotechnology and other field of sciences.
- Interface between IPR and Human Rights
- Infringement of Patents and remedies for infringement
- Provisions relating to Infringement of Copyright and remedies available
- Infringement of Trademark and remedies

**Practicals:**

- Isolation, identification and maintenance of pure culture of fungus.
- Bio-Designing of Eco-cradle and mushroom papers.
- Preparation of spawn culture for mushroom production
- Bio-synthesis of nanoparticles from fungi
- Bio-designing of fuel cell by using plants
- Practice for writing a patent
- Projects work on some current topic of legal importance or inclusive of other disciplines
- Submission of project work/assignment/field study report on bio-designing and life sciences area/topic pertaining to IPR involving techno-scientific and legal issues therein

**LOCF of DIC Diploma Course:**

The objective of this course is to provide basic understanding of Bio-Design, its scope and future prospects in India and International market. The course is also providing an understanding related to IPR and their role in patenting the products, copyright and trademark. The course will introduce students to the basic tenets about role of microbes in developments of innovative products of social use. The course will also provide creative bio-design skill to the students and organize training and awareness programs for the students and Tribal.

**Course Outcomes of Diploma Course:**

- ✓ This course will introduce the concept of human-centered design and explores its role for innovation.
- ✓ This intensive program is focused on helps to solve complex problems and supports to design and build innovative solutions for future growth.
- ✓ Students will learn about heavy metal toxicity, nano-particle synthesis by microbes and current national and international status of Bio-design.

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## DIC DIPLOMA AND CERTIFICATE COURSE 2015-22

- ✓ The students can implement the hydroponics and mushroom cultivation system for their self-reliance. The students should be able to understand IPR, their nature, patent authority of India and infringement of copy right, trademark and their remedies.
- ✓ Students will able to demonstrate advanced knowledge of specialist technical and practical aspects of design ideation, research, innovation and professional concerns relevant to design.
- ✓ After completion of course learner can analysis between patentable and non-patentable invention, procedure of filing of patent at national and international platform and right of patentee,
- ✓ The course will provide comprehensive knowledge to the students regarding trademark, copyright of farmers and breeders and patenting of microbes and genetic material.
- ✓ After completion of the practical, projects and CCE works the student will be able to gain knowledge about microbe's isolation, preservation and development of eco-friendly products. They also learn how to work in team, analysis of ethical and professional issues and the projects/assignment report reflects as their own learning.
- ✓ This course will definitely facilitate the students to explore career option in IPR and Bio-design field.
- ✓ Students will understand the importance of patentability and trademark to protect the IPR of pharmaceutical products and farmers rights.

**Programme Outcomes**

**SYLLABUS PRESCRIBED FOR THE CERTIFICATE COURSE IN APPROCHES AND APPLICATION OF BIO-DESIGN**

(Academic Session 2015 – 2022)

[PROGRAMME UNDER CHOICE BASED CREDIT SYSTEM WITH LOCF-ORDINANCE 222]

**Certificate Course (U085)**

**Duration: 03 months Total Marks: 50**

**Theory: 35 marks**

**CCE/Practical: 15 marks**

**Unit 1**

**PO1** Definition of Bio-design, Scope of Bio-design, types of biodesign products, current status and future prospects of biodesign in India and International Market.

**Unit 2**

**PO2** Characteristics features of limestone producing bacteria. Bio-designing and preparation of biobrick by Bacteria. Biodesigning of nanoparticles from microbes.

**Unit 3**

**PO3** Introduction, importance and application of Mushrooms, Biodesigning of Mushrooms: Ecocardle and papers.

**Unit 4**

**PO4** Biodesigning of Latrolamps and Moss Table and its application.

**Unit 5**

**PO5** Hydroponics: Introduction, Importance and Biodesigning for Hydroponics. Micropropagation of creepers, climbers and Horticulture plants and their application.

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**Course outcome of Certificate Course:**

- Bio-design certificate course views the process of how to learn from Nature as an innovation strategy translating principles of function, performance and aesthetics from biology to human technology.
- Students will learn about design innovation in the field of biological system and their scope.
- The students will be able to learn how to make innovative and eco-friendly products with social impact.
- The course will be able to aware students about lime stone bacteria and synthesis of nano-particles by using microbes.
- Students will understand the importance of microbes and plants in development of innovative products.
- Students will also gain knowledge about hydroponics their types and application in the field of agriculture.
- The course provides a unique opportunity to gain real research and innovation experiences while still in an academic environment.
- Students will be able to recognize, describe and apply the needs-driven Bio-design approach to the creation of innovative concept solutions

**LOCF of DIC Certificate Course:**

The main objectives of the course are to provide platform for students and innovator in field of Design and Innovation and develop eco-friendly products for human use. The course will also provide creative bio-design skill to the students and organize training and awareness programs for the Tribal. The course will introduce students to the novel environment management strategies through innovative waste treatment methods.



A handwritten signature in blue ink that reads "S.S. Sandhu". The signature is written in a cursive style and is placed over a faint rectangular stamp.

Prof. S.S. Sandhu  
Director, DIC, RDVV

**Approved by**  
Board of Studies in Biochemistry on 31/07/2021  
Standing Committee on

Faculty of Life Science on  
Executive Council on

**RANI DURGA VATI VISHWA VIDYALAYA, JABALPUR**

Diploma Course

In

**Bio-Designing of Sustainable Products from Biological System and Patentability of  
Life Sciences**

**[PROGRAMME UNDER CHOICE BASED CREDIT SYSTEM]**

**Duration:** 06 months

**LOCF of DIC Diploma Course:**

The objective of this course is to provide basic understanding of Bio-Design, its scope and future prospects in India and International market. The course is also providing an understanding related to IPR and their role in patenting the products, copyright and trademark. The course will introduce students to the basic tenets about role of microbes in developments of innovative products of social use. The course will also provide creative bio-design skill to the students and organize training and awareness programs for the Tribals.

**After successful completion of the course students will be able to:**

- ✓ This course will introduce the concept of human-centered design and explores its role for innovation.
- ✓ This intensive program is focused on helps to solve complex problems and supports to design and build innovative solutions for future growth.
- ✓ Students will learn about heavy metal toxicity, nano-particle synthesis by microbes and current national and international status of Bio-design.
- ✓ The students can implement the hydroponics and mushroom cultivation system for their self reliance. The students should be able to understand IPR, their nature, patent authority of India and infringement of copy right, trademark and their remedies.
- ✓ Students will able to demonstrate advanced knowledge of specialist technical and practical aspects of design ideation, research, innovation and professional concerns relevant to design.





- ✓ After completion of course learner can analysis between patentable and non-patentable invention, procedure of filing of patent at national and international platform and right of patentee.
- ✓ The course will provide comprehensive knowledge to the students regarding trademark, copyright of farmers and breeders and patenting of microbes and genetic material.
- ✓ After completion of the practical, projects and CCE works the student will be able to gain knowledge about microbes isolation, preservation and development of eco-friendly products. They also learn how to work in team, analysis of ethical and professional issues and the projects assignment report reflects as their own learning.
- ✓ This course will definitely facilitate the students to explore career option in IPR and Bio-design field.
- ✓ Students will understand the importance of patentability and trademark to protect the IPR of pharmaceutical products and farmers rights.
- ✓ Students will also gain knowledge about registration of varieties, procedure of filing of patent and transfer of patents etc.



**RANI DURGAVATI VISHWAVIDYALAYA, JABALPUR**

Certificate Course

In

**Approaches and Applications of Bio-Design**

**[PROGRAMME UNDER CHOICE BASED CREDIT SYSTEM]**

**Duration:** 03 months

**LOCF of DIC Certificate Course:**

The main objective of the course is to provide platform for students and innovator in field of Design and Innovation and develop eco-friendly products for human use. The course will also provide creative bio-design skill to the students and organize training and awareness programs for the students. The course will also introduce novel environment management strategies through innovative waste treatment methods.

**After successful completion of the course students will be able to:**

- Bio-design certificate course views the process of how to learn from Nature as an innovation strategy translating principles of function, performance and aesthetics from biology to human technology
- Students will learn about design innovation in the field of biological system and their scope.
- The students will be able to learn how to make innovative and eco-friendly products with social impact.
- The course will be able to aware students about lime stone bacteria and synthesis of nano-particles by using microbes.
- Students will understand the importance of microbes and plants in development of innovative products.
- Students will also gain knowledge about hydroponics their types and application in the field of agriculture.



- The course provides a unique opportunity to gain real research and innovation experiences while still in an academic environment.
- Students will be able to recognize, describe and apply the needs-driven Bio-design approach to the creation of innovative concept solutions.

*S. S. S.*



**UNIVERSITY INSTITUTE OF VOCATIONAL STUDIES & SKILL DEVELOPMENT  
RANI DURGA VATI UNIVERSITY, JABALPUR, MP.**



**SYLLABUS**

**Bamboo Cultivation and Product Development**

**Syllabus for Certificate Course wef. 2020-21**

**Course Code – BCPD-101**

**Program Outcomes (POs):**

Objective: The students develop and can systematically apply an entrepreneurial way of thinking that will allow them to identify and create business opportunities that may be commercialized successfully in the field of Bamboo Cultivation & Product Development .

**Program Specific Outcomes (PSOs):**

After the completion of the course, the students will be able to:

- Have the ability to discern distinct entrepreneurial traits .
- Know the parameters to assess opportunities and constraints for Bamboo business ideas.
- Develop an understanding of and practice personal and professional responsibility.
- Demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment.
- Understand the systematic process to select and screen a business idea .
- Design strategies for successful implementation of ideas in Bamboo furniture making, handicrafts, and construction field, cultivation techniques, product development, marketing, packaging etc .

**Course Outcomes:**

- To develop specific Bamboo field skills .
- To develop Bamboo furniture making, handicrafts, and construction field, cultivation techniques, product development, marketing, packaging etc .
- To develop professionals with idealistic, practical and moral values.
- To develop marketing & communication skills.

**Course Duration :** Certificate Course (Six Months)

## Examination Pattern

**Title:- Bamboo Cultivation and Product Development- Certificate Course**

**Year of Implementation:-** Syllabus will be implementation from 2021

**Duration:-** Certificate Course (Six Months)

**Admission Time** – Students can apply for admission in Certificate Courses twice a year i.e., July to December and January to June .

**Pattern of Examination:-** CBCS 222 (Semester Pattern)

**Medium of Instructions:-** English / Hindi

**Credit Point :-** 30 credits

### Scheme of Examination

	Theory	CCE	TOTAL	MIN PASSING MARKS
THEORY	60	40	100	40
PRECTICAL	60	40	100	40
*PROJECT	–	–	100	40

\*PROJECT: Students will take up job oriented projects for 45 days and will submit report for evaluation & viva-voce.

## SYLLABUS

### बांस की खेती एवं उत्पाद विकास Bamboo Cultivation and Product Development

#### इकाई 1

बांस नर्सरी एवं रोपण

(5 Hour)

1. बांस की जाति एवं प्रजातियां : परिचय
2. बांस पौधे तैयार करने की प्रक्रिया
  - अ. बीज रोपण
  - ब. रायझोम (कंद) लगाकर
  - स. कलम (शाखा) लगाकर
  - द. गुणात्मक पद्धतियों से एक पौधे से अनेक पौधों का निर्माण

रोपण प्रक्रिया

- अ. बांस के रोपण के लिये भूमि चयन
- ब. गड्ढों की तैयारी एवं निर्माण
- स. पौधे रोपण
- द. पौधे को खाद्य, पानी एवं सुरक्षा व्यवस्था
- य. बांस के पौधों का पाँच साल तक व्यवस्थापन
- र. बांस की कटाई एवं छटाई

## इकाई 2

बांस फर्नीचर

(5 Hour)

1. फर्नीचर निर्माण में उपयुक्त बांस का चयन
2. चयनित बांस पर सुरक्षा प्रक्रिया
3. बांस फर्नीचर निर्माण में उपयुक्त औजार एवं मशीनरी का परिचय
4. बांस के विभिन्न जोड़
5. बांस का फर्नीचर निर्माण— खुर्ची, टेबल, सोफा, आराम कुर्सी, बेड, स्टूल, रेक, आदि।
6. बांस फर्नीचर के फिनिशिंग एवं पॉलिशिंग
7. मूल्य निर्धारण
8. विपणन व्यवस्था – बाजारों का अध्ययन एवं सहयोगिता

## इकाई 3

बांस हस्तशिल्प

(5 Hour)

