



Criterion 1 – Curricular Aspects Key Indicator – 1.2 Academic Flexibility

QlM - 1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL, etc. (where the students of the institution have enrolled and successfully completed during the last five years)

• Syllabus and outcomes of Certificate courses



VSPM Academy of Higher Education ARVINDBABU DESHMUKH MAHAVIDYALAYA

BHARSINGI, Dist. Nagpur - 441305 NAAC Re-accredited with 'B\*\*' Grade (CGPA 2.81)

31.NO. ADM 2023-24 115

Date 21/10/23

This is to declare that the data provided in this file in the form of information, supporting documents, numerical data, and reports are verified by the IQAC and Principal and found correct.

Co-ordinator IQAC Arvindbabu Deshmukh Mahavidyalaya, Bharsingi



e-mail admv\_bharsingi@rediffmail.com website www.adm.edu.in. Ph : 07105-233329

## **Syllabus and Outcomes:**

### **CC302: Welding and Fabrication**

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VSPM Academy of Higher Education, Nagpur

# Arvindbabu Deshmukh Mahavidyalaya, Bharsingi

### **Certificate Course**

Welding and Fabrication

#### Session- 2018-19

#### Syllabus

Sr. No.	Topic	Syllabus	Period (Hour)
1	Apply Safe Working	1. Importance of trade training.	
	practice	2. Machinery used in the trade.	
		3. Introduction to safety equipment and their use.	-
		4. Hack sawing, filling square to dimensions.	5
		5. Safety precautions in Shielding Metal Arc	
		Welding, and Oxy-Acetylene Welding and Cutting	
2	Join MS sheet by gas	1. Setting up of Arc welding machine & accessories	
	welding in different positions.	and striking an arc.	
	positions.	2. Setting of oxy-acetylene welding equipment,	4
		lighting and setting of flame.	
3	Join MS plates by	1. Fusion run without and with filler rod on MS sheet	
	SMAW in different positions.	2mm thick in flat position	
	posicions.	2. Edge joint on MS sheet 2mm thick in flat position	
		without filler rod.	6
		3.Marking and straight line cutting of MS plate 10	
		mm thick by gas	
4	Perform straight,	1. Straight line beads on MS plate 10 mm thick in flat	
	bevel & circular cutting on MS plate	positions.	
	by oxyacetylene	2. Weaved bead on MS plate 10mm thick in flat	15
		position	

<ul> <li>3. Square butt joint on MS sheet 2 mm thick in flat position.</li> <li>4. Fillet 'T" Joint on MS plate 10 mm thick in flat position.</li> <li>5. Bevelling of MS plates 10mm thick by gas cutting.</li> </ul>
6. Open corner joint on MS 2 mm thick on flat position.
<ol> <li>Filler Lap joint on MS sheet 2 mm thick in flat position.</li> </ol>
8. Single 'V ' Butt joint on MS sheet. 12 mm thick in flat position
<ol> <li>Square Butt joint on MS sheet 2mm thick in Horizontal position.</li> </ol>
10.Straight line beads and multilayer practice on MS plate 10 mm thick in Horizontal position.
11. Different type of pipe welding

Flan Dr. N. M. Raut In-charge

Welding & Fabrication Course

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VSPM Academy of Higher Education Arvindbabu Deshmukh Mahavidyalaya, Bharsingi Tah. Narkhed Dist. Nagpur Session- 2018-19

Course Name- "Welding and Fabrication"

#### Outcomes

Students should able to established their own business.

ting Programmerses

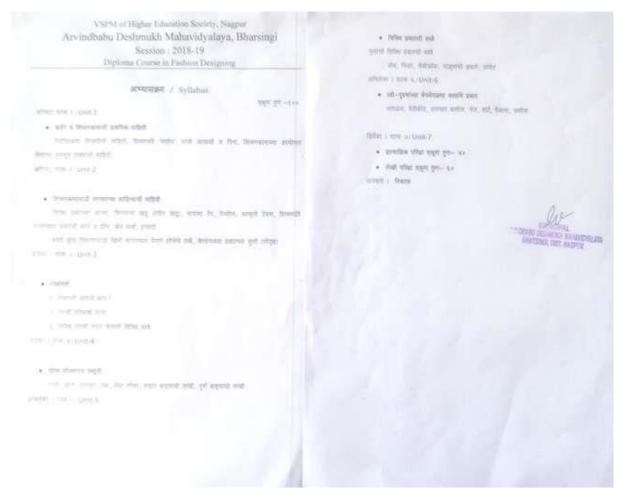
- Students able to apply knowledge of industrial safety standards to both field and factory environments.
- Students should able to apply knowledge, skills, and modern techniques of welding in welding work.
- Students should able to conduct visual, destructive, and non-destructive testing methods to determine weld integrity and physical and mechanical properties of metals as related to weldability and satisfy customer requirements.

**:: RVINDBABU DESHMUKH** MAHAVIDYALAYA BHARSINGI, DIST. NAGPUR

### Session 2018-19

### **Syllabus and Outcomes**

### CC301: Certificate Course in Fashion Designing





VSPM of Higher Education Society, Nagpur Arvindbabu Deshmukh Mavidyalaya, BharsingiSession : 2018-19



Certificate Course in Fashion Designing Course outcomes

1. "फॅशन डिझाइनिंग" ही एक प्रकारची कला आहे.

2 . लोकप्रिय वखभुषणांची कलात्मक रचना म्हणून विद्याच्यांना समजले.

3. 'फॅशन डिझाइनिंग' या कोर्समुळे विद्याध्यांनी चित्रकला, हस्तकला व रेखाकृती हे आत्मसात केले.

 •फॅशन डिझाइनिंग' या कोर्समुळे विद्याच्यांमधील सर्जनशीलता कलात्मकता आणि चांगले संवाद कौशल्य वाढीस लागले.

5. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील ध्येयकेंद्रीत परिमाणात विचार करण्याची क्षमता व त्यांची कल्पनाशक्ती वाढण्यास मदत झाली.

या अभ्यासक्रमामुळे विद्यार्थ्यांमधील सुप्तगुण व प्रतिभा बाढण्यास मदत झाली.

7. या अभ्यासक्रमामुळे विद्यार्थी आपल्या शिवणकामात नवीन योजना व आराखडा तसेच बदलत्या काळानुसार आधुनिक संस्कृतीनुसार रचनात्मक वस्त्रे शिवायला शिकले.

 या अभ्यासक्रमामुळे विद्यार्थी आपले कौशल्य आणि नाविन्यपूर्ण कल्पना वापरून वस्त्रांना नवीन व सुंदर रूप देऊ शकेल.

9. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील पैसे कमविण्याची क्षमता वाढण्यास मदत होऊल.

10. 'फॅशन डिझाइनिंग' हा अभ्यासक्रम विद्यार्थ्यांना स्वतःचा व्यवसाय करायला प्रेरित करताना दिसतो.

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## Session 2018-19

#### **Syllabus and Outcomes**

## CC303: Certificate Course in Vermicompost

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0	bjective:								
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	· Tou	nderstand te	chniques in V	Vermicomp	osting.				
	• To in	crease empl	oyability of	the students					
	• To in	nprove the s	oil quality by	promoting	the biofer	tilizers.			
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	Paper II	Practical	60	80	20	100	32	08	40

A ant r. G.m. Raut

Head Department of Zoology Mahavidyalaya

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Principal PRINCIPAL ARVINDBABU DESHIJUKH MAHAVIDYALAYA BHARSINGI, DISTT, NAGPUR

# Syllabus

Certificate course in biofertlizers: Vermicomposting

Periods 45

Paper I- Theory

## Unit<sub>7</sub>1

1.1 Vermicomposting : Introduction and Scope	02
1.2 Types of Earthworm and Classification Epigeic, Endogeic, Diageic	.02
1.3 Life history of Earthworms (Earthworm Species Eisenia foetida)	05

### Unit-2

3

2.1 Objectives of Vermicompost	02
2.2 Vermicompost Production : Establishment of	of Vermicomposting and Vermiwash unit 0:
2.3 Different Methods of Vermicomposting: Sn	
2.4 Harvesting the Compost	02
2.5 Storing and packing of vermicompost	02

