



Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
M.K. Education Campus,

Kohinoor Arts, Commerce & Science College Khultabad

Tq. Khultabad Dist. Aurangabad.

Pincode - 431 101 Maharashtra (INDIA)
(A Minority Institution) (NAAC Accredited B+)

Dr. (Adv.) Mohd Mazhar A. Khan
President
M.A., Ph.D., L.L.B.

Prof. Dr. Shankar Ambhore
Principal
M.A., Ph.D. (Economics)
Mobile : 9422215556

Phone : 02437 - 241782 Website : www.kacsck.com E-mail :- kckadm@gmail.com / kohinoorcollege@yahoo.in

Ref.No.: K.A.C.S.C.K./2023-24/8477

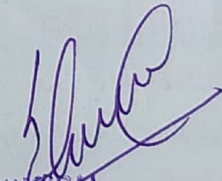
Date : 22/03/2024



DVV Clarification

1.2.1

This is to be justified that, in accordance with the suggestions provided by DVV, the college has included details of each program, including the program name, duration, list of enrolled students with student signatures, model certificates, curriculum, and assessment procedures for the years 2018-19, 2019-20, 2020-21, 2021-22, and 2022-23, along with this justification letter. One thing have to clear that in case of certificate course under B.Voc. course that all the students enrolled for the course B.Voc. are not awarded Certificate but the students who were discontinue the course after completion of 6 month such student awarded certificate. This number is 82 and not 1145. Your attention to this matter is appreciated. Thank you.


PRINCIPAL

Kohinoor Arts, Commerce & Science College
Khultabad, Dist. Aurangabad.

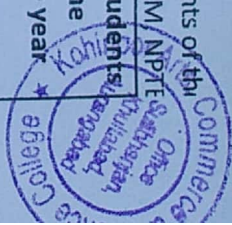
1.2.1 Number of Add on /Certificate/Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. where the students of the

1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs and also completed online MOOC programs like SWAYAM, NPTEL etc. where the students of the

Name of Certificate/ Value added course offered and online courses of MOOCs, SWAYAM, NPTEL etc. where the students of the institution have enrolled and successfully completed	Course Code (if any)	Year of offering/s (date)	Period (from date - to date)	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
2022-23 (B.Voc Courses)						
Food Processing and Food Technology	B.Voc FY	2022-23	9/7/2022 to 30/11/2021	1 Year	40	1
2021-22 (B.Voc Courses)						
Multimedia and Animation	B.Voc FY	2021-22	1/10/2021 to 28/02/20	6 Months	17	4
Organic Agriculture	B.Voc FY	2021-22	1/10/2021 to 28/02/20	6 Months	18	2
2020-21 (B.Voc Courses)						
Food Processing and Food Technology	B.Voc FY	2020-21	1/11/2020 to 21/8/202	6 Months	61	2
Organic Agriculture	B.Voc FY	2020-21	1/11/2020 to 21/8/202	6 Months	23	1
2019-20 (B.Voc Courses)						
Food Processing and Food Technology	FY	2019-20	14/07/2019 to 14/11/2019	6 Months	50	2
Multimedia and Animation	B.Voc FY	2019-20	14/07/2019 to 14/11/2019	6 Months	50	5
Hospitality and Tourism	B.Voc FY	2019-20	14/07/2019 to 14/11/2019	6 Months	38	2
Organic Agriculture	B.Voc FY	2019-20	14/07/2019 to 14/11/2019	6 Months	47	1
2018-19 (Certificate courses)						
Agro based Industries and Rural Economy	NA	2018-19	14/07/2018 to 14/03/2019	1 Year	35	35

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Kothnagar Arts, Commerce & Science College
Kothnagar, Dist. Aurangabad



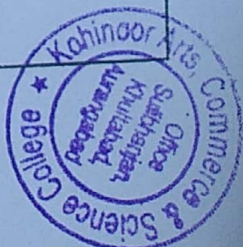
MCED Technical interprunership Development programme on Motor Rewinding, District Industries Centre.	NA	2018-19	16/02/2019 to 20/03/2019	33 days	24	24
Food Processing and Food Technology	B.Voc FY	2018-19	11/07/2018 to 30/11/2018	6 Months	35	1
Multimedia and Animation	B.Voc FY	2018-19	11/07/2018 to 30/11/2018	6 Months	23	2

No. of Total Students
= 82

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Kohinoor Arts, Commerce & Science College

Maharashtra, Dist. Aurangabad.



Kohinoor Education Society's
Kohinoor Arts, Commerce & Science College,
Khultabad, Dist Aurangabad.

University Grants Commission, New Delhi Sponsored and
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad Recognized

Career Oriented Course Duration- One Year

CERTIFICATE COURSE IN AGRO BASED INDUSTRIES AND RURAL ECONOMICS

(Faculty of Commerce)



Student Name List (2018-2019)

Sr. No.	Roll No.	Student Name	Class	Signature
01	01	AdhaneRushikeshDevidas	B. Com. Third Year	
02	02	AswarPradip Ashok	B. Com. Third Year	
03	03	Ambhore PallaviPandhrinath	B. Com. Third Year	
04	04	BaigNaufilNadim	B. Com. Third Year	
05	05	BhawarSandipNawnath	B. Com. Third Year	
06	06	ChavanRohitKacharu	B. Com. Third Year	
07	07	Dangurde Sandeep Punjaram	B. Com. Third Year	
08	08	Gaikwad NishaTejrao	B. Com. Third Year	
09	09	Gadekar Nitin Vishnu	B. Com. Third Year	
10	10	GunjalAkshayAppasaheb	B. Com. Third Year	
11	11	Gunawat Radhika Ganeshsing	B. Com. Third Year	
12	12	JadhavMukesh Raju	B. Com. Third Year	
13	13	KambleVarshaSukhadev	B. Com. Third Year	
14	14	KosheSaruBalu	B. Com. Third Year	

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Khultabad Aurangabad



15	15	Mahalkar Nitin Dnyaneshwar	B. Com. Third Year	<i>[Signature]</i>
16	16	NagareGajananSukhadeo	B. Com. Third Year	<i>[Signature]</i>
17	17	Patel SofiyanSubhan	B. Com. Third Year	<i>Sofiya</i>
18	18	Pathan Abdul Rahim Feroz Khan	B. Com. Third Year	<i>[Signature]</i>
19	19	Patel WasimShagir	B. Com. Third Year	<i>[Signature]</i>
20	20	PawarSwarajGovind	B. Com. Third Year	<i>[Signature]</i>
21	21	PawarYuvrajGajendra	B. Com. Third Year	<i>[Signature]</i>
22	22	PawarBalaji Raju	B. Com. Third Year	<i>[Signature]</i>
23	23	Pawar Bharat Bhausahab	B. Com. Third Year	<i>[Signature]</i>
24	24	Prasad Bholenath Shyamlal	B. Com. Third Year	<i>[Signature]</i>
25	25	EdakeJayshreeAnush	B. Com. Third Year	<i>[Signature]</i>
26	26	SalampureNuteshGirdhari	B. Com. Third Year	<i>[Signature]</i>
27	27	Salve Pranita Prakash	B. Com. Third Year	<i>[Signature]</i>
28	28	Shaikh Sana Ibrahim	B. Com. Third Year	<i>[Signature]</i>
29	29	ShahaSeema Yusuf	B. Com. Third Year	<i>[Signature]</i>
30	30	Shaikh Sohail Harun	B. Com. Third Year	<i>[Signature]</i>
31	31	Shaikh Mohsin Shaikh Moin	B. Com. Third Year	<i>[Signature]</i>
32	32	Shaikh ArbazAyub	B. Com. Third Year	<i>[Signature]</i>
33	33	Shaikh ShafikRafik	B. Com. Third Year	<i>[Signature]</i>
34	34	Shaikh Shaker Shaikh Khaja	B. Com. Third Year	<i>[Signature]</i>
35	35	Syed Mohsin Syed Siddiq	B. Com. Third Year	<i>[Signature]</i>

[Signature]
Course Coordinator
 University Grants Commission
 Career Oriented Program
 Kohinoor Art's Commerce
 Science College, Sulik
 Khulda, Aurangabad

[Signature]
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 Kohinoor Arts Commerce & Science College
 Khulda Aurangabad

Kohinoor Shikshan Sanstha's
Kohinoor Arts, Commerce & Science College

Khultabad, Tq. Khultabad, Dist. - Aurangabad - 431101 (M.S.)



UNIVERSITY GRANTS COMMISSION SPONSORED

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY RECOGNISED

CAREER ORIENTED COURSE

Certificate

Is Hereby Awarding This Certificate To
Mr./Mrs. Adhane Rushikesh Devidas

The Within Signed Bearing Seat No. COC2019001
In Appreciation of His/Her Successfully Completion of
Prescribed One Year Career Oriented Course of Studies and
Passed the Examination With Grade "A", Has Been Awarded on
Certificate Course in Agro Based Industries and Rural Economics

Certificate Course in Agro Based Industries and Rural Economics
Under the Faculty of Commerce, On behalf of University Grants
Commission, New Delhi & Dr. Babasaheb Ambedkar
Marathwada University Aurangshad (MS) In the Academic
Year 2018 - 2019

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Kohinoor Arts, Commerce &
Science College, Khultabad,
Tq. Khultabad, Dist. Aurangabad.

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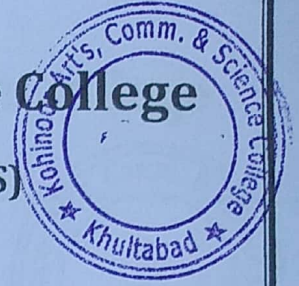
Kohinoor Arts Commerce & Science College
Khultabad Aurangabad

COURSE COORDINATOR
Add on Course-UGC COC
Kohinoor Arts, Commerce &
Science College, Khultabad.

Kohinoor Shikshan Sanstha's

Kohinoor Arts' Commerce and Science College

Tq. Khultabad, Dist. Aurangabad 431101 (MS)



- Affiliated To -

Dr. Babasaheb Ambedkar Marathwada University,

Aurangabad 431004 (MS)

SYLLABUS

(W.E.F. 2013-2014)

Certificate Course in

Agro Based Industry & Rural Economics

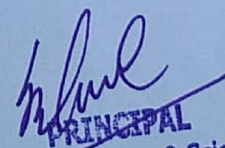
By

Department of Commerce

Kohinoor Arts' Commerce and Science College

Under

Career Oriented Courses


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UNIVERSITY GRANT'S COMMISSION, NEW DELHI

Add - on- Course 2013-14

(As per XI plan Guideline)

Kohinoor Shikshan Sanstha's
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Department of Commerce

**Certificate Course in
Agro Based Industry & Rural Economics**



SYLLABUS

Paper I - BASIC ECONOMICIS

Total Marks 100

Total Periods 80

Paper Objective-

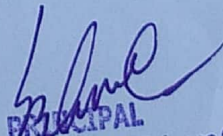
The course is intended to provide a good understanding and base to the students in applying the concepts and methods of microeconomics .of the course is to equip the students themselves in a comprehensive manner with the various

Unit -I - Introduction -

- Definition & Scope of Economics
- Microeconomics
- Theory of Consumer behaviour & firm
- Market, production, cost & efficiency
- Supply & demands; firms, uncertainty
- Game theory & Economic Behaviour.

Unit – II – Macro Economy -

- Growth
- Business cycle
- Unemployment
- Inflation & monetary Policy
- Fiscal policy
- Gross domestic products or economic growth.


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Unit- III – Funding agencies to Agro Industry -

- Rural Banks
- Function
- Government Scheme
- M.C. E. D.
- Role of Nabard Bank.



Unit -IV – Commerce & Business Economic -

- Definition
- Chambers
- Classification of business.

Unit-V – Local markets -

- Bazaar Samity
- Govt. Assistance to agro based industry
- Stock Exchange
- SEBI (Security Exchange Board of India)

Unit- VI – Rural Economic-

- Meaning
- Characteristics
- Significance
- Scope of Rural Economic
- Problem & Development of Rural Economic.

Recommended Books-

1. Ahuja H. L. Business Economics: S. Chand & Co. New Delhi.
2. Basic Economics: A Citizen's Guide to the Economy
3. Baumol W.J., Economic Theory and Operations Analysis, Prentice Hal.
4. by Thomas Sowell
5. Koustsoyianni: A Modern Micro Economic: Macmillan New Delhi.
6. Leteris Tsoulfidis: , Competing Schools of Economic Thought, Springe.
7. Paul A. Samuelson, Foundation of Economic Analysis, Harvard University Press.
8. Regional Rural Banks & Rural Development by Dr. Y. Subbarayudu & Prof. P. Mohan Redd.
9. Subbarayudu & Prof. P. Mohan Redd,

[Signature]
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Khultabad Aurangabad

Certificate Course in Agro Based Industry & Rural Economics



SYLLABUS

Paper II - AGRICULTURE ECONOMICS & AGRO BASED INDUSTRIES

Total Marks 100

Total Periods 100

Paper Objective -

The objective of this course is to acquaint the students with the Agriculture Economics as are application in Agro Based Industries.

Unit -I - Agricultural Economics :

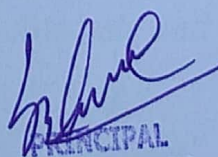
- Principles of Agricultural Economics
- Agricultural Finance and Co-operation Production
- Economics and Farm Management
- Agricultural Marketing
- Trade and Prices
- Fundamentals of Agribusiness Management.

Unit II - Industry :

- Growth and Pattern of Industrial Development
- Industrial Stagnation, Old and New
- Debates
- Trends in Industrial Productivity
- Industrial Financing
- Industrial Policies
- Privatization and Disinvestment
- Cottage and Small Scale
- Globalisation and Technology
- Transfer- SEZ -

Unit III - Agricultural Practices :

- Types of Lands, Land Reforms
- Farm size and productivity


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Unit – VII - Supportive Agro based Industries:

- Bee Keeping
- Agro forestry- Parkland ,Systems, Crop over trees system, alley cropping , strip cropping, Fauna based system , tanga, agro forests.
- Uses of Agricultural product in culinary , Medicine, Construction, Textiles, Papers, Instruments, Bamboo displays etc.
- Dairy Industries& Dairy Products : Introduction, Kheer, Khao, degination, food & N V value, manufacturing, psyico-chemical changes in milk on conversion into Khva, yield & overrun, packing storage and marketing spoilage, defects etc.
- Fermentation Industries.
- Agro Food Processing(corn Grinding)
- Waving Industries.

Recommended Books-

- 1) A. K. Tiwari, Agri- Food Systems And Economics Development, ABD Publishers.
- 2) Balakrishnan Pulpale (Eds), Economic Growth in India, History and Prospects, Oxford University Press, New Delhi
- 3) Carlos A. da Silva Doyle Baker Andrew W. Shepherd Chakib Jenane and Sergio Miranda-da-Cruz ,Agro-Industries For Development ,The Food and Agriculture Organization of the United Nation The United Nations Industrial Development Organization.
- 4) Colin Barrow, Robert Brown & Liz Cleark, The successful Entrepreneurship's Guidebook ,Viva Books ,New Delhi.
- 5) NIIR board, Morden Technology of Food Processing & Agro Based Industries (2nd Edn.), National Institute of Industrial Research. Agro Based Industry & Rural Economics Under the Career Oriented Programme
- 6) Richard T. Froyen (2008) L: Macroeconomics- Theories and Policies, Pearson .
- 7) Shankar Chatterjee, Implementation of Rural Development Programmes.
- 8) Viciani, F., Stamoulis, K. and Zezza, A. (2001). Summary of Results of the Survey. In: Stamoulis, K. (ed.) *Food, Agriculture and Rural Development: Current and Emerging Issues for Economic Analysis and Policy Research*. Food and Agriculture

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**Certificate Course in
Agro Based Industry & Rural Economics
SYLLABUS**



Paper III - PRACTICAL

Total Marks	100
Total Periods	150

Unit - I- Report Writing on

- a) Market Prizes of local agricultural products.
- b) Rural Economy
- c) Supplementary business
 - 1) Goat farming
 - 2) Poultry
 - 3) Cow/ buffalo rearing
 - 4) Fish/ Prawn farming
 - 5) Forest bases economy
 - 6) Modern Agricultural

Unit- II - Visit to any two agro based industry

- Sugar Factory
- Distilleries,
- Fertilizers
- Insecticides and pesticide manufacturing companies
- Spinners and Companies etc.

Unit- III - Computer Application

- Computer Application in Economics Learning communication skills presentation skills, listening skills and writing skills.

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Tq. Khultabad, Dist. Aurangabad

Department of Commerce

**Certificate Course in
Agro Based Industry & Rural Economics**



COURSE STRUCTURE

Each course shall have the following scheme of teaching

Theory	150 Hours	10 credits
Practical	150 Hours	10 credits
Project Field	150 Hours	10 credits
Total	450 Hours	30 credits

**SCHEME OF EXAMINATION & ASSESSMENT
PROCEDURE**

Annual Pattern Examination

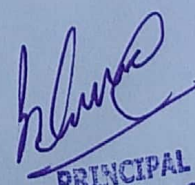
Each paper contains 100 marks.

Date of Examination : Month of may every year/ After completion of university exam.

Paper I	-	Basic Economics
Paper II	-	Agriculture Economics & Agro Based Industries
Paper III	-	Practical

PATTERN

Paper I	3 Hours	100 Marks
Paper II	3 Hours	100 Marks
Paper III	6 Hours	100 Marks
Total		300 Marks


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Khultabad Aurangabad

1.2.1 Number of Add on /Certificate/Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. where the students of the institution have benefitted during the last five years

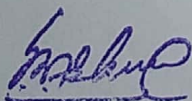
Academic Year 2018-19

Name of the course: Motor Rewinding

Duration of the course: 33 days

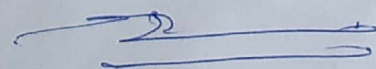
List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Mr. Afroz Rafiq shaikh	Motor Re. BA FY	Afroz
2	Sachin S. Sonawane	BA FY	Sachin
3	Rupesh S. Salve	—	Rupesh
4	Prabhu D. Ran	—	Prabhu
5	Akshay B. Jite	BSc SY	Akshay
6	Rahul S. Wankhede	BSc FY	Rahul
7	Tophik P. Pathan	—	Tophik
8	Amol S. Nikam	MSc FY	Amol
9	Nitesh D. Godke	BSc SY	Nitesh
10	Anil H. Bankar	BSc FY	Anil
11	Anil B. Balhal	BSc FY	Anil
12	Ajay D. Hiwale	—	Ajay

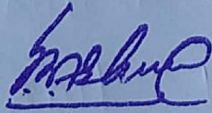


Principal

Kohinoor Arts Commerce & Science College
Kullabad, Amravati



13	Uttam D. Takwale	M.A.F.Y	Uttam
14	Suhas D. Ghohar	BSC-B.Y	Suhas
15	Rameshwar B. Kamble	BSc S.Y	Rameshwar
16	Akshay S. Bankar	BSc FY	Akshay
17	Sandip B. Narwade	B.Voc T.Y	Sandip
18	Kiran D. Bhagure	BAFY	Kiran
19	Sharad U. Kotkol	BAFY	Sharad
20	Ra Umesh P. Rawate	BSc FY	Umesh
21	Sudarshan B. Wale	BSc FY	Sudarshan
22	Anwar P. Shaikh	B.A.F.Y	Anwar
23	Ramesh L. Hiwale	BAFY	Ramesh
24	Rameshwar L. Hiwale	BSc FY	Rameshwar



Principal

Kohinoor Arts Commerce & Science College,
Khultabad Aurangabad





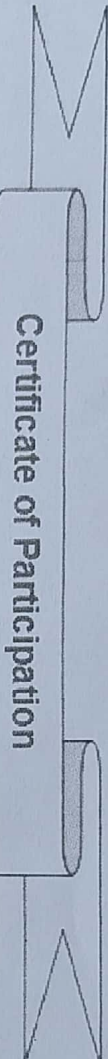
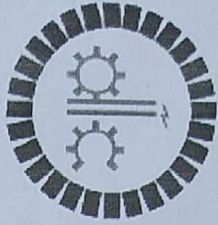
Maharashtra Centre for Entrepreneurship Development (MCED)

A-38, MIDC Area, Near Railway Station, Aurangabad - 431005

An Autonomous society working under Directorate of Industries

Government of Maharashtra

(An ISO 9001:2015 Certified Organization)



This is to certify that, **Mr. Sandip Bansi Narwade** has participated in *Technical Entrepreneurship Development Program (TEDP)* on

Motor Rewinding

Sponsored by

District Industries Centre

Conducted at Khultabad, Taluka - Khuldabad, District - Aurangabad,

From 16-Feb-2019 to 20-Mar-2019

Project Officer,
MCED, Aurangabad

Certificate No.: MCED/Aurangabad/Khuldabad/2018-19/PRG/1819/1818/00020

Regional Officer,
MCED, Aurangabad

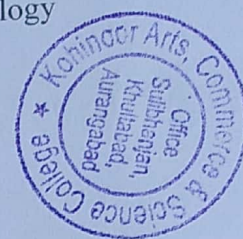
General Manager,
DIC, Aurangabad

KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

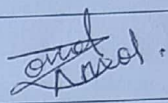
Academic Year 2018-19

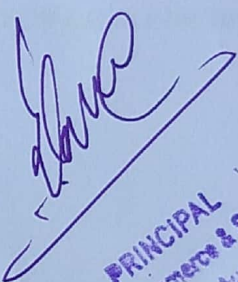
Name of the course: B.Voc. Certificate course in Food Processing and Food technology

Duration of the course: 6 months



List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Zonal Anmol Keshrao	1 st yr.	
2			


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Kohinoor Arts, Commerce & Science College
Khultabad, Dist. Aurangabad.



Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
Mk. education campus

Kohinoor Arts Commerce & Science College Khulatabad
Tq. Khulatabad dist. Aurangabad

CERTIFICATE

THIS CERTIFICATE IS AWARDED TO

MR/MISS

COMMERCE AND SCIENCE, KHULTABAD STUDIED IN B.VOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

OF KOHINOOR COLLEGE OF ARTS

"FOOD PROCESSING TECHNOLOGY"

IN ACADEMIC YEAR

WITH GRADE POINT

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBARKAR UNIVERSITY AURANGABAD.

PRINCIPAL

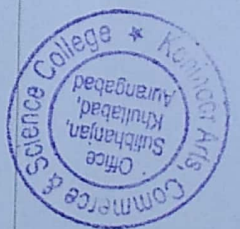
KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

PRINCIPAL

Kohinoor Arts, Commerce & Science College
Khulatabad, Dist. Aurangabad.

COURSE COORDINATER

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD





M.K. Education Campus,
Kohinoor Arts, Commerce & Science College Khultabad
Tq. Khultabad Dist. Aurangabad.

Pincode - 431 101 Maharashtra (INDIA)
(A Minority Institution) (NAAC Accredited B+)

Dr. (Adv.) Mohd Mazhar A. Khan
President
M.A., Ph.D., L.L.B.

