



H.K.E. Society's
**B.V. BHOMARADDI COLLEGE OF ARTS, SCIENCE
& COMMERCE BIDAR-3, KARNATAKA**



DEPARTMENT OF CHEMISTRY

SOIL TESTING

AND

WATER ANALYSIS

VALUE ADDED COURSE 2019-20

Course Co-ordinator

Dr. Mallikarjun Kote

Head and Assistant professor

Department of Chemistry





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DEPARTMENT OF CHEMISTRY

Value added course on soil and water Testing

Instructional design

This course is of 30hrs duration which includes theory classes, field visit, Assignment and field project.

Course structure and examination scheme

Total contact hours:

Theory classes: 10Hrs

Practical lab work: 20Hrs

Total = 30Hrs.

Continuous Evaluation Marks: 40. Theories :20, Practical: 20

Course end examination Marks: 60. Theory: 30, Practical: 30

Total Marks: 100.

Eligibility: students enrolled in B Sc program of this college

Number of seats: 25



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Institutional BOS Meeting Minutes

The institutional BOS Meeting of the Department of Chemistry for the value added course on soil and water testing was held on 04-01-2019 at IQAC room at 11.00am

Institutional BOS

Sl.no.	Name	Institute	Designation
01	Dr. P V Reddy	B V B College Bidar	Principal & Chairman
02	Dr. Mallikarjun Kote	B V B College Bidar	HOD & member
03	Dr. Mahadev Udayagiri	Govt. F G College Kalaburagi	External Expert

At the beginning of the meeting chairman Dr. P V Reddy sir welcomed all the members and briefed them about the progress of the department. The members expressed their highly appreciation and satisfaction about the course and activities of the department.

After the discussion the following resolutions were made.

Item 1. Starting the value-added course on soil and water testing

The BOS discussed and resolve that the course should be started from 06-01-2019.

Item 2. Approval of the syllabus for the value-added course

The BOS discussed and approved the syllabus for the value-added course

Item 3. Criteria for the admission, registration and policies to run the course and examinations pattern

The BOS discussed and approved the criteria for the admission and resolved that the students should have enrolled in BSc with Chemistry as one of the subjects. In addition to this BOS also finalized the following pattern for the assessment.



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Continuous evaluation marks: 40, theory :20, practical: 20

Course end examination marks: 60, theory: 30, practical :30.

Total marks :100.

Meeting of the BOS was concluded with vote of thanks by Dr. Mallikarjun Kote HOD

Present members of BOS

1. Dr. P V Reddy

2. Dr. Mallikarjun Kote

3. Dr. Mahadev Udayagiri



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Time table

Dates & Time	8 to 9am	9 to 10am	10 to 10.30am	10.30 to 1.30pm
	Theory	Theory	Break	Practical
	Theory	Theory		Practical
	Theory	Theory		Practical
	Theory	Theory		Practical
	Theory	Theory		Practical
	Theory	Theory		Practical

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BIDAR-585 403.

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Commerce & PG College, BIDAR.



Estd - 1960



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ಬಿ.ವಿ. ಭೂಮರದ್ದಿ ಕಲಾ, ವಿಜ್ಞಾನ ಹಾಗೂ ವಾಣಿಜ್ಯ ಮಹಾವಿದ್ಯಾಲಯ
ಬೀದರ-585 403 - ಕರ್ನಾಟಕ
Hyderabad Karnataka Education Society's
B.V. BHOOMARADDI COLLEGE OF ARTS, SCIENCE & COMMERCE
BIDAR-585 403 - Karnataka



Date : 02-01-2019

No. HKES/BVBDC/

Date:

To,

The Principal
B V Bhoomaraddi College of Arts, Science and Commerce,
Bidar

Sub: Request to grant permission to Add-on course on "Soil Testing and Water Analysis" from the academic year 2019-20: Reg.

Respected Sir,

We would like to start the add-on course on "Soil Testing and Water Analysis" from the academic year 2019-20: with intake of 25 students. Please permit us to start the add-on course and do the needful.

Thanking You.

Permission is granted
S. S. S.

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DEPARTMENT OF CHEMISTRY

Value added course on soil and water Testing

Preamble: Soil and water are one of the most important nature resources for the human life. Testing and analyzing soil and water obtaining some important information about its properties can be used to determine the quality of soil and water. This kind of scientific inquiry tends to understand the status of soil and water resources which are important for human and agriculture both. Soil analysis is considered as important because it identifies contaminants and prevents water-borne diseases.

Bidar district consists of large agriculture populations and hence this course aimed to equip the students with tools and techniques and water and soil quality analysis by means of basic principles and procedure of chemistry, hence they can satisfy the local needs and social problems of farmers.

Learning outcomes

1. To develop basic understanding regarding soil testing in the students.
2. To introduce them with macro and micro nutrients for soil.
3. To enhance their skills about water analysis.



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Theory :

Unit-I introduction to soil analysis, types of soil, soil pollution, role of soil testing for the environment, uses of soil analysis.