### Unit-3

3.1 Precautions while Vermicomposting	03
3.2 Physico- chemical analysis of vermicompost:	03
3.3 Physical Parameters of vermicompost	03
3.4 Nutrient content of vermicompost and their role in agriculture	03
5.5 Benefits of vermicompost	03
.6 Pests and diseases of Earthworms	04

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### Syllabus

### Certificate course in biofertlizers: Vermicomposting

#### Paper II- Practical

- 1 . Scientific classification of Earthworm
  - Study of external morphology of Earhworm- Eisenia foetida
  - · Study of habit and habitat of Earhworm- Eisenia foetida
  - Study of Digestive system of earthworm
  - Study of Reproduction of earthworm
  - Establishment of vermicomposting unit Pit method
  - · Establishment of vermicomposting unit Bed method
  - · Establishment of vermiwash unit
- · Vermicompost production, harvesting and packaging.
- Study of cocoon and vermicast
- Study of Pests and diseases of Earthworms

#### References

- The Textbook of Vermicompost, Vermiwash and Biopesticides : Keshav singh and et al Publisher: Biotech Books
- The Book Hand Book Of Biofertilizers & Vermiculture Publisher: Engineers India Research Institute
- Handbook of Organic Farming and Organic Foods With VermicompostingNeem Publisher: Engineers India Research Institute
- Text Book of Applied Zoology: Vermiculture, Apiculture, Sericulture, Lac Culture, Agricultural Pests and their Controls: Pradip Jabde Publisher: Discovery Publishing House

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- The Worm Farmer's Handbook Mid- to Large-Scale Vermicomposting for Farms, Businesses, Municipalities, Schools, and Institutions :<u>Rhonda Sherman</u> Publisher: Chelsea Green Publishing
- Vermiculture Technology: Earthworms, Organic Wastes, and Environmental Management: Clive A. Edwards, Norman Q. Arancon, Rhonda L. Sherman Publisher: CRC Press 2010
- Commercial Vermiculture: How to Build a Thriving Business in Redworms: Peter Bogdanoy
- Applied Zoology:<u>N Arumugam</u>, <u>T Murugan</u>, <u>R Ram Prabhu</u>, J Johnson Rajeshwar, Publisher: Saras Publication
- Worm Farming: Setup A Sustainable Vermiculture Earthworm Composting Ranch: Brian Grant

Publisher: Sparrow Publications.

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# Arvindbabu Deshmukh mahavidyalaya, Bharsingi Department of Zoology 2018- 2019 Certificate Course in Vermicomposting

#### **Course Outcomes**

- To increase human livelihood opportunities to the rural area people
- > To increase the soil quality of the farm
- It makes way for utilization of available organic wastes to produce the rich source of organic manure of high quality, which is superior to other types of organic manures in its physico-chemical and biological properties.

><sup>1</sup> The programme provides job opportunities for the unskilled labour force.

#### The objectives of this project were:

 To determine the optimal vermicompost/soil admixture for growth of *Pelargonium* hortorum.

2) To compare the growth of geraniums in the optimal vermicompost/soil admixture to those grown in standard potting soil supplemented with chemical fertilizer. After library research, it was believed that geranium growth would vary among different vermicompost/soil admixtures, and that optimal vermicompost/soil admixture would produce better plant growth than chemical fertilizer. Therefore, the null hypotheses were: i) There would be no significant differences among geranium growth in different vermicompost/soil admixtures; and ii) There would be no significant differences in geranium growth between the optimal vermicompost/soil admixture and those supplemented with chemical fertilizer.

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# Session 2018-19

# Syllabus and Outcomes

# CC305: Tally

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	SYLLABUS OF TALLY ERP 9.0.
•	<ul> <li>WHAT IS ACCOUNTING</li> <li>ACCOUNT BASIC</li> <li>TYPES OF ACCOUNT IN TALLY</li> <li>PERSONAL ACCOUNTS.</li> <li>REAL ACCOUNT</li> <li>NOMINAL ACCOUNT</li> <li>RULES OF ACCOUNTS</li> <li>CREATING COMPANY IN TALLY,</li> <li>LEDGER &amp; GROUP IN TALLY</li> <li>LEDGER &amp; GROUP IN TALLY</li> <li>CREATING LEDGER IN TALLY</li> <li>CREATING LEDGER and GROUP IN TALLY.</li> <li>TYPES OF VOUCHER IN TALLY</li> <li>CONTRA VOUCHER IN TALLY</li> <li>CONTRA VOUCHER IN TALLY</li> <li>PAYMENT VOUCHER IN TALLY</li> <li>JOURNAL VOUCHER IN TALLY</li> <li>SALES</li> <li>PURCHASE, MEMO</li> <li>VOUCHER CREATION IN TALLY</li> <li>LIST OF LEDGER IN TALLY</li> <li>LIST OF LEDGER IN TALLY</li> <li>CASH BOOK IN TALLY</li> <li>SALE BOOK</li> <li>PURCHASE BOOK IN TALLY</li> <li>SALE BOOK</li> <li>JOURNAL BOOK IN TALLY</li> <li>SALE BOOK</li> <li>JOURNAL BOOK IN TALLY</li> <li>TORING A/C,</li> <li>PROFIT &amp; LOSS A/C</li> </ul>
	BALANCE SHEET     VAT     PRINTING IN TALLY
	Arvindbabu Drabmukh Mahavidyalaya Bharsingi, Dist. Nagpur
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### TALLY.ERP 9 SYLLABUS

#### 1. Basics of Accounting

Types of Accounts, Golden Rules of Accounting, Accounting Principles, Concepts and Conventions, Double Entry System of Book Keeping, Mode of Accounting, Financial Statements, Transactions, Recording Transactions

#### 2. Fundamentals of Tally, ERP 9

- Getting Functional with Tally ERP 9
- Creation / Setting up of Company in Tally ERP 9

#### 3: Accounting Masters in Tally.ERP 9

- FI1:Features
- F12 : Configurations
- Setting up Account Heads

#### 4: Inventory in Tally, ERP 9

- Stock Groups
- Stock Categories
- Godowns / Locations
- Units of Measure
- Stock Items
- · Creating Inventory Masters for National Traders

#### 5: Voucher Entry in Tally.ERP 9

- Accounting Vouchers
- Inventory Vouchers
- Involcing

#### 6: Advanced Accounting in Tally.ERP 9

- Bill-wise Details
- Cost Centres and Cost Categories
- Voucher Class and Cost Centre Class
- Multiple Currencies
- Bank Reconciliation
- Interest Calculations
- Budgets & Controls