Prof. Dr. Shankar Ambhore
Principal
M.A., Ph.D. (Economics)
Mobile : 9422215556

Phone : 02437 - 241782 Website : www.kacsck.com E-mail :- kckadm@gmail.com / kohinoorcollege@yahoo.in

Ref.No.: K.A.C.S.C.K./ 2023-24/8483

Date : 22/03/2024

1.2.1 Assessment procedure for the year 2018-19 to 2022-23

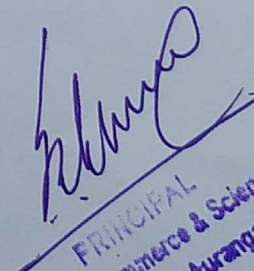
Name of the course: Certificate Course in Food Processing Technology (B.Voc.)

This is to justify that the students who have completed 6 months course in **Food Processing Technology** and discontinued the course such students are awarded with one year certificate course. The examination schedule of B.Voc.is decided by the College under the time to time guidance of the Dr. BAMU. After completion of the examination, assessment of answer book is to be done in the College. Assessment is Outcomes based and fully transparent.

Students can freely contact the College B.voc. Coordinator or concerned Examination Coordination unit of the college.

For the present courses the Practical work is required to be completed before the student appears for the final Examination.




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Khultabad Dist. Aurangabad.

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**CIRCULAR NO. SU/Sci./B.Voc. Syllabi/11/2016**

It is hereby notified for information to all concerned that, on the recommendation of the Ad-hoc Board in Centre for Vocational Education and Training, the Academic Council at its meeting held on 01 & 02 June, 2016 have accepted the syllabi of

[1] *Bachelor of Vocation Multimedia & Animation* and

[2] *Bachelor of Vocation Food Processing Technology* under the Faculty of Science.

This is effective from the Academic Year 2016-2017 and onwards.

This syllabus are available on the University website www.bamu.ac.in

All concerned are requested to note the contents of this circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.
REF.NO. SU/2016/
A.C.M.A.I.No.449-[38]

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Director, 31/7/16.
Board of College and
University Development.

Date:- 12-07-2016.

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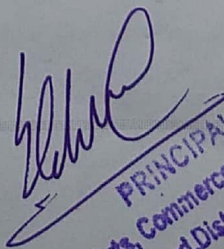
- 1] The Principals, affiliated concerned College,
Dr. Babasaheb Ambedkar Marathwada University.

Copy to :-

- 1] The Controller of Examinations,
- 2] The Section Officer, [B.C.S. Unit],
- 3] The Programmer [Computer Unit-1] Examinations,
- 4] The Programmer [Computer Unit-2] Examinations,
- 5] The In-Charge, E-Suvidha Kendra, [Professional Unit], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambedkar Marathwada University,
- 6] The Record Keeper,
Dr. Babasaheb Ambedkar Marathwada University.

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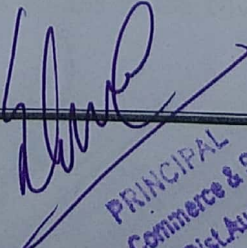
DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.



Syllabus of B. VOC. (FOOD PROCESSING TECHNOLOGY)

Semester-I & II

[Effective from 2016-17 & onwards]


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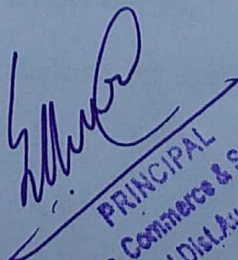
Curriculum for Bachelor of Vocational Education (B. Voc.) in Food Processing Technology

The Bachelor in Vocation program Food Processing Technology is divided into six semester having 180 credits. Each semester will have courses based on General Education Components and Skill Development Components, out of which six subject will be dedicated for theory (each theory course will have inbuilt practical / tutorial/ skill development components) and Food Processing Technology courses will be devoted to Laboratory Work / Project / Industrial Training / In-plant Internship. This program offers following **General Education Components** which include communication skill, computer fundamental, Environment Science, Personality development, Economics & Management etc. whereas **Skill Development Components** includes Food chemistry, biochemistry, Microbiology and Biotechnology, human Nutrition, Processing Technology of Fruits & Vegetables, Cereals, Legumes, oil seeds, spices and condiments , Meat, fish and poultry, milk and milk products, Bakery and confectionary technology. Food analysis, food safety, Regulations and quality management, special implant training, seminar and project etc.

Preamble:

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad is offering a three year Bachelor Program in Vocational Education (B. Voc.) in Food Processing Technology from Academic year 2016-17. The curriculum design of this program is undertaken in the following framework (Preamble).

- a) Although there has been remarkable progress in all sectors of education in last couple of decades, the less regulated area of the education sector—vocational training—seems to have lost its significance/importance. This has led to the widening gap between the supply and demand for skilled manpower across various food processing industries and R&D organizations. This shortage of skills has translated directly into unemployment among an increasing number of graduates who pass-out every year and are forced to bare- trained in order to become marketable. This program is designed to produce a skilled manpower so that wide variety of options in different sectors of Food Processing would be available and it will improve the opportunities for the unemployed youths in the country in both the private and public sectors.


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b) According to recent survey of FICCI (Federation of Indian Chambers of Commerce & Industry) on skill demand in food processing industries, it has been observed that a majority percentage of organizations are dissatisfied with the skills of the available trained manpower. For instance, 58% of the respondents were dissatisfied with technical skills and knowledge needed for the job. Also 72% showed discontent with employees' ability to use appropriate and modern tools, equipment, and technologies specific to their job roles. This programme aims to provide some solution for this problem and this would facilitate to improve:

- (i) Quality of training
- (ii) High drop-out rates
- (iii) Linkages with Universities and industry
- (iv) Inadequacy of resources

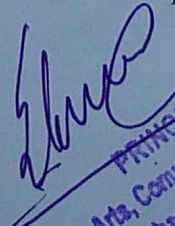
c) This program is intended to offer practical, hands on training and skills needed to pursue an occupation. It will provide options to the students to select the courses of their choice which are directly aligned to land a job in a chosen profession or a skilled trade. The end result of this program is to enable an individual to at train self-employment.

Program Outcomes:

Vocational Education is education that prepares the students for specific job role in various sectors in food processing industries and Professional organization. It trains the students from a trade, technician or professional position in R & D organizations for specific job roles.

The program outcomes are the skills and knowledge which the students have at each exit level/at the time of graduation. These outcomes are generic and are common to all exit levels mentioned in the program structure.

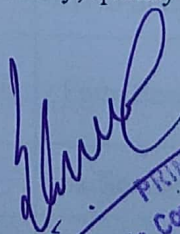
- i. Students with vocational training can find work in several state and central government organizations, non-profit groups, and academic institutions and in private sectors as well.
- ii. This program prepares students for specific types of occupations and


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frequently for direct entry into the market.

- iii. After completion of this program students will have enough competences, to get benefit from market opportunities.
- iv. This program would enable students to update their knowledge and professional skills for entering the work force executing income generating activities or occupying better positions
- v. At each exit level of this program, students will be able to
 - a) Apply knowledge of general education subjects and skill development subjects to the conceptualization of food processing technologies.
 - b) Designing and formulation of new food products, on the basis of consumers demands, development of methodology/technologies of food processing, design that meet solutions needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
 - c) Conduct and undertake investigations of problems of including design of processing technology for various type food, food analysis, food quality and safety aspects and interpretation of data in order to provide valid conclusions.
 - d) Create, select and apply appropriate processing technology/techniques, resources, modern processing tools in order to improve the quality, safety and the shelf life fresh and process food.
 - e) Communicate effectively on minimal processing activity and value addition to the farmers/producers/grower at large, such as being able to comprehend and write effective reports, design documentation and make effective presentations.
 - f) Demonstrate understanding of the social, health, safety, legal and cultural issues and the consequent responsibilities relevant to Food processing.
 - g) Understand and commit to professional ethics and responsibilities and norms/regulation for manufacturing of process food and its effects on health.
 - h) Understand the impact of food processing technologies solutions in a societal context and demonstrate technical know-how and understanding of food safety, quality for sustainable development.


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Exit Options:

Bachelor of Vocation (B. Voc.) is launched under the scheme of University Grants Commission for skill development based on higher education leading to Bachelor of Vocation (B. Voc.) Degree with multiple exits as Diploma/Advanced Diploma under the National Skill Qualification Framework (NSQF). The B. Voc. programme incorporates specific job roles and their National Occupational Standards along with broad based general education.

1. B. Voc. Programme has been designed as per National Skill Qualification Framework emphasizing on skill based education.

2. LEVELS OF AWARD:

The certification levels shall lead to certificate/Diploma/Advanced Diploma/B. Voc. Degree in Food processing technology.

Award	Duration	Corresponding NSQF level
Certificate in Food Processing Technology	6 Month	4
Diploma in Food Processing Technology	1 Year	5
Advanced Diploma in Food Processing Technology	2 Year	6
B. VOC. Degree in Food Processing Technology	3 Year	7

The suggested credits for each of the years are as follows:

NSQF level	Skill component credits	General education credits	Normal calendar duration	Exit point /awards
6 Month	18	12	One Semester	Certification in Food Processing Technology
Year 1	36	24	Two Semesters	Diploma in Food Processing Technology
Year 2	36	24	Four Semesters	Advanced Diploma in Food Processing Technology
Year 3	36	24	Six Semesters	Degree in Food Processing Technology
Total	108	72		

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Eligibility criteria for Admission:

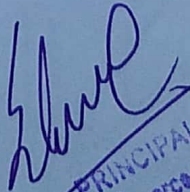
1. A candidate will be eligible to join 1st semester of B. Voc. Food Processing Technology course, if he/she has passed 10+2 examination (Science Stream) or 10+2 vocational stream related to Food Production/Food Processing of recognized Board/university, or any other examination recognized as equivalent thereto.
2. The course of study of B. Voc. shall be divided in to six semesters and university examination will be held at the end of every semester in the months of November/December (for semester I, III & V) and May/June (for semester II, IV & VI) or as fixed by the University.
3. Semester examination will be open to regular candidates who have been on the rolls of a college affiliated to this University and meet the attendance and other requirements.

Admission, Registration and Promotion Process:

Admission will be done on the basis of Percent mark obtained by candidate in Twelfth science or Common entrance test conducted by college or admission criteria as decided by the authority for first semester.

The students will have to clear / qualify at least 50% of theory papers / courses from second semester and all papers / courses (inclusive of theory and practical) from first semester for getting promoted to second year. Similarly the students will have to clear / qualify at least 50% of theory papers / courses from fourth semester and all papers / courses (inclusive of theory and practical) from third semester for getting promoted to third year.

Dropout students will be allowed to register for second or third year as and when the concerned courses are offered by the College, however he/she should not exceed more than twice the duration of the course from the date of first registration at the Centre. Therefore, for obtaining B. Voc. degree a student will have to complete all semesters successfully within 6 years/12 semesters.


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Admission fees: The admission fees for B. Voc. (Food Processing Technology) would be as decided by the University.

Vocational Educational Programme Implementation Committee (VEPIC):

The Vocational Educational Programme Implementation Committee (VEPIC) will consist of the Principal as a Chairman, course coordinator and two faculty of the concern course/specialization as members. The Committee will monitor the smooth functioning and implementation of the B. Voc. program in Food Processing Technology.

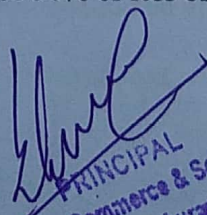
Choice Based Credit and Grading System (CBCS):

The choice based credit and grading system has been adopted. This provides flexibility to make the system more responsive to the changing needs of our students, the professionals and society. It gives greater freedom to students to determine their own pace of study.

- Students will have to earn 30 credits for the award of Six Month Certificate in Vocation in Food Processing Technology.
- Students will have to earn 60 credits for the award of one year Diploma in Vocation (D. Voc.) in Food Processing Technology.
- Students will have to earn 120 credits for the award of two year Advance Diploma in Vocation (Adv. D. Voc.) in Food Processing Technology.
- Students will have to earn 180 credits for the award of three year Bachelor Degree in Vocation (B. Voc.) in Food Processing Technology.

Credit-to-contact hour Mapping:

- One Credit would mean equivalent of 15 periods of 60 minutes each for theory lecture.
- For laboratory course/ workshops/internship/field work/project, the credit weightage for equivalent hours shall be 50% that for lectures.
- For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study should be 50% or less of that for lectures.


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Attendance:

Students must have 75 % of attendance in each course for appearing examination otherwise he / she will not be strictly allowed for appearing the examination of each course. However, students having 65 % attendance may request Head of the concerned Institution for the condonance of attendance on medical ground.

Evaluation Methods:-

The assessment will be based on Continuous Internal Assessment (CIA) and semester end examination (SEE).

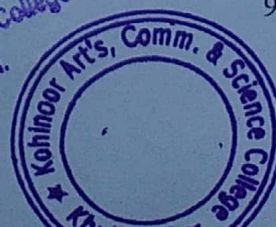
There shall Continuous Internal Assessment for each theory paper. In each semester, 20% (i.e. 15) marks shall be for CIA and 80% (i.e. 60) marks for ESE. Marks obtained by the student in all heads viz. CIA and ESE shall be added while declaring the final result.

Continuous Internal Assessment (CIA):- The internal marks shall be assigned on the basis of tutorials/home assignment/seminar presentation and weekly tests/class test/ preliminary examination to be conducted by the concerned college. These marks shall be communicated to the University before commencement of semester end examination.

End Semester Examination (ESE):

- The end semester examination for each theory and practical paper shall be conducted by the University at the end of each semester.
- Duration of theory examination shall be of three hours for a paper of 75 marks and two and half hour for a paper of 60/40marks. Practical examinations shall be of three hour duration for every semester end examinations respectively.
- The respective college is advised to arrange maximum number of experiments from the list of experiments provided with the syllabus or experiments based on theory syllabus.
- Assessment of laboratory courses and project will also have 50 % internal and 50 % semester end assessment. Semester end practical examination will be of 25 marks and 25 marks will be for internal examination. Student must perform at least eight experiments from each laboratory course. The semester end practical examination will be conducted at the end of each semester along with the theory examination.
- Students without certified journal shall not be allowed to appear for the practical examination.

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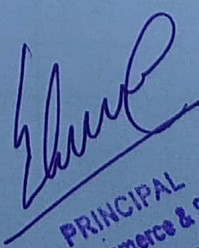


Examination Scheme

- A student shall be evaluated for his/her academic performance in a course through class tests, tutorials, practicals, homework assignments, term papers, field work, seminars, quizzes, Test examinations, teachers assessments and the End-Semester Examination as applicable.
- At the end of the semester, there would be an End Semester Examination as per syllabus. For the examination of First Year for the academic year 2016-2017, the minimum percentage for passing for each course code, practical examination and ESE is 40 %, failing which he/she will get F grade for that course code. This rule will be progressively applicable for higher classes in next consecutive years.
- The project work shall be evaluated by midterm seminar(s), quality of work carried out, project report submission and the viva-voce examinations.
- The industrial/field training shall be evaluated through the quality of work carried out, the report submission and presentation(s).

Rule for combined passing:

- To pass the examination a candidate must obtain minimum 40% of Marks in each End Semester Examination & CIA taken together, however the candidate must obtain minimum 35% of Marks at the End Semester Examination.
- To pass a subject where there is no provision of class test, the candidate must obtain 40% of Marks in the End Semester Examination.
- If the candidate remains absent for CIA, his performance should be treated as "Zero" Marks.


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Results Grievances / Redressal :-

Grievances / redressal committee will be constituted in the college to resolve all grievances relating to the evaluation. The committee shall consist of the Principal of the college, the concerned teacher of a particular course and senior faculty member. The decision of Grievances / redressal committee will have to be approved by Competent Authority.

Earning Credits:

At the end of every semester, a letter grade will be awarded in each course for which a student had registered. A student's performance will be measured by the number of credits that he/she earned by the weighted Grade Point Average (GPA). The SGPA (Semester Grade Point Average) will be awarded after completion of respective semester and the CGPA (Cumulative Grade Point Average) will be awarded by the university at the respective exit point.

Grading System:

- The grading reflects a student-own proficiency in the course. A ten point rating scale shall be used for the evaluation of the performance of the students to provide letter grade for each course and overall grade for the B. Voc. Program. Grade points are based on the total number of marks obtained by him / her in all heads of the examination of the course. The grade points and their equivalent range of marks are shown in Table-I

Table I: Ten point grade and grade description

Marks Obtained (%)	Grade Point	Letter Grade	Description
90-100	9.00- 10	O	Outstanding
80-89	8.00-8.90	A ⁺⁺	Exceptional
70-79	7.00-7.90	A ⁺	Excellent
60-69	6.00-6.90	A	Very Good
55-59	5.50-5.90	B ⁺	Good
50-54	5.00-5.40	B	Fair
45-49	4.50-4.90	C ⁺⁺	Average (Above)
41-44	4.1-4.49	C	Average
40	4.0	P	Pass
< 40	0.0	F	Fail (Unsatisfactory)
	0.0	AB	Absent

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- Non-appearance in any examination / assessment shall be treated as the students have secured zero marks in that subject examination / assessment.
- Minimum P grade (4.00 grade points) shall be the limit to clear / pass the course / subject. A student with F grade will be considered as "failed" in the concerned course and he / she has to clear the course by appearing in the next successive semester examinations. There will be no revaluation or recounting under this system.
- Every student shall be awarded grade points out of maximum 10 points in each subject (based on 10 point scale). Based on the grade points obtained in each subject, Semester Grade Point Average (SGPA) and then Cumulative Grade Point Average (CGPA) shall be computed. Results will be announced at the end of each semester and CGPA will be given at respective exit point.

Computation of SGPA (Semester Grade Point Average) and CGPA (Cumulative Grade Point Average)

Grade in each subject / course will be calculated based on the summation of marks obtained in all modules.

The computation of SGPA and CGPA will be as below

- Semester Grade Point Average (SGPA) is the weighted average points obtained by the students in a semester and will be computed as follows

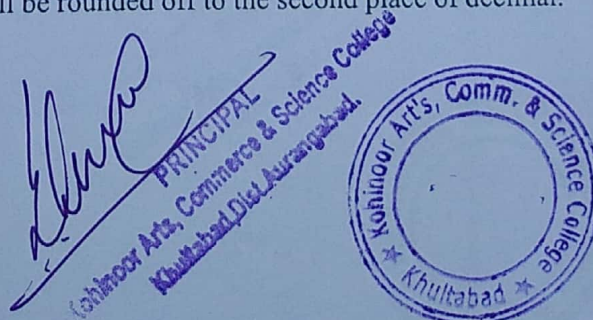
$$\text{SGPA} = \frac{\text{Sum (Course Credits) X Number of Grade Points in concerned Course Gained by the Student}}{\text{Sum (Course Credits)}}$$

The SGPA will be mentioned on the grade card at the end of every semester.

- The Cumulative Grade Point Average (CGPA) will be used to describe the overall performance of a student in all semester of the course and will be computed as under.

$$\text{CGPA} = \frac{\text{Sum (All six Semester SGPA)}}{\text{Total Number of Semester}}$$

The SGPA and CGPA shall be rounded off to the second place of decimal.



Grade Card

Results will be declared and the grade card (containing the grades obtained by the student along with SGPA) will be issued by the university after completion of every semester. The grade card will be consisting of following details.

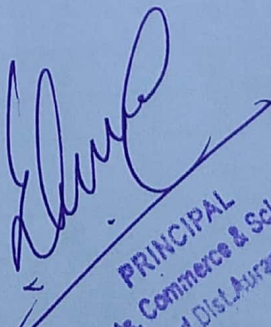
- Title of the courses along with code opted by the student.
- Credits associated with the course.
- Grades and grade points secured by the student.
- Total credits earned by the student in a particular semester.
- Total credits earned by the students till that semester.
- SGPA of the student.
- CGPA of the student (at respective exit point).

Cumulative Grade Card

The grade card showing details grades secured by the student in each subject in all semesters along with overall CGPA will be issued by the University at respective exit point.

Paper Code Description:

- The course offered by the university shall have an alphanumeric course code consisting of a string of six characters. The first three characters in a course code shall be capital letters identifying the responsible general component (BVG) and skill development components in Food Processing Technology (FPT) of the B. Voc. course. The next three numerical digits give the following information. The first digit specifies the first semester of first year of the UG course. Second and third digit specifies the serial number of the general and skill development component.