1. बांस हस्तशिल्प
2. बांस की बाह्य एवं आंतरिक शारीर रचना परिचय
3. बांस हस्तशिल्प उपयुक्त औजार एवं मशीनरी परिचय
4. बांस को फाड़ना पट्टी निकालना पत्ती निकालना और सली निकालना
5. बांस की बनाई जाली एवं चटाई निर्माण
6. बांस की वस्तु निर्माण (कम से कम दस डिजाइन निर्माण)
  - अ. बुनाई कार्य
  - ब. पट्टी कार्य
  - स. कार्डिल तकनीकी कार्य
  - द. चिक करतन (परदा निर्माण कार्य)
7. वस्तु फिनिशिंग, पॉलीशिंग एवं पैकिंग
8. उत्पादित वस्तु का मूल्य निर्धारण
9. विपणन व्यवस्था अध्ययन एवं प्रत्यक्षीक (प्रदर्शनी) सहभाग

## इकाई 4

### बांस गृहनिर्माण

(5 Hour)

1. बांस गृहनिर्माण उपयुक्त बांस का चयन करना
2. चयनित बांस पर प्रक्रिया करना
3. बांस गृहनिर्माण प्रक्रिया में उपयुक्त औजार एवं मशीनरी का परिचय
4. बांस की तनन एवं दाबशक्ति का अध्ययन
5. गृहनिर्माण में आवश्यकतानुसार चित्रांकन करना
6. विभिन्न गृहनिर्माण के प्रात्यक्षिक – पिलर, बीम, कैंची, परलीन, राफटर, बटन, दीवार निर्माण, खिड़की निर्माण, पार्टीशन
7. भुंगा निर्माण
8. जीवोडेसीक डोम निर्माण
9. फिनिशिंग, पॉलीशिंग
10. वास्तुसूत्रों का अध्ययन

## इकाई 5

### बांस कृषि वानिकी – बांस की आधुनिक खेती रख रखाव उत्पादन एवं संरक्षण।

(5 Hour)

1. बांस में लगने वाले रोगों का अध्ययन – फंगस, घुन, दीमक, भुगा
2. परंपरागत बांस सुरक्षा विधि अध्ययन
3. आधुनिक बांस सुरक्षा विधि अध्ययन
4. बांस भंडारण
5. बांस प्राकृतिक रंग प्रक्रिया

### बांस की अगरबत्ती निर्माण

1. अगरबत्ती निर्माण के लिये उपयुक्त बांस का चयन
2. अगरबत्ती निर्माण के लिये औजार एवं मशीन कटाई एवं निर्माण
3. अगरबत्ती निर्माण के लिये बांस की मशीन का परिचय
4. बांस को फाड़ना, पट्टी निकालना और सली निकालना
5. अगरबत्ती निर्माण के लिये महाला तैयार करना
6. अगरबत्ती की सुखाई एवं पैकिंग

### References-

1. The Book of Bamboo, by David Farrelly
2. Bamboo Plantation and Utilization Handbook by H. Panda.
3. Building with Bamboo: A Handbook by Jules J.A.Jansen
4. राष्ट्रीय बांस मिशन की गाइडलाइन्स।

**UNIVERSITY INSTITUTE OF VOCATIONAL STUDIES & SKILL DEVELOPMENT  
RANI DURGA VATI UNIVERSITY, JABALPUR, MP.**



**Learning Outcome Based Curriculum Framework  
(LOCF)  
for  
CBCS Skill Development Optional Module (I Semester)/  
Certificate Course in  
Development of Leadership Skills**

**I. Introduction:**

The Development of Leadership Skills Training course is a practical course that provides participants with an impactful learning journey that develops insight and skills to develop as a leader, and teaches functional management skills that are core competencies needed by people in leadership roles.

The Leadership Skills Development Program utilises a system of activities that has been scientifically proven to provide leaders with improved levels of agility, resilience and improved communication skills.

**II. Aims of the Programme:**

- 1- This Programme is introduced how to become an effective leader who is self-aware, builds trust, and can inspire a high performing team. You'll also learn management skills such as **lkbdkSykWth@Dyhfudy**  
**lkbdkSykWth**

problem solving, decision making, giving feedback and performance management.

During this Development of Leadership Skills course you will complete the Reach Personality Profiling tool, which will provide you with insight into your preferred communication style and how best to communicate with others. This newly found awareness will empower you with the ability to connect better with others and can provide you with an improved level of interpersonal communication and leadership skills.

**III. Graduate Attributes:**

1. Disciplinary knowledge of Development of Leadership Skills



2. Communication skills
3. Critical thinking .
4. Analytical reasoning .
5. Self-directed learning
6. Multicultural competence
7. Leadership qualities
8. Lifelong learning abilities

#### **IV. Qualification Descriptors:**

This criterion describes the level of knowledge and understanding, skills and competencies and attitudes and values which a student of this Programme will occupy after the completion of the programme. The programme has been designed keeping in mind the learning experiences and assessment procedures to be applied in such a way that the student gets a fair opportunity to attain the intended program learning outcome. The qualification descriptors would mirror the understanding and knowledge related to Development of Leadership Skills as well as the generic skills including global competencies which the student of this programme shall acquire.

The student after the completion of the program will be able to apply the disciplinary knowledge and transferable skills acquired to deal with real life situations in Leadership. Besides, he will be able to apply the acquired subject-related skills to employment opportunities.

#### **V. Programme Learning Outcomes:**

The programme learning outcomes related to the Programme are given as under:

- a. Demonstrate a set of basic skills in Development of Leadership Skills.
- b. Demonstrate a coherent and systematic knowledge of Development of Leadership Skills.
- c. Display an ability to understanding of change processes and be able to think critically about obstacles to change.
- d. Display an ability to express oneself fairly, clearly and correctly.
- e. Students will understand and be able to use a process for decision making.
- f. Understand your role as a team player and how to manage conflict or opposition.
- g. To enable the student to develop an awareness of the awareness by understanding your management/leadership style.
- h. To learn the skill of presenting thoughts, arguments and ideas in batter way.
- i. Learn how to lead authentically, connect your own purpose, values and core strengths in areas that makes a difference.
- j. The student will be trained in such a way that he will develop life-long learning abilities to cope with the objectives of his concern throughout his life.
- k. Role model constructive behaviors required to move towards high performance culture.
- l. Learn the power of presence-the equality of absolute attention and listening.
- m. Learn to balance confidence with humility.
- n. Assert strengthened personal character and further, an enhanced ethical sense.

#### **Course Learning Outcome:**

1. Ability to acquire workable knowledge of Leadership Skills.

2. Ability to acquire considerable proficiency in communication.
3. Technical knowledge with respect to development of Leadership Skills.
4. Reject all inhibitions in Leading activities .

Programme Outcomes	Development of Leadership Skills	Practical Training
Basic skills in Leadership Skills	√	√
Systematic knowledge of Leadership	√	√
Ability to Change processes and be able to think critically	√	√
Ability to ability to express oneself fairly, clearly and correctly	√	√
Ability to use a process for decision making	√	√
Presentation of thoughts, arguments and ideas as a team player and how to manage conflict or opposition	√	√
Awareness of the understanding management/leadership style	√	√
Role model constructive behaviors	√	√
Recognizing employment options on completion of Programme	√	√
Life-long learning abilities	√	√
Learn to balance confidence with humility	√	√
Strengthened personal character and enhanced ethical sense	√	√

There shall be one compulsory papers of 60 marks and a Internal Exam- Continues Class Evaluation of 40 marks for the Course.

<b>Name of the Course/ Title</b>	-	Development of Leadership Skills
<b>Course Code</b>	-	<b>LS-101</b>
<b>Year of Implementation:-</b>	-	Syllabus will be implementation from 2021
<b>Duration</b>	-	Six Months (certificate course)
<b>Eligibility</b>	-	12th from CBSE/HSSC MP or an equivalent examination of any other State in India
<b>Admission Time</b>	-	Students can apply for admission in Certificate Courses twice a year i.e., July to December and January to June .
<b>Pattern of Examination:-</b>	-	CBCS 222 (Semester Pattern)
<b>Medium of Instructions:-</b>	-	English / Hindi
<b>Paper</b>	-	I
<b>Marks</b>	-	100
<b>Total Credits</b>	-	30 Credits

**Note:** Each Unit carries 6 Credit Point. (One credit is equivalent to one hour 60 minutes of teaching (lecture or tutorial) or two hour (120 minutes) of practical work/file work per week in a semester.

<b>Unit-I</b>	<p><b>Leadership</b></p> <ul style="list-style-type: none"> <li>▪ Leadership and types of leadership styles, Challenges in leadership skills . organizational management .</li> <li>▪ Awareness towards Personal Leadership style.</li> <li>▪ Traits of Leadership.</li> <li>▪ Importance of Work Attitude &amp; Progressive Behavior.</li> </ul>
<b>Unit-II</b>	<p><b>Leadership and Change</b></p> <ul style="list-style-type: none"> <li>▪ Change Leadership &amp; Organizational success</li> <li>▪ Role of Leadership in Change management.</li> <li>▪ Organizational learning- its importance and techniques, its role in organizational success .</li> <li>▪ Administrative Leadership.</li> <li>▪ Appreciative inquiry- its processes and stages, How to develop Appreciative inquiry.</li> </ul>
<b>Unit-III</b>	<p><b>Leadership Skills</b></p> <ul style="list-style-type: none"> <li>▪ How to strengthen leadership skills through interpersonal skills, team development, communication and skills for managing change.</li> <li>▪ Coaching skills.</li> <li>▪ Leadership in groups: building and leading efficient teams.</li> <li>▪ Conflict management and dealing difficult conversation.</li> <li>▪ Communications skills.</li> <li>▪ Decision Making &amp; Problem Solving.</li> <li>▪ The Leader/Follower Relationship.</li> <li>▪ Importance of Trust, Integrity and Ethics</li> </ul>
<b>Unit-IV</b>	<p><b>Strategic Management</b></p> <ul style="list-style-type: none"> <li>▪ Creating a vision</li> <li>▪ Analyzing the strengths and weaknesses of an organization.</li> <li>▪ Learn strategic skills in leadership communication.</li> <li>▪ Organizational Design.</li> <li>▪ The basics of a planning process.</li> <li>▪ Critical leadership skills.</li> </ul>
<b>Unit-V</b>	<p><b>Training &amp; Work sheet</b></p> <ul style="list-style-type: none"> <li>▪ Group presentations.</li> <li>▪ Communication Practice.</li> <li>▪ Leading a Problem Project .</li> <li>▪ Training .</li> <li>▪ Assignments &amp; Project work.</li> </ul>

**References :-**

Leadership And Team Building by Uday Kumar Haldar, Oxford University Press

Leadership Development, *by John Mitchell, Natalie Mitchell and Bogdan Gudzenko, 2012*

Leading Minds: An Anatomy of Leadership, *by Howard E. Gardner and Emma Laskin, 2011*

On Becoming a Leader by Warren Bennis

The Leadership Challenge: How to Make Extraordinary Things Happen in Organizations

by James Kouzes & Barry Posner

Leading Change by John Kotter

**UNIVERSITY INSTITUTE OF VOCATIONAL STUDIES & SKILL DEVELOPMENT  
RANI DURGAVATI UNIVERSITY, JABALPUR, MP.**



**SYLLABUS**

**Entrepreneurship Development**

**Syllabus for Certificate Course wef. 2020-21**

**Course Code – ED102**

**Program Outcomes (POs):**

Objective: The students develop and can systematically apply an entrepreneurial way of thinking that will allow them to identify and create business opportunities that may be commercialized successfully.

**Program Specific Outcomes (PSOs):**

After the completion of the course, the Students will be able to:

- Have the ability to discern distinct entrepreneurial traits .
- Know the parameters to assess opportunities and constraints for new business ideas .
- Develop an understanding of and practice personal and professional responsibility.
- Demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment.
- Understand the systematic process to select and screen a business idea .
- Design strategies for successful implementation of ideas.

**Course Outcomes:**

- To develop Professional skills and be an effective goal oriented team player.
- To develop professionals with idealistic, practical and moral values.
- To develop communication and problem solving skills.

**Course Duration :** Certificate Course (Six Months)

## Examination Pattern

**Title:-** Entrepreneurship Development - Certificate Course

**Year of Implementation:-** Syllabus will be implementation from 2021

**Duration:-** Certificate Course (Six Months)

**Admission Time –** Students can apply for admission in Certificate Courses twice a year i.e., July to December and January to June .