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Scenario Management

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3. Students will possess required skill and can also be employed as Tally data entry operator.         Career Prospects:         9 Even if you are currently employed, learning Tally and obtaining a certificate will improve your chances on a promotion or you may even land a better job. Tally will give a much-needed boost to your career by mancing your knowledge in Accounting, Inventory Management, and Taxation.         This program opens up various avenues for students. After the completion of the program, as a fresher you an begin your career as:         Accounts executive         Junior accountant         Data entry operator         Accounts assistant         1 ally operator         Accounts assistant         1 ally operator         Accounts Receivable and Payable Management,         Apter VI: Accounts Receivable and Payable Management,         hapter VI: Recording Vouchers with TDS         Totale 2:       Duration :         Inplet VII: Recording Vouchers with TDS (Tax Deducted at Source)         oods and Services Tax (GST) - Introduction         horteut Keys Practice         All the classes will be conducted in the computer lab by the externals.         Certificate will be awarded by Tally Academy Bangalore after online assessment test.	AL COTTENS			COMMERCE	
Outcomes in Taily         Certificate Course in Taily ERP 9           Daration         401ts         Modules         4           Course Objective         1         To impart knowledge regarding concepts of Financial Accounting. Taily is an accounting package which is used for learning to maintain accounts.         This course helps students to work with well-know accounting software i.e. Taily ERP.9.           To make students capable to create company, enter accounting voucher entries including advance voucher entries, reconcile bank statement, do accrual adjustment, and also print financial statements etc. in Taily ERP.9.           A Accounting with Taily certificate course is not just theoretical program, but it also include continuous practice, to make students ready with required skill for employability in the job market.           Curse outcomest         Accounting with Taily CERP.9.           A tacounting software i.e. Taily ERP.9.         Student by their own will create company, enter accounting voucher entries including advance voucher intries, reconcile bank statements, do accrual adjustments, and also print financial statements, etc. in Taily ERP.9 software.           Students will possess required skill and can also be employed as Taily data entry operator.           Caree Prospects:         Osen for our are currently employed, learning Tally and obtaining a certificate will improve your chances or a promotion or you may even land a better job. Taily will give a much-needed boost to your career by nhancing your knowledge in Accounting, Inventory Management, and Taxation.           This program opens up varifous avenues for students. After the completion of t	1 Here	ADV	ANCE COURSE	TALLY 9.0	
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1. To impart knowledge regarding concepts of Financial Accounting. Tally is an accounting package which is used for learning to maintain accounts.     2. This course helps students to work with well-know accounting software i.e. Tally ERP.9.     3. To make students capable to create company, enter accounting voucher entries including advance voucher entries, reconcile bank statement, do accrual adjustment, and also print financial statements etc. in Tally ERP.9.     4. Accounting with Tally certificate course is not just theoretical program, but it also include continuous practice, to make students ready with required skill for employability in the job market.     Tourse outcomes:     After successfully qualifying practical examination, students will be awarded certificate to work with cell-known accounting software i.e. Tally ERP.9.     Student by their own will create company, enter accounting voucher entries including advance voucher intries, reconclue bank statements, do accrual adjustments, and also print financial statements, etc. in Tally RP.9 software.     Students will possess required skill and can also be employed as Tally data entry operator.     Tarcer Prospects:     Even if you are currently employed, learning Tally and obtaining a certificate will improve your chances or a promotion or you may even hand a better job. Tally will give a much-needed boost to your career by nhancing your knowledge in Accounting, Inventory Management, and Taxation.     This program opens up various avenues for students. After the completion of the program, as a fresher you an begin your career as:     Accounts executive      Indiv Course Coatents     Iduale-2: Duration: 15 Hrs.     O Hrs     hapter V1H: Recording Vouchers with TDS (Tax Deducted at Source)     ood and Services Tax (GST) - Introduction     hortext Keys Practice     All the classes will be conducted in the computer lab by the externals.     Certificate will be conducted in the computer lab by the externals.     Certificate will be conducted in the c		40Hrs Mo	dules	4	
After successfully qualifying practical examination, students will be awarded certificate to work with vell-known accounting software i.e. Tally ERP.9. Student by their own will create company, enter accounting voucher entries including advance voucher intries, reconcile bank statements, do accrual adjustments, and also print financial statements, etc. in Tally ERP.9 software. Students will possess required skill and can also be employed as Tally data entry operator. Career Prospects: Even if you are currently employed, learning Tally and obtaining a certificate will improve your chances or a pronotion or you may even land a better job. Tally will give a much-needed boost to your career by inhancing your knowledge in Accounting, Inventory Management, and Taxation.  This program opens up various avenues for students. After the completion of the program, as a fresher you an begin your career as: Accounts executive funior accountant Data entry operator Accounts executive funior accountant trainee Course Contents Addue-2: Duration :	<ol> <li>To impart kr which is use</li> <li>This course</li> <li>To make stu- voucher entr etc. in Tally</li> <li>Accounting v continuous p</li> </ol>	d for learning to maintain accound helps students to work with weldents capable to create company ics, reconcile bank statement, de ERP.9. with Tally certificate course is n	ints. Il-know account y, enter account o accrual adjust not just theoretic	ting software i.e. Tally E ing voucher entries inclu ment, and also print fina cal program, but it also ir	RP.9. ding advance ncial statements iclude
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# Session 2018-19

### **Syllabus and Outcomes**

### C304: Certificate Course in Communicative English

		Communica	kh Mahavidy: <u>YLLABUS</u> ative English ( on 2018-2019	Cour	31	Total Marks :	100
	UNIT : I	Grommon and Vershulani	Marks		112.00	Ger La	1 10
	UNIT : I	Grammar and Vocabulary. 1) Article	Warks		05		
		2) Preposition			05		
		3) Synonyms			05		
		4) Antonyms			05		
		5) One word substitution	020		05		
0	UNIT : II	Grammar.					
5		1) Tenses	225		15		
$\bigcirc$		2) Voice	•		10		
	UNIT : III	Grammar and Letter Writing.					
		1) Punctuation	820		10		
		2) Transformation			05		
		3) Letter Writing	1.0		10		
	UNIT : IV	Conversational Skills.					
		1) Matching the Dialogue			10		



1 BEER

#### **Reference Books:**

- 1) Learner's English Grammar and Composition By N. D. V. Prasad (S. Chand & Company Ltd.)
- 2) English For Practical Purpose by Z. N. Patil, B. S. Walke, Ashok Thorat, Zeenat Merchant (Macmillan)
- 3) Macmillan Foundation English By R. K. Dwivedi & A. Kumar

PINCU

Head Department of English Arvindbabu Deshmukh Mahavidyalaya Bharsingi



VSPM Academy Of Higher Education ARVINDBABU DESHMUKH MAHAVIDYALAYA, BHARSINGI Tah. Narkhed, Distt.- Nagpur- 441305 (M.S.) Programme: Communicative English (Session: 2018-19)



#### OUTCOMES

At the completion of the course the learner will be able to:

- Develop vocabulary and improve the accuracy in grammar.
- Produce words with right pronunciation.
- Improve LSRW- listening, speaking, reading, and writing skills and related all sub-skills.
- Demonstrate positive group communication exchanges.
- Speak with more confidence and listen carefully to build rapport.
- · Analyses and utilize body language to their advantage.
- Steer conversations and influence people.
- Have the confidence to make more of an impact on their audience.
- · Enhance their professionalism at work.

Head DepartmetitGT@nglish Arvindbabu Deshmukh Mahavidyala, Departmeningif English

## Session 2019-20

C

### **Syllabus and Outcomes**

## **CC302: Welding and Fabrication**

# VSPM Academy of Higher Education, Nagpur

# Arvindbabu Deshmukh Mahavidyalaya, Bharsingi

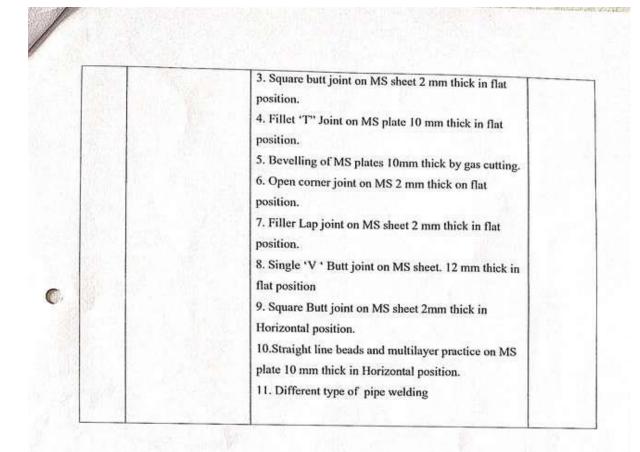
### **Certificate Course**

## Welding and Fabrication

## Session- 2019-20

#### Syllabus

	Sr. No.	Торіс	Syllabus	Period (Hour)			
		Apply Safe Working practice	<ol> <li>Importance of trade training.</li> <li>Machinery used in the trade.</li> <li>Introduction to safety equipment and their use.</li> <li>Hack sawing, filling square to dimensions.</li> <li>Safety precautions in Shielding Metal Arc Welding, and Oxy-Acetylene Welding and Cutting</li> </ol>				
	2	Join MS sheet by gas welding in different positions.	<ol> <li>Setting up of Arc welding machine &amp; accessories and striking an arc.</li> <li>Setting of oxy-acetylene welding equipment, lighting and setting of flame.</li> </ol>	4			
	3	Join MS plates by SMAW in different positions.	<ol> <li>Fusion run without and with filler rod on MS sheet</li> <li>2mm thick in flat position</li> <li>Edge joint on MS sheet 2mm thick in flat position without filler rod.</li> <li>Marking and straight line cutting of MS plate 10 mm thick by gas</li> </ol>	6			
4		Perform straight, bevel & circular cutting on MS plate by oxyacetylene	<ol> <li>Straight line beads on MS plate 10 mm thick in flat positions.</li> <li>Weaved bead on MS plate 10mm thick in flat position</li> </ol>	15			