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Course Structure of F.Y. B. Voc. (Food Processing Technology)
B. Voc. Semester I & II

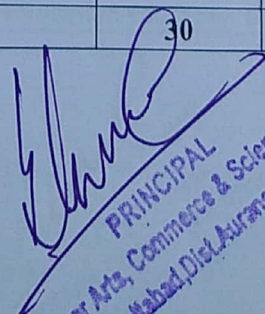
Semester-I				Marks		
Paper Code	Title	No. of credits	Hrs. /week	Internal (CIA)	External (ESE)	Total
	General Education Components					
BVG-101	Communication Skill-I	2	2	10	40	50
BVG-102	Environmental Science	2	2	10	40	50
BVG-103	Computer Fundamentals-I	2	2	10	40	50
BVG-104	Lab- Communication Skill -I	2	4	25	25	50
BVG-105	Lab- Environmental Science	2	4	25	25	50
BVG-106	Lab- Computer Fundamentals-I	2	4	25	25	50
	Skill Development Components					
FPT-111	General Biochemistry and Microbiology	3	3	15	60	75
FPT-112	Fundamentals of Food and Nutrition	3	3	15	60	75
FPT-113	Principles of food preservation	3	3	15	60	75
FPT-114	Lab- General Biochemistry and Microbiology	3	6	25	25	50
FPT-115	Lab- Fundamentals of Food and Nutrition	3	6	25	25	50
FPT-116	Lab- Principles of food Preservation	3	6	25	25	50
Total		30	45	225	450	675
Semester-II				Marks		
Paper Code	Title	No. of credits	Hrs. /week	Internal (CIA)	External (ESE)	Total
	General Education Components					
BVG-201	Communication Skill-II	2	2	10	40	50
BVG-202	Personality Development	2	2	10	40	50
BVG-203	Computer Fundamentals-II	2	2	10	40	50
BVG-204	Lab- Communication Skill- II	2	4	25	25	50
BVG-205	Lab- Personality Development	2	4	25	25	50
BVG-206	Lab- Computer Fundamentals-II	2	4	25	25	50
	Vocation Education Component					
FPT-211	Food Biochemistry	3	3	15	60	75
FPT-212	Food Microbiology	3	3	15	60	75
FPT-213	Processing Technology of Fruits & Vegetables	3	3	15	60	75
FPT-214	Lab- Food Biochemistry	3	6	25	25	50
FPT-215	Lab- Food Microbiology	3	6	25	25	50
FPT-216	Lab- Processing Technology of Fruits & Vegetables	3	6	25	25	50
Total		30	45	225	450	675

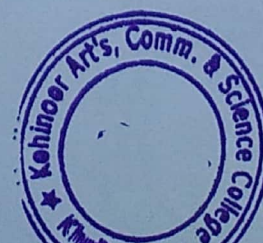
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**Teaching and Examination Scheme for
F. Y. B. Voc. (Food Processing Technology)**

Semester-I				Marks		
Paper Code	Title	No. of credits	Hrs. /week	Internal (CIA)	External (ESE)	Total
General Education Components						
BVG-101	Communication Skill-I	2	2	10	40	50
BVG-102	Environmental Science	2	2	10	40	50
BVG-103	Computer Fundamentals-I	2	2	10	40	50
BVG-104	Lab- Communication Skill -I	2	4	25	25	50
BVG-105	Lab- Environmental Science	2	4	25	25	50
BVG-106	Lab- Computer Fundamentals-I	2	4	25	25	50
Skill Development Components						
FPT-111	General Biochemistry and Microbiology	3	3	15	60	75
FPT-112	Fundamentals of Food and Nutrition	3	3	15	60	75
FPT-113	Principles of food preservation	3	3	15	60	75
FPT-114	Lab- General Biochemistry and Microbiology	3	6	25	25	50
FPT-115	Lab- Fundamentals of Food and Nutrition	3	6	25	25	50
FPT-116	Lab- Principles of food Preservation	3	6	25	25	50
Total		30	45	225	450	675
Semester-II				Marks		
Paper Code	Title	No. of credits	Hrs. /week	Internal (CIA)	External (ESE)	Total
General Education Components						
BVG-201	Communication Skill-II	2	2	10	40	50
BVG-202	Personality Development	2	2	10	40	50
BVG-203	Computer Fundamentals-II	2	2	10	40	50
BVG-204	Lab- Communication Skill- II	2	4	25	25	50
BVG-205	Lab- Personality Development	2	4	25	25	50
BVG-206	Lab- Computer Fundamentals-II	2	4	25	25	50
Vocation Education Component						
FPT-211	Food Biochemistry	3	3	15	60	75
FPT-212	Food Microbiology	3	3	15	60	75
FPT-213	Processing Technology of Fruits & Vegetables	3	3	15	60	75
FPT-214	Lab- Food Biochemistry	3	6	25	25	50
FPT-215	Lab- Food Microbiology	3	6	25	25	50
FPT-216	Lab- Processing Technology of Fruits & Vegetables	3	6	25	25	50
Total		30	45	225	450	675


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Course Structure for F. Y. B. Voc. (Food Processing Technology)

Code No	Subject Title	Credits
Semester-I		
General Education Components		
BVG-101	Communication Skill-I	2
BVG-102	Environmental Science	2
BVG-103	Computer Fundamentals-I	2
BVG-104	Lab- Communication Skill -I	2
BVG-105	Lab- Environmental Science	2
BVG-106	Lab- Computer Fundamentals-I	2
	Total credit (T+P)	12
Skill Development Components		
FPT-111	General Biochemistry and Microbiology	3
FPT-112	Fundamentals of Food and Nutrition	3
FPT-113	Principles of food preservation	3
FPT-114	Lab- General Biochemistry and Microbiology	3
FPT-115	Lab- Fundamentals of Food and Nutrition	3
FPT-116	Lab- Principles of food Preservation	3
	Total credit (T+P)	18
Total credits for Semester-I (General Education Component + Skill Development Component)		12+18=30
Semester-II		
General Education Components		
BVG-201	Communication Skill-II	2
BVG-202	Personality Development	2
BVG-203	Computer Fundamentals-II	2
BVG-204	Lab- Communication Skill- II	2
BVG-205	Lab- Personality Development	2
BVG-206	Lab- Computer Fundamentals-II	2
	Total credit (T+P)	12
Vocation Education Component		
FPT-211	Food Biochemistry	3
FPT-212	Food Microbiology	3
FPT-213	Processing Technology of Fruits & Vegetables	3
FPT-214	Lab- Food Biochemistry	3
FPT-215	Lab- Food Microbiology	3
FPT-216	Lab- Processing Technology of Fruits & Vegetables	3
	Total credit (T+P)	18
Total credits for Semester-II (General Education Component + Vocation Education Component)		12+18=30

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Semester-I BVG-101 Communication Skill -I

Credits- 2

Learning Objectives:

1. To facilitate the students to understand the fundamental of communicative English.
2. To facilitate the students to develop skills of communication in English.

Learning Outcomes:

1. Expression power and communication skill of the students in English will improve.
2. Students will be able to identify the necessities of behavioral and expressive attitudes as per situations.

Unit-I

Grammar:

- i. Parts of speech

Nouns, Kinds of Nouns, Pronoun, Verb, Adjectives Adverb, Prepositions, Conjunctions and Interjections

Unit-II

Tenses & Articles:

- i. Tenses

Present tense, Past tense, Future tense.

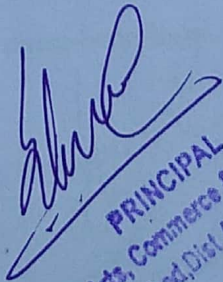
- ii. Articles

Use of A, An, The

Unit-III

Process of Communication:

- i. Attributes of Communication: Sender, Receiver, Medium, and Channel
Message Feedback.
- ii. Objectives of communication, why communication is necessary?
- iii. Communication in Business


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Reference Books:

1. Business Communication, by Urmila Rai & S. M. Rai. Himalaya Pub.
2. Communication Skill for Effective Management by Dr. Anjali Ghanekar. Everest Pub. House.
3. Developing Communication Skill by Krishna Mohan, Meera Banerji. McMillan

BVG 104: Practicals based on Communication Skills-I**Simple conversation**

- Meeting people, pictorial conversation, identifying objects, handling situation. Vocabulary building Conversation with seniors and peers.

BVG-102 Environmental Science**Credits-2****Learning objectives:**

1. As we aware, the world environmental problems, students should acquaint basic knowledge of environment and its components.
2. To solve the environmental problems, it is necessary to develop and invent new advanced technologies to control environmental pollution.

Learning Outcomes:

Student will possess the intellectual flexibility necessary to view environmental question from multiple perspectives, prepared to alter their understanding as they learn new ways of understanding.

Unit-I**Multidisciplinary nature of environmental studies**

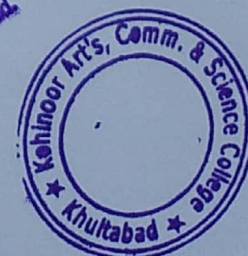
Definition, scope and importance, need for public awareness.

Natural Resources: Renewable and non-renewable resources:

Natural resources and associated problems

- i. Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
- ii. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

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- iii. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- iv. Food resources: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- v. Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources, Case studies.
- vi. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
- vii. Role of an individual in conservation of natural resources.
- viii. Equitable use of resources for sustainable lifestyles.

Unit-II

Ecosystems: • Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introduction, types, characteristic features, structure and function of the following ecosystems :- a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Biodiversity and its conservation : Introduction – Definition : genetic, species and ecosystem diversity, Biogeographically classification of India , Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, National and local levels, India as a mega-diversity nation, Hot-spots of biodiversity, Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India, Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

Environmental Pollution: Definition, Cause, effects and control measures Of: - a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution, Pollution case studies, Disaster management: floods, earthquake, cyclone and landslides.

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Unit-III

Social Issues and the Environment: From Unsustainable to Sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management, Resettlement and rehabilitation of people; its problems and concerns. Case Studies, Environmental ethics: Issues and possible solutions, Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies, Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness.

Human Population and the Environment: Population growth, variation among nations, Population explosion – Family Welfare Programme, Environment and human health, Human Rights, Value Education, HIV/AIDS, Women and Child Welfare, Role of Information Technology in Environment and human health, Case Studies.

Field work

- i. Visit to a local area to document environmental assets river/ forest/grassland/hill/mountain.
- ii. Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.
- iii. Study of common plants, insects, birds.
- iv. Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours)

Reference Books:

1. Agarwal, K.C. (2001). Environmental Biology, Nidi Publ. Ltd. Bikaner.
2. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad –380 013, India, Email:mapin@icenet.net (R)
3. Brunner R.C. (1989), Hazardous Waste Incineration, McGraw Hill Inc. 480p
4. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
5. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
6. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
7. Down to Earth, Centre for Science and Environment (R)
8. Gleick, H.P. (1993). Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
9. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
10. Heywood, V.H & Waston, R.T. (1995). Global Biodiversity Assessment. Cambridge Univ. Press 1140p.

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BVG 105: Assignments based on Environmental Science**BVG-103 Computer Fundamentals-I****Credits- 2****Learning Objectives:**

1. To facilitate the students to study Instructional Designing theories, basic IT skills using application software tools.
2. To facilitate the students to make functional use of IT skills in teaching – learning process.

Learning Outcomes:

1. Students will have command on basic IT skills
2. Students will be able to use computer and internet facilities for their academic and holistic development purpose

Unit-I

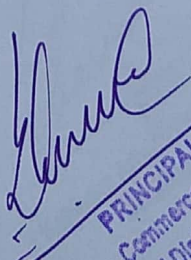
Information Concepts and Processing: Evolution of information processing, Data, Information language and communication. Elements of a computer processing system: Hardware-CPU, storage devices and media. VDU, Input-output devices, data communication equipment. Software-System software, Application software.

Operating Systems: Concept as resource manager and coordinator of processor, devices and memory. Command interpreter, typical commands of DOS/ UNIX/ Netware, GUI-Windows.

Computers and Communication: Single user, multi-user, workstation, and client server systems. Computer networks, Network protocols. LAN, WAN, Services offered by Internet.

Unit-II

Problem analysis, flow charts, decision tables & algorithms. Algorithmic Programming Language: Representation of integers, characters, constants and variables, arithmetic expressions and their evaluation using rules of hierarchy. Assignment statements, logical constants, variables and expression.


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Unit-III

Control structures—sequencing, alteration, iteration, arrays, manipulating vector and matrix. Subroutines and linkage. Data management. Sample I/O statements, Documentation, Debugging. Examples illustrating structured program development methodology. C should be used as the teaching language.

Reference Books:

1. Fundamentals of Information Technology by Chetan Srivastava, Kalyani Publishers
2. Fundamentals of Computers by V. Rajaraman, PHI Publication, IVth Edition.
3. Fundamentals of Programming by Raj K. Jain, S. Chand Publication
4. Let Us C by Yashwant Kanitkar
5. Programming with C - 2nd Edition - Byron Gottfried

BVG 106: Practical Assignments Based on Computer Fundamentals-I.**Skill Development Components:****Semester –I****FPT – 111: General Biochemistry and Microbiology****Credit: 3****Learning Objectives:**

1. To learn and understand the chemistry with respect to role and functionality of constituents of the food.
2. Students will develop knowledge and understanding of different food microorganisms and know different techniques used to detect microorganisms.

Learning Outcome:

1. Student will able to understand basic chemistry of carbohydrates, lipids and proteins.
2. Student will enable to know the basics of microbiology.

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Unit-I Carbohydrates

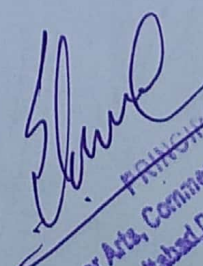
- i. Definition and classification.
- ii. Properties –optical and chemical.
- iii. Structure of glucose: ring structure, Haworth & fisher's projection, pyranoses, furanoses, isomers, mutarotation.
- iv. Triose, pentose, hexose, heptoses - examples & structures.
- v. Derived monosaccharides: glycosides, furano acids, sugar phosphates, uronic acids, sugar alcohol.
- vi. Disaccharides, glycoside linkage, lactose, maltose, sucrose.
- vii. Oligosaccharides – Trisaccharides, structure of raffinose.
- viii. Polysaccharides – Homo and heteropoly saccharides, structures starch, cellulose, mucopolysaccharides.
- ix. Biological significance

Unit-II Lipids

- i. Classification simple compounds.
- ii. Chemistry of fatty acids, unsaturated and saturated fatty acids, triglycerides, saponification alkyl ether phospho glycerides, sterols, cholesterol, prostaglandins, glycol lipids.
- iii. Functions of lipid.

Proteins

- i. Classification based on properties of solubility & heat. coagulability. Fibrous, globular proteins and functions.
- ii. Protein structures: conformation and configuration, primary structure determination, secondary structure α - helix & β -pleated sheet, tertiary & quaternary structure.
- iii. Classification of amino acids: based on acid – base properties.
- iv. Properties of amino acids – solubility, ampholyte, Zwitterions isoelectric pH.
- v. Peptide bonds – Concepts of biological peptide bond formation, types.
- vi. Enzymes – Concepts, definition, nature, active site, properties, physico-chemical factors contributing to catalytic efficiency of enzymes.


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Unit-III

Nucleic acids

- i. Structure of nitrogen bases & base pairing.
- ii. Structure of nucleosides & nucleotides, ribose, deoxyribosesugars.
- iii. DNA: properties, forms, structure, function as genetic material. Types of DNA
- iv. RNA : Structure, function, types (r-RNA, m-RNA, t-RNA)
- v. Comparative account of DNA & RNA.

PH & buffers - pH titration curve, PK value.

Unit-IV

Introduction and Scope of Microbiology: Definition and history of microbiology, contributions of Antony van Leeuwenhoek, Louis Pasteur, Robert Koch, importance and scope of microbiology.

Microscope: Construction and working principles of different types of microscopes- compound, dark field, Phase contrast, Fluorescence and Electron (Scanning and transmission).

Unit-V

Sterilization: Principles and Applications of (a) Physical Methods- Autoclave, Hot air oven, Laminar airflow, Seitz filter, Sintered glass filter, Membrane filter, (b) Chemical methods- Alcohol, Aldehydes, Phenols, Halogens, Gaseous agents and (c) radiation methods- UV rays, Gamma rays.

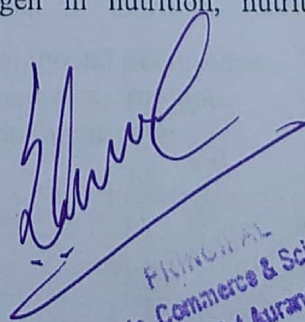
Staining techniques: Principle and types of staining

Microbial Taxonomy: Concept of microbial species and strains, prokaryotes and eukaryotes, classification of bacteria based on- (a) morphology (shape and flagella), (b) staining reaction, (c) nutrition and (d) extreme environment.

Unit-VI

General Account of Viruses and Bacteria: Bacteria – ultrastructure of bacterial cell (both Gram positive and Gram negative) including, endospore and capsule. Viruses- Structure and classification

Principles of Microbial Nutrition: the requirements for carbon, nitrogen, sulfur growth factors etc, role of oxygen in nutrition, nutritional categories among microorganisms.



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Microbial growth: Kinetics of microbial growth, growth curve synchronous growth, factors affecting bacterial growth.

Reference Books for Biochemistry:

1. Lehninger: Principles of Biochemistry, 4th edition, by David L. Nelson and M.M. Cox (2005) Maxmillan/Worth publishers/W.H. Freeman and Company.
2. Biochemistry, 2nd edition by R.H Garrett and C. M. Grisham (1999). Saunders College Publishing, N. Y. Sons, NY.
3. Biochemistry (2004) by J. David Rawn, Panima Publishing Corporation, New Delhi.
4. Biochemistry, 4th edition, by L. Stryer(1995). W.H. Freeman and Co. NY.
5. Fundamental of Biochemistry, 2nd ed., by Donald Voet, Judith G. Voet and Charlotte W. Pratt(2006), John Wiley and Sons, INC.

Reference Books for Microbiology:

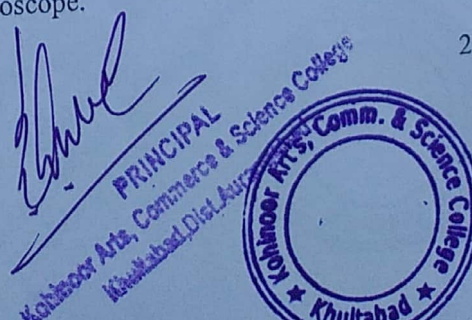
1. Atlas, R.M. (1998) Microbiology: Fundamental and applications, 2nd edition, Macmillan Publishing Company, New York.
2. Pelezar, M.J., Chan, E. G. S. and Krieg, N.R. (1999) Microbiology.
3. Heritage, J., Evance, E.G.V. and Killington, R.A. (1999) Microbiology in action, Cambridge University Press.
4. Prescott, L.M., Harley, J.P. and Klein, D.A. (1999) Microbiology, W.C.B. Oxford.

FPT – 114: Lab. - General Biochemistry and Microbiology

Credit: 3

1. Qualitative tests for:
 - i. Carbohydrates – Benedict's test.
 - ii. Protein – Biuret test.
 - iii. Nucleic acid – Diphenylamine(DNA) and orcinol (RNA)tests
2. Preparation of various solutions and buffers.
3. Qualitative identification of proteins / amino acids
4. Determination of crude lipids, physicochemical constants.
5. To measure pH and Temperature of given sample.
6. Microscopy:
 - i. Different parts of a compound microscope.
 - ii. Use and care of compound microscope.
 - iii. Visit to see an electron microscope.

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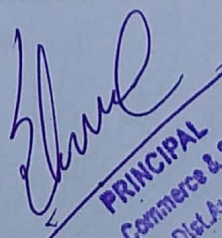
7. Construction, operation and utility of laboratory equipments
 - i. Autoclave
 - ii. Hot air oven
 - iii. Incubator
 - iv. pH meter
 - v. High speed centrifuge
 - vi. Colorimeter/ spectrophotometer
 - vii. Anaerobic jar
 - viii. Bacterial Filters
 - ix. Laminar air flow.
8. Demonstration of presence of bacteria from – soil/ water/ air/ milk
9. Demonstration of yeast, fungi, actinomycetes, algae, protozoa etc.
10. Microscopic examination of bacteria:
 - i. Monochrome staining
 - ii. Negative Staining
 - iii. Gram's staining
11. Hanging drop technique to demonstrate bacterial motility
12. Micrometry

FPT – 112: Fundamental of Food and Nutrition**Credit: 3****Learning Objective:**

1. Student will enable to understand the importance of nutrient in our daily diet.
2. Student will enable to formulate nutritionally enriched food products as per the requirement.

Learning Outcome:

1. To develop proficiency skill in producing different nutritious food products.
2. Operating & management of balanced diets for different age groups
3. Make different processed food products with quality assurance.
4. Assessment of nutritional status of the women and children


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Unit-I

Basic concept of Food: Nutrient, Nutrition, Classification of Food, Classification of Nutrients.

Food constituents - Definition, occurrence, properties and metabolism of Protein, Carbohydrate and Lipids.

Unit- II

Enzymes - Definition, classification, enzyme kinetics.

Browning reactions in foods:

- i. Non enzymic browning: Maillard reaction, browning of ascorbic acid, caramelization of sugars.
- ii. Enzymic browning: Definition, mechanism, control measures.

Unit-III

Biochemical changes in foods of plant and animal origin: fruits, vegetables, cereals, pulses, oilseeds, meat, poultry, seafood, dairy and their products)

Unit-IV

Concept of food and nutrition - Elements of nutrition, Food groups and role of nutrients. Energy metabolism - BMR

Unit-V

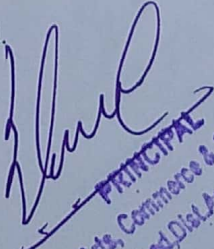
Recommended dietary allowances, Balanced diet for different age groups (Infancy to old age).

Unit- VI

Malnutrition-Causes, types, symptoms and prevention, Assessment of nutritional status of the community, National nutrition policy

Reference Books:

1. Biochemistry of Foods:- N.A.M. Eskin, H.M. Henderson, R. J. Townsend.
2. Introduction to the Biochemistry of Foods: Z. Berk.
3. Industrial Enzymes: Structure, Function and Applications - Julio Polaina and Andrew P. MacCabe.
4. Food and Nutrition: - M. Swaminathan.
5. Human Nutrition: - S. Mudambi.


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FPT – 115: Lab. - Fundamentals of Food and Nutrition

Credit: 03

1. Qualitative identification of carbohydrates.
2. Estimations of amino acids in foods.
3. Qualitative identification of lipids.
4. Qualitative & quantitative determination of vitamins.
5. Determination of auto oxidative rancidity of fat and oils.
6. Calculation of BMR and body surface area
7. Calculation of energy value of food.
8. Planning and calculation of nutritive value of balanced diet for different age groups.
9. Assessment of nutritional status of an individual by anthropometric method and diet survey.
10. Enrichment and fortification of daily diet.
11. Computation of energy requirement on the basis of physical activity
12. ACU units.

FPT – 113: Principles of Food Preservation

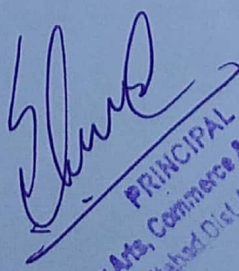
Credit: 3

Learning Objective:

To acquaint the students with fundamental principles and various techniques of food preservation.

Learning Outcome:

1. Student will enable to understand different food preservation techniques, process.
2. Student will enable to extend shelf life of different food product by using the various methods of food preservation.


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Unit-II

Unit-III

Unit-IV

Unit-V

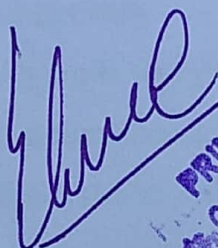
Unit-VI

food quality.



Reference Books:

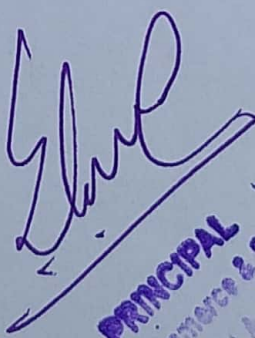
1. Food Processing and Preservation- Subbulaksmi G., and Udipi S.
2. Principles of Food Science, Vol. II- G. Borgstron, Mc. Millan Co. Ltd. London.
3. Principles of food preservation Part I& II- Owen R. Fenemma.
4. Food Science- Potter, CBS publishers.
5. Technology of Food Preservation - N.W. Desroiser and N.W. Desrosier
6. Introduction to Food Science & Technology- G.P. Stewart & M.A. Amerine
7. Food Processing Operations Vol. III -M.A. Joslyn and J.J. Heild.
8. Preservation of Fruits and Vegetables- Giridhari Lal, G.S. Siddappa, and G.L. Tondon


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FPT – 116: Lab. - Principles of Food Preservation

Credit: 03

1. Demonstration of various machineries used in food processing.
2. Demonstration on effect of blanching on quality of foods.
3. Demonstration on canning and bottling of fruits and vegetables.
4. Preservation of food by high concentration of sugar i.e. preparation of jam
5. Preservation of food by using salt e.g. Pickle
6. Preservation of food by using acidulants i.e. pickling by acid, vinegar or acetic acid
7. Preservation of food by using chemicals.
8. Preservation of coconut shreds using humectants.
9. Drying of fruit slices in cabinet drier
10. Demonstration on drying of green leafy vegetables
11. Osmotic dehydration of foods e.g. candy
12. Drying of foods using freeze-drying & spray drying process.
13. Preservation of milk by condensation/concentration.
14. Demonstration of preserving foods under cold v/s freezing process.
15. Preservation of food by fermentation (Sauerkraut, idli, tempeh, curd, dhokla etc.)
16. Visit to any food processing industry/unit.