**Pattern of Examination:-** CBCS 222 (Semester Pattern)

**Medium of Instructions:-** English / Hindi

**Credit Point :-** 30 credits

## SYLLABUS

### Entrepreneurship Development

Syllabus for Certificate Course wef. 2020-21

Paper Code – ED102

#### Unit I

(6 hours)

1. Define the term Entrepreneurship.
2. Definition of entrepreneurship from different perspectives.
3. Out line the importance of entrepreneurship.
4. Importance of entrepreneurship : Enhances creativity and innovation. Builds self Confidence in people. Serves as a tool for nation building. Serves as the engine of growth For the nation's economy.
5. Explain the reasons why entrepreneurs hold be developed in a country:
  - a. Employment generation.
  - b. Increased national production.
  - c. Re-investing national resources.
  - d. Harnessing youth vigour.
  - e.

#### Unit II

(6 hours)

1. Describe who an entrepreneur is and who a business person.
2. Characteristics of an entrepreneur
  - a. Risk taking.
  - b. Need to achieve.
  - c. Innovation and creativity.
  - d. Opportunity.
  - e. Orientation.
3. Explain the factors that affect the development of entrepreneurship.
4. Factors that affect the development of entrepreneurial spirit in people:

- a. Environment immediate family and friends.
  - b. Community, national, international
  - c. Financial.
  - d. Displacement, etc.
5. The role of the:
- a. Government.
  - b. Society.
  - c. Families and friends.
  - d. The stake holders like financial institutes.

**Unit III**

(6 hours)

1. Define employment: types of employment
  - i. Wage employment.
  - ii. Self employment.
2. State the advantage and disadvantage of wage and self employment.
3. Types and characteristics of wage employment and self employment.
4. Outline the reasons why people go in to wage or self employment.
  - a. Self employment.
  - b. Regain lost image.
  - c. Exercise control over business.
  - d. Be come boss.
  - e. Wage employment.
  - f. Assured income.
  - g. Commitment may be less.

**Unit IV**

(6 hours)

1. Define small business.
2. State the characteristics of small business, Labour intensive Small capital outlay.
3. List the areas of small operation Areas: Trading, Catering, Etc
4. The role that small businesses play in the country. Entrepreneurs' technical base for Economic development, plat form for mobilizing resources for economic development. Etc.
5. Explain the challenges/problems facing small businesses
  - a. Financing.
  - b. Access to markets.
  - c. Government policies.
  - d. Inadequate managerial skills
6. Define the business environment
  - a. Business.
  - b. Environment.
  - c. Business environment.
7. Business development service providers in India, DIC, MSME, NSIC, SIDCO, financial Institutions & Banks.

**Unit V**

(6 hours)

1. Procedure for registering business. Product designing/ branding/merchandizing, research and development. Define Intellectual Property Right .Procedure of Patenting ownership
2. Introduction to Copyright. Rules & Norms of The Government to run a business. Government schemes and business assistance: financial loan/ place/ training/ subsidiary etc.
3. Industrial visit.
4. Practical Training - Planning& Proposal of a Business .
5. Product Branding & Marketing Training.
6. Online trading Strategies & Marketing Skills Development .

## References:

1. Drucker Peter F, "Innovation and Entrepreneurship", Harper Business, 1985.
2. **Barringer, Bruce R.** "*Preparing effective business plans : an entrepreneurial approach*". Upper Saddle River, N.J: Pearson Prentice Hall, 2009.
3. **Blanchard, Ken, Don Hutson, with Ethan Willis.** "*The one minute entrepreneur : the secret to creating and sustaining a successful business*". 1st edition. New York : Currency Doubleday, 2008.
4. **Dollinger, Marc J.** "*Entrepreneurship: strategies and resources*". 3rd edition. Upper Saddle River, N.J. : Prentice Hall, c2003.
5. **Finch, Brian.** "*How to write a business plan*", 3rd edition. London Philadelphia : Kogan Page, 2010.
6. **Fitzgerald, Kathie.** "*Crafting a business : making money doing what you love*", New York : Hearst Books, 2010





**PERSONALITY DEVELOPMENT (SOFT SKILL)**

**Syllabus for First Semester wef. 2020-21**

**Paper Code – SDC101**

**UNIT 1**

Personality Development - Concept of Personality, Role and Impact of Personality in Society, Types of Personality, Importance and values of Psychology, Psychological Hindrances, Psychological Barriers on Mental and Physical level, Self Assessment and Psychometric Analysis - SWOT analysis, Priority Matrix, Identifying Traits of Self and Modifying it, Influencing Personality factors in society.

Behaviour Modification, Copying Strategies for Stress Management.

**UNIT 2**

Communication - Process of Communication, Types of Communication- verbal-nonverbal, Barriers of Communication, Techniques to reduce barriers, Listening Skills 5Ws & 1H, Group Discussion (Activity),

Presentation Skills & Preparation (Public Speaking training - Activity)

Written Communication skills- Different types of letters- Sales letters, Order letters, Complaint letters, Adjustment letters, Inquiry letters, Follow-Up letter, Letters of Recommendation, Acknowledgment letters.

Content writing, Orator ship. Correct grammar, punctuation and spelling.

Speech & Language – Pronunciation

**UNIT 3**

Self Motivation- aim, objectives, importance, values, how to get motivated and goal setting, Priority Matrix .

Interpersonal Skills - Concept, Synergy, Copying skills, Developing Empathy, Appreciative Attitude, Creative Problem Solving Training.

Page no.-01

Dealing with the difficult people in the work place. Work life balance training, Assertiveness & self confidence. Organizational skills .

UNIT 4

Interview Techniques (direct and indirect), Presentation Anxiety, Time Management, Resume & Curriculum Vitae.  
Enhancing Confidence level for Interview, Mock Interview Training  
Body Language, Attire, Soft-skill training- Manners & Etiquettes.

UNIT 5

Digital Skill & Online Awareness in present scenario. Basics of Computer skills, use of internet, e-mailing, online meetings, website formation.  
Basics of Learning Management System (LMS)  
Online Learning Terms Awareness.  
E- Learning and its positive & negative effects an awareness.

Reference-

“Personality Development and Soft Skills” by Barun Mitra  
Personality Development Books Hindi (Paperback, Hindi, Dr. Dinkar Kumar)  
“Communication Skills” by Sanjay Kumar and Pushp Lata  
Develop Self-Confidence, Improve Public Speaking by Dale Carnagie  
Interview Skills (English, Paperback, D.S. Paul, Manpreet Kaur)  
Advanced Writing Skills: (English, Paperback, Paul D.S.)  
Review of Personality development and assessment. APA Psyc Articles



**UNIVERSITY INSTITUTE OF VOCATIONAL STUDIES & SKILL  
DEVELOPMENT**

**RANI DURGAWATI VISHWAVIDYALAYA, JABALPUR**



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Contact no. - 8989737691, 9425151905

No. ....

Date- .....

**Guideline, Regulation and Marking Scheme of Certificate Course**

**(w.e.f. 2020-21)**

The Certificate Courses in University Institute of Vocational Studies & Skill Development, Career Oriented Programme of Skill Development, UGC, Govt. of India, New Delhi. 2020-21 onwards introduced as "Add on" courses at undergraduates and post graduate level of will be covered under following ordinances.

**A- Name of Certificate Courses - Personality Development (Soft Skill)**

**B- Duration of the Certificate Courses : 6 months**

**C- Number of seats :** The number of seats will be **25 seats** of certificate course. Number of seats can be increased from time to time on the approval of University .

**D- Tuition and other Fees: 2000/- for certificate course.** Fees may be increased as and when required after the consideration. No concession will be made in the fee structure for the candidate of any category in this course.

**E- Condition for Pass:**

1. Every candidate will be requested to attend minimum of 75% lectures/ periods delivered to the class .
2. The candidate must obtain 40% of the total marks in theory and practical separately to pass the course.
3. The candidate after passing examination will be awarded a separate Certificate and Diploma in Skill Courses in addition to his/her regular degree courses .
4. The supplementary examination shall be held in September or as fixed by the University . This examination shall be open to candidates who have declared reappear in Certificate Course .
5. The candidate who doesn't pass in the supplementary examination will be given another chance to appear in above said course along with forthcoming Term End examination.

6. A candidate who passed the course in the supplementary examination or in the third chance in Term End examination can appear alongside in next subsequent examination of above said course.
7. The candidate , who is unable to pass the course in three given chance , will not be allowed to continue the above said course.
8. Candidate will be offered English/ Hindi as the medium of Instructions/Examination.

**Eligibility:** 10+2 or Equivalent for Certificate course.

**Result :** This result of the candidate will be declared on the basis of aggregate marks obtained by him/her in all the course examination. The division shall be awarded on the following basis viz.

- (i) First Division : Grade A - 60% and above
- (ii) Second Division : Grade B - 50% and above but less than 60%
- (iii) Third Division: Grade C - 45% and above but less than 50%

#### **Scheme of Examination :**

As and when required , the board of studies in R.D. University ,Jabalpur, will be empowered to change the scheme of Examination.

**Course of Study :** The course of studies in papers and in practical's will be as per syllabus prescribed by Board of Studies in R.D. University ,Jabalpur.

Through this scheme the main aims are imparting job skills to the students through various certificate programmes, thus enabling them to acquire an additional certificate along with their Degree certificates Students can pursue these certificate programmes along with their regular Degree programme.



28/11/20

## Certificate Course - Marking Scheme

### Scheme for Distribution of Marks in Setting the Question Paper in Certificate Course - Term End Examination

2020-21: 2021-22

Scheme for Distribution of Marks in Setting the theory Question Paper will be as follows ;

The time of exam is Two Hours .

There will 60 marks in the theory Question Paper.

There will be three sections, Section A is of Objective Type Question ; Section B is of Short type Question and Section C is of Long Answer type Question.

In Section A there will be Thirteen Objective type Questions, Each objective type question is of Two marks, Section A will be of Twenty Six Marks.

In Section B there will be Four short type Questions, Each question is of Six marks, Section B will be of Twenty Four Marks.

In Section C there will be One Long type Questions, Each question is of Ten marks, Section C will be of Ten Marks.

Scheme for Distribution of Marks in CCE will be as follows:

There will 40 marks in the presentation/ workshop/ seminar/poster presentation / PPT in online or offline mode etc. in CCE examination.

\*\* The passing mark/ Grade is as according to ordinance 222 (CBCS)



28/11/20



## **Life Skills & Psychosocial Competence**

**Optional Paper - Second Semester wef. 2020-21**      **Paper Code- SDC-O102**

- 1- **Cognitive , Emotional & Social Development** - Think in abstract level, Use flexibility in language, Use creativity in their thoughts, language and behavior, Understand wide area of emotions, become socially responsible.  
**Critical and Creative Thinking** , Positive Attitude  
**Self-Awareness** - Dealing With Anger, Appearance, Sensation Seeking Behavior, High-Risk Behavior, Facing Changes and Problems - Drinking, Facing Failure, Suicide, Self-Esteem
- 2- **Motivation** - Understanding Motivation, Improving Concentration, How to Improve Memory - Increasing Motivation to Study and Study Habits Making Life Choices, Preparing for Examination .  
**Discipline** - Television & Social Media, Routine & Time Management
- 3- **Health-Hygiene& Nutrition** - Eating Habits, Healthy & Unhealthy Food, Myths and Facts about Food Being Clean, Prevention of Infectious Diseases - Anemia, Hygiene  
**Understand Body and Mind** – Yogic Beneficial's, Understanding Body and Mind, Wet Dreams and - Sexually Transmitted Diseases, HIV/AIDS, Sexual Harassment, Sexual Abuse - Marriage, Conception, Contraception, Sexuality - Myths and Misconceptions.  
**Counseling**
- 4- **Relationship** - Parents, Peer Pressure, Saying "NO" to Drugs, Bullying - Gender Roles, Boy - Girl Relationship, Peer Pressure, Smoking,  
**Social Responsibility** - Recycling - Use Reuse Keeping Environment Clean, Impact of Advertisement, Dowry.  
**Empathy.**
- 5- **Online Learning Skills** and E-Learning Awareness in Present Scenario, ICT, Basics of Learning Management System (LMS), Online Learning Terms Awareness, E- Learning its positive & negative effect an awareness.

### **References :-**

Life Skills Education Paperback – 1 January 2016- by Dr. K. Ravikant  
Rao (Author), Dr. P. Dinakar (Author)

Abdullahi, H. (2013). The Role of ICT in Teaching Science Education in Schools. Journal of Educational and Social Research.

**UNIVERSITY INSTITUTE OF VOCATIONAL STUDIES & SKILL  
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**RANI DURGAWATI VISHWAVIDYALAYA, JABALPUR**



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No. ....

Date- \_\_\_\_\_

**Guideline, Regulation and Marking Scheme of Certificate Course**  
**(w.e.f. 2020-21)**

The Certificate Courses in University Institute of Vocational Studies & Skill Development, Career Oriented Programme of Skill Development, UGC, Govt. of India, New Delhi. 2020-21 onwards introduced as "Add on" courses at undergraduates and post graduate level of will be covered under following ordinances.