In-charge

Welding & Fabrication Course

Pril Arvindbabu Deshmukh Mahavidhyataya Bharsingi Gist. Nagpur

## VSPM Academy of Higher Education

# Arvindbabu Deshmukh Mahavidyalaya, Bharsingi

#### Tah. Narkhed Dist. Nagpur

#### Session- 2019-20

### Course Name- "Welding and Fabrication"

#### Outcomes

- Students able to demonstrate safe workplace practice by identifying potential by:
  - Identifying personal protective gear for task
  - Practicing safe material handling by using rigging and hoisting equipment properly and safely
  - · Performing safe and efficient confined space entries in the workplace.
- Students able to fabricate and assemble a given project according to specifications and specified tolerances using trade-related hand and power tools and equipment by:
  - Describing safety precautions when using trade-related hand and power tools and equipment's.
  - Selecting appropriate trade-related equipment for the job.
  - Safely operating trade-related equipment to complete specified welding process efficiently and correctly.
- Students should able to perform oxyacetylene welding and cutting operations following safe work practice by:
  - · Practicing personal and shop safety
  - Performing set-up, adjustment of flame and gas pressure, and shut-down procedures for oxyacetylene welding and cutting equipment.
  - · Operating gas welding and cutting equipment to produce part to specifications
  - Manipulating torch at proper angle according to the four basic joints in flat position
- Students should able to perform shielded metal arc welding on tee, lap, corner, and butt joints to trade specifications in the flat, horizontal, vertical and overhead positions.

PRINČIPÁL ARVINDBABU DESHMUKH MAHAVIDYALAYA BHARSINGI, DIST. NAGPUR

### Session 2019-20

### **Syllabus and Outcomes**

#### **CC301: Fashion Designing**

VSPM of Higher Education Society, Nagpur · filler proof and Arvindbabu Deshmukh Mahavidyalaya, Bharsingi timpet falser second and Session : 2019-20 Diploma Course in Fashion Designing the, may, learning, manual mark, some WHETHER J HERE N. UNIT-6: रही-पुरुषांध्या केल्लेगळ्या कालांगे प्रकार अभ्यासक्रम / Syllabus then the reason प्रगडन, पेडीकोट, प्राल्वान बन्गीज, पंच, राजे, प्रेजाम, बन्गीज utter utter to Unit-1 · वर्तन व विवयवरण्डणे प्रथमिक म्लीवेगी feiter ) uns u/Unit-7 fedicuse frontell when frontel with and anged a fee, francessing archite प्राथविक परिष्ठा देखेल दुखेन प्रहे formen appige mentelt adeit. sime test 1 Unit-2 मनितने ) लेखी परिधा एकुन तुम— ६० विजयसम्बद्धां रुपगणाच्या साहित्याची महीहेती जेत्रुमार्थ भाग्य प्रचलमा बाल्ट, मिलमामा माडू (गोन बाडू), मानमा देव, देखील, आजूनी देखल, सिवलवेरे निकाल पाक नावान्या प्रमायों प्रसं व होंग, क्षेत्र कर्म, इत्यारी अपदे मृत्र जिल्ल्यालाडी नेवाची वायरण्यात चेत्रांने शोधेचे सांगे, वेषवेषांत्रवा प्रचलच्या घुली (ग्लेल्य) 1000 1 100 1 Unit-3 a inside PRINCIPAL WACEAGO DESHILINI MULUNDIALANA BILABSINGL STAT. MAGPIN रतमंत्री स्टब्से कांग्र? TY WELLING ) गेणवी प्रतिशास सरमा 1. Julius court come defined fieldes and POPULATION OF LIMIT A क्षेप्त संरक्षणप पहले. नाणे, वाले, बोल्फ, देख, नेपर लोला, लयाव कहवांची सांबी, पूर्ण साह्यांची सांबी HERE'S THE S/UNIT-5. ANVINDRADI DESIGNICH MAMAVIDVALAVA BM1353HTR, DUTT, MADPUR BM1353HTR, DUTT, MADPUR



VSPM of Higher Education Society, Nagpur Arvindbabu Deshmukh Mavidyalaya, BharsingiSession : 2019-20



**Certificate Course in Fashion Designing** 

**Course outcomes** 

1. 'फॅशन डिझाइनिंग' ही एक प्रकारची कला आहे.

2 . लोकप्रिय वरुषभूषणांची कलात्मक रचना म्हणून विद्यार्थ्यांना समजले.

3. 'फॅशन डिझाइनिंग' या कोर्समुळे विद्यार्थ्यौंनी चित्रकला, हस्तकला व रेखाकृती हे आत्मसात केले.

4. "फॅशन डिझाइनिंग" या कोर्समुळे विद्यार्थ्यांमधील सर्जनशीलता कलात्मकता आणि चांगले संवाद कौशल्य वाढीस लागले.

5. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील ध्येयकेंद्रीत परिमाणात विचार करण्याची क्षमता व त्यांची कल्पनाशक्ती वाढण्यास मदत झाली.

या अभ्यासक्रमामुळे विद्यार्थ्यांमधील सुप्तगुण व प्रतिभा वाढण्यास मदत झाली.

7 . या अभ्यासक्रमामुळे विद्यार्थी आपल्या शिवणकामात नवीन योजना व आराखडा तसेच वदलत्या काळानुसार आधुनिक संस्कृतीनुसार रचनात्मक वस्त्रे शिवायला शिकले.

 या अध्यासक्रमामुळे विद्यार्थी आपले कौशल्य आणि नाविन्यपूर्ण कल्पना वापरून वस्त्रांना नवीन व सुंदर रूप देऊ शकेल.

9. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील पैसे कमविण्याची क्षमता वाढण्यास मदत होऊल.

10. 'फॅशन डिझाइनिंग' हा अभ्यासक्रम विद्यार्थ्यांना स्वतःचा व्यवसाय करायला प्रेरित करताना दिसतो.

FACULTY INCHARGE

MINDEABU DESHMUKH MAHAVIDYALAYA BHARSINGI, DIST. NAGPUR

# Session 2019-20

## Syllabus and Outcomes

# CC303: Vermicomposting

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	Ob	jective:								
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# Syllabus

Certificate course in biofertlizers: Vermicomposting

Periods 45

Paper I- Theory

Unit-1

11

1.1 Vermicomposting : Introduction and Scope	02
1.2 Types of Earthworm and Classification Epigelc,	Endogeic, Diageic 02
1.3 Life history of Earthworms (Earthworm Specie	s Eisenia foetida) - 05

### Unit-2

23

2.1 Objectives of Vermicompost	02				
2.2 Vermicompost Production : Establishment of	Vermicomposting and Vermiwash unit 05				
2.3 Different Methods of Vermicomposting: Small and large scale Bed method					
2.4 Harvesting the Compost	02				
2.5 Storing and packing of vermicompost	02				

#### Unit-3

00 honor 7x

3.1 Precautions while Vermicomposting	03
3.2 Physico- chemical analysis of vermicompost:	03
3.3 Physical Parameters of vermicompost	03
3.4 Nutrient content of vermicompost and their role in agriculture	03
3.5 Benefits of vermicompost	03
3.6 Pests and diseases of Earthworms	04

## Syllabus

Certificate course in biofertlizers: Vermicomposting

## Paper II- Practical

- · Scientific classification of Earthworm
- · Study of external morphology of Earhworm- Eisenia foetida
- · Study of habit and habitat of Earhworm- Eisenia foetida
- · Study of Digestive system of earthworm
- Study of Reproduction of earthworm

· Establishment of vermicomposting unit Pit method

- · Establishment of vermicomposting unit Bed method
- · Establishment of vermiwash unit
- · Vermicompost production, harvesting and packaging.
- · Study of cocoon and vermicast
- Study of Pests and diseases of Earthworms