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Academic Year 2018-19

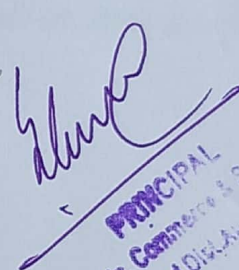
Name of the course: B.Voc. Certificate Course in Multimedia and Animation

Duration of the course 6 months



List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Syyed Faizunllah	F.Y	faizunllah syyed
2	Sheikh Sufyan Rashid	F.Y	Sufyan


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Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
Mk education campus

Kohinoor Arts Commerce & Science College Khulatabad

Tq. Khulatabad dist. Aurangabad



THIS CERTIFICATE IS AWARDED TO

MR/MISS

COMMERCE AND SCIENCE, KHULTABAD STUDIED IN BVOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

"MULTIMEDIA & ANIMATION"

IN ACADEMIC YEAR

WITH GRADE POINT

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDKAR UNIVERSITY AURANGABAD.

PRINCIPAL

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD


Vice Principal

Kohinoor Art's Commerce & Science College
Khulatabad Dist. Aurangabad.

COURSE COORDINATER

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD





Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)

M.K. Education Campus,

Kohinoor Arts, Commerce & Science College Khultabad

Tq. Khultabad Dist. Aurangabad.

Pincode - 431 101 Maharashtra (INDIA)

(A Minority Institution)

(NAAC Accredited B+)

Dr. (Adv.) Mohd Mazhar A. Khan
President

M.A., Ph.D., L.L.B.

Prof. Dr. Shankar Ambhore
Principal

M.A., Ph.D. (Economics)

Mobile : 9422215556

Phone : 02437 - 241782 Website : www.kacsck.com E-mail :- kckadm@gmail.com / kohinoorcollege@yahoo.in

Ref.No.: K.A.C.S.C.K./ 2023-24/8482

Date : 22/03/2024

1.2.1 Assessment procedure for the year 2018-19 to 2022-23

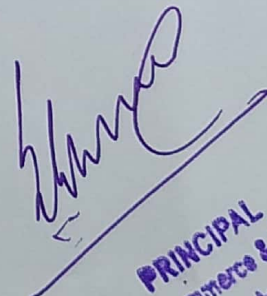
Name of the course: Certificate Course in Multimedia & Animation (B.Voc.)

This is to justify that the students who have completed 6 months course in **Multimedia & Animation** and discontinued the course such students are awarded with one year certificate course. The examination schedule of B.Voc.is decided by the College under the time to time guidance of the Dr. BAMU. After completion of the examination, assessment of answer book is to be done in the College. Assessment is Outcomes based and fully transparent.

Students can freely contact the College B.voc. Coordinator or concerned Examination Coordination unit of the college.

For the present courses the Practical work is required to be completed before the student appears for the final Examination.




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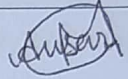
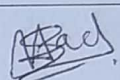
KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2019-20

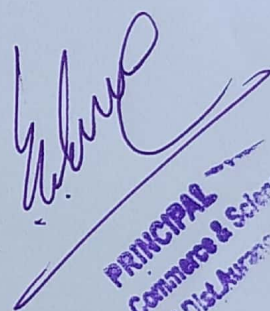
Name of the course: B.Voc. Certificate course in Food Processing and Food technology

Duration of the course: 6 Month.

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Shaikh Ansar Mahamad	F.Y	
2	Shaikh Asad Suleman	F.Y	




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Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
Mk education campus
Kohinoor Arts Commerce & Science College Khulatabad
Tq. Khulatabad dist. Aurangabad

CERTIFICATE

THIS CERTIFICATE IS AWARDED TO

MR/MISS _____ OF KOHINOOR COLLEGE OF ARTS

COMMERCE AND SCIENCE, KHULTABAD STUDIED IN B.VOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

"FOOD PROCESSING TECHNOLOGY"

IN ACADEMIC YEAR _____ WITH GRADE POINT _____
ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDKAR UNIVERSITY AURANGABAD.

PRINCIPAL
KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

(Signature)
Vice Principal

Kohinoor Arts Commerce & Science College
Khulatabad Dist. Aurangabad.

COURSE COORDINATER
KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD



KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2019-20

Name of the course: B.Voc. Certificate Course in Multimedia and Animation



Duration of the course: 6 month

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Chauhan Akash Ramesh	F.Y	
2	Khan Aqeel Aziz	F.Y	
3	Shaikh Azhar Umar	F.Y	
4	Shaikh Yaser Shaikh	F.Y	
5	Shaikh Zubair	F.Y	

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Khulabad, Dist. Aurangabad.



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Tq. Khultabad dist. Aurangabad



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COMMERCE AND SCIENCE, KHULTABAD STUDIED IN BVOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

"MULTIMEDIA & ANIMATION"

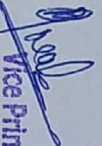
IN ACADEMIC YEAR

WITH GRADE POINT

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDKAR UNIVERSITY AURANGABAD.

PRINCIPAL

KOHINOOR COLLEGE OF ARTS
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Vice Principal

Kohinoor Arts Commerce & Science College
Khultabad Dist. Aurangabad.

COURSE COORDINATER

KOHINOOR COLLEGE OF ARTS
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KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2019-20

Name of the course: B.Voc. Certificate Course in Hospitality and Tourism

Duration of the course: 6 month

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Shaikh Nadeen	F.Y	Nadeen
2	Thakur Kishan Singh	F.Y	Thakur



[Signature]
PRINCIPAL
Kohinoor Arts, Commerce & Science College
Khulatabad Dist. Aurangabad.



Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
Mk education campus
Tq. Khulatabad dist. Aurangabad

Kohinoor Arts Commerce & Science College Khulatabad



सत्यमेव जयते



CERTIFICATE

THIS CERTIFICATE IS AWARDED TO

Shaiikh Madhum

OF KOHINOOR COLLEGE OF ARTS

MR/MISS

COMMERCE AND SCIENCE, KHULTABAD STUDIED IN BVOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

"HOSPITALITY AND TOURISM"

IN ACADEMIC YEAR 2019-20 WITH GRADE POINT

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDKAR UNIVERSITY AURANGABAD.

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KOHINOOR COLLEGE OF ARTS
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Vice Principal

Kohinoor Arts Commerce & Science College
Khulatabad Dist. Aurangabad.

COURSE COORDINATER

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TQ. KHULTABAD DIST. AURANGABAD



Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
M.K. Education Campus,
Kohinoor Arts, Commerce & Science College Khultabad
Tq. Khultabad Dist. Aurangabad.
Pincode - 431 101 Maharashtra (INDIA)
(A Minority Institution) (NAAC Accredited B+)

Dr. (Adv.) Mohd Mazhar A. Khan
President
M.A., Ph.D., L.L.B.

Prof. Dr. Shankar Ambhore
Principal
M.A., Ph.D. (Economics)
Mobile : 9422215556

Phone : 02437 - 241782 Website : www.kacsck.com E-mail :- kckadm@gmail.com / kohinoorcollege@yahoo.in

Ref.No.: K.A.C.S.C.K./ 2023-24/8484

Date :

1.2.1 Assessment procedure for the year 2019-20 to 2022-23

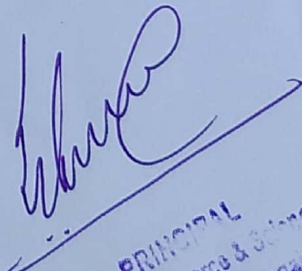
Name of the course: Certificate Course in Hospitality & Tourism (B.Voc.)

This is to justify that the students who have completed 6 months course in **Hospitality & Tourism** and discontinued the course such students are awarded with one year certificate course. The examination schedule of B.Voc.is decided by the College under the time to time guidance of the Dr. BAMU. After completion of the examination, assessment of answer book is to be done in the College. Assessment is Outcomes based and fully transparent.

Students can freely contact the College B.voc. Coordinator or concerned Examination Coordination unit of the college.

For the present courses the Practical work is required to be completed before the student appears for the final Examination.




PRINCIPAL
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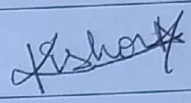
KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2019-20

Name of the course: B.Voc. Certificate Course in Organic Agriculture

Duration of the course: 6 months

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Ban Kishor Lakman	F.Y	




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Kohinoor Arts Commerce & Science College Khultabad

CERTIFICATE

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"ORGANIC AGRICULTURE"

IN ACADEMIC YEAR

WITH GRADE POINT

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDKAR UNIVERSITY AURANGABAD.

PRINCIPAL

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

COURSE COORDINATER

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

Signature of Principal

Kohinoor Arts Commerce & Science College
Khultabad Dist. Aurangabad.





Kohinoor Arts, Commerce & Science College Khultabad

Tq. Khultabad Dist. Aurangabad.

Pincode - 431 101 Maharashtra (INDIA)
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Phone : 02437 - 241782 Website : www.kacsck.com E-mail :- kckadm@gmail.com / kohinoorcollege@yahoo.in

Ref.No.: K.A.C.S.C.K./ 2023 24/ 8485

Date : 22/03/2024

1.2.1 Assessment procedure for the year 2019-20 to 2022-23

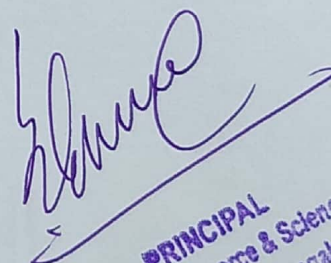
Name of the course: Certificate Course in Organic Agriculture (B.Voc.)

This is to justify that the students who have completed 6 months course in **Organic Agriculture** and discontinued the course such students are awarded with one year certificate course. The examination schedule of B.Voc. is decided by the College under the time to time guidance of the Dr. BAMU. After completion of the examination, assessment of answer book is to be done in the College. Assessment is Outcomes based and fully transparent.

Students can freely contact the College B.voc. Coordinator or concerned Examination Coordination unit of the college.

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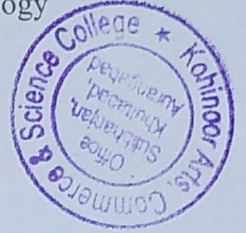

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Khultabad, Dist. Aurangabad.

KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2020-21

Name of the course: B.Voc. Certificate Course in Food Processing and Food Technology

Duration of the course: 6 Months



List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Mohd Amanuddin Rafique	F.Y	
2	Sayyed Shoeb babulrah	F.Y	

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Kohinoor Arts Commerce & Science College Khulatabad



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COMMERCE AND SCIENCE, KHULTABAD STUDIED IN BVOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

OF KOHINOOR COLLEGE OF ARTS

"FOOD PROCESSING TECHNOLOGY"

IN ACADEMIC YEAR WITH GRADE POINT
ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBARKAR UNIVERSITY AURANGABAD.

PRINCIPAL

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD


Vice Principal

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Khulatabad Dist. Aurangabad.

COURSE COORDINATOR

KOHINOOR COLLEGE OF ARTS
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TQ. KHULTABAD DIST. AURANGABAD



KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2020-21

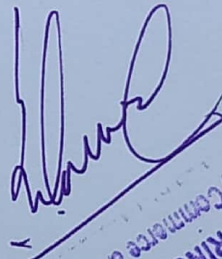
Name of the course: B.Voc. Certificate Course in Organic Agriculture

Duration of the course: 6 months

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Rahad Naunath Babwara	F.Y	R.Naunath




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"ORGANIC AGRICULTURE"

IN ACADEMIC YEAR

WITH GRADE POINT

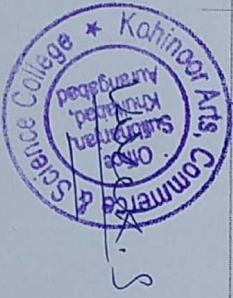
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KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD



Office Principal
Kohinoor Arts Commerce & Science College
Khulatabad Dist. Aurangabad.

Handwritten signature

KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2021-22

Name of the course: B.Voc. Certificate Course in Multimedia and Animation

Duration of the course: 6 month



List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Bhongane Shatrugan	F.Y	
2	Jadhav nishal	F.Y	
3	Kale Ravindra	F.Y	
4	Vakhre vikas	F.Y	

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Kohinoor Shikshan Sanstha, Aurangabad, Maharashtra (India)
Mk. education campus

Kohinoor Arts Commerce & Science College Khulatabad

Tq. Khulatabad dist. Aurangabad

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COMMERCE AND SCIENCE, KHULTABAD STUDIED IN B.VOC FIRST YEAR HAS SUCCESSFULLY COMPLETED THE 6 MONTH CERTIFICATE COURSE IN

"MULTIMEDIA & ANIMATION"

IN ACADEMIC YEAR _____ WITH GRADE POINT _____

ON BEHALF OF UNIVERSITY GRANTS COMMISSION, NEW DELHI & DR. BABA SAHEB AMBDEKAR UNIVERSITY AURANGABAD.

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KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

PRINCIPAL

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Khulatabad Dist. Aurangabad.

COURSE COORDINATER
KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD



KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2021-22

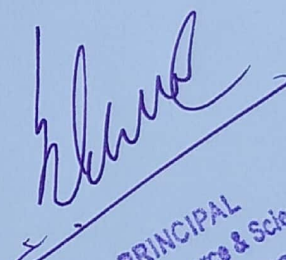
Name of the course: B.Voc. Certificate Course in Organic Agriculture

Duration of the course: 6 months

List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Jadhav Aditya	F.Y	Jadhav Aditya
2	Sayed Inayat Alauddin	F.Y	Inayat




PRINCIPAL
Kohinoor Arts, Commerce & Science College
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KOHINOOR COLLEGE OF ARTS
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COURSE COORDINATOR

KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
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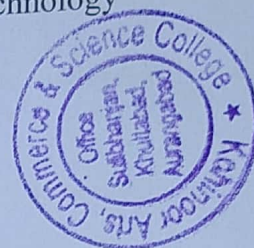


KOHINOOR ARTS COMMERCE AND SCIENCE COLLEGE KHULTABAD

Academic Year 2022-23

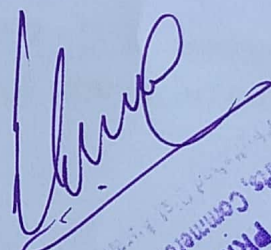
Name of the course: B.Voc. Certificate Course in Food Processing and Food Technology

Duration of the course: 6 month



List of the Students

Sr. No.	Name of the Students	Class	Signature
1	Rathod Naumath Subash	1 st year	Td 6/12/23 Subash


PRINCIPAL
Kohinoor Arts, Commerce & Science College
Khulatabad



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CERTIFICATE

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MR/MISS Ratnod Navnath Subnash

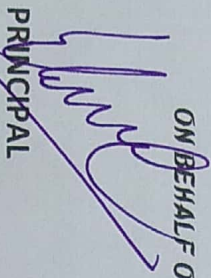
OF KOHINOOR COLLEGE OF ARTS

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IN ACADEMIC YEAR 2022-23 WITH GRADE POINT

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PRINCIPAL

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KOHINOOR COLLEGE OF ARTS
COMMERCE AND SCIENCE
TQ. KHULTABAD DIST. AURANGABAD

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY



CIRCULAR NO.SU/Sci.& Tech./B.Voc./16/2019



It is hereby inform to all concerned that, on the recommendation of the Dean, Faculty of Science & Technology the **Academic Council at its meeting held on 01-10-2019 has accepted following curriculum under B.Voc. programme viz: Certificate, Diploma, Advanced Diploma and B.Voc.** as appended herewith:

1.	B.Voc. Food Processing Technology under the Faculty of Science & Technology.
2.	B.Voc. Refrigeration and Air Conditioning under the Faculty of Science & Technology.
3.	B.Voc. Multimedia and Animation under the Faculty of Science & Technology.
4.	B.Voc. Organic Agriculture under the Faculty of Science & Technology
5.	B.Voc. Hospitality and Tourism under the Faculty of Commerce & Management.

This is effective from the Academic Year 2019-2020 and onwards.

This curriculum are also available on the University website www.bamu.ac.in

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.

Ref.No. SU/B.Voc/2018/ 4255

Date:- 16-10-2019

★
★
★
★
★


Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges,**
Dr. Babasaheb Ambedkar Marathwada University.
- 2] **The Director, University Network & Information Centre, UNIC,**
with a request to upload this Circular on University Website.

Copy to :-

- 1] The Director, Board of Examinations & Evaluation, Dr.BAMU,A'bad.
- 2] The Co-ordinator, [B.Voc. Unit] Examination Branch,
- 3] The, Section Officer, [Eligibility Unit], Dr.BAMU,A'bad.
- 4] The Programmer [Computer Unit-1] Examinations, Dr.BAMU,A'bad.
- 5] The Programmer [Computer Unit-2] Examinations, Dr.BAMU,A'bad.
- 6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
- 7] The Public Relation Officer, Dr.BAMU,A'bad.
- 8] The Record Keeper. Dr.BAMU,A'bad.

DR.BABASAHEB AMBEDKAR MARATHWADA
UNIVERSITY, AURANGABAD



CURRICULUM BACHELOR OF VOCATIONAL COURSE

B.VOC. MULTIMEDIA & ANIMATION

Semester – I

Run at college level from the

Academic year 2019-2020



Sr. No.	Course Code	Name of the Course	Contact Hours Per Week		Evaluation Scheme		Credit
			L	P	CIA	SEE	
Semester-I		General Academic Components					
1	VOC 101	Functional English	4	0	20	80	4
2	VOC 102	Computer Skills	1	2	10	40	2
3	VOC 103	Generic Skill-I- (Elements of information Technology)	4	0	20	80	4
4	VOC 104	Skill Specific Organization Practices- Organizational Behavior	2	0	10	40	2
Semester-I		Skill Development Components					
5	VOC 111	Graphic Designing-I	4	0	20	80	4
6	VOC 112	Script Researcher-II	4	0	20	80	4
7	VOC 113	2D Animation-III	4	0	20	80	4
8	VOC 121	Lab Course-I-Graphic Designing-I	0	4	0	50	2
9	VOC 122	Lab Course -II - Script Researcher-II	0	4	25	25	2
10	VOC 123	Lab Course -III- 2D Animation-III	0	4	25	25	2
Total			23	14	195	580	30

Semester –I

General Education Components



VOC-101: Functional English

(4 Credits: 100 Marks)

Learning Objectives

To provide students with fundamental backgrounds of communicative English.

Course Outcomes

On completion of the course, students should be able to –

- 1 Apply Grammatical tools to formulate correct sentences in English.
- 2 Apply concept of tenses to formulate correct sentences in English.
- 3 Formulate different types of dialogues, expression of ideas/information in English
- 4 Compose applications, reports, requests, responses, summary and comprehensions in English

Course Contents

Unit1: Functional Grammar Elements

(12Hrs)

Recapitulation of Grammar – Noun, Verb (Classifications), Infinitive and Gerunds, Auxiliaries and Modals, Passivity, Conditionals, Concord, Articles, Conjunction, Prepositions, Pronouns, Adverbs; Active and Passive Voice; Question Tag

Unit2:Tenses

(12Hrs)

Present Tense, Past Tense, Future Tense (all four types to be included in each)

Unit3: Sentence Formation

(12Hrs)

Types of Sentences – Simple, Complex, Compound; Phrases; Clauses; Synthesis of Sentences; Transformation of Sentences; Direct and Indirect Speech

Unit 4: Basic Verbal Communications

(12Hrs)

Introducing yourself (The communicator); Introducing people to others; Giving personal information; Getting people's attention and interrupting; Giving instructions and seeking clarifications; Making requests and responding to requests

Unit 5: Basic Writing Skill

(12Hrs)

Writing Notices; Drafting Agendas; Writing minutes; Note taking; Writing applications for various

jobs, referring to theads.; Writing summary; Writing advertisements



References:

Text:

1. High School Grammar and Composition; Wren and Martin; Fifteenth Edition; Blackie Elt Books; India; ISBN- 978-81-219-0009-6
2. Synergy: Communication in English and Study Skills; Board of Ed.; 2008; Orient Blackswan; India ISBN- 978-81-250-3577-0
3. Business Communicator – V.K. Jain, O. P. Biyani, S. Chand, New Delhi.

Suggested Reading:

1. Macmillan Foundation English – R. K. Dwivedi, A. Kumar: Macmillan India Ltd. 2001
2. The Art of Powerful Communication – Dinesh K. Vohra, Are Maria Publications, Pune

VOC-102: Computer Skills
(1 Credit Theory + 1 Credit Practical: 50 Marks)



Learning Objectives

1. To facilitate the students to study basic computer skills using application software tools.
2. To facilitate the students to make functional use of computer skills in teaching – learning and day to day occupational necessities.