**A- Name of Certificate Courses - Life Skills & Psychosocial Competence**

**B- Duration of the Certificate Courses : 6 months**

**C- Number of seats :** The number of seats will be 25 seats of certificate course. Number of seats can be increased from time to time on the approval of University .

**D- Tuition and other Fees: 2000/- for certificate course.** Fees may be increased as and when required after the consideration. No concession will be made in the fee structure for the candidate of any category in this course.

**E- Condition for Pass:**

1. Every candidate will be requested to attend minimum of 75% lectures/ periods delivered to the class .
2. The candidate must obtain 40% of the total marks in theory and practical separately to pass the course.
3. The candidate after passing examination will be awarded a separate Certificate and Diploma in Skill Courses in addition to his/her regular degree courses .
4. The supplementary examination shall be held in September or as fixed by the University . This examination shall be open to candidates who have declared reappear in Certificate Course .
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6. A candidate who passed the course in the supplementary examination or in the third chance in Term End examination can appear alongside in next subsequent examination of above said course.
7. The candidate , who is unable to pass the course in three given chance , will not be allowed to continue the above said course.
8. Candidate will be offered English/ Hindi as the medium of Instructions/Examination.

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**Result :** This result of the candidate will be declared on the basis of aggregate marks obtained by him/her in all the course examination. The division shall be awarded on the following basis viz.

- (iv) First Division : Grade A - 60% and above
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Through this scheme the main aims are imparting job skills to the students through various certificate programmes, thus enabling them to acquire an additional certificate along with their Degree certificates Students can pursue these certificate programmes along with their regular Degree programme.



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## Certificate Course - Marking Scheme

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2020-21; 2021-22

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\*\* The passing mark/ Grade is as according to ordinance 222 (CBCS)

  
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**WOMEN'S STUDIES AND RESEARCH CENTRE,  
RANI DURGVATI UNIVERSITY,  
JABALPUR. (M.P.)**



**SYLLABUS**

**ADVANCED CERTIFICATE COURSE  
IN  
GARBH SANSKAR (ACGS)  
(Effective for Academic Session 2021-22)**

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**WOMEN'S STUDIES AND RESEARCH CENTRE,  
RANI DURGAWATI UNIVERSITY,  
Saraswati Vihar, Pachpedi, Jabalpur, Madhya Pradesh 482001**

**ADVANCED CERTIFICATE COURSE  
IN  
GARBH SANSKAR (ACGS)**

**Program Outcomes (POs):**

Garbh sanskar advance certificate course, Giving birth should be your greatest achievement not your greatest fear. Garbh sanskar simply means educating your baby inside your womb. It is a complete guideline to get a divine child from ayurvedic point of view. Garbh sanskar is a process to achieve physical, mental, spiritual, emotional, social development & perfection for the mother & baby. with this process a parents get healthy & expected child. The literal meaning of garbh sanskar is educating the fetus in the womb. Many parents found this interesting and felt quite satisfied too. In Indian culture it is believed that education of real and traditional values and parenting starts right from the time the fetus is confirmed in the womb. This is why when anyone gets pregnant in home, the elder people advice to have positive thoughts and emotions to the pregnant woman.

**Program Specific Outcomes (PSOs):**

The ACGS Course objectives are to prepare candidates with update knowledge and skill in the field of ayurveda. It will develop skills in brief regarding all the procedure in Garbhsanskar. The advantages of garbh sanskar are not only that you educate your child and there is development of a bond between the mother and the child. In fact, this has a great impact on the health of the mother also. The positive thinking and attitude promotes physical well being of the mother.

**Total Duration of Course: 3 Months**

**Course Outcomes:**

This course is specially designed for all those who are genuinely interested in propagating the concept of GARBHA SANSKAR in the society, to up bring a healthy, multi-talented and most importantly a cultured, value based new generation. In fact, GARBHA SANSKAR is a very powerful medium to shape up to three generations in the society, by inculcating Sanskaras. In short, this is a missionary, selfless service to the society.

**Career Options**

Assistant in Ayurveda Clinic  
Assistant in Garbhsankar Clinic or Organization  
Parental Education



**WOMEN'S STUDIES AND RESEARCH CENTRE,  
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Saraswati Vihar, Pachpedi, Jabalpur, Madhya Pradesh 482001**

**Syllabus for ADVANCED CERTIFICATE COURSE IN GARBH SANSKAR (ACGS)**

**Course of Study**

S. No.	Subjects	Subject code	L/Week	Credit
1.	Medical Science	ACGS-101	02	05
2.	Science of Garbh Sanskar	ACGS-102	02	05
3.	Epigenetics & life style modifications	ACGS-103	02	05
4.	Yoga and Pranayam	ACGS-104	02	05
5.	Foetal Communication	ACGS-105	02	05
6.	Therapies in Garbh Sanskar	ACGS-106	02	05
Grand Total			12	30

**Medical Science  
Subject Code: ACGS-101  
Min. Hrs.: 20**

- Anatomy
- Physiology of  
    Menstrual Cycle  
    Fertilization
- Use of contraception after marriage for planned pregnancy.
- Nutritional Supplements prior to conception Eg. Folic acid.
- Preparation of Pregnancy
- Journey during pregnancy.
- Development of fetus in 1st, 2nd & 3rd trimester.
- Maternal changes during pregnancy.
- Symptoms of early pregnancy.
- Insight into complications during pregnancy, labour & post pregnancy.
- Labour · 1st, 2nd, & 3rd stages.
- Placenta
- Investigations
- High Risk Pregnancies
- Importance of Daily foetal movement count. Myths
- Contraception after delivery
- Breast feeding, spacing of pregnancies.



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**Science of Garbh Sanskar  
Subject Code : ACGS-102  
Min. Hrs. : 16**

**Introductio:**

- All Sanskar (Sanskaron ki Parampara)
- Definition
- Science behind sanskar
- Vaidic parampara of 16 Sanskars
- Present Scenario
- Sanskar and Epigenetics
- Scientific explanation of Garbh Sanskar

**Garbh Sanskar Ceremony**

- The ceremony has five steps each with a message
- Inhalation of medicinal herbs.
- Worshipping the womb.
- Consolation & Reading about the life style modifications expected from the mother to be an auto suggestive mechanism
- Special oblations
- Charu Grahan

**Yogyopathy with Garbhpusthi havan samagri for high risk cases**

- Advanced science of Yagya and its use in treating diseases.
- Special medicinal herbs are used in havan samagri the fumes of which when
- Inhaled by the patient results in treatment of various ailments - It is a research based science known as Yagyopathy.



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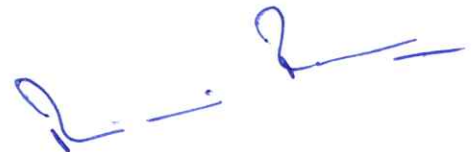
**Epigenetics & life style modifications  
Subject Code : ACGS-103  
Min. Hrs :16**

**Epigenetics**

- Epigenetics
- Adulthood disease of foetal origin.

**Life Style Modifications**


- Stress Management
- Eelectro magnetic radiation from Laptop, Mobile & Wifi.
- Science behind thoughts and feelings - Quantum Theory
- Ideal life style modifications and environmental effect on foetus
  
- Diet
  - Importance of diet including nutraceuticals in diet.
  - Supplementing diet with folic acid, iron, calcium, iodine, DHA etc. prior to conception (at least 3 months before)
  - Ideal diet for healthy mind, body & soul
  - During pregnancy importance of Balanced diet.
  - Diet with growth, immune and brain nutrients and digestive elements for mother and foetus.
  - Specific requirements during the three trimesters.
  - Myths regarding diet during pregnancy.
  - Importance of adequate calories and healthy diet during Breast feeding



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**Yoga and Pranayam  
Subject Code:ACGS~04  
Min. Hrs.: 14**

- Asan -Sookshma Vyayam.
- Asan -
  - Pre conception
  - Antenatal
  - Postnatal
- Pranayam
  - Preconception
    - Nadi Shodhan
    - Anulom Vilom
    - Bhrahmari
    - Pranakarshak.
    - Om Chanting
    - Bhastrika
    - KapalBhati
  - Antenatal (All except Bhastrika and Kapal Bhati)
- Dhyam
  - Guided meditation
  - Surya Dhyam
  - Teen Shareeron Ka Dhyam
  - Naad Yog
  - Any other important asan




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**Foetal Communication  
Subject Code : ACGS-105  
Min. Hrs.: 14**

**Foetal Communication**

- To keep pace with rapidly growing foetal brain mother establishes conversation with child in uterus by various means –
  - Music
  - Story telling
  - Thought transfer
  - Sermons
  - In all her daily routines.





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Saraswati Vihar, Pachpedi, Jabalpur, Madhya Pradesh 482001**

**Therapies in Garbh Sanskar  
Subject Code : ACGS106  
Min. Hrs.: 16**

Therapies

- Music - Presently developing as a mode of therapy
- Helpful in distress situations
- Reduces B.P.
- Increases neuron genesis & Synaptogenesis
- Improves bonding between mother & child.
- Sketching, Drawing, Painting, Clay moulding, colour therapy -practical classes.



**WOMEN'S STUDIES AND RESEARCH  
CENTRE,  
RANI DURGVATI UNIVERSITY,  
JABALPUR. (M.P.)**



**REVISED SYLLABUS**

**Learning Outcomes based Curriculum Framework (LOCF)**

**CERTIFICATE COURSE IN  
WOMEN EMPOWERMENT AND DEVELOPMENT  
(CWED)**

**(CBCS pattern effective from 2020-21)**

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**WOMEN'S STUDIES AND RESEARCH CENTRE,  
RANI DURGAVATI VISHWAVIDYALAYA, JABALPUR.  
CERTIFICATE COURSE (Three Months)  
CERTIFICATE COURSE IN WOMEN EMPOWERMENT AND DEVELOPMENT (CWED)**

**Learning Outcomes based Curriculum Framework (LOCF)**

**Course Code :** CWED

**Program Outcomes (POs):**

- The course aims to offer a structured program of study in the field of gender and development to students with little or no previous knowledge or academic training in either the principal subject area or in gender studies.
- The course will introduce students to a comprehensive set of topics dealing with the principal issues in the area of gender and development and will be multidisciplinary.

**Program Specific outcomes (PSOs)**

Students will be able to:

- Analyse and explain gender differences and disadvantages for women in national and international contexts
- Identify, summarise and evaluate different approaches to understanding gender and development

**Course Outcomes:**

Students successfully completing this programme will be able to pursue their careers in the following areas:

- Higher studies and research programmes.
- Public sector, Non-governmental Organisations both at National and International level;
- Specialised areas like Media, Communications, Corporate sector, Writing, Editing, Journalism, Gender Training Programmes.

**Course Duration:**

Three Months



## REGULATIONS FOR CERTIFICATE COURSE IN WOMEN EMPOWERMENT & Development

1. The course duration shall be of 3 months.
2. Total intake capacity of the course will be 20-25 participants.
3. Graduates and undergraduates (12 th Pass) from all subject disciplines with a minimum of 45% aggregate in the qualifying examination shall be eligible for admission.
4. The admission form can be obtained from the university or the Women's Studies Centre at the university campus. The duly filled form should be submit to along with a draft of Rs 1200/- (twelve hundred only), in favour of, Registrar, Rani Durgavati Vishwavidyalaya, Jabalpur.
5. There shall be a total of three papers of 100 marks each, with two theory papers and one practical paper including field study.
6. The candidates have to appear tor an examination comprising of Written Examination, Assignment and Presentation for successful completion of the course comprising of internal and external assessment.
7. Candidates would be declared qualified as follows:-

Marks secured in course end examination	Result
~60%	A Grade
~50%<60%	B Grade
~40% & Below 50%	C Grade
Less then 40%	D Grade

8. Grace marks (1 to 2) can be given in any two of the papers

### TEACHING & EVALUATION SCHEME

Paper Code	Name of Paper	Internal Marks	External Marks	Total	Credit
CCWE01	UNDER - STANDING GENDER	30	70	100	10
CCWE02	GENDER-DEVELOPMENT AND WOMEN'S AWEARNESS	30	70	100	10
CCWE03	PRACTICAL PAPER INCLUDING FIELD STUDY	40	60	100	10
Grand total		100	200	300	30

## Detail Syllabus

### Paper- I UNDER - STANDING GENDER (CCWE01)

#### Topics-

1. Gender ideology, Gender Discrimination, Gender Budgeting, Gender Equality.
2. Gender Development and Indian Nation state: Landmark Policies, Plans, Reports and Commissions.
3. Gender issues in Urban and Rural Livelihood.
4. Development status of women in various religions.
5. Participation in organized and unorganized sectors in urban and rural perspective.
6. Role of education in women empowerment.