#### References

- The Textbook of Vermicompost, Vermiwash and Biopesticides : Keshav singh and et al Publisher: Biotech Books
  - The Book Hand Book Of Biofertilizers & Vermiculture Publisher: Engineers India Research Institute
  - Handbook of Organic Farming and Organic Foods With VermicompostingNeem Publisher: Engineers India Research Institute
  - Text Book of Applied Zoology: Vermiculture, Apiculture, Sericulture, Lac Culture, Agricultural Pests and their Controls: Pradip Jabde Publisher: Discovery Publishing House



- The Worm Farmer's Handbook Mid- to Large-Scale Vermicomposting for Farms, Businesses, Municipalities, Schools, and Institutions <u>Rhonda Sherman</u> Publisher: Chelsea Green Publishing
- Vermiculture Technology: Earthworms, Organic Wastes, and Environmental Management:
   Olime & Television

Clive A. Edwards, Norman Q. Arancon, Rhonda L. Sherman Publisher: CRC Press 2010

- Commercial Vermiculture: How to Build a Thriving Business in Redworms: Peter Bogdaney
  - Applied Zoology:<u>N Arumugam</u>, <u>T Murugan</u>, <u>R Ram Prabhu J Johnson Rajeshwar</u> Publisher: Saras Publication
  - Worm Farming: Setup A Sustainable Vermiculture Earthworm Composting Ranch: Brian Grant

Publisher: Sparrow Publications.

honor 7x

# Arvindbabu Deshmukh mahavidyalaya, Bharsingi Department of Zoology 2019-2020 Certificate Course in Vermicomposting

## Course Outcomes

2

honor 7x

To increase human livelihood opportunities to the rural area people

To increase the soil quality of the farm 3

× It makes way for utilization of available organic wastes to produce the rich source of organic manure of high quality, which is superior to other types of organic manures in its physico-chemical and biological properties.

The programme provides job opportunities for the unskilled labour force. ×

## The objectives of this project were:

1) To determine the optimal vermicompost/soil admixture for growth of Pelargonium hortorum.

<sup>1</sup> 2) To compare the growth of geraniums in the optimal vermicompost/soil admixture to those grown in standard potting soil supplemented with chemical fertilizer. After library research, it was believed that geranium growth would vary among different vermicompost/soil admixtures, and that optimal vermicompost/soil admixture would produce better plant growth than chemical fertilizer. Therefore, the null hypotheses were: i) There would be no significant differences among geranium growth in different vermicompost/soil admixtures; and ii) There would be no significant differences in geranium growth between the optimal vermicompost/soil admixture and those supplemented with chemical fertilizer.

Session 2019-20

### **Syllabus and Outcomes**

## CC305: Tally

2019-2020 ENTER-NETWORK TECH **SYLLABUS OF TALLY ERP** 9 20. 1. BASIC ACCOUNTING Types of accounts, & rules of Debit/Credit, Accounting principles and concepts, Accounting terms, journal entries, Trial Balance, Final Accounts (Trading a/c, profit & loss, a/c, balance sheet), Ratio Analysis. 2. INTRODUCTIONS OF TALLY ERP 9 Knowledge about tally ERP 9, explanation of old 0 versions. 3. GETTING FUNCTIONAL ABOUT TALLY ERP 9 Features of tally Principal Arvindbabu Deshekikh Mahavidyalaya Bharsingl, Dist. Nagpur  $\Theta(0)$ DAOR /X

- Configuration of tally
- Installation of tally
- Company creation
- Gateway of tally
- 4. LEDGER CREATION
- 5. ACCOUNTING VOUCHERS
- 6. INVENTORY VOUCHERS
  - Stock group
  - Stock item
  - Stock categories
  - Unit of measurement
  - 7. STOCK TRANSFER IN TALLY

(Location/godown creation, Transaction)

- 8. TRADING OF STOCK TRANSACTION
- 9. SHORTCUT KEYS

 $\odot$ (0)

honor7x

10. ADVANCE ACCOUNTING

· Bill wise details

- Cost centre & cost categories
- Multiple currencies
- Interest calculation
- Budget & control

00

C

- Scenario management
- Transaction in invoice mode & voucher mode

## 11. ADVANCE INVENTORY IN TALLY ERP 9

- Purchase and sales order process
- Batch wise details
- Bills of materials
- Price levels and price list
- Stock valuation and stock summary
- Different actual and billed quantity
- Transaction with discount

## 12. POINT OF SALES (POS)

honor 7×

- Features of pos in tally ERP 9
- Configuration of pos in tally ERP 9

- · Activation of pos
- . Entries pos transaction
- Pos reports

# 13. PETTY CASH

- Creations
- · Vouchers type
- Entry
- Reports

14. JOB COSTING

Configuration

# Creations

0

- · Vouchers type
- Recording transaction
- Reports

honor 7x

15. CREDIT NOTE & DEBIT NOTE

Activation

Creation

- · Pass entry of purchase and sale
- Transactions record
- Report

6

16 FIXED ASSETS MANAGEMENT (WITHOUT GST)

- 17. FIXED ASSETS MANAGEMENT (WITH GST)
  - 18. USE OF CALCULATOR

19. TALLY. NET FEATURES

20. ALTERNATING & DELETING IN TALLY

21. BACK UP & RESTORE

22. EXPORT & IMPORT

23. DATA SECURITY

honor 7×

24. PRINTING REPORTS & VOUCHERS

25. SPLIT COMPANY DATA

26. E-MAIL WITH TALLY

27. DRAWING & CAPITAL TRANSACTION

# 28. PAYROLL ACCOUNTING

- configuration payroll in tally erp 9
- creating payroll masters
- transaction in payroll vouchers
- · generating payroll reports
- 29. Bank reconciliation statement (BRS)
- 30. GOODS AND SERVICE TAX (GST)
  - GST ACTIVATION
- 31 .KNOWLEDGE ABOUT GST
- 32 LEDGER CREATION WITH GST
- 33 CONFIGURATION FOR GST
- 34 TRANSACTION FOR SERVICE COMPANY WITH GST
- 35 REVERSE CHARGE MECHANISM
- 36 TRANSACTION FOR TRADING COMPANY WITH GST
- 37 TRANSACTION FOR MANUFACTURING COMPANY WITH GST
- 38 DEBIT NOTE & CREDIT NOTE & DISCOUNT WITH GST



- 39 GST ADVANCE RECEIPTS & PAYMENT
- 40 CASH PURCHASE AND SALE WITH GST
- 41 ROUND OFF
- 42 MULTIPLE TAX IN SINGLE INVOICE
- 43 OTHER TRANSACTION RECORDING WITH GST