Course Outcomes

On completion of the course, students should be able to –

1. Extend the knowledge of basic and advanced tools of Word Processing, Spreadsheet, Presentation Graphics, DBMS, and Internet in MS-Office for specific tasks
2. Apply Word Processing tools to create Notice, Application
3. Use Spreadsheet tools to create and manage attendance sheets
4. Demonstrate Presentation Graphic tools to create, modify and refine presentation
5. Implement DBMS tools to create/modify tables/forms, reports
6. Apply search engines and write e-mails

Course Contents

Unit 1: Word Processing (3 Hr. Th + 6 Hr. Practical)

- Overview of Word Processing
- Creating and Editing a Document (Exercise 1 - Creating Notice)
- Revising and Refining a Document (Exercise 2 – Revising notice)
- Using Additional Word Features (Exercise 3 – Creating notice for different classes)
- Changing the Display of the Document (Exercise 4 - Changing the display of your notice)
- Using Standard Templates (Exercise 5 – Create notice using standard templates)
- Using Mail Merge (Exercise 6 – Apply mail merge to send a notice)

Unit 2: Spreadsheet Applications

(3 Hr. Th + 6 Hr. Practical)

- Overview of Excel
- Creating and Editing (Exercise 1 – Creating attendance sheet)
- Using Charts (Exercise 2 – Creating a chart)
- Managing a Workbook (Exercise 3 – Managing Attendance Sheet)
- Using of Basic mathematical Formulae (Exercise 4 – Application of basic mathematical formulae)
- Sorting and Filtering of data in a workbook

Unit 3: Presentation Graphics

(3 Hr. Th + 6 Hr. Practical)

- Overview of Presentation Graphics
- Creating a Presentation (Exercise 1 – Creating a Annual Day Presentation)
- Modifying and Refining a Presentation (Exercise 2 – Modifying and Refining Presentation)



- Using Advanced Presentation Features (Exercise 3 – Advanced Features for Presentation)

Unit 4: Database Management Systems (3 Hr. Th + 6 Hr. Practical)

- Overview
- Creating a Database (Exercise 1 – Creating a Student Database)
- Modifying a Table (Exercise 2 – Modifying a Student Database)
- Creating Forms (Exercise 3 – Creating Form for Student Database)
- Queries and Reports (Exercise 4 – Creating Report)
- Protecting the Database (Exercise 5 – Protecting a Student Database)

Unit 5: Internet (3 Hr. Th + 6 Hr. Practical)

- Internet Basics
- Navigating the Web (Exercise 1 – Navigating the website)
- Finding Information on the Web (Exercise 2 – Searching result on the web)
- Communication Using E-Mail (Exercise 3 – Communicate result to your friends)
- Sending SMS through Web (Exercise 4 – Communicate through SMS through Web service)
- Creating a Blog (Exercise 5 – Creating a blog using Wordpress.com)

References:

Text:

1. Microsoft Office Word 2007 a Beginners Guide: A Training Book of Microsoft Word 2007, By W.R. Mills, United States of America, Bloomington, Indiana.
2. Microsoft Office Excel 2007: Comprehensive Concepts and Techniques, By Greg B. Shelly, Thomas J. Cashman, Jeffrey J. Quasney.
3. Microsoft Office Power Point 2007: Illustrated Introductory: Introductory, By David Beskeen
4. Microsoft Office Access 2007: Comprehensive Concepts and Techniques, By Thomas J. Cashman, Philip J. Pratt
5. Basic Internet, By O.H.U. Heathcote

Suggested Reading:

1. Microsoft Office Word 2007: Illustrated Co: Illustrated Complete, By Jennifer A. Duffy, Carol M. Cram
2. Sams Teach Yourself Microsoft Office 2007 All in One, By Greg Perry
3. Microsoft Office Power Point 2007: Top 100 Simplified Tips & Tricks, By Paul McFedries.
4. Microsoft Office 2007 Power Point: A Training Book for Microsoft Power Point 2007, By W. R. Mills
5. New Perspectives on Microsoft Office Access 2007, Comprehensive, Joseph J. Adamski, Kathleen T. Finnegan

VOC-103: Elements of information Technology
(4 Credits: 100 Marks)



Learning Objectives:

To provide students Knowledge of IT

Unit : 1 : Introduction to Computers

- 1.1 Introduction
- 1.2 Characteristics of Computers
- 1.3 Block diagram of computer
- 1.4 Types of computers and features
 - 1.4.1 Mini Computers
 - 1.4.2 Micro Computers
 - 1.4.3 Mainframe Computers
 - 1.4.4 Super Computers
- 1.5 Types of Programming Languages
 - 1.5.1 Machine Languages
 - 1.5.2 Assembly Languages
 - 1.5.3 High Level Languages
- 1.6 Data Organization
 - 1.6.1 Drives
 - 1.6.2 Files
 - 1.6.3 Directories
- 1.7 Types of Memory (Primary & Secondary)
 - 1.7.5 Secondary Storage Devices (FD, CD, HD, Pen drive)
- 1.8 I/O Devices
 - 1.8.1 Scanners
 - 1.8.2 Digitizers
 - 1.8.3 Plotters
 - 1.8.4 LCD
 - 1.8.5 Plasma Display

Unit 2 : Algorithm and Flowcharts

- 2.1 Algorithm
 - 2.1.1 Definition
 - 2.1.2 Characteristics
 - 2.1.4 Examples
- 2.2 Flowchart
 - 2.2.1 Definition
 - 2.2.2 Define symbols of flowchart
 - 2.2.4 Examples



Unit 3 : Introduction to Operating System

- 3.1-Introduction
- 3.2 Files and Directories
- 3.3 Types of O.S.

Unit 4 : Basic networking Concept

- 4.1. What is Networking, Local Area Networking (LANs), Metropolitan Area Network , MAN), Wide Area Network (WAN),
- 4.2. Networking Topologies
- 4.3.. Transmission media & method of communication
- 4.4. Cabling: straight through and cross over
- 4.5. Study of components like switches, bridges, routers, Wi-Fi router etc.

Unit 5 : Introduction to Web Designing

- 5.1 Basic Concepts
- 5.2 What is HTML**
- 5.3 Editing & Viewing HTML Files
- 5.4 Document Setting & Formatting
- 5.6 Document structures, Tags & Hyperlinks

Reference Books :

- 1. Fundamental of Computers – By V. Rajaraman B.P.B. Publications
- 2. Fundamental of Computers – By P. K. Sinha
- 3. MS- Office 2000(For Windows) – By Steve Sagman
- 4. Step by Step HTML
- 5- By Faithe Wempen PHI Publication



VOC-104: Organisational Behaviour

(2 Credits: 50Marks)

Learning Objectives

To provide students with fundamental backgrounds of organization.

- Unit-I Concept of Management: (12Hrs)**
- Definitions of Management,
 - Managerial process (Only Overview),
 - Evolution of Management Thoughts: F.W Taylor, Henri Fayol, Mary Parker Follet and Elton Mayo.
- Unit-II Organizational Structures & Organizational Change: (12Hrs)**
- Types Organizational Structures
 - Concept of Change,
 - Process of change,
 - Different Models for Change Management,
 - Change Agent
- Unit-III Organizational Effectives (12Hrs)**
- Concept
 - Models
 - Role of Organizational Culture & Climate in effectiveness
- Unit- IV Perception: (12Hrs)**
- Meaning & Process,
 - Factors Affecting Perception,
 - Managerial Implication of Perception.
- Unit-V Learning: (12Hrs)**
- Meaning,
 - Learning Curves,
 - Principles of Learning,
 - Theories of Learning,
 - Managerial Implication of

learning. Books Recommended:-

1. Aswathappa K, "Organizational Behavior (text, Cases & Games)", Sixth Revised edition, Himalaya Publishing House, New Delhi.
2. Stephen P. Robbins, "Organizational Behavior , Fifth Edition, Pearson Education India.
3. P. Subba Rao, "Management And Organizational Behavior (text, Cases & Games)", Fourth Edition, Himalaya Publishing House , New Delhi
4. Tripathi.P.C & Reddy .P.N , " Principles of Management", Fifth Edition, Tata McGraw Hill Private Ltd, New Delhi



VOC-111: Graphic Designing

(4 Credit 100 marks)

Learning Objectives

3. To facilitate the students to study basic computer skills using application software tools.
4. To facilitate the students to make functional use of computer skills in teaching – learning and day to day occupational necessities.

Course Contents

Unit 1: Introduction Exploring Workspace:- (3 Hr. Th + 6 Hr. Practical)

Introduction to Corel Draw, using Toolbox, Defining the Page Size, Creating Basic Shapes, Working with Text, Creating the Font, Saving File, Working with the Colors, Drawing Basic, Dockers, the Shaping Dockers Weld, Trim and Intersect, Outlines and Fills, About Curves, Combining and Breaking Apart, Create Raster to Vector image, Basic Shortcuts, Using Guidelines.

Unit 2: Creating Special Effects (3 Hr. Th + 6 Hr. Practical)

Using Advanced Tools and Special Effects, Importing and Exporting, Envelope and Distortion Effects, Blends and Contours, Lens Effects and Transparency, Embellishments: Bevels, Power Clips and Shadows, Using Bitmap, Working with Perspective.

Unit 3: Understanding Photoshop Basics:- (3 Hr. Th + 6 Hr. Practical)

The Photoshop Workspace, Set Preferences, Open an Image, Save and delete file, Introducing the Photoshop Toolbox, Magnify with the Zoom Tool, Change Screen Modes, Using Rulers and Guides, Change the On-Screen Size of an Image, Change the Resolution of an Image, Crop, trim an Image, Change the Canvas Size of an Image, Making Selections Types, Select with the Color Range Command, Move, copy, rotate, delete, scale a Selection, Create Vanishing Point Planes, Details Working with Layers and Layers Styles.

Unit 4: Painting Drawing with Color:- (3 Hr. Th + 6 Hr. Practical)

Select the Foreground and Background Colors, Select a Color with the Eyedropper Tool and Swatches Panel, Using the Brush Tool, Brush Styles, Custom Brush, Apply a Gradient, Using the Paint Bucket, Fill a Selection, Using the Pattern Stamp, Healing Brush, Patch Tool, Fix Red Eye in a Photo,

Unit 5: Drawing with Color (3 Hr. Th + 6 Hr. Practical)

Change Brightness and Contrast, Using the Dodge, Burn, Blur, Sponge and Sharpen Tools, Adjust Levels, Curves, Hue and Saturation, Color Balance, Convert to Black and White, Correct Shadows and Highlights, Draw a Shape, Custom Shape, with the Pen tool, Create Digital Painting, Collage Painting, Create Video Editing.



References:

Text:

1. Corel Draw x7 Official Guide- jul- 2016 by Gary David Bouton
2. Corel Draw X5 The Official Guide. by Gary David Bouton
3. Photoshop CS5 Bible By Adobe Creative Team
4. Adobe Photoshop CS6 Bible- by Brad Dayley and DaNae Dayley

Suggested Reading:

1. Corel Draw x7 Official Guide- jul- 2016 by Gary David Bouton
2. Corel Draw X5 The Official Guide. by Gary David Bouton
3. Photoshop CS5 Bible By Adobe Creative Team
4. Adobe Photoshop CS6 Bible- by Brad Dayley and DaNae Day



VOC-112: Script Researcher

(4 Credits: 100 Marks)

Learning Objectives

To create a base of physical principles so that the same can be extended by students for diverse practical applications

Course Contents

Unit 1: History of Cinema & Script Research **History of Cinema**

(13

Hrs)

Classical Indian & Hollywood Cinema History, Exploration of film beginning, middle and end of story (This includes study of plot points, dramatic premise and resolution), understand and analyze the essence of filmmaking.

Unit2:ScriptResearch

(13Hrs)

Finding and Collecting materials and facts related to your story. Where and How to find the materials related to your story. Things to consider before sketching down your story. Scriptwriting Process and it's various phases Film Grammar for Scriptwriting
Story, Outline, Treatment, First Draft, Polishes, Second Draft, Additional Drafts Final Draft.

Unit 3: concept of writing script (12Hrs)

Understand the Different Processes Involved in Wringing a script – idea
Generation , Observation, Imagination, Writing Presentation, Modification & Finalization.
Understanding the script of film production ,

Unit 4: Concept of exercises

(12Hrs)

Casting Exercises (First), Casting Exercise (Second), Actors Exercise, One Scene, Two approaches, Opening Scene, Climax Exercise, Climax Exercise.
Shooting, Directing the actors, Directing the camera and working with the crew

Unit5: Concept of Design

(10Hrs)



Scene tone - comedic, dramatic, action--based, et cetera, visual idioms and tropes
Storyboarding and the rest of your team: Scripts and screenplays, character design, props and backgrounds, layout, animation, audio design Storyboarding for your bosses: “the network,” producers, directors, art director, etc.

References:

Text

- 1) https://www.google.co.in/?gfe_rd=cr&ei=zf4kWfTrBqXv8wei-bDYCw#q=script+researcher+
- 2) Art of Storyboard by John Hart

Suggested Reading

- 1) https://www.google.co.in/?gfe_rd=cr&ei=zf4kWfTrBqXv8wei-bDYCw#q=script+researcher+
- 2) Art of Storyboard by John Hart



VOC-113: 2D Animation **(4 Credits: 100 Marks)**

Learning Objectives

To create a base of physical principles so that the same can be extended by students for diverse practical applications

Course Contents

Unit 1: Introduction to Animation:(13Hrs)

History of Animation, The Origins of Animation, Types of Animation, Terms used in Animation, Basic Principles of Animation, Introduction to equipment required for animation.

Unit 2: Basic animation

(13Hrs)

Animation techniques Introduction to Flash: What is Flash? ,Understanding the workspace of flash, Flash Document setup , Create Animation, Basic Drawing, Toolbar.

Unit 3: Text tool (12Hrs)

Vertical Text, Rotation Text & Zoom Text, Spotlight, Text effects ,Working in the timeline.

Unit 4: Working of Shape

(12Hrs)

Working with symbols, Shape tween, Classic tween , Motion tween staggering animation effect, ,Break apart and distribute,

Unit5: Working of Mask

(10Hrs)

Intro to Motion Guide, Mask layers, Button Intro, 3D rotate & Transform, Free transform tool and Align.

References:

Text

1. Adobe Flash Cs6 Classroom
2. The Illusion Of Life by Walt Disney
3. The Complete Animation course by Chris Patmore, By Barons Educational Series(New York)



4. <http://www.adobe.com/rs/products/flash.html>

Suggested Reading

1. Adobe Flash Cs6 Classroom
2. The Illusion Of Life by Walt Disney
3. The Complete Animation course by Chris Patmore, By Barons Educational Series(New York)
4. <http://www.adobe.com/rs/products/flash.html>



**VOC - 121 Lab Course 1: Practical based
on Graphic Designing
2 Credit 50 Marks**

List of Practical based on Graphic Designer:

- 1) Create a Visiting Card
- 2) Create an Advertising Banner
- 3) Create a Pamphlet designing
- 4) Create a Company Logo design
- 5) Create an Animation movie CD's/ DVD's and Cover design
- 6) Create a Creative 3D Logo Design
- 7) Create a Lens Effect 3D design
- 8) Create a Vector Graphic Drawing design
- 9) Create any Shop's Banner Design
- 10) Create a Bill Recipe design
- 11) Create an Artistic Photography Effect
- 12) Create a Repairing & Retouching image
- 13) Create a 3D photo effect on photography image
- 14) Create a Passport size Photo & using Crop option
- 15) Create a Collage Effect on Photo
- 16) Create a Pencil Sketching Effect & Page curve 3d effect
- 17) Create a Pixel Expanded Effect
- 18) Create a Digital/3D Painting effect
- 19) Create a Birthday greeting card by using Filter effect
- 20) Create a Video file with Editing



**VOC - 122 Lab Course 1: Practical based on Script
Researcher 2 Credit 50 Marks**

List of Practical based on Script Researcher:

- 1) Collect Idea for Scripting
- 2) Understanding Classical Indian & Hollywood Cinema
- 3) Understand and analyze the essence of Script
- 4) Different Element of Script Character, Dialogue etc
- 5) Create a basic idea for story
- 6) Write down the two way conversation story
- 7) Understanding camera angle, location etc for your story
- 8) Scripting idea generation, imagination, writing presentation
- 9) Idea for script in film production
- 10) Finding and Collecting materials and facts related to your story
- 11) Create writing – short stories, short play, poetry and present
- 12) Understand the Different Processes Involved in Wrining a script
- 13) Understand different think of writing in creative writing process
- 14) How to generate idea and imagination creative thinking
- 15) Create a simple story (dramatics using five modes)



VOC - 123 Lab Course 1: Practical bas
Animation 2 Credit 50 Marks

List of Practical based on 2D Animation:

1. Animate simple Shapes using Adobe flash.
2. Practical Based on Motion tween.
3. Practical Based on Classic tween.
4. Text Using shape tween.
5. Create Sunrise/sunset Using Adobe Flash.
6. Bouncing ball.
7. Create Mask effect to the text
8. Shape to the text by using skew break apart
9. Deco tool to paint with symbols
10. Spray brush tool.
11. Animate along path.
12. Earth rotation effect by mask
13. Motion presets
14. Modify gradients
15. Motion tween on text
16. Animation by using motion presets
17. Walking effect by frame
18. Create a button
19. Create 3d Rotation & transform
20. Create animation using onion tool

PRINCIPAL

Kohinoor Arts, Commerce & Science College
Khultabad, Dist. Aurangabad.

DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY



CIRCULAR NO.SU/Sci.& Tech./B.Voc./16/2019

It is hereby inform to all concerned that, on the recommendation of the Dean, Faculty of Science & Technology the **Academic Council at its meeting held on 01-10-2019 has accepted following curriculum under B.Voc. programme viz: Certificate, Diploma, Advanced Diploma and B.Voc.** as appended herewith:

1.	B.Voc. Food Processing Technology under the Faculty of Science & Technology.
2.	B.Voc. Refrigeration and Air Conditioning under the Faculty of Science & Technology.
3.	B.Voc. Multimedia and Animation under the Faculty of Science & Technology.
4.	B.Voc. Organic Agriculture under the Faculty of Science & Technology
5.	B.Voc. Hospitality and Tourism under the Faculty of Commerce & Management.

This is effective from the Academic Year 2019-2020 and onwards.

This curriculum are also available on the University website www.bamu.ac.in

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,

Aurangabad-431 004.

Ref.No. SU/B.Voc/2018/ 4255

Date:- 16-10-2019

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Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges,**
Dr. Babasaheb Ambedkar Marathwada University.
- 2] **The Director, University Network & Information Centre, UNIC,**
with a request to upload this Circular on University Website.

Copy to :-

- 1] The Director, Board of Examinations & Evaluation, Dr.BAMU,A'bad.
- 2] The Co-ordinator, [B.Voc. Unit] Examination Branch,
- 3] The, Section Officer, [Eligibility Unit], Dr.BAMU,A'bad.
- 4] The Programmer [Computer Unit-1] Examinations, Dr.BAMU,A'bad.
- 5] The Programmer [Computer Unit-2] Examinations, Dr.BAMU,A'bad.
- 6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
- 7] The Public Relation Officer, Dr.BAMU,A'bad.
- 8] The Record Keeper. Dr.BAMU,A'bad.

**DR. BABASAHEB AMBEDKAR MARATHWADA
UNIVERSITY, AURANGABAD**



CURRICULUM BACHELOR OF VOCATIONAL COURSE

B.VOC. ORGANIC AGRICULTURE

Semester- I

Run at college level from the

Academic Year 2019-2020

Curriculum Structure of Organic Agriculture (B.Voc.)

Sr. No.	Course Code	Name of the Course	Contact hours per week		Evaluation Scheme		Credit
			L	P	CIA	SEE	
Semester - I		General Academic Components					
1	VOC 101	Functional English	4	0	20	80	4
2	VOC 102	Computer Skills	1	2	10	40	1+1
3	VOC 103	Generic Skill-I (Environmental Science)	4	0	20	80	4
4	VOC 104	Specific Organization Practices (Organization behavioral)	2	0	10	40	2
Semester – I		Skill Development Components					
5	VOC 111	Fundamentals of Entomology-I	4	0	20	80	4
6	VOC 112	Introduction of Soil Science -II	4	0	20	80	4
7	VOC 113	Fundamentals of Plant Pathology -III	4	0	20	80	4
8	VOC 121	Lab course 1: Fundamentals of Entomology-I	0	4	0	50	2
9	VOC 122	Lab course 2: Introduction of Soil Science -II	0	4	25	50	2
10	VOC 123	Lab course 3: Fundamentals of Plant Pathology-III	0	4	25	50	2
TOTAL			23	14	195	555	30

Semester –I

General Education Components

VOC-101: Functional English

(4 Credits: 100 Marks)

Learning Objectives

To provide students with fundamental backgrounds of communicative English.

Course Outcomes

On completion of the course, students should be able to –

- 1 Apply Grammatical tools to formulate correct sentences in English.
- 2 Apply concept of tenses to formulate correct sentences in English.
- 3 Formulate different types of dialogues, expression of ideas/information in English
- 4 Compose applications, reports, requests, responses, summary and comprehensions in English

Course Contents

Unit1: Functional Grammar Elements (12Hrs)

Recapitulation of Grammar – Noun, Verb (Classifications), Infinitive and Gerunds, Auxiliaries and Modals, Passivity, Conditionals, Concord, Articles, Conjunction, Prepositions, Pronouns, Adverbs; Active and Passive Voice; Question Tag

Unit2:Tenses (12Hrs)

Present Tense, Past Tense, Future Tense (all four types to be included in each)

Unit3: Sentence Formation (12Hrs)

Types of Sentences – Simple, Complex, Compound; Phrases; Clauses; Synthesis of Sentences; Transformation of Sentences; Direct and Indirect Speech

Unit 4: Basic Verbal Communications (12Hrs)



Introducing yourself (Thecommunicator); Introducing people to others; Giving personal information; Getting people's attention and interrupting; Giving instructions and seeking clarifications; Making requests and responding to requests

Unit 5: Basic Writing Skill

(12Hrs)

Writing Notices; Drafting Agendas; Writing minutes; Note taking; Writing applications for various jobs, referring to the ads.; Writing summary; Writing advertisements

Text:

1. High School Grammar and Composition; Wren and Martin; Fifteenth Edition; Blackie Elt Books; India; ISBN- 978-81-219-0009-6
2. Synergy: Communication in English and Study Skills; Board of Ed.; 2008; Orient Blackswan; India; ISBN- 978-81-250-3577-0
3. Business Communicator – V.K. Jain, O. P. Biyani, S. Chand, New Delhi.

Suggested Reading:

1. Macmillan Foundation English – R. K. Dwivedi, A. Kumar: Macmillan India Ltd. 2001
2. The Art of Powerful Communication – Dinesh K. Vohra, Are Maria Publications, Pune

VOC-102: Computer Skills

(1 Credit Theory + 1 Credit Practical: 50 Marks)

Learning Objectives

1. To facilitate the students to study basic computer skills using application software tools.
2. To facilitate the students to make functional use of computer skills in teaching – learning and day to day occupational necessities.