### Paper- II GENDER-DEVELOPMENT AND WOMEN'S AWEARNESS (CCWE02)

#### Topics –

1. Concept, Nature, Objective of Women Empowerment, Personality Development - an effective tool in women empowerment, capacity building of women managers at both personal as well as professional fronts.
2. Determinants of women empowerment: Education, Health, Economics Status, socio-political environment etc.
3. Constitutional provisions, legal rights, Central and State government policies for women empowerment.
4. Self help Groups: Concept, Importance & role in women empowerment. Microfinance, vocational training programs, role of zila udyog Kendra and banks (co-operative and women banks) and Social welfare programs. NGOs: Concept. structure, setting up a NGO, fund raising. Role of NGOs in women empowerment.
5. Entrepreneurship: Concept, Importance, Characteristics, setting up an enterprise. fund raising, marketing of products/services, problems faced by entrepreneurs and overcoming them.

### Paper- III PRACTICAL PAPER INCLUDING FIELD STUDY (CWED03)

One Project (Research Work) to be prepared related to syllabus with relevant agencies, NGO, Government and non-government organization.



# SYLLABUS

One Year Programme (Semester I and II)

## Diploma in Renewable Energy

Under the Scheme of Community College

(Sponsored by U.G.C. New Delhi)



*Naab*  
*Principals*  
*Ramesh Pawar*  
*RD*

Women's Studies and Research Centre

Rani Durgavati Vishwavidyalaya, Jabalpur (M.P.)

Website: [www.rdunijbpin.org](http://www.rdunijbpin.org)

To be implemented from Academic Year 2016-2017 onwards

## CURRICULUM STRUCTURE OF COMMUNITY COLLEGE DIPLOMA IN RENEWABLE ENERGY

### Preamble of the course

Energy is a vital input for the development and economic growth of a country. The growth for energy sector is critical for socioeconomic development particularly for rural areas. In the Indian context, it is a great challenge to provide affordable energy services to the population. Renewable energy contributes to energy supply reserves and the environment. India is fortunate in having a lot of resources of solar, hydro, wind, wave, and tidal hydro-electric energy. Development must, however, occur with proper attention to the technical, economic and operational constraints associated with increase in penetration of such technology. The development of energy systems is also constrained by the depletion of fossil fuel, local environmental impacts and the problem of global warming and associated climate change. The energy sector is in transition and there is significant need to understand the various energy conversion and efficient utilization process. In view of the problem of climate change and scarcity of fossil fuels, the field of energy engineering offers significant challenges and opportunities.

The Diploma in Renewable Energy prepare the students in theoretical as well as practical aspects of renewable energy technologies, energy conservation, and management. This multi-disciplinary integrated programme train the students not only in renewable energy technologies and its implementation but also in equally important areas of energy infrastructure, rational use of energy, energy policies and regulations, and energy-environment interface etc. The programme exhibits its uniqueness fostering the much sought-after leadership skills through the management energy courses. Thus, the programme enables the students to tackle practical problems of design, development, deployment in the industry, and to pursue academics as well as frontiers of research. The objective of the programme is to provide specialist manpower to meet the challenges of the energy sector.

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**DIPLOMA IN RENEWABLE ENERGY PROGRAMME STRUCTURE  
OF DIPLOMA IN RENEWABLE ENERGY**

**One Year Programme (Semester - I)**




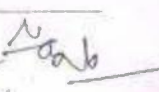
S. No.	Paper No.	Subject Name	Component	Credit			
				L	T	P	C
1	RE-101	Energy sources and Energy Scenario	Skills	3	2	0	5
2	RE-102	Renewable energy sources and technology	Skills	3	2	0	5
3	RE-103	Solar energy	Skills	3	2	0	5
4	RE-104	Functional English & Communication Skills	General Education	2	1	0	3
5	RE-105	Practical and Project work	Skills	0	0	12	12
<b>Total Credit of Semester-I</b>				<b>30</b>			

**One Year Programme (Semester - II)**

S. No.	Paper No.	Subject Name	Component	Credit			
				L	T	P	C
1	RE-106	New Energy Resources	Skills	3	2	0	5
2	RE-107	Solar photovoltaic technology	Skills	3	2	0	5
3	RE-108	Energy management and auditing	Skills	3	2	0	5
4	RE-109	Fundamental of Computer & Information Technology	General Education	2	1	0	3
5	RE-110	Practical and Project work	Skills			12	12
<b>Total Credit of Semester-II</b>				<b>30</b>			

- L – Lecture, T- Tutorial, P- Practical, C – Credit
- After successful completion of 1<sup>st</sup> semester, student will be awarded **Certificate in Renewable Energy**.
- After successful completion of 2<sup>nd</sup> semester, student will be awarded **Diploma in Renewable Energy**.

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# **SEMESTER - I**

## RE-101 Energy Sources and Energy Scenario

### Unit I

#### Introduction to Energy

Definition and units of energy and power, Conversion, Energy terms, calorific value, Forms of energy, Classification of energy sources Quality and concentration of energy sources, Energy and Thermodynamics, Energy parameters, Conservation of energy, Energy flow diagram to the earth. Origin of fossil fuels, Time scale of fossil fuels, Role of energy in economic development and social transformation, Energy security.

### Unit II

#### Energy and Growing Economy

Commercial energy production, Final energy consumption, Energy needs of growing economy, Long term energy scenario, Energy pricing, Energy sector reforms, Energy conservation and its importance, Energy strategy for the future, Energy Conservation Act-2001 and its features.

### Unit III

#### Global Energy Scene

Energy consumption in various sectors, projected energy consumption for the next century, exponential increase in energy consumption, energy resources, coal, oil, natural gas, nuclear power and hydroelectricity, impact of exponential rise in energy consumption on global economy, future energy options.

### Unit IV

#### Indian Energy Scene

Commercial and non-commercial forms of energy, energy consumption pattern and its variation as a function of time, India's Power Scene, Gas-Based Generating Plants, Nuclear Power Programme, urban and rural energy consumption, energy as a factor limiting growth, need for use of new and renewable energy sources, Socio-economic impacts, Rural development, Poverty alleviation, Employment; Security of supply and use, Environmental and ethical concerns, Economical aspects of renewable energy systems vs large hydro and thermal power projects.

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### Suggested reading references

- Bani P. Banerjee, Energy and the Environment in India, Oxford University Press, New Delhi.
- G. D. Rai, Non- conventional Sources of Energy, Khanna Publishers, Delhi.
- Gopal kumar, Energy Independence Vision of a Hybrid, Unbound Future, Deep and Deep Publications Pvt. Ltd., New Delhi.
- D. K. Asthana, Meera Asthana, Environment Problems and Solutions, S. Chand and Company Ltd., New Delhi.
- Abdul Mubeen, M. Emran Khan, M. Muzaffarul Hasan, Energy and Environment, Anamaya Publishers, New Delhi.
- Upender Pandel, M. P. Poonia, Energy Technologies for Sustainable Development, Prime Publishing, Ghaziabad (UP).
- Renewable Energy Sources and Emerging Technologies, Kothari D.P. and Singal K. C, New Arrivals - PHI; 2 edition (2011)
- Other relevant books also be used.

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## RE-102 Renewable energy sources and technology

### Unit I

#### Non-conventional energy sources:

Introduction to Non-conventional energy sources, Solar energy, Wind energy/power, Energy from biomass and biogas, Ocean energy, Wave energy, Tidal energy/power, Geothermal energy, Hydrogen energy, Thermo-electric power, Fuel cell, Magneto-Hydro-dynamic (MHD) generator.

### Unit II

#### Renewable and Non-renewable energy sources:

Renewable (Non-conventional) energy sources, Non-renewable energy sources, Alternative energy sources, Energy Scenario in India context, Electricity Generation from Non-conventional energy sources, Impact on environment, Fuels, Classification of fuels, Solid fuels, Liquid fuels, Gaseous fuels.

### Unit III

#### Solar Thermal Technologies:

Solar Thermal Energy Systems: Absorption and Radiation, Heat Gain and Loss, Solar Cooking Systems, Principle of Cooking, Cooking by Boiling, Speed of Cooking, Energy Required for Cooking, Types of Solar Cooker, Solar Distillation System, Distillation: Natural Process for Purifying Water.

### Unit IV

#### Wind Energy:

Wind Flow, Motion of Wind, Vertical Wind Speed Variation, Distribution of Wind Speeds, Power in the Wind, Conversion of Wind Power: Wind Turbine, Efficiency of Wind Power Conversion:  $C_p$ , Types of Wind Turbines, Components of a Wind Turbine, Worldwide Wind Installations Wind Turbine Sizing and systems Design, Energy Derived from a Wind Turbine.

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### Suggested reading references

- Renewable Energy Technologies: A Practical Guide for Beginners, Chetan Singh Solanki, PHI|School Books (2008)
- Fundamentals of Renewable Energy Systems Paperback – D. Mukherjee, New Age International Publisher; First edition (2011)
- Renewable Energy Sources and Emerging Technologies, Kothari D.P. and Singal K. C. New Arrivals - PHI; 2 edition (2011)
- G. D. Rai, Non- conventional Sources of Energy, Khanna Publishers, Delhi.
- Other relevant books also be used.

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## RE-103 Solar energy

### Unit I

#### Solar Radiation

Solar radiation: extra-terrestrial and terrestrial, Radiation measuring instruments, Radiation measurements and predictions

### Unit II

#### Basics of Solar Thermal Conversion

Solar thermal conversion: basics, Flat plate collectors-liquid and air type, Theory of flat plate collectors, Selective coatings

### Unit III

#### Solar thermal systems and applications

Advanced collectors: ETC, Solar Pond, Concentrators: optical design of concentrators, Solar water heaters, Solar dryers, Solar stills, Economics of solar thermal conversion systems

### Unit IV

#### Solar thermal Energy conversion

Solar cooling and refrigeration, Thermal storage, Conversion of heat into mechanical energy, Active and passive heating of buildings, Solar thermal power generation

### Suggested reading references

- Goswami DY, Kreith F, Kreider JF. Principles of Solar Engineering, Taylor & Francis, 1999
- Tiwari GN. Solar Energy, Fundamentals design, modeling and Applications, Narosa, 2002
- Duffie JA, Beckman WA. Solar Engineering of Thermal Processes, John Wiley, 2006
- Kishore VVN. Renewable Energy Engineering and Technologies, TERI, 2009
- Other relevant books also be used.

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## RE-104 Functional English & Communication Skills

### UNIT-I

**Grammar:-** Determiners, Tenses, Defining a Verb, Chief forms of a Verb, Tense and Time, Further Division of Tenses, Active – Passive Voice, Introduction, Defining the Voice, Some General rules regarding the change of voice, Modals & Auxiliaries,

### UNIT-II

**Business Letters:** Introduction, Functions of a Business Letter, Inward Structure / Layout of a Business Letter, Other Important Parts of Business Letter, Outward appearance of a business letter, Arrangement Styles, Salient Features of a Business Letter, Legal Aspects of a business Letters, Kinds of Business Letter, Inquiry and Reply Order and Reply Cancellation of order Complaint /Adjustment Sales Letter.

### UNIT-III

**Report Writing:** Introduction, The Nature of a Report, Functions of a Report, Preparing a Report, Types of Reports, Business report, Press report. Job Application / Resume Writing

### UNIT-IV

**Conversation Skills:** Conversations based on everyday situation / Dialogue Writing. Introduction, Nature of Conversations, Purpose of conversation, Guidelines for Effective Conversation Skills,

### UNIT-V

**Communication Skills:** Communication – Meaning, Features & Process, Verbal & Non – Verbal comm. Verbal, Oral Communication, Written Communication, Non – Verbal, Body language, Space, Para language Others, Group discussion skills, Meaning, Characteristic, Do's & Don'ts, Relevance, Moderating a group discussion, Presentation skills meaning, Planning a presentation skills, Preparing a presentation skills, Delivering a presentation skills, Presentation skills, Public Speaking, Meaning, Essential of effective public speaking, Facing Interviews, Importance, Do's & Don'ts


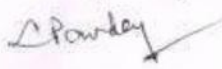

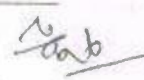
VKS MP A.P. Pandey *[Signature]* *[Signature]* *[Signature]*

**Suggested reading references**

- Recommended Reading: Alexander, Michael. A History of English Literature, Basingstoke Hampshire: Palgrave Macmillan, 2000
- Birch, Dinah ed. The Oxford Companion to English Literature, Oxford: OUP, 2009
- Sanders, Andrew. The Short Oxford History of English Literature, Oxford: OUP, 2004
- Widdowson, Peter . The Palgrave Guide to English Literature and its Contexts 1500-2000, Basingstoke Hampshire: Palgrave Macmillan, 2004
- Rain and Martin English grammar book.
- Other relevant books also be used.