Unit-II introduction to water analysis, types of water , water pollutions, role of water testing for environment, uses of water analysis.

Practical :

Part-I Soil Analysis

1. To determine the pH of given soil sample
2. To determine the nutrient content (NPK) of soil
3. To determine the salinity of given sample
4. To determine the micronutrients content of soil sample

Part-II water Analysis

1. To determine the hardness of water
2. To determine the pH of water sample
3. To determine the alkalinity of water
4. To determine the TDS of given water sample

References:

1. Manual on soil, plant and water analysis-I jan 2007, by Dhyan Singh (Author), A1 publisher
2. Manual for soil and water analysis, p Burman etal, Backhuys publisers Leiden 1996



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DEPARTMENT OF CHEMISTRY

Value added course on soil and water Testing

Work - done

Topics covered	
Theory	Practical
Role of water testing for the environment and uses of water analysis	1. To determine pH of the soil sample
Water pollutants	2. To determine the salinity of water sample
Introduction to soil analysis, types of soils and soil pollutants	3. To determine the nutrients content (NPK) of soil
Role of oil testing for the environment, uses of soil analysis	4. To determine micronutrients contents of soil sample
Introduction to water analysis , types of water and water pollutants, waste water treatment	5. To determine the hardness of water
	6. To determine the pH of given sample
	7. To determine the alkalinity of water
	8. to determine the TDS of water sample



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DEPARTMENT OF CHEMISTRY

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Notice

All the students are hereby informed that Department of Chemistry is offering the value-added course on soil and water analysis interested students can enroll their names with any faculty of department of chemistry on or before 02-01-2019

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DEPARTMENT OF CHEMISTRY

Value added course on soil and water Testing

List of the candidates taken admission for the value-added course in the
aceramic year 2019-20

Sl. No.	Roll No	Name of the candidates	Signature
01	05	Ambika Dasharat	
02	06	Shabari Naganna	
03	07	Vidyalata Arjunrao	
04	08	Shivaleela Basavappa	
05	09	Madumati Baburao	
06	10	Sunilkumar Maruti	
07	11	Pooja Rajendra	
08	12	Chndrakath Sangayya	
09	13	Vanishree Tukaram	
10	14	Sahana Shanthling	
11	16	Rajeree Vaijinath	
12	18	Ashwini Laximan	
13	20	Ashwini Kallappa	
14	21	Deepika Revenasaidda	
15	38	Vaishali Shivaraj	
16	40	Shilpa Kashinath	
17	44	Aishwaryya Motiram	
18	45	Anjali kasinath	

19	53	Priya Vinayaka	Priya . v.
20	62	Nikita Vijaykumar	Nikita .
21	71	Vijaykumar Nganarth	Vijaykumar .
22	72	Zuman Ahemad	Zuman
23	73	Satish Chandrakath	Satish
24	74	Paul pundalik	Paul Pundalik
25	75	Vishal Devidas	Vishal


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Notice

all the students enrolled in soil and water analysis course are informed that examinations for this course is going on to be held on 06-01-2019 at department of chemistry. The time table for internal exam will be as follows.

Time table:

Theory and practical time table every Sundays
from 13th January to 28th April-2019

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Internal Assessment Test

Title of the paper: Soil Testing & Water Analysis

Time: 30min

Max. Marks: 10

Note: Instructions to the candidates

Answers all the following questions.

Q No. I answer any two of the followings.

5 x 2 = 10

1. write a note on soil testing
2. explain water pollution
3. what are the types of soils in India



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Notice

All the students enrolled in soil and water analysis course are informed that course end examination for this course is going to be held on 19-05-2019 at Department of chemistry. The time table for internal exam will be as follows.

Time table for theory exam:

Sunday 19-05-2019

Practical time table: 26-05-2019.


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Title of the paper: Soil Testing & Water Analysis

Time: 2hrs

Max. Marks: 40

Note: Instructions to the candidates

Answers all the following questions.

Q No. I answer any five of the followings.

2 x 5 = 10

1. Classify the soil.
2. What is pH value of the soil?
3. Write the molecular formula and mass of the water.
4. What are the sources of waters?
5. What is meant by soil?

Q No. II Answer any two of the followings.

5 x 2 = 10

1. Define soil and role of the NPK in soil
2. Mention the types of soil in India
3. How do you determine BOD & COD in water analysis?

Q No. III Answer any two of the followings.

10 x 2 = 20

1. Write a note on soil pollution with an example
2. Explain the waste water treatment
3. Explain water pollution with an examples



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ESTD : 1960

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B.V. BHOMARADDI COLLEGE OF ARTS, SCIENCE & COMMERCE, BIDAR

(Affiliated to Gulbarga University, Kalaburagi)

Accredited with 'A' Grade by NAAC

Department of _____

CERTIFICATE

This is to certify that Kum./Kumari _____ of

_____ Bearing Register No. / Roll No. _____ has

Successfully completed add-on Course/Certificate course in _____

_____ during the academic year 20.....-20.....

Head of the Dept.

IQAC Co-ordinator

Principal