Course Outcomes

On completion of the course, students should be able to –

1. Extend the knowledge of basic and advanced tools of Word Processing, Spreadsheet, Presentation Graphics, DBMS, and Internet in MS-Office for specific tasks
2. Apply Word Processing tools to create Notice, Application
3. Use Spreadsheet tools to create and manage attendance sheets
4. Demonstrate Presentation Graphic tools to create, modify and refine presentation
5. Implement DBMS tools to create/modify tables/forms, reports
6. Apply search engines and write e-mails

Course Contents

Unit 1: Word Processing (3 Hr. Th + 6 Hr. Practical)

- Overview of Word Processing
- Creating and Editing a Document (Exercise 1 - Creating Notice)
- Revising and Refining a Document (Exercise 2 – Revising notice)
- Using Additional Word Features (Exercise 3 – Creating notice for different classes)
- Changing the Display of the Document (Exercise 4 - Changing the display of your notice)
- Using Standard Templates (Exercise 5 – Create notice using standard templates)
- Using Mail Merge (Exercise 6 – Apply mail merge to send a notice)

Unit 2: Spreadsheet Applications

(3 Hr. Th + 6 Hr. Practical)

- Overview of Excel
- Creating and Editing (Exercise 1 – Creating attendance sheet)
- Using Charts (Exercise 2 – Creating a chart)
- Managing a Workbook (Exercise 3 – Managing Attendance Sheet)
- Using of Basic mathematical Formulae (Exercise 4 – Application of basic

mathematical formulae)

- Sorting and Filtering of data in a workbook

Unit 3: PresentationGraphics

(3 Hr. Th + 6 Hr. Practical)

- Overview of PresentationGraphics
- Creating a Presentation (Exercise 1 – Creating a Annual DayPresentation)
- Modifying and Refining a Presentation (Exercise 2 – Modifyingand RefiningPresentation)
- Using Advanced Presentation Features (Exercise 3 – Advanced Features forPresentation)

Unit 4: Database Management Systems (3 Hr. Th + 6 Hr. Practical)

- Overview
- Creating a Database (Exercise 1 – Creating a StudentDatabase)
- Modifying a Table (Exercise 2 – Modifying a StudentDatabase)
- Creating Forms (Exercise 3 – Creating Form for StudentDatabase)
- Queries and Reports (Exercise 4 – CreatingReport)
- Protecting the Database (Exercise 5 – Protecting a StudentDatabase)

Unit 5: Internet (3 Hr. Th + 6 Hr. Practical)

- InternetBasics
- Navigating the Web (Exercise 1 – Navigating the website)
- Finding Information on the Web (Exercise 2 – Searching result on theweb)
- Communication Using E-Mail (Exercise 3 – Communicate result to yourfriends)
- Sending SMS through Web (Exercise 4 – Communicate through SMS through Web service)
- Creating a Blog (Exercise 5 – Creating a blog using Wordpress.com)

Text:

1. Microsoft Office Word 2007 a Beginners Guide: A Training Book of Microsoft Word 2007, By W.R. Mills, United States of America, Bloomington,Indiana.
2. Microsoft Office Excel 2007: Comprehensive Concepts and Techniques, By Greg B. Shelly, Thomas J. Cashman, Jeffrey J.Quasney.
3. Microsoft Office Power Point 2007: Illustrated Introductory: Introductory, By David Beskeen
4. Microsoft Office Access 2007: Comprehensive Concepts and Techniques, By Thomas J. Cashman, Philip J.Pratt
5. Basic Internet, By O.H.U.Heathcote



Suggested Reading:

1. Microsoft Office Word 2007: Illustrated Co: Illustrated Complete, By Jennifer A.Duffy, Carol M.Cram
2. Sams Teach Yourself Microsoft Office 2007 All in One, By GregPerry
3. Microsoft Office Power Point 2007: Top 100 Simplified Tips & Tricks, By Paul McFedries.
4. Microsoft Office 2007 Power Point: A Training Book for Microsoft Power Point 2007, By W. R.Mills
5. New Perspectives on Microsoft Office Access 2007, Comprehensive, Joseph J. Adamski, Kathleen T. Finnegan

VOC-103: Environmental Science

(4 Credits: 100 Marks)

Learning Objectives: To provide students Knowledge of Environmental Science

UNIT-I : Multidisciplinary nature of environmental studies (12Hrs)

Definition, scope and importance, need for public awareness.

Natural Resources :

Renewable and non-renewable resources : Natural resources and associated problems.

- a) Forest resources : Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
- b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
- c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- d) Food resources : World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- e) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.
- f) Land resources : Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

UNIT-II : Ecosystems (12Hrs)

Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introduction, types, characteristic features, structure and function of the following ecosystems :- a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

UNIT-III Biodiversity and its conservation (12Hrs)

Introduction – Definition : genetic, species and ecosystem diversity, Biogeographical classification of India , Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values , Biodiversity at global, National and local levels, India as a mega-diversity nation , Hot-spots of biodiversity, Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India , Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

UNIT IV : Environmental Pollution (12Hrs)

Definition, Cause, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards Solid waste Management : Causes, effects and control measures of urban and

industrial wastes. Role of an individual in prevention of pollution, Pollution case studies, Disaster management : floods, earthquake, cyclone and landslides.

UNIT-V : Social Issues and the Environment (12Hrs)

From Unsustainable to Sustainable development , Urban problems related to energy , Water conservation, rain water harvesting, watershed management , Resettlement and rehabilitation of people; its problems and concerns. Case Studies , Environmental ethics : Issues and possible solutions, Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies, Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act , Wildlife Protection Act , Forest Conservation Act , Issues involved in enforcement of environmental legislation, Public awareness. Human Population and the Environment : Population growth, variation among nations, Population explosion – Family Welfare Programme, Environment and human health, Human Rights, Value Education, HIV/AIDS, Women and Child Welfare, Role of Information Technology in Environment and human health, Case Studies.

Field work

- Visit to a local area to document environmental assets river/ forest/grassland/hill/mountain
- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours)

REFERENCES

- a) Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- b) Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India, Email:mapin@icenet.net (R)
- c) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- d) Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- e) Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
- f) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- g) Down to Earth, Centre for Science and Environment (R)
- h) Gleick, H.P. 1993. Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
- i) Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R) j) Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- l) Mckinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.

VOC-104: Organizational Behavior

(2 Credits: 50Marks)

Learning Objectives: To provide students with fundamental backgrounds of organization.

- | | | |
|-----------------|--|----------------|
| Unit-I | Concept of Management: | (12Hrs) |
| | <ul style="list-style-type: none"> • Definitions of Management, • Managerial process (Only Overview), • Evolution of Management Thoughts: F.W Taylor, Henri Fayol, Mary Parker Follet and Elton Mayo. | |
| Unit-II | Organizational Structures & Organizational Change: | (12Hrs) |
| | <ul style="list-style-type: none"> • Types Organizational Structures • Concept of Change, • Process of change, • Different Models for Change Management, • Change Agent | |
| Unit-III | Organizational Effectives | (12Hrs) |
| | <ul style="list-style-type: none"> • Concept • Models • Role of Organizational Culture & Climate in effectiveness | |
| Unit- IV | Perception: | (12Hrs) |
| | <ul style="list-style-type: none"> • Meaning & Process, • Factors Affecting Perception, • Managerial Implication of Perception. | |
| Unit-V | Learning: | (12Hrs) |
| | <ul style="list-style-type: none"> • Meaning, • Learning Curves, • Principles of Learning, • Theories of Learning, • Managerial Implication of learning. | |

Books Recommended:-

1. Aswathappa K, "Organizational Behavior (text, Cases & Games)", Sixth Revised edition, Himalaya Publishing House, New Delhi.
2. Stephen P. Robbins, "Organizational Behavior , Fifth Edition, Pearson Education India.
3. P. Subba Rao, "Management And Organizational Behavior (text, Cases & Games)", Fourth Edition, Himalaya Publishing House , New Delhi
4. Tripathi.P.C & Reddy .P.N , " Principles of Management", Fifth Edition, Tata McGraw Hill Private Ltd, New Delhi

Skill Development Components

ORGANIC AGRICULTURE

VOC- 111 Fundamentals of Entomology-I

(4 Credits: 100 Marks)

UNIT- I

(12 Hrs)

History of Entomology in India. Factors for insect's abundance. Major points related to dominance of Insecta in Animal kingdom. Classification of phylum Arthropoda upto classes. Relationship of class Insecta with other classes of Arthropoda. Morphology: Structure and functions of insect cuticle and molting. Body segmentation. Structure of Head, thorax and abdomen. Structure and modifications of insect antennae, mouth parts, legs, Wing venation, modifications and wing coupling apparatus. Structure of male and female genital organ.

UNIT- II

(12 Hrs)

Metamorphosis and diapause in insects. Types of larvae and pupae. Structure and functions of digestive, circulatory, excretory, respiratory, nervous, secretory (Endocrine) and reproductive system, in insects. Types of reproduction in insects. Major sensory organs like simple and compound eyes, chemoreceptor.

UNIT- III

(10 Hrs)

Insect Ecology: Introduction, Environment and its components. Effect of abiotic factors—temperature, moisture, humidity, rainfall, light, atmospheric pressure and air currents. Effect of biotic factors – food competition, natural and environmental resistance. Concepts of Balance of life in nature, biotic potential and environmental resistance and causes for outbreak of pests in agro-ecosystem.

UNIT- IV

(14 Hrs)

Pest surveillance and pest forecasting. Categories of pests. Host plant resistance, Cultural, Mechanical, Physical. Legislative. Biological (parasites, predators & transgenic plant pathogens such as bacteria, fungi and viruses) methods of control. Chemical control-importance, hazards and limitations. Classification of insecticides, toxicity of insecticides and formulations of insecticides. Recent methods of pest control, repellents, antifeedants, hormones, attractants, gamma radiation and genetic control.

UNIT- V

(12 Hrs)

Systematics: Taxonomy –importance, history and development and binomial nomenclature.

Definitions of Biotype, Sub-species, Species, Genus, Family and Order. Classification of class Insecta upto Orders, basic groups of present day insects with special emphasis to orders and families of Agricultural importance like Orthoptera: Acrididae, Tettigonidae, Gryllidae, Gryllotalpidae; Dictyoptera: Mantidae, Blattidae; Odonata; Isoptera: Termitidae; Thysanoptera: Thripidae; Hemiptera: Pentatomidae, Coreidae,

Cimicidae, Pyrrhocoridae, Lygaeidae, Cicadellidae, Delphacidae, Aphididae, Coccidae, Lophophidae, Aleurodidae, Pseudococcidae; Neuroptera: Chrysopidae; Lepidoptera: Pieridae, Papilionidae, Noctuidae, Sphingidae, Pyralidae.

Practical

- Methods of collection and preservation of insects including immature stages; External
- features of Grasshopper/Blister beetle; Types of insect antennae, mouthparts and legs; Wing
- venation, types of wings and wing coupling apparatus. Types of insect larvae and pupae;
- Dissection of digestive system in insects (Grasshopper); Dissection of male and female
- reproductive systems in insects (Grasshopper); Study of characters of orders Orthoptera,
- Dictyoptera, Odonata, Isoptera, Thysanoptera, Hemiptera, Lepidoptera, Neuroptera, Coleoptera, Hymenoptera, Diptera and their families of agricultural importance.

Reference Book:

1. Elements of Economic Entomology - B. V. David
2. Integrated Pest Management, Concepts and Approaches - G.S. Dhaliwal and R. Arora
3. Insect Pest Management - Larry, P. Pedigo
4. Insects and mites of crops in India (ICAR) - M. R. G. K. Nair (ICAR)
5. Botanical Pesticides in integrated pest management - M. S. Chari and Ramaprasad



VOC -112 Introduction of Soil Science-II

(4 Credits: 100 Marks)

Unit I

(12 Hrs)

Pedological and edaphological concepts of soil, Soil genesis: soil forming rocks and minerals; weathering, processes and factors of soil formation; Soil Profile, components of soil; Soil physical properties: soil-texture, structure, density and porosity, soil colour, consistence and plasticity.

Unit II

(12 Hrs)

Elementary knowledge of soil taxonomy: classification and soils of India; Soil water retention, movement and availability; soil air, composition, gaseous exchange, problem and plant growth; source, amount and flow of heat in soil; soil temperature and plant growth.

Unit III

(12 Hrs)

Soil reaction-pH, soil acidity and alkalinity, buffering, effect of pH on nutrient availability; soil colloids - inorganic and organic; silicate clays: constitution and properties; sources of charge ion exchange, cation exchange capacity, base saturation.

Unit IV

(12 Hrs)

soil organic matter: composition, properties and its influence on soil properties; humic substances - nature and properties; soil organisms: macro and micro organisms, their beneficial and harmful effects.

Unit V

(12 Hrs)

Soil pollution - behaviour of pesticides and inorganic contaminants, prevention and mitigation of soil pollution.

Practical

Study of soil profile in field. Study of soil sampling tools, collection of representative soil sample, its processing and storage. Study of soil forming rocks and minerals. Determination of soil density, moisture content and porosity. Determination of soil texture by feel and Bouyoucos Methods. Studies of capillary rise phenomenon of water in soil column and water movement in soil. Determination of soil pH and electrical conductivity. Determination of cation exchange capacity of soil. Study of soil map. Determination of soil colour. Demonstration of heat transfer in soil. Estimation of organic matter content of soil

Reference Book:

1. The nature and properties of soils-N.C.Brady and Ray R.Weil
2. A text book of Soil Science – T.D. Biswas& S.K. Mukherjee
3. Fundamentals of Soil Science – Indian Society of Soil Science
4. Conception,Application of Pedology – J.L. Sehgal
5. Soil Physics – B.P.Ghildyal and R.P.Tripathy
6. Introduction to soil Physics –D. Hillel
7. Soil Chemical Analysis – M.L.Jackson



VOC- 113 Fundamentals of Plant Pathology

(4 Credits: 100 Marks)

UNIT-I

(12 Hrs)

Introduction: Importance of plant diseases, scope and objectives of Plant Pathology. History of Plant Pathology with special reference to Indian work. Terms and concepts in Plant Pathology. Pathogenesis.

UNIT-II

(12 Hrs)

Cause and classification of plant diseases. Important plant pathogenic organisms, different groups: fungi, bacteria, fastidious vesicular bacteria, phytoplasmas, spiroplasmas, viruses, viroids, algae, protozoa, phanerogamic parasites and nematodes with examples of diseases caused by them. Diseases and symptoms due to abiotic causes.

UNIT-III

(12 Hrs)

general characters, definition of fungus, somatic structures, types of fungal thalli, fungal tissues, modifications of thallus, reproduction (asexual and sexual). Nomenclature, Binomial system of nomenclature, rules of nomenclature, classification of fungi. Key to divisions, sub-divisions, orders and classes.

UNIT-IV

(12 Hrs)

General morphological characters. Basic methods of classification and reproduction.

UNIT-V

(12 Hrs)

Nature, architecture, multiplication and transmission.

Study of phanerogamic plant parasites. Nematodes: General morphology and reproduction, classification, symptoms and nature of damage caused by plant nematodes (Heterodera, Meloidogyne, *Anguina* etc.) Principles and methods of plant disease management. Nature, chemical combination, classification, mode of action and formulations of fungicides and antibiotics.

Practical

Acquaintance with various laboratory equipments and microscopy. Preparation of media, isolation and Koch's postulates. General study of different structures of fungi. Study of symptoms of various plant diseases. Study of representative fungal genera. Staining and identification of plant pathogenic bacteria. Transmission of plant viruses. Study of phanerogamic plant parasites. Study of morphological features and identification of plant parasitic nematodes. Extraction of nematodes from soil. Study of fungicides and their formulations. Methods of pesticide application and their safe use. Calculation of fungicide sprays concentrations.

Reference Book:

1. Plant Pathogens : The Fungi - R. S. Singh
2. An Introduction to Fungi- H. C. Dubey
3. Principles of Plant Pathology - R. S. Singh
4. Plant Pathology - R. S. Mehrotra

PRINCIPAL

**Kohinoor Arts, Commerce & Science College
Khultabad, Dist. Aurangabad.**

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**CIRCULAR NO.SU/Sci.& Tech./B.Voc./16/2019**

It is hereby inform to all concerned that, on the recommendation of the Dean, Faculty of Science & Technology the **Academic Council at its meeting held on 01-10-2019 has accepted following curriculum under B.Voc. programme viz: Certificate, Diploma, Advanced Diploma and B.Voc.** as appended herewith:

1.	B.Voc. Food Processing Technology under the Faculty of Science & Technology.
2.	B.Voc. Refrigeration and Air Conditioning under the Faculty of Science & Technology.
3.	B.Voc. Multimedia and Animation under the Faculty of Science & Technology.
4.	B.Voc. Organic Agriculture under the Faculty of Science & Technology
5.	B.Voc. Hospitality and Tourism under the Faculty of Commerce & Management.

This is effective from the Academic Year 2019-2020 and onwards.

This curriculum are also available on the University website www.bamu.ac.in

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.

Ref.No. SU/B.Voc/2018/ 4255

Date:- 16-10-2019

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[Signature]
Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges,**
Dr. Babasaheb Ambedkar Marathwada University.
- 2] **The Director, University Network & Information Centre, UNIC,**
with a request to upload this Circular on University Website.

Copy to :-

- 1] The Director, Board of Examinations & Evaluation, Dr.BAMU,A'bad.
- 2] The Co-ordinator, [B.Voc. Unit] Examination Branch,
- 3] The, Section Officer, [Eligibility Unit], Dr.BAMU,A'bad.
- 4] The Programmer [Computer Unit-1] Examinations, Dr.BAMU,A'bad.
- 5] The Programmer [Computer Unit-2] Examinations, Dr.BAMU,A'bad.
- 6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
- 7] The Public Relation Officer, Dr.BAMU,A'bad.
- 8] The Record Keeper. Dr.BAMU,A'bad.

2019-20



Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

Curriculum Structure

Bachelor of Vocation

(B. Voc. Hospitality and Tourism)

Choice Based Credit System

(Effective from July 2019-20)





The Bachelor in Vocation programme is divided into six semesters shaving 192 credits. Each semester has courses categorized under **General Education Components** and **Skill Development Components**.

Preamble:

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad proposes to offer a three year Bachelor programme in Vocation (B. Voc.) program which are being run University Department and various affiliated colleges. The curriculum design of this program is undertaken in the following framework-

- a) Although there has been remarkable progress in all sectors of education in last couple of decades, the less regulated area of the education sector-vocational training—seems to have lost its significance/importance. This has led to the widening gap between the supply and demand for skilled manpower across various industries and R&D organizations. This shortage of skills has translated directly into unemployment among an increasing number of graduates who pass-out every year and are forced to be retrained in order to become marketable.

These programme are designed to produce skilled manpower so that wide variety of options in job sectors would be available and it will improve the opportunities for the unemployed youths in the country in both the private and public sectors.

- b) According to a study conducted by the Associated Chambers of Commerce and Industry of India (ASSOCHAM), there will be a deficit of 40 million working professionals by the year 2020 and the employers would face the difficulty of filling positions because of the dearth of suitable talent and skilled person.

These programme aim to provide concrete solution for these problems and would facilitate to improve:

- (i) Quality of training**
 - (ii) High drop-out rates**
 - (iii) Linkages with Universities and Industry**
 - (iv) Inadequacy of resources**
- c) These programme are intended to offer practical training and skills needed to pursue an occupation straight away. It will provide options to the students to select the courses of their choice which are directly aligned to land a job in a chosen profession or a skilled trade. One of the end results of these programme is to enable an individual to attain self-employment.

**Program Educational Objectives:**

The objectives of B. Voc. (Hospitality and Tourism) program are to produce graduates who -

1. To develop trained and semiskilled/ skilled man power required in the various sectors of hospitality and tourism industry.
2. To acquaint the students about the opportunities in Hospitality, tourism and Travel.
3. To help human resource development (HRD) state as well as National Level.
4. To create income generating potential for the students.
5. To develop the marginal skills to arrange, manage and implement various types of tours and Hotel operations.
6. To understand various types of functions terminology used in Hospitality & Tourism.
7. To develop the importance of Geographical knowledge for Hospitality & tourism industry.
8. To provide training about the Hospitality, Tourism and Travel sectors.

Program Outcomes (PO):

Vocational Education is education that prepares the students for specific trades, crafts and careers at various levels and scopes. Scope of modern fabric of vocational education builds Human resource from a trade/ craftsmanship, technician or professional position in R & D organizations.

The Program Outcomes are the skills and knowledge which the students have at each exit level/at the time of graduation. These Outcomes are generic and are common to all exit levels mentioned in the programme structure. Graduates of the B.Voc program are expected to -

- PO1.** Apply broad based fundamental knowledge of the specific skill based trade for the solution of target skill sector.
- PO2.** Identify industry domain related problems at varied complexity and analyze the same to formulate/ develop substantiated conclusion using first principles of domain sectors and technical literature.
- PO3.** Design / develop solutions for broad based problems in the target skill based trade to address changing challenges put forward by market demand/ stakeholder



PO4. Design and conduct technology enabled experiments, analyze the results and interpret the same to provide valid conclusions

PO5. Use the techniques, skills and modern tools necessary skill based trade to practice with clear understanding of limitations.

PO6. Apply broad understanding of ethical and professional skill based trade practice in the context of global, economic, environmental and societal realities while encompassing relevant contemporary issues.

PO7. Apply broad understanding of impact of skill based trade in a global, economic, environmental and societal context.

PO8. Apply ability to develop practical solutions for skill trade problems within positive professional and ethical boundaries.

PO9. Function effectively as a leader and as well as team member in diverse/multidisciplinary environments.

PO10. Communicate effectively in oral and written format addressing specific professional/social demands.

PO11. Demonstrate knowledge and understanding of the first principles of skill trade and apply these to one's own work as a member and leader in a team, to complete project in any environment.

PO12. Recognize the need for and have the ability to acquire advance knowledge for addressing the changing technological demands of the target skill trade.

Exit Options:

The programme allows exit of a student in an intermediate stage, on successful employment. Scopes will be there for further continuation of study. The other wise exit options will be as follows-

<i>Exit Point</i>	<i>Duration</i>	<i>Diploma / Degree to be Offered</i>
First exit	After 6 months	Certificate in Vocation
Second exit	After 1 yr.	Diploma in Vocation (D. Voc.)
Third exit	After 2 yrs.	Advanced Diploma in Vocation (Adv. D. Voc.)
Fourth exit	After 3 yrs.	Bachelor in Vocation (B. Voc.)

**Eligibility:**

As per necessity of respective B. Voc. Program

Admission / Promotion Process:

In response to the advertisement for registration, interested students will have to register themselves for a Common Entrance Test (CET)/ Merit based admission process. Admission will be done on the basis of performance of students at Common Entrance Test (CET)/ Marks scored in qualifying examination.

A candidate who has sought admission to Semester – I shall be admitted to Semester – II automatically. A candidate who has passed 75% of the papers at First Year (First and Second Semesters together) examinations shall be allowed to take admissions in third semester. Similarly, a candidate who has passed 75% of the papers at the Second Year (Third and Fourth

Semesters together) examinations shall be allowed to take admission to the Fifth semester.

However, if a candidate has not passed the First and Second Semester examinations, he shall not be allowed to take admission to the Fifth Semester. Appearance in the First, Third and Fifth semester is compulsory to get promoted to next semester.

Choice Based Credit System (CBCS):

The choice based credit system is going to be adopted. This provides flexibility to make the system more responsive to the changing needs of our students, the professionals and society. It gives greater freedom to students to determine their own pace of study. The credit based system also facilitates the transfer of credits.

- Students will have to earn 30 credits for the award of Six Month Certificate in Vocation
- Students will have to earn 64 credits for the award of one year Diploma in Vocation (D. Voc.)
- Students will have to earn 128 credits for the award of two year Advance Diploma in Vocation (Adv. D. Voc.)
- Students will have to earn 192 credits for the award of three year Bachelor Degree in Vocation (B. Voc.)

Credit-to-contact hour Mapping:

- (a) One Credit would mean equivalent of 15 contact hours for theory lecture.
- (b) For lab course/ workshops/internship/field work/project, the credit weightage for equivalent hours shall be 50% that for lectures /workshop.



- (c) For self- learning, based on e-content or otherwise, the credit weightage for equivalent hours of study should be 50% or less of that for lectures/workshops.

Attendance:

Students must have 75 % of attendance in each course for appearing examination otherwise he / she will not be strictly allowed for appearing the examination of each course.

Evaluation Methods:

The assessment will be based on 20: 80 ratio of continuous internal assessment (CIA) and semester end examination (SEE). Performance will be decided after combining performance in CIA and SEE. In case of failure in SEE in particular course(s), exam will be conducted in immediate subsequent semester. However, if a student fails in CIA (considering independent CIA score), he/she may appear for the same CIA, at his/her own responsibility in the next academic year, when the same course is offered during regular academic session.

Continuous Internal Assessment (CIA):

(A) For 4 credit courses-

There will be 20 marks for Continuous Internal Assessment. Two internal tests (of 20 marks each) will be conducted, after completion of 40% and 80% of the curriculum respectively.