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## RE-105 Practical and Project work (Semester - I)

### A. Design and construction of

1. Box type solar cooker
2. Solar distillation plant
3. Biomass densification i.e. pelletisation, briquetting and cubing machine, direct and indirect solar dryer
4. KVIC biogas plant
5. Deenbandhu biogas plant
6. Biomass gasifier
7. Biogas appliances
8. Improved cook stoves
9. Wind energy Conversion Devices
10. Solar water heater and solar dryer

Case Study related to Techno – economics of different Renewable energy device.

### B. List of Required Equipment

- Automobile flue Gas Analyzer
- Automatic moisture analyzer
- Bio diesel pilot plant with stratification unit
- Forced Convective and Microwave dryer
- Hydrogen gas set and testing unit

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# **SEMESTER - II**

## RE-106 New Energy Resources

### Unit I

#### Energy Resources

Need of energy systems and materials, Application to supplement and expedite energy conservation efforts, Addressing environmental concern, Suitability as CDM., Hydrogen Energy- Basics of Hydrogen Energy, Production methods, Storage and transportation, Applications. Fuel Cell working, Basic thermodynamic and electrochemical principles, Classifications, Applications for power generations.

### Unit II

#### Ocean and Geothermal Energy

Ocean energy- Origin, Types of geothermal energy sites, Geothermal Power plants, Ocean energy resources, Ocean energy routes, Ocean thermal energy conversion, Wave energy conversion, Tidal energy conversion Geothermal Energy- Origin, Types of geothermal energy sites, Geothermal Power plants

### Unit III

#### Magnetohydrodynamic (MHD) energy conversion

Principle of operation, Classifications, Features of MHD Systems, Magnetic and Electric Storage System-Super conducting magnetic energy storage (SMES) systems, Capacitor and super capacitor

### Unit IV

#### Electrochemical Energy Storage System

Batteries, Types, Working principles, Role of carbon nanotubes in electrode

#### Suggested reading references

- Narayan R. Biswanathan B. *Chemical and Electrochemical Energy Systems*, University Press (India) Ltd. 1998.
- J W Twidell & A D Weir, *Renewable Energy Resources*, ELBS, 2006
- Tiwari GN. Ghoshal MK. *Fundamental of Renewable Energy Sources*, Narosa, 2007.
- Other relevant books also be used.

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## RE-107 Solar photovoltaic technology

### Unit-I

#### Basics of Solar Photovoltaics

Principle of photovoltaic conversion, Technology for fabrication of photovoltaic devices

### Unit-II

#### Solar Photovoltaic energy conversion and utilization

Photovoltaic power generation systems. Off-grid systems, Grid connected systems, Organic solar cells, Electrochemical energy storage: Batteries, Economics of solar photovoltaic systems.

### Unit-III

#### Power electronics for Photovoltaic systems

Off-grid power control and management systems, Grid-connected power control and management systems

### Unit-IV

#### Solar Photocatalysis

Solar photocatalysis: mechanism, Kinetics, Nano-catalysts: system design, Performance parameters, Applications of solar photo-catalysis

### Suggested reading references

- Solar Photovoltaics: Fundamentals, Technologies and Applications, Chetan Singh Solanki PHI; 3 edition 2015
- Solar Photovoltaic Technology and Systems: A Manual for Technicians, Trainers and Engineers, Chetan Singh Solanki PHI (1 January 2013)
- Science & Technology of Photovoltaics P Jayrama Reddy, BS Publications .CRC Press 2010
- From Sunlight to Electricity: A Practical Handbook on Solar Photovoltaic Applications, Suneel Deambi, The Energy and Resources Institute, TERI (30 January 2009)
- Other relevant books also be used.

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## RE-108 Energy management and auditing

### Unit 1

#### Energy and its various forms

Commercial and Non-commercial energy, primary energy resources, commercial energy production, Energy pricing, energy security, energy conservation and its importance, Electricity tariff, load management and maximum demand control, Thermal energy contents of fuel, heat capacity, sensible and latent heat, heat transfer, Stoichiometric air-fuel ratio, Flue gas analysis

### Unit 2

#### Energy management and auditing

Concept of energy management programme, Energy auditing services; basic components of an Energy audit, types of energy audit, Industrial, commercial and residential audit planning, Understanding energy costs, bench marking, energy performance index, Understanding energy used pattern, system efficiencies, input energy requirements optimization, Fuel & energy substitution, Energy conservation act and its features, Duties and responsibilities of energy managers and auditors, Energy audit instruments/ tools

### Unit 3

#### Energy Action Planning

Energy management systems, Management commitment and energy conservation policy, Energy performance assessment: Data collection and management, analysis of data, baseline, and benchmarking, Estimation of energy savings potential, Action planning, training planning.

### Unit 4

#### Financial and Project Management

Financial analysis techniques : simple payback period, return on investment, net present value, internal rate of return, cash flows and sensitivity analysis, Financing options, energy performance contracts and role of ESCOs., Project definition and scope, Technical design and Financing, Project planning techniques; CPM and PERT, case studies

### Suggested reading references

- General Aspect of Energy Management and Energy Audit, 2010, BEE Guide book
- Energy Efficiency in Thermal Utilities, 2010, BEE guide book
- Energy Efficiency in Electrical Utilities, 2010, BEE guide book
- Turner WC. Energy Management Handbook, 5th Edition, The Fairmont Press, 2005
- Capehart, Turner, Kennedy. Guide to Energy Management. Fifth Ed. The Fairmount Press, 2006.
- Thumann, Younger. Handbook of Energy Audit. Sixth Ed. The Fairmount Press, 2003.
- Thumann, Mehta. Handbook of Energy Engineering. Fifth Ed. The Fairmount Press, 2001
- Other relevant books also be used.

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## RE-109 Fundamental of Computer & Information Technology

### Unit-I

**Basics & Booting Procedure:-** Introduction to Computers, Characteristics, Data Processing Cycle, History and Generations of Computers, Classification of Computer by Processing, Capabilities, Micro, Mini, Mainframe and Super, Computers, Layered Approach of Operating System,, booting process, software and Types of Software. Hardware and Peripherals

### Unit-II

**Word Processing Using Ms Word:-** Introduction to Word, Font, Paragraph, Style, Editing, Pages, tables, Illustrations, bookmark, hyperlink, Header, Footer, Text, symbol, Page layout ribbon, Foot, Note End note, Caption, Mail merge,, Spell check, comments, Document View, Show Hide, Zoom, Window and Office, Button Options, Printing documents, Password Protection.

### Unit-III

**Spread Sheet Using Ms Excel:-** Sheet Introduction, Selecting row, column, Cell, changing height, and Formula bar, Cell Referencing - Relative, Absolute, Mixed,, Calculative Examples like salary sheet, mark, sheet etc., Conditional formatting, inserting, deleting, Row or column, Cell, Changing height and width, Pivot table and, Pivot chart, types of different chart, editing, Charts, Print Preview and Page Layout, Useful, Functions from Function Library. Data sorting and subtotaling, filter, protecting sheet.

### Unit-IV

**Presentation Using Ms Power Point:-** Inserting new slide, different layout of slide, Inserting date, slide number, movie, sound, object, header footer, Designing slide, theme and background, custom animation, slide transition Rehearse timings, slide show , Setup slide, show, hide slide, different views of slide, Use of slide master, Printing handout, slide etc.

### Unit-V

**Internet:-** Introduction to Internet, Use of Internet, Applications of Internet, World wide web (web page, web site,, web client and web server), Web browsers, Search engines, Email, Blogs and forums, Social media and chatting, E-commerce, FTP, Bookmarks, Internet Search, Basic search, Tips and Tricks for search, IP addressing, HTML..

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### Suggested reading references

- Anurag Seetha, "Introduction to Computers and Information Technology", Ram Prasad & Sons, Bhopal.
- S.K.Basandra, "Computers Today ", Galgotia Publications. Alexis Leon & Mathews Leon, " Fundamentals of Information technology ", Vikas Publishing House, New Delhi.
- DOS Quick reference by Rajeev Mathur, Galgotia Publications
- Linux Complete by BPB Publications Peter Norton Complete Guide to Linux by Peter Norton, Techmedia Publications
- Level Module M 1.1 Information technology by Khanna Book Publications, NewDelhi • Windows XP Complete Reference. BPB Publications
- Windows XP Complete Reference. BPB Publications MS Office XP complete BPB publication
- MS Windows XP Home edition complete, BPB Publications I.T. Tools and Applications, A. Mansoor, Pragma Publications
- Ms Office XP complete BPB publication ISBN 81-7656-564-4 • Ms Access 2002 fast&easy by Faithe Wempen PHI .ISBN 81-203- 1893
- Vb.Net Programming Black Book By Steven Holzner -Dreamtech Publications
- Mastering Vb.Net By Evangelos Petroutsos- Bpb Publications
- Introduction To .Net Framework-Worx Publication
- Other relevant books also be used.



## RE-110 Practical and Project work (Semester - II)

### A. Green Technologies

1. Fabrication and evaluation methods of solar cells
2. study of VI characteristics of solar PV system
3. Performance evaluation of solar PV pumps for lighting power
4. Study of MHD generation system details
5. Study of thermo ionic power conversion systems
6. Study of different batteries used in PV system and identification the defects in biogas plant and its repair.

### B. Carbon Credit

Case study related to CR and CDM

### C. Waste Recycling and Resource Recovery System

Incineration, Bio-methanation, direct combustion and recycling methods

#### List of Required Equipment

- Solar Air condition test ring
- Solar Thermal Training Cart
- Solar Photovoltaic Training Cart
- Energy Audit Kit for industrial application
- Energy methods for domestic and industrial application
- On line venture meter, Orifice meter, Pitot tube meter and other flow meter.
- **Structural Mechanics Apparatus** (Complete set) Single Cantilever, Cantilever with four Members, Simple Roof Truss, Roof Truss with Angled Tie Rods, A Composite frame work, King Post Roof truss, Standard Roof Truss, Roof Truss with Loads or standard Roof Truss, Mansard Roof Truss, Island Roof Truss, N Type Girder, Warren Girder, Framed Arc and North Light Roof Truss.

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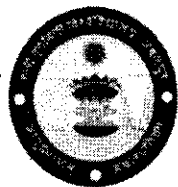
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**UGC COMMUNITY COLLEGE,  
RANI DURGVATI UNIVERSITY,  
JABALPUR. (M.P.)**



**SYLLABUS**

**DIPLOMA IN MUSHROOM CULTIVATION AND  
POST HARVEST TECHNOLOGY (DMCPHT)  
Course offered through University Grant Commission  
(UGC Community Colleges from 2019 – 2020)**



# UGC COMMUNITY COLLEGE

Rani Durgavati Vishwavidyalaya  
Saraswati Vihar, Pachpedi, Jabalpur - 482001 (M.P.) INDIA



## DIPLOMA IN MUSHROOM CULTIVATION AND POST HARVEST TECHNOLOGY

- TITLE** : Diploma in Mushroom Cultivation and Post Harvest Technology (DMCPHT) Syllabus (Semester Pattern) Under Faculty of Life Science
- 1. YEAR OF IMPLEMENTATION** : Syllabus will be implemented from 2019
- 2. DURATION** : Diploma (One Year) and two semesters.
- 3. PATTERN OF EXAMINATION** : CBCS 222 (Semester Pattern)
- Practical Examination - i) In the first semester of Diploma there will be internal assessment of Practical record, related report submission and project reports at the end of semester.  
ii) In the second semester of Diploma, there will be external practical examination at the end of semester.
  - Theory Examination - At the end of semester as per R.D. University, Jabalpur Rules
- 4. MEDIUM OF INSTRUCTION** : English /Hindi
- 5. STRUCTURE OF COURSE** : Diploma  
Two Semesters per Year  
Three Vocational Papers per Year / Semester  
One Industry Visit/ Study Tour and on job training.
- 6. ELIGIBILITY FOR ADMISSION:** Pass in 10<sup>th</sup> std examination conducted by the M.P. Board or CBSC or any other equivalent examination.
- 7. STANDARD OF PASSING:**  
As per the guidelines and rules for Diploma under Community College RDVV.
- 8. GUIDELINES FOR ASSESSMENT (as per the guideline of NSDC):**
1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
  2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination based on this criteria.
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in aggregate.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack. {National Skill Development Corporation (NSDC)}