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PRINCIPAL RVINDBABU DESHMUKH MAHAVIDYALAY BHARSINGL DIST NAGPUR



## ARVINDBABU DESHMUKH MAHAVIDYALAY, BHARSINSI.

# DEPARTMENT OF COMMERCE

#### ADVANCE COURSE TALLY 9.0 SESSION 20-19-20

Outcomes in Tally

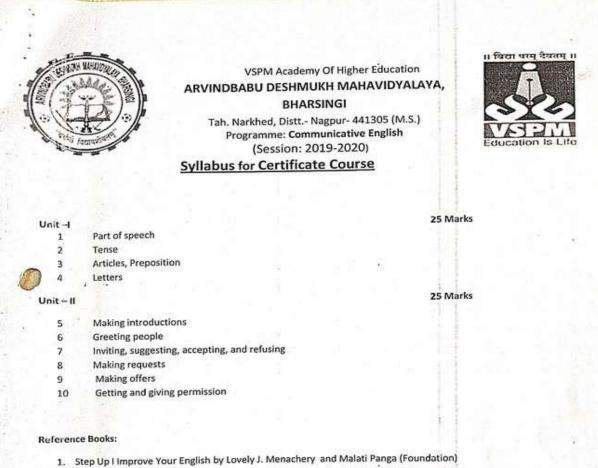
#### Certificate Course in Tally ERP 9

Name of Course		se in Tally ERP 9		
Duration	40Hrs	Modules	4	
Course Objective				
<ol> <li>To impart kr which is use</li> <li>This course</li> <li>To make stu voucher entr etc. in Tally</li> <li>Accounting continuous p</li> <li>Course outcomes:</li> <li>After successfully well-known account</li> <li>Student by their outcomes</li> </ol>	d for learning to ma helps students to w dents capable to cru- ies, reconcile bank ERP.9. with Tally certifica mactice, to make stu- v qualifying practic ting software i.e. To own will create com	aintain accounts, fork with well-know accounts statement, do accrual ad te course is not just theored adents ready with require al examination, students ally ERP.9.	ecounting. Tally is an acco punting software i.e. Tally unting voucher entries incl ustment, and also print fin etical program, but it also d skill for employability in will be awarded certificate oucher entries including as also print financial stateme	ERP.9. uding advance ancial statements, include the job market. to work with dvance voucher
3. Students will pos	ssess required skill	and can also be employe	d as Tally data entry opera	tor.
Career Prospects:				
This program opens can begin your care Accounts executiv Junior accountant Data entry operato Accounts assistan Tally operator Accountant traine	er as; /e )r I	s for students. After the o	ompletion of the program,	as a fresher you
		Course Contents		
Module-2:		Duration :		15 Hrs.
10 Hrs Chapter V: Account Chapter VI: MIS Re Chapter VII: Record		ayable Management.		
Module-2:	ling Vouchers with	TDS		
	ling Vouchers with	TDS Duration :		10 Hrs
Goods and Services	ding Vouchers with Tax (GST) - Introd	Duration : h TDS (Tax Deducted at	Source)	10 Hr:
Goods and Services Shortcut Keys Pract • All the classes wi	rding Vouchers wit Tax (GST) - Introd ice Il be conducted in	Duration : h TDS (Tax Deducted at duction the computer lab by th	e externals. fter online assessment tes	ı. Principai
Goods and Services Shortcut Keys Pract • All the classes wi	rding Vouchers wit Tax (GST) - Introd ice Il be conducted in	Duration : h TDS (Tax Deducted at duction the computer lab by th	e externals. fter online assessment tes Aovindbabu i	n Aur

### Session 2019-20

#### **Syllabus and Outcomes**

#### **CC304:** Communicative English



- English Grammar and Composition by Wern & Martin revised by Dr. N. D. V. Prasasda Rao
- 2. Intermédiate English Grammar by Raymond Murphy (Cambridge University Press) 3.
- Confident English edited by Pradip Raut and published by Sir Sahitya Kendra Nagpur. 4.

COF

PRINCIPA ARVINDBABU DESHMUKH MAHAVIDYALAYA BHARSINGI, DIST. NAGPUR

Department of English



VSPM Academy Of Higher Education ARVINDBABU DESHMUKH MAHAVIDYALAYA, BHARSINGI Tah.Narkhed, Distt.- Nagpur- 441305 (M.S.) Programme: Communicative English (Session: 2019-2020)



#### OUTCOMES

At the completion of the course the learner will be able to:

- Develop vocabulary and improve the accuracy in grammar.
- · Produce words with right pronunciation.
- Improve LSRW- listening, speaking, reading, and writing skills and related all sub-skills.
- Demonstrate positive group communication exchanges.
- Speak with more confidence and listen carefully to build rapport.
- Analyses and utilize body language to their advantage.
- Steer conversations and influence people.
- Have the confidence to make more of an impact on their audience.
- Enhance their professionalism at work.

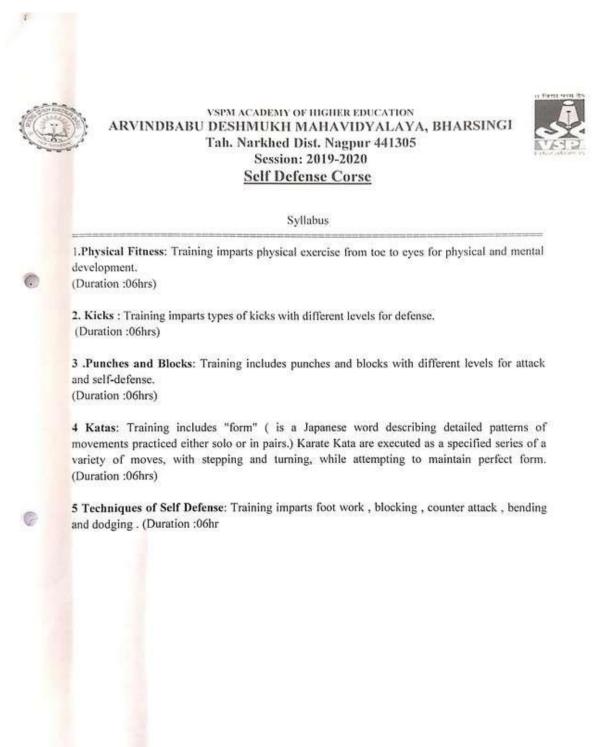


Head Department of English Arvindbabu Deshmukh Mahaudyalaya Department of English

#### Session 2019-20

#### **Syllabus and Outcomes**

Value Added Course: Self Defence for Girls



#### **Syllabus and Outcomes**

#### **CC301: Fashion Designing**

VSPM of Higher Education Society, Nagpur Arvindbabu Deshumakh Mahavidyalaya, Bharsingi Session : 2021-22 Diploma Course in Fashion Designing area area reason area reason area reason area reason area reason before both other other area area to the too society area area reason area going method with too other area and a fee, too society areas area going method with

• विजयमार्ग्याती सामग्रम्य व्यक्तियाचे गाविती

fairs server over, friends and other and, where he holds, angly have, friendly before served and a site, the and, grand

पाई पूरा दिवालाओं देखी प्राराणक वेली मेरीने हाते. तेलोलाव प्राराण जूली (मेर्ड्स) वीलीन ) गुण 1/Unit-3

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  - standed week week
  - ।, नवची चींसला सांच,
  - s. fitter rette vur üchne feber und
  - mm v. Unit-4
  - चेग्र सेत्रप्रांत कड़ी.
  - लाई, सार्ट, जोन्छ, तेस, वेस जोगा, लाइन कड्रांगरे सार्ट, हुने चहुनांगे लोगे कोर्डला राज्य -: Unit-S





VSPM of Higher Education Society, Nagpur Arvindbabu Deshmukh Mavidyalaya, BharsingiSession : 2021-22



Certificate Course in Fashion Designing

**Course outcomes** 

1. 'फॅशन डिझाइनिंग' ही एक प्रकारची कला आहे.

2. लोकप्रिय वस्तभुषणांची कलात्मक रचना म्हणून विद्यार्थ्यांना समजले.

3. 'फॅशन डिझाइनिंग' या कोर्समुळे विद्यार्थ्यांनी चित्रकला, हस्तकला व रेखाकृती हे आत्मसात केले.

4. 'फॅंशन डिझाइनिंग' या कोर्समुळे विद्यार्थ्यांमधील सर्वनशीलता कलात्मकता आणि चांगले संवाद कौशल्य वाहांस लागले.

5. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील ध्येवकेंद्रीत परिमाणात विचार करण्याची क्षमता व त्यांची कल्पनाशक्ती वाढण्यास मदत झाली.

या अभ्यासक्रमामुळे विद्यार्थ्यांमधील सुप्तगुण व प्रतिभा वाढण्यास मदत झाली.

7 . या अभ्यासक्रमामुळे विद्यार्थी आपल्या शिवणकामात नवीन योजना व आराखडा तसेच बदलत्या काळानुसार आधुनिक संस्कृतीनुसार रचनात्मक वस्ने शिवायला शिकले.

 या अभ्यासक्रमामुळे विद्यार्थी आपले कौशल्य आणि नाविन्यपूर्ण कल्पना वापरून वस्त्रांना नवीन व सुंदर रूप देऊ शकेल.

9. या अभ्यासक्रमामुळे विद्यार्थ्यांमधील पैसे कमविण्याची क्षमता वाढण्यास मदत होऊल.

10. 'फॅशन डिझाइनिंग' हा अभ्यासक्रम विद्यार्थ्यांना स्वतःचा व्यवसाय करायला प्रेरित करताना दिसतो.