Average performance of the two tests will be considered for final marks-memo preparation. The setting of question papers and the assessment will be done by concerned teacher.

(B) For 2 credit courses-

There will be 10 marks for Continuous Internal Assessment. Two internal tests (of 10 marks each) will be conducted, after completion of 40% and 80% of the curriculum respectively. Average performance of the two tests will be considered for final marks-memo preparation. The setting of question papers and the assessment will be done by concerned teacher.

Semester End Examination (SEE):

The semester end theory examination for each theory course of 4 credits will be of 80 marks, whereas, for 2 credit theory course, the same will be of 40 marks. Therefore, the total marks shall be 100 for 4 credit theory course (80 marks semester end exam + 20 marks CIA) and 50 for 2 credit theory course (40 marks semester end exam + 10 marks CIA).



Pattern of semester end question paper will be as below:

(A) For 4 credit courses-

- The semester end examination of theory course will have two parts (20+60 = 80 Marks)
- Part A will be consisting of 10 questions having 2 marks each (multiple choice questions / fill in the blanks/ answer in one sentence) as compulsory questions and it should cover entire course syllabus (20 Marks)
- Part B will contain 05 questions of 12 marks each with equal weightage on every module. Each of these questions will have two options, from which students will have to attempt any one.
- 20 to 30% weightage can be given to problems/ numerical (wherever applicable) wherein use of non-programmable scientific calculator may be allowed.
- Number of sub questions (with allotment of marks) in a question may be decided by the examiner.

(B) For 2 credit courses-

- The semester end examination of theory course will have two parts (10+30 = 40 Marks)
- Part A will be consisting of 05 questions having 2 marks each (multiple choice questions / fill in the blanks/ answer in one sentence) as compulsory questions and it should cover entire course syllabus (10 Marks)
- Part B will contain 05 questions of 06 marks each with equal weightage on every module. Each of these questions will have two options, from which students will have to attempt any one.
- 20 to 30% weightage can be given to problems/ numerical (wherever applicable) wherein use of non-programmable scientific calculator may be allowed.
- Number of sub questions (with allotment of marks) in a question may be decided by the examiner.

Regarding practical examinations, the assessment will be based on 50: 50 ratio of continuous internal assessment (CIA) and semester end examination (SEE). During each semester, student must perform at least six experiments from every laboratory course. Internal and external (Semester end) practical examination will be conducted at the end of each semester.



Earning Credits:

At the end of every semester, a letter grade will be awarded in each course for which a student had registered. A student's performance will be measured by the number of credits that he/she earned by the weighted Grade Point Average (GPA). The SGPA (Semester Grade Point Average) will be awarded after completion of respective semester and the CGPA (Cumulative Grade Point Average) will be awarded at the respective exit point.

Grading System:

The grading reflects a student-own proficiency in the course. A ten point rating scale shall be used for the evaluation of the performance of the students to provide letter grade for each course and overall grade for the Master Programme. Grade points are based on the total number of marks obtained by him / her in all heads of the examination of the course. The grade points and their equivalent range of marks are shown in Table-I

Table – I: Ten point grade and grade description

Marks Obtained (%)	Grade Point	Letter Grade	Description
90-100	9.00- 10	O	Outstanding
80-89	8.00-8.90	A+++	Exceptional
70-79	7.00-7.90	A	Excellent
60-69	6.00-6.90	A +	Very Good
55-59	5.50-5.90	B	Good
50-54	5.00-5.40	B	Fair
45-49	4.50-4.90	C++	Average (Above)
41-44	4.1-4.49	C	Average
40	4.0	P	Pass
< 40	0.0	F	Fail (Unsatisfactory
	0.0	AB	Absent



- Non-appearance in any examination / assessment shall be treated as the students have secured zero marks in that subject examination / assessment.
- Minimum P grade (4.00 grade points) shall be the limit to clear / pass the course / subject. A student with F grade will be considered as —failed in the concerned course and he / she has to clear the course by appearing in the next successive semester examinations. There will be no revaluation or recounting under this system.
- Every student shall be awarded grade points out of maximum 10 points in each subject (based on 10 point scale). Based on the grade points obtained in each subject, Semester
- Grade Point Average (SGPA) and then Cumulative Grade Point Average (CGPA) shall be computed. Results will be announced at the end of each semester and CGPA will be given at respective exit point.

Computation of SGPA (Semester Grade Point Average) and CGPA (Cumulative Grade Point Average)

Grade in each subject / course will be calculated based on the summation of marks obtained in all five modules.

The computation of SGPA and CGPA will be as below

- Semester Grade Point Average (SGPA) is the weighted average points obtained by the students in a semester and will be computed as follows:

$$\text{SGPA} = \frac{\text{Sum (Course Credits) X Number of Grade Points in concerned Course Gained by the Student}}{\text{Sum (Course Credits)}}$$

- The SGPA will be mentioned on the grade card at the end of every semester.
- The Cumulative Grade Point Average (CGPA) will be used to describe the overall performance of a student in all semester of the course and will be computed as under.

$$\text{CGPA} = \frac{\text{Sum (All six Semester SGPA)}}{\text{Total Number of Semester}}$$

- The SGPA and CGPA shall be rounded off to the second place of decimal.

**Grade Card**

Results will be declared by the Centre and the grade card (containing the grades obtained by the student along with SGPA) will be issued by the university after completion of every semester. The grade card will be consisting of following details.

- Title of the courses along with code opted by the student. Credits associated with the course.
- Grades and grade points secured by the student.
- Total credits earned by the student in a particular semester. Total credits earned by the students till that semester.
- SGPA of the student.
- CGPA of the student (at respective exit point).

Cumulative Grade Card

The grade card showing details grades secured by the student in each subject in all semesters along with overall CGPA will be issued by the University at respective exit point.

**B. Voc. Hospitality and Tourism-Semester -I**

Sr. No.	Course Code	Name of the Course	Contact Hours Per Week		Evaluation Scheme		Credit
			L	P	CIA	SEE	
Semester-I		General Academic Components					
1	VOC 101	Functional English	4	0	20	80	4
2	VOC 102	Computer Skills	1	2	10	40	2
3	VOC 103	Generic Skill-I- (Tourism Geography-I)	4	0	20	80	4
4	VOC 104	Skill Specific Organisation Practices (Organisational Behaviour-I)	2	0	10	40	2
Semester-I		Skill Development Components					
5	VOC 111	Introduction to Hospitality Industry-I	4	0	20	80	4
6	VOC 112	Introduction to Tourism Industry-II	4	0	20	80	4
7	VOC 113	Tourism Products of India-I-III	4	0	20	80	4
8	VOC 121	Practical-1- Introduction to Hospitality Industry -I	0	4	0	50	2
		Practical Work					
		Field Work / Visit					
		Self-Learning					
9	VOC 122	Practical-2- Introduction to Tourism Industry -II	0	4	25	25	2
		Practical Work					
		Field Work / Visit					
		Self-Learning					
10	VOC 123	Practical-3- Tourism Products of India-I-III	0	4	25	25	2
		Practical Work					
		Field Work / Visit					
		Self-Learning					
Total			23	14	195	580	30

**Semester – I****General Education Components****VOC-101: Functional English****(4 Credits: 100 Marks)****Learning Objectives:**

To provide students with fundamental backgrounds of communicative English.

Course Outcomes:

On completion of the course, students should be able to –

1. Apply grammatical tools to formulate correct sentences in English.
2. Apply concept of tenses to formulate correct sentences in English.
3. Formulate different types of dialogues, expression of ideas/information in English
4. Compose applications, reports, requests, responses, summary and comprehensions in English

Course Contents:**Unit 1: Functional Grammar Elements (12 Hrs)**

Recapitulation of Grammar – Noun, Verb (Classifications), Infinitive and Gerunds, Auxiliaries and Modals, Passivity, Conditionals, Concord, Articles, Conjunction, Prepositions, Pronouns, Adverbs; Active and Passive Voice; Question Tag

Unit 2: Tenses (12 Hrs)

Present Tense, Past Tense, Future Tense (all four types to be included in each)

Unit 3: Sentence Formation (12 Hrs)

Types of Sentences – Simple, Complex, Compound; Phrases; Clauses; Synthesis of Sentences; Transformation of Sentences; Direct and Indirect Speech

Unit 4: Basic Verbal Communications (12 Hrs)

Introducing yourself (The communicator); Introducing people to others; Giving personal information; Getting people's attention and interrupting; Giving instructions and seeking clarifications; Making requests and responding to requests

Unit 5: Basic Writing Skill (12 Hrs)

Writing Notices; Drafting Agendas; Writing minutes; Note taking; Writing applications for various jobs, referring to the ads.; Writing summary; Writing advertisements

Text Books:

1. High School Grammar and Composition; Wren and Martin; Fifteenth Edition; Blackie Elt Books; India; ISBN- 978-81-219-0009-6



2. Synergy: Communication in English and Study Skills; Board of Ed.; 2008; Orient Blackswan; India; ISBN- 978-81-250-3577-0
3. Business Communicator – V.K. Jain, O. P. Biyani, S. Chand, New Delhi.

Reference Books:

1. Macmillan Foundation English – R. K. Dwivedi, A. Kumar: Macmillan India Ltd. 2001
2. The Art of Powerful Communication – Dinesh K. Vohra, Are Maria Publications, Pune

Web: Link of website



VOC-102 Computer Skills

(1 Credit Theory + 1 Credit Practical: 50 Marks)

Learning Objectives

1. To facilitate the students to study basic computer skills using application software tools.
2. To facilitate the students to make functional use of computer skills in teaching – learning and day to day occupational necessities.

Course Outcomes

On completion of the course, students should be able to –

1. Extend the knowledge of basic and advanced tools of Word Processing, Spreadsheet, Presentation Graphics, DBMS, and Internet in MS-Office for specific tasks
2. Apply Word Processing tools to create Notice, Application
3. Use Spreadsheet tools to create and manage attendance sheets
4. Demonstrate Presentation Graphic tools to create, modify and refine presentation
5. Implement DBMS tools to create/modify tables/forms, reports
6. Apply search engines and write e-mails

Course Contents

Unit 1: Word Processing

(3 Hr. Th + 6 Hr. Practical)

- Overview of Word Processing
- Creating and Editing a Document (Exercise 1 - Creating Notice)
- Revising and Refining a Document (Exercise 2 – Revising notice)
- Using Additional Word Features (Exercise 3 – Creating notice for different classes)
- Changing the Display of the Document (Exercise 4 - Changing the display of your notice)
- Using Standard Templates (Exercise 5–Create notice using standard templates)
- Using Mail Merge (Exercise 6 – Apply mail merge to send a notice)

Unit 2: Spreadsheet Applications

(3 Hr. Th + 6 Hr. Practical)

- Overview of Excel
- Creating and Editing (Exercise 1 – Creating attendance sheet)
- Using Charts (Exercise 2 – Creating a chart)
- Managing a Workbook (Exercise 3 – Managing Attendance Sheet)
- Using of Basic mathematical Formulae (Exercise 4 – Application of basic mathematical formulae)
- Sorting and Filtering of data in a workbook

Unit 3: Presentation Graphics

(3 Hr. Th + 6 Hr. Practical)

- Overview of Presentation Graphics
- Creating a Presentation (Exercise 1 – Creating a Annual Day Presentation)
- Modifying and Refining a Presentation (Exercise 2 – Modifying and Refining)



Presentation)

- Using Advanced Presentation Features (Exercise 3 Advanced Features for Presentation)

Unit 4: Database Management Systems

(3 Hr. Th + 6 Hr. Practical)

- Overview
- Creating a Database (Exercise 1 – Creating a Student Database)
- Modifying a Table (Exercise 2 – Modifying a Student Database)
- Creating Forms (Exercise 3 – Creating Form for Student Database)
- Queries and Reports (Exercise 4 – Creating Report)
- Protecting the Database (Exercise 5 – Protecting a Student Database)

Unit 5: Internet

(3 Hr. Th + 6 Hr. Practical)

- Internet Basics
- Navigating the Web (Exercise 1 – Navigating the web site)
- Finding Information on the Web (Exercise 2 – Searching result on the web)
- Communication Using E-Mail (Exercise 3 – Communicate result to your friends)
- Sending SMS through Web (Exercise 4 – Communicate through SMS through Web service)
- Creating a Blog (Exercise 5 – Creating a blog using Wordpress.com)

Text Books:

1. Microsoft Office Word 2007 a Beginners Guide: A Training Book of Microsoft Word 2007, By W.R. Mills, United States of America, Bloomington, Indiana.
2. Microsoft Office Excel 2007: Comprehensive Concepts and Techniques, By Greg B. Shelly, Thomas J. Cashman, Jeffrey J. Quasney.
3. Microsoft Office Power Point 2007: Illustrated Introductory: Introductory, By David Beskeen
4. Microsoft Office Access 2007: Comprehensive Concepts and Techniques, By Thomas J. Cashman, Philip J. Pratt
5. Basic Internet, By O.H.U. Heathcote

Reference Books:

1. Microsoft Office Word 2007: Illustrated Co: Illustrated Complete, By Jennifer A. Duffy, Carol M. Cram
2. Sams Teach Yourself Microsoft Office 2007 All in One, By Greg Perry
3. Microsoft Office Power Point 2007: Top 100 Simplified Tips & Tricks, By Paul McFedries.
4. Microsoft Office 2007 Power Point: A Training Book for Microsoft Power Point 2007, By W. R. Mills
5. New Perspectives on Microsoft Office Access 2007, Comprehensive, Joseph J. Adamski, Kathleen T. Finnegan

Web: Link of websites

**VOC-103 Generic Skill-I- VOC-103: Tourism Geography-I****(4 Credits: 100 Marks)****Learning objectives:**

1. To acquaint students about the introduction to the basics political and physiographic geography of Maharashtra.
2. To introduce to the students important historical, cultural and natural tourist attractions of Maharashtra.

Course Outcomes:

On completion of the course, students should be able to –

1. Design itineraries based on the tourism products of Maharashtra.

Course Contents**UNIT-I –Geographical Personality of Maharashtra****(12Hrs)**

Introduction to Maharashtra: Natural, Historical and Political, Location, Extent and Geographical Area, Administrative Divisions, Adjoining or Adjacent States

UNIT-II –Physiography of Maharashtra**(12Hrs)**

Physiography of Konkan Region, Western Ghat and Maharashtra Plateau

UNIT-III-Historical sites and monuments of Maharashtra**(12Hrs)**

World heritage sites, Caves, Forts and Palaces

UNIT- IV -Cultural heritage of Maharashtra**(12Hrs)**

Arts and crafts, Performing arts: Folk and tribal music and dance, Fairs and festivals, Museums, art galleries, Libraries.

UNIT-V - Natural tourism resources of Maharashtra**(12Hrs)**

Hill stations, National Parks – Tiger Eco tourism places, Wildlife and bird sanctuaries, Lakes and Dams, Beach and Coastal tourism, Lonar Crater.



Text Books:

1. Dr. S. M. Bhamare (2013) : Geography of Maharashtra, Prashant Publication, Jalgaon.
2. C. D. Deshpande : Geography of Maharashtra
3. K. R. Dixit : Maharashtra in Maps
4. Ghulam Yazdani : The Art and Architecture of Deccan
5. M Gunaji, Offbeat Tracks in Maharashtra
6. Dulari Qureshi : Daulatabad Fort
7. Maharashtra Tourism Development Corporation, All Tourism Brochures, Magazines and publications

Reference Books:

1. S. H. Deshpande : Economy of Maharashtra
2. Jaymala Diddee, S. R. Jog, V. S. Kale, V. S. Datye : Geography of Maharashtra
3. Savadi and Keche : Maharashtra

Web: Link of website

1. www.maharashtratourism.gov.in
2. <http://www.asiaurangabad.in/>
3. www.tourism.gov.in
4. <http://whc.unesco.org/en/list/>
5. www.maharashtra.gov.in

**VOC-104: Organisational Behaviour-I****(2 Credits: 50Marks)****Learning Objectives:**

1. To provide students with fundamental backgrounds of organization.

Course Outcomes:**Course Contents****Unit-I Concept of Management:****(12Hrs)**

- Definitions of Management,
- Managerial process (Only Overview),
- Evolution of Management Thoughts: F.W Taylor, Henri Fayol, Mary Parker Follet and Elton Mayo

Unit-II Organizational Structures & Organizational Change:**(12Hrs)**

- Types Organizational Structures
- Concept of Change,
- Process of change,
- Different Models for Change Management,
- Change Agen

Unit-III Organizational Effectives**(12Hrs)**

- Concept
- Models
- Role of Organizational Culture & Climate in effectiveness

Unit- IV Perception:**(12Hrs)**

- Meaning & Process,
- Factors Affecting Perception,
- Managerial Implication of Perception

Unit-V Learning:**(12Hrs)**

- Meaning,
- Learning Curves,
- Principles of Learning,
- Theories of Learning,
- Managerial Implication of learning.



Text Books:

1. Aswathappa K, "Organizational Behavior (text, Cases & Games)", Sixth Revised edition, Himalaya Publishing House, New Delhi.
2. Stephen P. Robbins, "Organizational Behavior", Fifth Edition, Pearson Education India.

Reference Books:

1. P. Subba Rao, "Management And Organizational Behavior (text, Cases & Games)", Fourth Edition, Himalaya Publishing House, New Delhi
2. Tripathi.P.C & Reddy .P.N, "Principles of Management", Fifth Edition, Tata McGraw Hill Private Ltd, New Delhi

Web: Link of website

**VOC 111: Introduction to Hospitality Industry****(4 Credits: 100 Marks)****Learning objectives:**

1. It is planned to develop and communicate basic framework and concept of hospitality industry.
2. To understand the various elements of hospitality.
3. To evaluate the role of organizations of industry.

Course Outcomes:

On completion of the course, students should be able to –

1. Differentiate between the various types of accommodation, classification and categorization of hotels
2. To understand role of primary and secondary departments of Hotels.

Course Contents:**Unit-I -Hospitality Industry:****(12 Hrs)**

Introduction to Hospitality industry, Nature & Scope of Hospitality Industry, Its distinctive Characteristics – Inflexibility, Perishability, Fixed Location, Relatively Large Financial Investment

Unit-II- Accommodation Sector:**(12 Hrs)**

Types of Accommodation, Classification and Categorization of Hotels, Types of Rooms

Unit-III- Organizational structure and functions of core department:**(12 Hrs)**

Organizational Structure, Hierarchy's, of Hotel, Core Departments, Roles and Responsibilities of: Housekeeping Department, Food and Beverage Service Department, Food Production or Kitchen Department and Front Office Department

Unit-IV- Organizational Structure and Functions of Secondary Department: (12 Hrs)

Secondary Departments (Back of the House) Role and Responsibilities: Sales and Marketing, Personal and Human Resources, Account and Finance, Security and Engineering, etc.

Unit-V- Important Organization and Hotels:**(12 Hrs)**

Objectives and Roles of Major International Trade Organizations (IHRA, Etc.), Objectives and Roles of Major National Tourism Organizations (Ministry of Tourism, FHRAI Etc.), Major Hotel Chains



Text Books:

1. L. Chakrawarti, Hotel Management Theory Vol. I And II,
2. Jha S.M., Hotel Management.
3. Negi, Tourism And Hoteliering
4. Anand M.M. – Tourism And Hotel Industry In India,
5. Jitendra – Catering Management

Reference Books:

1. U.K. Singh, J.M. Dewan – Hotel Management Global Management Series
2. Lillicrap Cousins – Food And Beverage Service
3. Sudhir Andrews – Front Office Training Manual.
4. Sudhir Andrews – House Keeping Training Manu

Web: Link of website

1. <http://www.ih-ra.org/>
2. <https://www.fhrai.com/>
3. <http://tourism.gov.in/>



VOC 112: Introduction to Tourism Industry

(4 Credits: 100 Marks)

Learning objectives:

1. It is planned to Developed and Communicate Basic Framework and Concept of Tourism Industry.
2. To Understand the Various Elements of Tourism.
3. To Evaluate the Role of Organizations of Industry.

Course Outcomes:

On completion of the course, students should be able to –

1. Recognize the Tourist-Traveler-Visitor-Excursionist.
2. Comprehend tourism planning in India

Course Contents:

Unit-I- Tourism Concepts:

(12 Hrs)

Definitions and Fundamentals of Tourism Industry, Historical Development of Tourism, Distinction between Tourist-Traveler-Visitor-Excursionist.

Unit-II- Tourism System:

(12 Hrs)

Tourism System, Nature and Characteristics of Tourism, Travel Motivation, Types and Forms of Tourism.

Unit-III- Tourism Services and Operations:

(12 Hrs)

Components of Tourism, Transportation System (Air, Water, Surface), Accommodation Sector, Travel Service Providers (Travel Agent, Tour Operator), Attractions and Other Services.

Unit-IV- Tourism in India:

(12 Hrs)

Historical Development of Tourism in India, Tourism Planning in India- Plan, Policies, Committees, Present Status of Tourism Industry In India

Unit-V- Tourism Organizations:

(12 Hrs)

Objectives and Roles of Major International Tourism Organizations (UNWTO, IATA Etc.), Objectives and Roles of Major National Tourism Organizations (Ministry of Tourism, Aviation, ITDC Etc.), State Tourism Development Corporation Etc.

**Text Books:**

1. Bhatia. Tourism Development (New Delhi, Sterling)
2. Seth: Tourism Management (New Delhi, Sterling)
3. Biwal: Tourism Operations And Managment
4. Swain: Tourism Principal And Practices

Reference Books:

1. Kaul: Dynamics Of Tourism (New Delhi, Sterling)
2. Mill And Morrison – The Tourism System An Introductory Text (1992) Prentice Hall
3. Cooper, Fletcher, Tourism, Principles And Practices (1993) Pitman
4. Burkart And Medlik Tourism, Past, Present And Future (1981) Heinemann, ELBS.

Web: Link of website

1. <http://www2.unwto.org/>
2. <https://www.iata.org/Pages/default.aspx>
3. <http://tourism.gov.in/>
4. <http://www.theashokgroup.com/index.php>
5. <https://www.maharashtratourism.gov.in/>

**VOC 113- Tourism Products of India-I****(4 Credits: 100 Marks)****Learning objectives:**

1. To provide detailed information about geographical significance of India.
2. To understand tourism significance of India.
3. To provide detailed knowledge about the major natural tourism products of India.

Course Outcomes:

On completion of the course, students should be able to –

1. Comprehend the basic concepts of Geography useful for tourism profession
2. Know the various natural tourism products of India and to prepare itineraries based on those products.

Course Outcomes:**Unit-I- Geography of India:****(12 Hrs)**

India: Physical location and tourism relations, Major Landforms, Physical and political features, Climatic zones

Unit-II- Geography of Tourism:**(12 Hrs)**

Latitude, Longitude, International date line, time zones and calculation of Time, Time differences, GMT variations, Concepts of elapsed time, flying time, ground time, Standard time and summer time (day light saving time).