## 9. STRUCTURE AND SCHEME OF THE COURSE

### DIPLOMA IN MUSHROOM CULTIVATION AND POST HARVEST TECHNOLOGY (DMCPHT) SCHEME OF EXAMINATION

S. No	Subject code.	Title of the paper	Total Marks	Out of	Theory	Practical Skills
<b>SEMESTER - I</b>						
1	UCC/DMCPHT-01	Prepare and pasteurize the compost necessary to cultivate mushrooms	100	100	45	55
2	UCC/DMCPHT-02	Select commercially important species of mushroom and design appropriate site to cultivate mushrooms	100	100	50	50
3	UCC/DMCPHT-03	Undertake disease control and pest management activities, casing and pinning for mushroom cultivation	100	100	50	50
<b>Total</b>			<b>300</b>	<b>300</b>	<b>145</b>	<b>155</b>
<b>SEMESTER - II</b>						
1	UCC/DMCPHT-04	Undertake harvest and post-harvest procedures of mushrooms	100	100	45	55
2	UCC/DMCPHT-05	Undertake basic entrepreneurial activities for small enterprise	100	100	50	50
3	UCC/DMCPHT-06	Maintain health & safety at the workplace	100	100	50	50
<b>Total</b>			<b>300</b>	<b>300</b>	<b>145</b>	<b>155</b>
<b>Grand Total for Diploma</b>			<b>600</b>	<b>600</b>	<b>290</b>	<b>310</b>

**1<sup>st</sup> Semester**  
**DIPLOMA IN MUSHROOM CULTIVATION AND POST HARVEST TECHNOLOGY (DMCPHT)**

Paper Name	Unit Title	Total Marks	Out of	Theory	Practical Skills
<b>1. UCC/DMCPHT-01 Prepare and pasteurize the compost necessary to cultivate mushrooms</b>	MP1. identify different types of base materials from various agricultural by-products, e.g. freshly harvested paddy straw, wheat straw, mustard straw, etc.	100	10	5	5
	MP2. select materials which acts as a reservoir of cellulose, hemi-cellulose and lignin, and is utilized by the mushroom species during its growth as a carbon source		10	5	5
	MP3. identify materials that have nitrogen (N) and carbon (C) ratio 1: 10 for the establishment of the bacterial flora in the compost		6	3	3
	MP4. select materials that acts as a nutrient source, impart proper physical structure to the substrate, ensure adequate aeration during composting, and add bulk to the compost		6	3	3
	MP5. select chemicals for rectifying the mineral deficiencies in the compost such as muriate of potash, super phosphate, urea, calcium ammonium nitrate, ammonium sulphate, etc.		6	3	3
	MP6. identify chemicals which has a stabilizing effect on ammonium content, serves as a calcium source for the mushroom and also for the oxalic acid produced by the mushroom mycelium, which gets converted into calcium oxalate, e.g. gypsum and calcium carbonate		6	3	3
	MP7. select the necessary tools required to produce a compost		4	2	2
	MP8. compute different formulations of composting ingredients to achieve the required nitrogen and carbon ratio for mushroom compost		6	3	3
	MP9. identify the types of compost-Natural and synthetic		4	2	2
	MP10. select the method of composting with respect to the availability of steam pasteurization		4	2	2
	MP11. ensure to sprinkle water over the compost regularly after an interval of a day		3	1	2
	MP12. rotate the compost after an interval of 2-3 days regularly to allow gas exchange, adequate moisture, and carbohydrates throughout the process		4	2	2
	MP13. store the agricultural by-products under cover to minimize growth of unwanted and potentially detrimental fungi and bacteria		3	1	2
	MP14. pasteurize the compost to kill insects, nematodes, pest fungi, or other pests		4	2	2
	MP15. identify the attributes of a good compost- dark brown in colour, non-greasy, inoffensive sweet smell, ammonia free, no insects and nematodes		5	2	3
	MP16. leave the work in a safe condition		3	0	3
	MP17. return used tools and materials in appropriate storage area		3	0	3
	MP18. dispose wastes materials in accordance with environmental health & safety guidelines		5	2	3
	MP19. report any work related problems or issues to responsible authority and seek guidance on how to rectify problems		4	2	2
	MP20. exercise safe handling practices while handling sharp tools and equipment		4	2	2
	<b>Total</b>		100	45	55

<p style="text-align: center;"><b>2.</b> <b>UCC/DMCPHT-02</b> <b>Select commercially important species of mushroom and design appropriate site to cultivate mushrooms</b></p>	MP1. select the type of mushroom based on market's demand, climatic conditions of the farm, growing season, investments, etc.	10	5	5
	MP2. collect mushroom spawns from reliable sources, e.g. nearest Krishi Vigyan Kendra (KVK), etc.	10	5	5
	MP3. select species which will be cost effective and economically beneficial according to market research	10	5	5
	MP4. identify the type of mushroom with more shelf life as per industry standard	10	5	5
	MP5. select freshly prepared spawns because the mycelium is in the state of active growth	6	3	3
	MP6. undertake site assessment	4	2	2
	MP7. locate site easily accessible by main roads and pathways	4	2	2
	MP8. ensure that the site is deprived of sunlight	6	3	3
	MP9. ensure proper drainage of rain water	6	3	3
	MP10. prepare and check the suitability of design and layout of the farm according to the growing conditions required for different kinds of mushrooms	8	4	4
	MP11. ensure availability of fresh water supply for the mushroom growing facility	6	3	3
	MP12. ensure effective underground drainage system or gutters for carrying out waste water	6	3	3
	MP13. use safe and reliable construction techniques to build required fixtures for mushroom growing	6	3	3
	MP14. use crop rotation method for mushroom cultivation	8	4	4
	<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>

<b>3.</b> <b>UCC/DMCPHT-03</b> <b>Undertake disease control and pest management activities, casing and pinning for mushroom cultivation</b>	MP1. ensure substrates are not exposed to pathogens or pests during spawning	100	4	2	2
	MP2. inspect mushroom bags or beds carefully for early detection of pests and diseases		4	2	2
	MP3. ensure that flies do not enter the mushroom farms, e.g. not dumping any waste near mushroom farms, installing screens on windows and doors, etc.		4	2	2
	MP4. use sterilized casing soil, proper disposal of spent compost to control nematodes, mites, insect pests, etc.		4	2	2
	MP5. spray fungicide after casing to check dry bubble, e.g. dithane Z-78, sporgon, topsin M, chlorothalonil, prochloraz, daconil, etc.		4	2	2
	MP6. control local infections by spraying the affected patch with commercial formalin		4	2	2
	MP7. spray chlorinated water to manage bacterial diseases		4	2	2
	MP8. disinfest mushroom farms by spraying pesticide as a prophylactic measure, e.g. dicofol, etc.		4	2	2
	MP9. control mites by spraying insecticide on the compost, e.g. diazinon emulsion, etc.		4	2	2
	MP10. maintain hygiene by wearing clean clothes and shoes and wash hands before entering mushroom farms		4	2	2
	MP11. pasteurize the mushroom farm to remove nematode in mushroom cultivation		4	2	2
	MP12. treat the mushroom farms with small amount of caustic chemical to keep rodents away, e.g. zinc phosphate, etc.		4	2	2
	MP13. use fungicides to control major fungal pathogens, e.g. bavistin, etc.		4	2	2
	MP14. prepare casing soil to hold moisture for the development of a firm mushroom		4	2	2
	MP15. use freshly prepared spawn because the mycelium is in the state of active growth		4	2	2
	MP16. protect the compost from drying, and provide support for the developing mushrooms and resisting structural breakdown following repeated watering		4	2	2
	MP17. promote the formation of primordia, or mushroom pins by supplying water with a sprayer pump to the mycelium for growth and development		4	2	2
	MP18. maintain proper hygienic condition by wearing gloves and boots dipped in disinfectant while entering the mushroom farms for casing		4	2	2
	MP19. adjust compost temperature and relative humidity		4	2	2
	MP20. fertilize with nitrogen to increases yield of mushrooms		4	2	2
	MP21. maintain carbon dioxide concentration at a higher level to accelerate the growth of mushrooms		4	2	2
	MP22. apply water to casing in a few instalments so that water does not run into spawn run compost		4	2	2
	MP23. detect the earliest formation of recognizable mushrooms from mycelium		4	2	2
	MP24. case at a regular interval of three days after harvesting or cover the holes after mushroom picking		4	2	2
	MP25. pick the mushrooms daily		4	2	2
	<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>	

**DIPLOMA IN MUSHROOM CULTIVATION AND POST HARVEST TECHNOLOGY (DMCPHT)**

4. UCC/DMCPHT-04 Undertake harvest and post-harvest procedures of mushrooms	MP1. select mushrooms that are young and healthy	100	8	4	4
	MP2. assess the maturity of a mushroom by how far the veil is stretched respective of their types, and select mushrooms from medium- to large-size,		8	4	4
	MP3. identify harvest periods		8	4	4
	MP4. apply good harvesting practices, e.g. air temperature during cropping should be held between 14°( to 17°C and relative humidity should be high to minimize the drying of casing		4	2	2
	MP5. twist and pluck the mushrooms from its base by undertaking control measures to prevent contamination of the mushroom contamination of the mushroom		4	2	2
	MP6. use approved cutting techniques for harvesting		4	2	2
	MP7. use approved cleaning methods to remove soil particles, compost, and other foreign materials, e.g. washing in water and sodium meta bisulphite solution		4	2	2
	MP8. remove the water content from the mushroom, as it is highly perishable		6	3	3
	MP9. sort and grade the harvests as per required quality specifications		5	2	3
	MP10. store freshly harvested mushrooms at lower temperature e.g. 2°C to 7°C		4	2	2
	MP11. select packaging material with respect to the shelf life, type of market where it is to be sold, and investment		4	2	2
	MP12. identify packaging materials which is strong in nature, does not get contaminated easily, available abundantly, lucrative and attractive		3	1	2
	MP13. check the selected storage area is clean, well-ventilated and dry		4	2	2
	MP14. protect the storage area from direct sunlight, dust, rain, rodents, insects, and livestock, etc.		4	2	2
	MP15. select the type of storage according to the shelf life of mushrooms-short-term and long-term		4	2	2
	MP16. pack the mushrooms in bags (usually polypropylene) of different capacities or perforated polythene pouches with 0.5 percent venting area or polystyrene/pulp-board punnets for sale		4	2	2
	MP17. transport precooled mushrooms in insulated ice containers internally lined with thermocole and covered with tin sheets on both the sides		3	1	2
	MP18. label the packed item correctly with all the required information		3	1	2
	MP19. record information, e.g. quality, quantity, type, expenditure incurred in operation, etc. in appropriate registers, record book and logs		5	1	4
	MP20. use spent mushroom substrate in organic farming as it is rich in nutrient resources		5	1	4
	MP21. utilize spent mushroom substrate in vermicomposting and bioremediation of contaminated soil		6	3	3
	<b>Total</b>	<b>100</b>	<b>45</b>	<b>55</b>	



<b>5. UCC/DMCPHT-05</b> <b>Undertake basic</b> <b>entrepreneurial activities</b> <b>for small enterprise</b>	MP1. seek information regarding demand and supply of produce in the market	100	10	5	5
	MP2. identify target customers and assess their needs such as amount required, purpose, quality, expectations, etc.		10	5	5
	MP3. perform basic accounting such calculating expenditure incurred, costing and pricing of produce		10	5	5
	MP4. ensure that the cost of production, transportation and marketing are included in costing and pricing		10	5	5
	MP5. collect information related to various subsidies/funds offered by the Government, authorized state units and other financial institutions involved with the promotion of the produce		10	5	5
	MP6. comply with relevant regulations in marketing of the produce		10	5	5
	MP7. track information related to wholesale and retail price of the produce		10	5	5
	MP8. record daily sell and purchase of items in designated log books, register, etc.		10	5	5
	MP9. record quantity, quality, date of manufacture and batch number of every produce accurately		10	5	5
	MP10. identify appropriate marketing channels related to the produce considering requirements and constraints		10	5	5
	<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>	

<b>6. UCC/DMCPHT-06</b> <b>Maintain health &amp; safety at the workplace</b>	MP1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	8	4	4
	MP2. work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy	8	4	4
	MP3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc	8	4	4
	MP4. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice	8	4	4
	MP5. use equipment and materials safely and correctly and return the same to designated storage when not in use	8	4	4
	MP6. dispose of waste safely and correctly in a designated area	6	3	3
	MP7. recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace	6	3	3
	MP8. perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely	6	3	3
	MP9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	6	3	3
	MP10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency	6	3	3
	MP11. follow emergency procedures to company standard/workplace requirements	6	3	3
	MP12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements	6	3	3
	MP13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	6	3	3
	MP14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	6	3	3
	MP15. report details of first aid administered in accordance with workplace procedures	6	3	3
	<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>
<b>GRAND TOTAL FOR DIPLOMA</b>		<b>600</b>	<b>290</b>	<b>310</b>

**WOMEN'S STUDIES AND RESEARCH  
CENTRE,  
RANI DURGVATI UNIVERSITY,  
JABALPUR. (M.P.)**



**REVISED SYLLABUS**

**(CBCS pattern effective from 2020-21)**

**PG DIPLOMA IN GENDER STUDIES AND  
DEVELOPMENT (PGDGSD)**

**Inter-disciplinary Post Graduation level course**

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**WOMEN'S STUDIES AND RESEARCH CENTRE  
RANI DURGAWATI UNIVERSITY,**

**PG DIPLOMA IN GENDER STUDIES AND DEVELOPMENT (PGDGSD)  
ONE YEAR 1 (PG DIPLOMA)**

**Course Code :** PGDGSD

**Program Outcomes (POs):**

- The course aims to offer a structured program of study in the field of gender and development to students with little or no previous knowledge or academic training in either the principal subject area or in gender studies.
- The course will introduce students to a comprehensive set of topics dealing with the principal issues in the area of gender and development and will be multidisciplinary.
- The program aims to introduce students to the theoretical and empirical analysis of a wide range of issues and will focus on the development of skills relevant.