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#### **Syllabus and Outcomes**

### **CC302: Welding and Fabrication**

#### VSPM Academy of Higher Education, Nagpur

#### Arvindbabu Deshmukh Mahavidyalaya, Bharsingi

#### **Certificate** Course

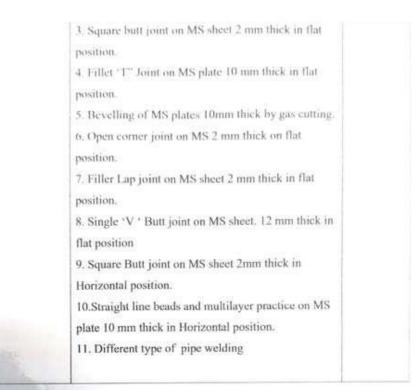
#### Welding and Fabrication

#### Session- 2021-22

#### Syllabus

	Sr. No.	Topic Syllabus		Period (Hour)
3	ł	Apply Safe Working practice	afe Working       1. Importance of trade training.         2. Machinery used in the trade.         3. Introduction to safety equipment and their use.         4. Hack sawing, filling square to dimensions.         5. Safety precautions in Shielding Metal Arc         Welding, and Oxy-Acetylene Welding and Cutting	
	2	Join MS sheet by gas welding in different positions.	<ol> <li>Setting up of Arc welding machine &amp; accessories and striking an arc.</li> <li>Setting of oxy-acetylene welding equipment, lighting and setting of flame.</li> </ol>	4
	3	Join MS plates by SMAW in different positions.	<ol> <li>Fusion run without and with filler rod on MS sheet</li> <li>2mm thick in flat position</li> <li>Edge joint on MS sheet 2mm thick in flat position without filler rod.</li> <li>Marking and straight line cutting of MS plate 10 mm thick by gas</li> </ol>	6
	4	Perform straight, bevel & circular cutting on MS plate by oxyacetylene	<ol> <li>Straight line beads on MS plate 10 mm thick in flat positions.</li> <li>Weaved bead on MS plate 10mm thick in flat position</li> </ol>	15







VSPM Academy of Higher Education Arvindbabu Deshmukh Mahavidyalaya, Bharsingi Tah. Narkhed Dist. Nagpur Session- 2021-22 Course Name- "Welding and Fabrication"

#### Outcomes

- Students should able to demonstrate knowledge in welding and principles of fabrication.
- Students should able to demonstrate safe work by identifying personal protective gears and safe handling of welding materials.
- Students should able to apply knowledge, techniques, and skills of industrial safety . standards to both field and factory environments.
- Students should able to develop self-business in welding and fabrication.
- Students able to understand professional, ethical and social responsibilities and ٠ their implications related to level and practice of welding and fabrication in global/social context.

Ging 23 course coordinator

MOBABU D MAHAVIDYALAYA





#### **Syllabus and Outcomes**

**CC: Basic English Grammer** 

## RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY DEPARTMENT OF LIFELONG LEARNING AND EXTENSION SHORT TERM CERTIFICATE COURSE UNDER JEEVAN SHIKSHA ABHIYAN 2022-23 ARVINDBABU DESHMUKH MAHAVIDYALAYA, BHARSINGI DEPARTMENT OF ENGLISH <u>CERTIFICATE COURSE IN BASIC ENGLISH GRAMMAR</u> <u>COURSE MODULE</u>

#### Content:

Unit-I : Parts of Speech

Unit II : Sentence Formation

Unit III : Tense and Affirmative

Unit IV : Articles and Preposition

Unit V : Voice and Narration

#### **Module Objectives:**

- 1) To enable students to understand Parts of Speech.
- 2) To make students understand structure of sentences.
- 3) To develop capacity among the learners to identify and change the tenses.
- 4) To understand the use of articles and prepositions.
- 5) To trains learners to change to voice and Narration.

#### lor Outcomes:

At the end of the course learners will be able to :

- 1) To identify and convert various parts of speech.
- To construct sentences of all types.
- To identify and change tenses of any sentence and also convert sentences negative.
- To fill the blanks with appropriate articles and prepositions.
- 5) To change the voice and narration.

Off.Principal Arvindbabu Deshmukh Mahavidyelay÷ Bharsingi Dist. Nagpur



VSPM Academy Of Higher Education ARVINDBABU DESHMUKH MAHAVIDYALAYA, BHARSINGI Tah. Narkhed, Distt.- Nagpur- 441305 (M.S.) Programme: Basic English Gramar (Session: 2022-23)



#### OUTCOMES

At the completion of the course the learner will be able to:

- Develop vocabulary and improve the accuracy in grammar.
- · Produce words with right pronunciation.
- Improve LSRW- listening, speaking, reading, and writing skills and related all sub-skills.
- Demonstrate positive group communication exchanges.
- Speak with more confidence and listen carefully to build rapport.
- Analyses and utilize body language to their advantage.
- Steer conversations and influence people.
- Have the confidence to make more of an impact on their audience.
- · Enhance their professionalism at work.

Head Department of English ArvindDappDrehewkb/English Bharsingi

#### **Syllabus and Outcomes**

#### **CC: Agroeconomics**



VSPM Academy of Higher Education Arvindbabu Deshmukh Mahavidyalaya, Bharsing Certificate Course in Agri. Economics Syllabus Academic session 2022-23



प्रकरण :। कृषी अर्थशास्त्र

- कृषी अर्थशास्त्राच्या अर्थ व व्याख्या
- कृषी अर्थशास्त्राची वैशिष्ट्ये
- 3. कृषी अर्थशास्त्राच्या अभ्यास विषय
- 4. कृषी अर्थशास्त्राचे महत्व

#### प्रकरण :2 भारतीय शेती

- भारतीय शेतीचे स्वरूप
- आरतीय शेतीचे वैशिष्ट्ये
- आरतीय अर्थव्यवस्थेत शेतीचे महत्व
- भारतीय शेतीची उत्पादकता कमी असल्याचे कारणे
- 5. भारतीय शेतीची उत्पादकता वाढवण्याचे उपाय

#### प्रकरण : 3 हरितक्रांती

- हरितक्रांती हरितक्रांतीचे कारणे
- 2. हरितक्रांती नवीन पिके आणि तंत्रज्ञान
- 3. हरितक्रांतीच्या भारतीय शेती उत्पादकतेवर झालेल्या परिणाम
- हरितक्रांतीच्या मर्यादा

#### प्रकरण 4: सिंचन

- 1. शेतीला सिंचनाचे महत्त्व
- 2. सिंचनाची साधने
- 3. शेती सिंचनाच्या विविध पद्धती

Principat S Arvindbabu Deshmukh Mahavidhyalaya Bharsingi Dist. Nagpur



VSPM Academy of Higher Education Arvindbabu Deshmukh Mahavidyalaya Bharsingi Tah. Narkhed Dist. Nagpur Department of Economics Certificate course in Agro- Economics



#### Programme Outcome

- Students will gain a strong understanding of the principles and concepts of agro-economics, including the economic factors influencing the agricultural sector.
- Students will develop the ability to critically analyze the economic challenges and opportunities within the agricultural.
- Students will be able to apply economic theories and models to real-world agricultural issues, contributing to effective problem-solving in this field.
- Students will appreciate the interdisciplinary nature of agro-economics, recognizing its intersections with agriculture, environmental sustainability, and social development.
- Upon successful completion of the course, students will receive a certificate, validating their knowledge and competence in the field of agro-economics
- Students will be encouraged to engage in lifelong learning and stay updated with the latest developments in agro-economics and related fields.