Unit-III- Wildlife in India:**(12 Hrs)**

National Parks: History, Definition, Guidelines, Major National Parks in India, Wildlife Sanctuary: History, Definition, Guidelines, Major Wildlife Sanctuaries in India

Unit-IV- Water Based Tourism Products:**(12 Hrs)**

Important Beaches, Major Islands, Important Lakes, Important Rivers

Unit-V- Hill Stations in India:**(12 Hrs)**

Important Hill stations: History, Locations, Places to visit

Text Books:

1. Dixit, M.(2002). Tourism Products. New Royal Book Co, Lucknow.
2. Jacob,R. (2012), Indian Tourism Products, Abhijeet Publications, Delhi.
3. Ball, S. (2012). Encyclopedia of Tourism Resources in India, Butterworth – Heinemann.
4. Douglas. N. Ed. (2001), Special Interest Tourism, John Wiley & Sons, Australia.



Reference Books:

1. Pletcher. Kenneth (2011), The Geography of India: Sacred and Historic Places. Britannica Educational Publication, New York.
2. Negi, Sharad Singh. (2002), Handbook of National Parks, Wildlife Sanctuaries, and Biosphere Reserves in India. Indus Publishing Co. New Delhi.

Web: Link of website

1. <https://www.incredibleindia.org/content/incredible-india-v2/en.html>
2. <https://www.maharashtratourism.gov.in/>



VOC 121: Practical-1- Introduction to Hospitality Industry

(2 Credits: 50 Marks)

Practical Work

Field Work / Visit

Self-Learning



VOC 122: Practical-2- Introductory to Tourism Industry

(2 Credits: 50 Marks)

Practical Work

Field Work / Visit

Self-Learning



VOC 123: Practical-3- Tourism Products of India-I

(2 Credits: 50 Marks)

Practical Work

Field Work / Visit

Self-Learning

2019-20



Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

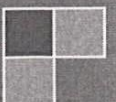
Curriculum Structure

Bachelor of Vocation

(B. Voc. Hospitality and Tourism- II-Sem)

Choice Based Credit System

(Effective from July 2019-20)



**B. Voc. Hospitality and Tourism-Semester -II**

Sr. No.	Course Code	Name of the Course	Contact Hours Per Week		Evaluation Scheme		Credit
			L	P	CIA	SEE	
Semester-II		General Academic Components					
1	VOC 201	Linguistic Proficiency - English	4	0	20	80	4
2	VOC 202	Generic Skill-II (Orgnisational Behaviour-II)	2	0	10	40	2
3	VOC 203	Generic Skill-III (Tourism Management Concepts)	2	0	10	40	2
4	VOC 204	Energy and Environment	4	0	20	80	4
Semester-II		Skill Development Components					
5	VOC 211	Guest Relation Management-IV	4	0	20	80	4
6	VOC 212	Workplace Etiquettes-V	4	0	20	80	4
7	VOC 213	Tourism Products of India-II-VI	4	0	20	80	4
8	VOC 221	Practical-4- Guest Relation Management-IV	0	4	25	25	2
9	VOC 222	Practical-5- Workplace Etiquettes-V	0	4	25	25	2
10	VOC 223	Practical-6- Tourism Products of India-II-VI	0	4	25	25	2
11	VOC 231	In-Plant Training –I (Summer Training)	0	120	50	50	4
Total			24	12	245	605	34



Semester – II

General Education Components

VOC-201: Linguistic Proficiency - English

(4 Credits: 100 Marks)

Learning Objectives:

1. To provide students with fundamental backgrounds of communicative English.

Course Outcomes:

On completion of the course, students should be able to –

1. Apply knowledge of grammar effectively to formulate correct sentences.
2. Prepare Proposals, Surveys, Appraisals, Project Reports, Newspaper/ Media Report
3. Prepare business related communications
4. Grasp outline and the main point of audio/ audio-visual broadcast and pick out necessary information.
5. Express themselves as per situational demand

Course Contents:

Unit 1:Correct Usage of Grammar Elements

(12 Hrs)

Nouns and Pronouns, Adjectives, Verbs, Adverbs; Formation of Words (Latin and Greek Roots to be excluded); Punctuation; Idioms

Unit 2: Situational Writing Skills

(12 Hrs)

Forms of written communications; Developing ideas and logic; Language and Grammar required for writing in different forms- Single paragraphs, Proposals, Surveys, Appraisals, Project Reports, Newspaper/Media Report

Unit 3:Business Correspondence

(12 Hrs)

Introduction, Forms of letters, Classification of Letters, Social Letters, Notes of Invitations, Business Letters, Letters of Application, Official Letters, Letters to Newspapers

Unit4: Listening Skills

(12 Hrs)

Listening skills- Approaches, Barriers, Tips; comprehension of main ideas and important details; understanding of speaker's purpose and attitude; understanding spoken data in order to make inferences, form generalization, and draw conclusion (Students will watch and listen to actual TV news/ videos at natural speed in order to get accustomed to phonological changes, rhythms, and the pitch and intonation of natural spoken English. Students will also learn phrases and expressions typically found in broadcast English. The TV news/videos segments to be shown are carefully chosen for science and engineering majors.)

**Unit 5: Discourse Strategies****(12 Hrs)**

Discourse strategies- expressing ideas and opinions clearly; selecting, organizing and presenting information spontaneously; English sound articulation, stress, rhythm, grouping (pausing, linking, focus) and intonation, vocabulary-building strategies, speaking skills: summarizing main ideas from various sources, using proper forms of language to perform social functions in various contexts.

Text Books:

1. Learning C for Arduino; S. F. Towaha, 2017; Packt Publishing Ltd.; UK
2. Sams Teach Yourself Arduino Programming in 24 Hours; R. Blum; 2015; Pearson; USA

Reference Books:

1. The C Programming Language; Brian W. Kernighan & Dennis Ritchie; 1988; Prentice Hall, NY
2. Learn Arduino Prototyping in 10 Days; K. B. Roy Choudhury; 2017; Packt Publishing Ltd.; UK
3. Make: Getting started with Arduino; M. Banzi, M. Shiloh; 2014; Maker Media Books Pvt. Ltd.; CA
4. Make: Getting Started with Sensors; K. Karvinen, T Karvinen; 2017; Media Books Pvt. Ltd.; CA

Web: Link of website

1. https://swayam.gov.in/nd2_imb20_mg12/preview



VOC-202: Generic Skill-II (Organisational Behaviour-II)
(2 Credits: 50 Marks)

Learning Objectives:

1. The objectives of the course are to familiarize the participants with the behavioral patterns of human beings at individual and group levels in the context of an Organization.

Course Outcomes:

On completion of the course, students should be able to –

1. Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.

Course Contents:

Unit 1: Organizational Behavior

(06 Hrs)

Definition, Need for studying Organizational Behavior, Application of Organizational Behavior in Business.

Unit 2: Individual behaviour

(06 Hrs)

personality, perception, learning, attitudes inter-personal behaviour, Group and inter-group behaviour.

Unit 3: Group Dynamics

(06 Hrs)

Formal and Informal Group, Group Norms, Group Cohesiveness, Group Behaviour and Group Decision – making.

Unit 4: Motivation and morale

(06 Hrs)

leadership-nature, styles and approaches, development of leadership including laboratory training..

Unit 5: Management of change-conflict Management

(06 Hrs)

Organisation Health, Development and Effectiveness. Management of culture, Cross Cultural Management.

Text Books:

1. Organizational Behaviour, India Edition, Nelson & Quick, Cengage learning.
2. Organisational Behaviour, S. Fayyaz Ahamed and others, Atlantic publisher.
3. Organisation Behaviour, A modern approach – Arun Kumar & N. Meenakshi Vikas publishing House PVT Ltd.,
4. Behaviour in organizations, Indian Edition, Jerald Green Berg and Robert A. Baron – PHI Learning PVT Ltd.,



Reference Books:

1. Fundamentals Organisational Behaviour, India Edition – Slocum and Hell Riegel by Cengage learning.
2. Culture and organisational Behaviour Jai B.P. Sinha [www. sagepublications. com](http://www.sagepublications.com)
3. Organizational Behaviour, Special Indian Edition – by Steven L Mcshane, Mary Ann Von Glinow and Radha R. Sharma, Tata Mcgraw hill co.
4. Management of Organizational Behaviour Indian Edition, By Paul Hersey Kenneth. H. Blanchard and Dewey – PHI learning PVT Ltd.,

Web: Link of website

1. <http://www.ignouhelp.in/ignou-mba-study-material/>
2. https://swayam.gov.in/nd2_ccc20_mg03/preview



VOC-203: Generic Skill-III (Tourism Management Concepts)
(2 Credits: 50 Marks)

Learning Objectives:

1. To understand the various Management practices and principles. To develop the skills of students needed to manage all tourism related organizations.

Course Outcomes:

On completion of the course, students should be able to –

1. Understand the basic concepts related to tourism management which will help them in their profession.
2. Comprehend the organizational structure, principles and management philosophy of travel and tourism organisations.

Course Contents:

Unit 1: Introduction

(06 Hrs)

Concept, nature, Significance and scope of Management, management Process and Co-ordination, Emergence of Management thoughts

Unit 2: Planning:

(06 Hrs)

Meaning, Nature and Importance, Purpose and Process, Methods of Planning.

Unit 3: Organising

(06 Hrs)

Nature and importance of organisation, organisations, Organisation Theories, Organisational Structure and Organisational Culture and Management Ethos,

Unit4: Directing

(06 Hrs)

Directing functions of management. Communication: Meaning and Importance of Communication.

Unit 5: Controlling

(06 Hrs)

Nature and Process of Control, Important Devices tool of control. Social Responsibility of Business

Text Books:

1. Management Principles and Practice, by R. Srinivasan and S.A. Chunawalla, Himalaya Publishing House New Delhi.
2. Principles of Management by Terry and Franklin, AITBS Publishers & Distributors, Delhi.
3. Principles and Practice of Management by L.M. Prasad, Sultan Chand and Sons, New Delhi.



Reference Books:

1. Management: Harold Koonty and Heinz Weizich, McGraw Hill Tokyo
2. Management: Stoner and Freeman : Management (Delhi: Prentice Hall, India)
3. Management: Richard M. Hodgets Academic Press, New York

Web: Link of website

3. <http://tourism.gov.in/>
4. <https://www.maharashtratourism.gov.in>
5. <http://www.ignouhelp.in/ignou-mba-study-material/>

**VOC-204: Energy and Environment****(4 Credits: 100 Marks)****Learning Objectives:**

1. To develop basic idea of energy resources, allied techniques and conscience for environment among students

Course Outcomes:

On completion of the course, students should be able to –

1. Describe basic concepts of conventional and non-conventional energy
2. Recognize elements of primary non-conventional energy resources
3. Correlate pollution, role of human being, and threats to environment
4. Discuss ethical and legislative issues related to environment
5. Express the needs and basic routes towards environment sustainability

Course Contents:**Unit 1: Fundamentals of Energy****(12 Hrs)**

Global energy consumption profile, Oil crisis of 1973, Classification of energy resources, Consumption trends of primary energy resources, Importance of non-conventional energy resources, Energy chain, Common forms of energy, Advantages and disadvantages of conventional energy resources, Salient features of non-conventional energy resources, environmental aspects of energy, Sustainable development, Energy density of fuels Principles of energy conservation, Energy conservation ACT 2001, General electrical ECOs, Cogeneration, Need of energy storage, Overview of energy storage methods

Unit 2: Non-conventional Energy Sources**(12 Hrs)**

Solar energy basics, Solar thermal systems, Basics of solar photovoltaic; Wind Energy fundamentals, Environmental aspects of wind energy generation, Biomass energy, Usable form of biomass- composition and fuel property, Biomass resources and conversion technologies, Urban waste to energy conversion, Biogas production from waste biomass. Small Hydro resources, advantages and disadvantage, Layout, Water Turbines, Generation Basics of financial and economic evaluation.

Unit 3: Environment Pollution and Waste Management**(12 Hrs)**

Pollution- Air, Water, Noise and Soil Pollution (causes, Effect, Control Measures); Nuclear hazards, Role of an individual in preventing pollution, Climate Change, Global Warming, Acid rain, Ozone Layer Depletion, Nuclear Accidents; Disaster management. Waste Management – Solid Waste Management, Causes, Effects and control measures of Urban and Individual waste, Municipal Solid Waste, Vermicomposting, Hazardous waste.

**Unit4: Social Issues and Environment****(12 Hrs)**

Human Population – Population growth, Global profile, Urbanization, Environmental and Human health, Values and Human rights. Sustainable development, Waste conservation, Wasteland reclamation, Consumerism and waste products. Environmental Ethics- Issues and possible solutions

Unit 5: Environment Regulations**(12 Hrs)**

Environmental Acts - Environment Protection, Air (Prevention and Control of Pollution Act), Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environment legislation, Public Awareness. Environment Management Standards – ISO 14000, BHARAT and EURO Stages, Environmental Clearance/ Permission for establishing Industries

Text Books:

- 1.Textbook for Environmental Studies–Erach Bharucha for University Grants Commission; University Press; 2004New Delhi, India
- 2.Environmental Management- N. K. Uberoi; Excel Books; 2013New Delhi; India
- 3.Non-Conventional Energy Resources; B. H. Khan; 2006 Tata McGraw-Hill Education; India

Reference Books:

- 1.Environmental Science and Engineering- Glynn Henry J., Gary W. Heinke; 2004.; Pearson Education, Inc, NY
- 2.Non-Conventional Energy Sources- G. D. Rai , 2006; Khanna Publishers, India

Web: Link of website

1. https://onlinecourses.nptel.ac.in/noc18_ge09/preview
2. <https://nptel.ac.in/courses/127106004/>
3. <https://nptel.ac.in/courses/122106030/>



Skill Development Components

VOC-211: Guest Relation Management-IV

(4 Credits: 100 Marks)

Learning Objectives:

1. The objective of the Course is to inform students about the job of guest relation manager.
2. The course aims to develop related key competencies amongst the students for the job role of guest relation manager.

Course Outcomes:

On completion of the course, students should be able to –

1. Differentiate between various guests and able to handle different guests with diverse culture.
2. Develop the skills for the satisfying the guests in effectively and handle the guest complaints.

Course Contents:

Unit 1: Introduction to Guest Relation Management

(12 Hrs)

Definition, concepts, Evolution of different approaches, Scope significance and characteristics

Unit 2: Guest Handling

(12 Hrs)

Types of guests, Dealing with different guest, Complaint handling, Emergency handling.

Unit 3: Stress & Conflict Management

(12 Hrs)

Sources of Stress, Methods for Stress Management, Reasons for conflicts, Techniques of Conflict Handling

Unit 4: Guest Satisfaction and Feedback:

(12 Hrs)

Scope and importance of guest satisfaction, Achieving guest satisfaction, Iceberg effect, Feedback: Need, Role & Significance

Unit 5: Case Study:

(12 Hrs)

Important case study from Hospitality and Tourism

Text Books:

1. Be Our Guest Perfecting Art of Guest Service: Disney Institute
2. Customer Relationship Management : Jadish Sheth
3. Customer Relationship Management: Alok Kumar Roy

Reference Books:

1. Be Our Guest Perfecting Art of Guest Service: Disney Institute



2. Customer Relationship Management : Jadish Sheth
3. Customer Relationship Management: Alok Kumar Roy

Web: Link of website

1. <https://www.ihcltata.com>
2. <https://www.marriott.com>
3. <https://www.hilton.com/>

**VOC-212: Workplace Etiquettes-V****(4 Credits: 100 Marks)****Learning Objectives:**

1. The objective of the Course is to introduce students about the work culture in Hospitality and Tourism Industry.

Course Outcomes:

On completion of the course, students should be able to –

1. Enhance the skills, grooming standard, etiquette and manners amongst the students in order to make them suitable for the industry.
2. Avoid the health hazards while working in the hospitality and tourism industry.

Course Contents:**Unit 1: Work Culture: (12 Hrs)**

Definition and Concept, Scope and Significance, Work Culture in Hospitality and Tourism

Unit 2: Workplace Etiquettes and manners (12 Hrs)

Attributes and required grooming standards, Punctuality & Time management, Theory- Kaizens theory.

Unit 3: Health hygiene and safety at workplace: (12 Hrs)

Maintaining Health, Assessing work hazards, Measure to avoid work hazards, Standard Safety Procedure

Unit 4: Communication and coordination with other departments (12 Hrs)

Verbal Communication in the Workplace, Nonverbal Communication in the Workplace, Virtual Communication in the Workplace, The Use of Technology: Phone, E-mails etc.

Unit 5: Gender, age, disability, diversity (12 Hrs)

Gender sensitivity, Sensitivity toward Disability, Age Sensitivity, Diversity at Workplace

Text Books:

1. Business etiquettes for new workplace : Harvard Business School Press
2. Master of Business Etiquettes: Cyrus Gonda

Reference Books:

1. Corporate grooming and Etiquettes: Sarvesh Gulati

Web: Link of website

1. <https://www.ihcltata.com>
2. <https://www.marriott.com>
3. https://swayam.gov.in/nd2_cec19_mg30/preview

**VOC-213: Tourism Products of India-II-VI****(4 Credits: 100 Marks)****Learning Objectives:**

1. To introduce concept of tourism product.

Course Outcomes:

On completion of the course, students should be able to –

1. To acquaint students with the historical legacy of India.
2. To provide detailed information to students about different cultural tourism resources of India.

Course Contents:**Unit 1: Tourism Product****(12 Hrs)**

Definitions and Fundamentals of Tourism Product, Types of tourism product, Significance

Unit 2: Architectural heritage of India:**(12 Hrs)**

Brief History of India, Architectural Styles in India

Unit 3: World Heritage Sites in India:**(12 Hrs)**

World Heritage: Concept, Status of World Heritage Sites in India, Major Cultural World Heritage Sites in India

Unit 4: Pilgrimage Sites in India**(12 Hrs)**

Significance of pilgrimage sites in tourism, Important pilgrimage sites in India – Hindu, Islamic, Sikh, Buddhist etc.

Unit 5: Museums and other important monuments**(12 Hrs)**

Important Museums in India, Important Monuments in India, Modern Tourism Products

Text Books:

1. Basham A. L: The Wonder that Was India.
2. Basham A. L : Cultural History of India
3. Peroy Brown : Islamic Architecture
4. Peroy Brown : Indian Architecture
5. James Burgess : Western Cave Temples of India
6. Enakshi Bhavnani : Dances of India
7. Enakshi Bhavnani : Handlooms and Handicrafts of India
8. R. Nath : Mughal Colour Decoration
9. Husaini S. A. : The National Culture of India, National Book Trust, New Delhi
10. Gupta M. L. and Sharma D. D. : Indian Society and Culture
11. Coomarswamy A. K. : History of Indian and Indonesian Art



12. Davids T. W. : Rhys Buddhist Ida
13. Gangoly O. C. : Indian Architecture
14. Havell E. B. : Ancient and Medieval Architecture

Reference Books:

1. Gupta, SP, Lal, K, Bhattacharya, M. Cultural Tourism in India (DK Print 2002)
2. Dixit, M and Sheela, C. Tourism Products (New Royal Book, 2001)
3. Oki Morihiro, Fairs and Festivals, World Friendship Association, Tokyo, 1988.
4. Mitra, Devla, Buddhist Architecture, Calcutta.

Web: Link of website

1. <http://tourism.gov.in/>
2. <https://www.india.gov.in>
3. <https://www.maharashtratourism.gov.in>
4. <https://whc.unesco.org>
5. <https://www.incredibleindia.org>
6. <http://asi.nic.in/>
7. [https://swayam.gov.in/nd2 cec19 mg28/preview](https://swayam.gov.in/nd2_cec19_mg28/preview)

**VOC 221: Practical-4- Guest Relation Management-IV****(2 Credits: 50 Marks)****Learning Objectives:**

1. This practical is targeted to give hands on experience of work of guest relation manager.

Course Outcomes:

On completion of the course, students should be able to –

1. Attend to guest queries.
2. The course aims to acquire related key competencies in participants for the job role of guest relation manager.

Practical Work-List

1. Welcome, greet and meet guests at front office.
2. Booking of rooms based on the guest's inquiry.
3. Check-in and check-out procedures of guests in hotel.
4. Handle telephonic inquiries of guest.
5. Responding to guest queries
6. Manage special requests for customers including restaurant reservations, and car rentals.
7. Address guest inquiries and concerns in a timely and professional manner.
8. Welcome and escort VIP guests and special guests.
9. Achieving guest satisfaction
10. Resolving guest issues

Field Work / Visit

1. Field to the front office of the star category hotel to know about the guest handling and guest relation management.

Self-Learning

1. Self-learning by students through text books, magazines, newspapers, online resources including course based on Hospitality and Tourism available on SWAYAM portal of UGC.

Role Plays

1. Playing a role of Guest Relation Manager and guests by students related to the room bookings



VOC 222: Practical-5- Workplace Etiquettes-V

(2 Credits: 50 Marks)

Learning Objectives:

1. The objective of the Course is to provide students required work place etiquettes in Hospitality and Tourism Industry.

Course Outcomes:

On completion of the course, students should be able to –

1. Maintaining standard etiquette at workplace and achieving customer satisfaction

Practical Work-List

1. Behavioural, personal and telephone etiquettes.
2. Treating customers with high degree of respect and professionalism.
3. Following standard etiquette with women at workplace.
4. Providing different age and gender specific customer service.
5. Ensuring cleanliness around workplace.
6. Following personal hygiene practices.
7. Taking precautionary health measures.
8. Taking precautionary measures to avoid work hazards.
9. Following standard safety procedure.
10. Using safety tools or Personal Protective Equipment.
11. Achieving safety standards

Field Work / Visit

Self-Learning

1. Self-learning by students through text books, magazines, newspapers, online resources including course based on Hospitality and Tourism available on SWAYAM portal of UGC.



VOC 223: Practical-6- Tourism Products of India-II-VI

(2 Credits: 50 Marks)

Learning Objectives:

1. To introduce diverse cultural tourism products of India to the students.

Course Outcomes:

On completion of the course, students should be able to –

1. To know and differentiate in various cultural tourism resources of India.

Practical Work-List

1. Basics of Map Reading.
2. Cultural tourism resources of East India.
3. Cultural tourism resources of West India.
4. Cultural tourism resources of South India.
5. Cultural tourism resources of North India.
6. Cultural tourism resources of West India
7. Cultural tourism resources of Central India
8. Cultural World Heritage Sites in India.
9. Important Hindu pilgrimage sites in India.
10. Important Islamic pilgrimage sites in India.
11. Important Sikh pilgrimage sites in India.
12. Important Buddhist pilgrimage sites in India.

Field Work / Visit

1. Field to the nearby cultural tourism products available in Aurangabad region.

Self-Learning

1. Self-learning by students through text books, magazines, newspapers, online resources including course based on Hospitality and Tourism available on SWAYAM portal of UGC.



VOC 231: In-Plant Training –I (Summer Training)

(4 Credits: 100 Marks)

A handwritten signature in blue ink, appearing to read "M. K. Kulkarni".

PRINCIPAL

**Kohinoor Arts, Commerce & Science College
Khultabad, Dist. Aurangabad.**