**Program Specific outcomes (PSOs)**

Students will be able to:

- Analyse and explain gender differences and disadvantages for women in national and international contexts
- Identify, summarise and evaluate different approaches to understanding gender and development
- Research a range of issues in gender and development
- Improve or develop writing and other communication skills.

**Course Outcomes:**

Students successfully completing this programme will be able to pursue their careers in the following areas:

- Higher studies and research programmes.
- Public sector, Non-governmental Organisations both at National and International level;
- Specialised areas like Media, Communications, Corporate sector, Writing, Editing, Journalism, Gender Training Programmes.

**Course Duration:**

Two Semesters (One Year)



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RANI DURGAWATI UNIVERSITY,**

**PG DIPLOMA IN GENDER STUDIES AND DEVELOPMENT (PGDGSD)  
ONE YEAR 1 (PG DIPLOMA)**

**Examination Pattern**

- TITLE** : PG Diploma in Gender Studies and Development (PGDGSD)
- 1. YEAR OF IMPLEMENTATION** : Syllabus will be implemented from 20-2021
- 2. DURATION** : PG Diploma (One Year) and two semesters.
- 3. PATTERN OF EXAMINATION** : CBCS 222 (Semester Pattern )

Practical Examination - i) In the first semester of PG Diploma there will be internal assessment of assignment, project record, related report submission and project reports at the end of semester.

ii) In the second semester of PG Diploma, there will be external practical examination at the end of semester.

Theory Examination - At the end of semester as per R.D. University, Jabalpur Rules

- 4. MEDIUM OF INSTRUCTION :** English /Hindi
- 5. STRUCTURE OF COURSE** : PG Diploma (Two Semesters per Year)
- Three Theory and one elective Paper
  - One Project to be prepared related to syllabus with relevant agencies, NGO, Government and non-government organization in the guidance of any professor of university.
- 6. ELIGIBILITY FOR ADMISSION:** Graduation in any discipline or any other equivalent examination.
- 7. STANDARD OF PASSING:**  
As per the rules of Rani Durgavati University Jabalpur (M.P).



**WOMEN'S STUDIES AND RESEARCH CENTRE**  
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**PG DIPLOMA IN GENDER STUDIES AND DEVELOPMENT (PGDGSD)**  
**ONE YEAR I (PG DIPLOMA)**

**8. STRUCTURE AND SCHEME OF THE COURSE**

**SEMESTER I**

Course Code	Unit	Topic	L / Week	Credits	Marks
			T	T	T
PGDGSD-01 (Understanding Gender)	I	Basic Concepts	02	10	100
	II	Equality, Rights and Empowerment	02		
	III	Women's Studies and Gender Studies	02		
	IV	Assignments	02		
PGDGSD-02 (Gender and Qualitative Methods)	I	Methods, Techniques and Tools	02	10	100
	II	Qualitative studies Ethnographic Study	02		
	III	Sampling and Data Collection; Sampling methods	02		
	IV	Assignments	02		
PGDGSD-03 (Sociology of Gender)	I	Changing Status of Women in India	02	10	100
	II	Social Construction of Gender	02		
	III	Social Structures	02		
	IV	Assignments	02		
<b>Total</b>				<b>30</b>	<b>300</b>

**SEMESTER II**

Course Code	Unit	Topic	L / Week	Credits	Marks	
			T	T	T	
PGDGSD-04 (Gender-Development and Feminism) Elective  or (Women in Indian History) Elective	I	Colonial and Capitalistic Perspectives of Gender	02	10	100	
	II	Feminist Theories and Practice	02			
	III	Feminist Movements	02			
	IV	Assignments	02			
	Or					
	I	The Women's Movements in India	02			
	II	Education and Women	02			
	III	Women's Organization	02			
PGDGSD-05 (Dissertation)	I	One Project to be prepared related to syllabus with relevant agencies, NGO, Government and non-government organization in the guidance of any professor of university.	2 months	20	200	
	<b>Total</b>				<b>30</b>	<b>300</b>

- T = Theory
- The value of One (01) credit is equal to 15 Hours of learners loads
- 25% Marks which will be an internal assessment and 75% marks at semester and examination.



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**PG DIPLOMA IN GENDER STUDIES AND DEVELOPMENT (PGDGSD)  
ONE YEAR 1 (PG DIPLOMA)**

**SEMESTER I**

**Detail Syllabus**

**Paper –I Understanding Gender (PGDGSD-01)**

**Program outcomes:**

1. To introduce basic concepts relating to gender and to provide logical understanding of gender roles.
2. To present various perspective of body and discourse on power relationship.
3. To trace the evolution of gender studies from women's studies.

**Course Outcome:** It will help to understand the basic concepts related to gender and to enhance their knowledge to various approaches to gender equity.

**Unit 1 - Basic Concepts**

Sex and gender, multiple identities, femininity, masculinity, parallel sexualities and multiple identity-Patriarchy and structure of patriarchy familial relationships changing structure of family and kinship-Power, powerlessness, empowerment and subordination, sexual division of labour, personal is political.

**Unit 2 - Equality, Rights and Empowerment**

Approaches to gender equality (formal, substantive, protectionist, de jure and de facto) Gender equity and equality- Rights vs. Needs.

**Unit 3 - Women's Studies and Gender Studies**

Evolution and Scope of Women's Studies-From Women's Studies to Gender Studies: A Paradigm Shift Women's Studies vs. Gender Studies.

**Unit 4 - Assignments**

- I. Workshop: gender sensitization through gender related concepts.
- II. Textual analysis of documentary/short films: cultural construction of gender)
- III. Video clip presentation: Masculine and Feminine identities, male gaze and objectivity)
- IV. Debates: Challenging traditional/ideal attributes of male and female psyche)



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**SEMESTER I**

**Paper-2 - Gender and Qualitative Methods (PGDGSD-02)**

**Program outcomes:**

This paper will introduce the students to basic concerns in research in social sciences. The objective is to develop foundational knowledge of key sociological methods.

**Course Outcome:** It will equip students with skills required for field based studies, and research projects and organizations. The students will learn different research tools, methodologies, and their applications.

**Unit 1 - Methods, Techniques and Tools:**

Historical, Experimental, Case study, Case History, Trend study, Follow-up study and Content Analysis; Techniques - Observation, Interview, Survey; Scaling Techniques; Tools - Questionnaire, Schedules.

**Unit 2 - Qualitative studies Ethnographic Study–**

Historical study– Grounded Theory– Biographic Analysis

**Unit 3 - Sampling and Data Collection; Sampling methods –**

Quantitative & Qualitative Data - Collection of Data -Analysis of data; Interpretation; Conclusion and Generalization - Social Sciences Research Methods Vs. Feminist Research Methods: Feminist research concepts – Need for Feminist research methodology.

**Unit 4 – Assignment**

- I. Class room activity: Draft a research proposal in stages using feminist research methods.)
- II. Group Project: Using feminist Ethnography and narratives
- III. Feminist writing skills: Developing a story on feminist issue.





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**SEMESTER I**

**Paper-3 - Sociology of Gender (PGDGSD-03)**

**Program outcomes:**

This paper will highlight the social construction of gender in Indian society and the role of social institutions in the socialization process. Gendered family relations do not occur in vacuum and the course work help trace the reasons of gender inequality and gender discrimination.

**Course Outcome**

The students will understand the Social construction of Gender, Gender Roles and Gender stereotyping. The course will enable students to understand Women and Religion and Religious conceptualization of women.

**Unit 1 - Changing Status of Women in India:**

Women in Ancient and Pre Colonial India - Women in Colonial Period: Women's participation in the freedom movement, and women's organization - Women in Post-Colonial India: Towards Equality Report, Sharamshakti Report

**Unit 2 - Social Construction of Gender:**

Sex and Gender - Nature versus Culture, Equality versus Difference - Gender Roles, Gender stereotyping.

**Unit 3 - Social Structures :**

Kinship - Forms of Family and Household - Institutions of Marriage and Divorce, Politics of reproduction, Dowry, Property Rights - Class/Caste: hierarchy, difference and mobility.

**Unit 4 - Assignment**

- I. Classroom activities: Group Discussion: Gendered division of labour in family and gender power relations
- II. Group presentation: Gender discrimination in various in different social institutions



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**SEMESTER II**

**Paper-4 (Electives) - Gender-Development and Feminism (PGDGSD-04)**

**Program outcomes:**

1. Acquainting students with the theory and concepts of feminism.
2. Preparing students to develop a critique of available historiography on women.
3. Focusing attention on the status of women in Indian tradition.
4. Enabling students to undertake research in the field of women's history.

**Course Outcome**

Students learn the feminist aspect of Indian society, which is generally ignored in traditional learning of history. Students will be able to understand the logical sequencing of events in removing social evils against women, their antecedents. This paper will help them to understand the legal disabilities of Indian women, their historical demands and their struggle in the colonial India. It will also analyse the role of women in national freedom movement. This paper will help students to develop critical understanding about women's status in Ancient, Medieval and Modern India.

**Unit 1 - Colonial and Capitalistic Perspectives of Gender-**

Gender Analysis of Development Theories- Modernization Theory- World System Theory-Dependency Theory-Structural Functionalism-Gender Approaches to Development-Women in Development (WID)-Women and Development (WAD)-Gender and Development (GAD)-Gender Critique of Structural Adjustment Policies (SAPs)-Globalization and Gender.

**Unit 2 - Feminist Theories and Practice**

What is Feminism-Liberal Feminism-Radical Feminism-Marxist/Socialist Feminism-Psychoanalytical Feminism-Men's Feminism-Postmodern Feminism

**Unit 3 - Feminist Movements**

Feminist Movements in the West. First Wave, Second Wave and Third Wave Feminism. United Nation Conferences on Women, Feminist Movements in Pakistan.

**Unit 4 – Assignment**

- I. Class room activity: Critical review of classical books by students
- II. Film appreciation on the topics related to women studies.



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**SEMESTER II**

**OR**

**Paper-4 (Electives) - Women in Indian History (PGDGSD-04)**

**Unit 1 - The Women's Movements in India**

Phases in the women's movements-Social Reform, Freedom, Contemporary women Rights movement. Women's movements and the law Intersection of women's movement with people movements. Women In Social Reform Movements In the 19th Century : BrahmoSamaj-Arya Samaj-Theosophical Movement-Satya ShodhakSamaj- Alighrah Movement

**Unit 2 - Education and Women**

Ancient India- Medieval India-Colonial India- Post-independence, **Women's participation in Freedom Movement and Politics** : a. Gandhian Satyagrah- Revolutionary Movements-Peasant and Workers Movements-Panchayats and Muncipal Councils- State Legislatures and Parliament-Feminist Movement

**Unit 3 - Women's Organization:**

Colonial - local, provincial, national-Post/Pre-independence.

**Unit 4 - Assignment**

Class room activities: Case Study Analysis -Audio Lectures Film

**Paper-5 – Dissertation (PGDGSD-05)**

One Project (Research Work) to be prepared minimum 100 pages (thesis) related to syllabus with relevant agencies, NGO, Government and non-government organization in the guidance of any professor of university or College.