Arvindbabu Deshmukh Mahavidhyaia; Bharsingi Dist. Nagpur

## Syllabus and Outcomes

## **CC: Vermicomposting**

		Syllabus					
		Certificate course in biofertlizers: Vermicor	nposting				
0			Periods 45				
		Paper I- Theory					
	Unit-1						
		1.1 Wanningsontage, Inc. J. and South Street	02				
		1.1 Vermicomposting : Introduction and Scope	02				
	1.2 Types of Earthworm and Classification Epigeic, Endogeic, Diageic 02						
	Ĕ	1.3 Life history of Earthworms (Earthworm Species Eisenia	a joenaa) 05				
	Unit-2						
		2.1 Objectives of Vermicompost	02				
		2.2 Vermicompost Production : Establishment of Vermicom					
		2.3 Different Methods of Vermicomposting: Small and large					
		2.4 Harvesting the Compost	02				
		2.5 Storing and packing of vermicompost 02					
	Unit-3						
	3.1 Pres	autions while Vermicomposting	03				
	3.2 Phy	sico- chemical analysis of vermicompost:	03				
	3.3 Phys	ical Parameters of vermicompost	03				
	3.4 Nutr	ient content of vermicompost and their role in agriculture	03				
	3.5 Bene	fits of vermicompost	03				
	3.6 Pests	and diseases of Earthworms	04				
	1						
	· · · ·						

#### Syllabus

Certificate course in biofertlizers: Vermicomposting

#### Paper II- Practical

- Scientific classification of Earthworm
- · Study of external morphology of Earhworm- Eisenia foetida
- · Study of habit and habitat of Earhworm- Elsenia foetida
- Study of Digestive system of earthworm
- · Study of Reproduction of earthworm
  - · Establishment of vermicomposting unit Pit method
  - · Establishment of vermicomposting unit Bed method
  - Establishment of vermiwash unit
  - Vermicompost production, harvesting and packaging.
- Study of cocoon and vermicast
- Study of Pests and diseases of Earthworms

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#### References

- The Textbook of Vermicompost, Vermiwash and Biopesticides : Keshav singh and et al Publisher: Biotech Books
- The Book Hand Book Of Biofertilizers & Vermiculture Publisher: Engineers India Research Institute
- Handbook of Organic Farming and Organic Foods With VermicompostingNeem Publisher: Engineers India Research Institute
- Text Book of Applied Zoology: Vermiculture, Apiculture, Sericulture, Lac Culture, Agricultural Pests and their Controls: Pradip Jabde Publisher: Discovery Publishing House

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- The Worm Farmer's Handbook Mid- to Large-Scale Vermicomposting for Farms, Businesses, Municipalities, Schools, and Institutions <u>Rhonda Sherman</u> Publisher: Chelsea Green Publishing
- Vermiculture Technology: Earthworms, Organic Wastes, and Environmental Management;
- Clive A. Edwards, Norman Q. Arancon, Rhonda L. Sherman Publisher: CRC Press 2010
- Commercial Vermiculture: How to Build a Thriving Business in Redworms:Peter Bogdanov
- Applied Zoology: <u>N Arumugam</u>, <u>T Murugan</u>, <u>R Ram Prabhu J Johnson Rajeshwar</u> Publisher: Saras Publication
- Worm Farming: Setup A Sustainable Vermiculture Earthworm Composting Ranch: Brian Grant

Publisher: Sparrow Publications.

## Arvindbabu Deshmukh Mahavidyalaya, Bharsingi Department of Zoology

2022-2023

Title of course: Certificate course in biofertlizers: Vermicomposting

#### **Objective:**

- · To inculcate concepts of biofertilizers like vermicomposting.
- · To understand techniques in Vermicomposting.
- To increase employability of the students.
- · To improve the soil quality by promoting the biofertilizers.

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Course structure

)	Paper	I		Theory
)	Paper	п	1	Practica

Eligibility for admission

: H.S.C. or equivalent qualification

Skeleton of the course:

Sr.No	Paper	Name of subject	Teaching hours	Maximum marks alloted			Passing		
				External	Internal	Total	External	Internal	Total
	Paper I	Theory	45	80	20	100	32	08	.40
	Paper II	Practical	60	80	20	100	32	08	40

V Head Department of Zoology Mahavidyalaya Course Coloration Arometical Desamuth Mahavidyalaya, Bharsing! Principal Principal Arvindbabu Deshmukh Mahavidhyalaya Bharsingi Dist. Nagpur

#### Arvindbabu Deshmukh mahavidyalaya, Bharsingi Department of Zoology 2022- 2023 Certificate Course in Vermicomposting

#### Course Outcomes

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> To increase human livelihood opportunities to the rural area people

> To increase the soil quality of the farm

It makes way for utilization of available organic wastes to produce the rich source of organic manure of high quality, which is superior to other types of organic manures in its physico-chemical and biological properties.

> The programme provides job opportunities for the unskilled labour force.

#### The objectives of this project were:

<sup>1</sup> 1) To determine the optimal vermicompost/soil admixture for growth of *Pelargonium* hortorum.

2) To compare the growth of geraniums in the optimal vermicompost/soil admixture to those grown in standard potting soil supplemented with chemical fertilizer. After library research, it was believed that geranium growth would vary among different vermicompost/soil admixtures, and that optimal vermicompost/soil admixture would produce better plant growth than chemical fertilizer. Therefore, the null hypotheses were: i) There would be no significant differences among geranium growth in different vermicompost/soil admixtures; and ii) There would be no significant differences in geranium growth between the optimal vermicompost/soil admixture and those supplemented with chemical fertilizer.

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#### **Syllabus and Outcomes**

#### **CC: Mushroom Cultivation**

Syllabus

Short Term Certificate Course in Mushroom Cultivation

(15 Marks)

Introduction: Morphological studies of Mushroom. Life cycle of Agaricus.Nutritional and medicinal value of edible mushroom, poisonous mushroom, Edible mushroom, Edible mushroom Volvariella volvacea, Pleratursitrino pileatus, Agaricus bisporus.

Unit-II

(15 Marks)

(15 Marks)

Tools of mushroom cultivation- Culture media and sterilization techniques, Polythene bags, Vessels, Inoculation hooks, Inoculation loops, Low-cost stove, Sieves, Culture rack, Water sprayer, Tray, Medium.

Unit-III

New technology of mushroom cultivation: Inoculation techniques, Spawn production, Compost preparation, Spawning, Spawn running, casing protein, harvesting, yield packaging and storage.

Unit-IV

(15 Marks)

(10 Marks)

Techniques: Substrate preparation of medium and spawn sterilization multiplication bed preparation bracket paddy straw sugar cane trust banana leaves.

Unit-V

Recipes of mushroom and marketing

#### Books

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- Triloki Nath Kaul (1997) Introduction to Mushroom Science (Systematics) Science publishers, PP 198.
- Joy Sarkar Krishnendu Acharya, Anirban Roy (2020) Mushroom Cultivation Technology, Techno World.
- RANJAN S.(2020) Mushroom Technology 2<sup>nd</sup> Edition2020 by, CBS Publishers and distributors.
- N.Revathy, A.Vijayasamundeeswari, V.M.Indumathi, V.Gomathi (2020) Mushroom cultivation, Shanlax, Publications.
- Dr.Parimal Mandal, Sri Zerald Tiru, Dr.Sanjoy Sadhukhan, Dr.Arka PratimChakraborty, Dr.Ayon Pal, Mrs Monalisha Pal Sarkar, 2020, MUSHROOM CULTURE TECHNOLOGY, HSRA PUBLICATIONS.

Principa Arvindbabu Deshmukh Mahavidyalaya Bharshogi Dist Nagpur

(Dr.S.R.Bansod) Course Co-ordinator Arvindbabu Deshmukh Mahavidyalaya, Bharsingi

Unit-1

#### Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur Department of Lifelong Learning and Extension Arvindbabu Deshmukh Mahavidyalaya, Bharsingi, Ta-Narkhed, Dist-Nagpur Department of Botany Short Term Certificate Course in Mushroom Cultivation

#### OUTCOME OF SHORT TERM CERTIFICATE COURSE IN MUSHROOM CULTIVATION

A short term certificate course in mushroom cultivation was conducted with a total of 20 students enrolling in the program. All students successfully completed the course and gained valuable knowledge and skills in mushroom cultivation. The outcome from these students after completion of the short term certificate course in mushroom cultivation can be summarized as follows:

- Able to distinguish the principal differences of mushroom cultivation from the cultivation of other plants.
- Understands edible and poisonous mushroom types.
- Understands nutritional and medicinal values of edible mushroom.
- Can determine the most important species of cultivated edible mushrooms and knows the basic required tools, technology and technique of the cultivation of each of them.
- Understands the climatic requirements of mushroom cultivation.
- · Knowing harvesting and post harvesting processes of mushroom
- Knows the most important kinds of substrata for mushroom cultivation, belonging to the agricultural wastes and have skills to prepare media for the mushroom cultivation from these wastes.
- Learning value added products preparation from mushroom and is marketing.
- · Having the prospects of commercial mushroom production.

rvindbabu Deshmuth Mahavidyataya blactingi, Dist. Nagpur

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