Dayanand Education Society, Latur,

Dayanand Science College, Latur.

Maharashtra India



Department of Chemistry

ATR

Add-on-Course

(2022-2023)

By

Dr. Shinde R.S

Associate Professor

Department of Chemistry

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Dayanand Science College, Latur. Department of Chemistry Events organized during the Academic year 2022-23

Action Taken Report of add on course soil analysis 2022-23

Events on Add-on Course

Sr.No.	Title	Information
1	Name of Department	Chemistry
2	Title of Event	Add-on-Course on Soil Analysis
3	Date or Duration	September 1 to 13 November and 30 hrs
4	Venue of the Event	Dayanand Science College, Latur.
5	Sponsor/Collaboration	Assistant Director, Dist. Soil Survey & Soil Testing Office, Latur
6	Level of Event	College
7	Aims/Objectives of the Event	To get the knowledge of Soil Analysis and Content of the Soil
8	Beneficiaries/Participants	Students/Staff
9	Name of Participants	20
10	Name of Chief Guest, Speakers	Mr. Dinesh Kandle
11	Name of Coordinators	Dr. R. S. Shinde
12	Photographs	Attached
13	Evidence Produced	College letter, Students Name list, Student Attendance
14	Outcomes of the event	Smooth completion of Add-on-Course
15	Any other Information	This course is beneficial to the rural students to give for guiding farmer

Background: The department of Chemistry, Dayanand Science College, latur is one of the best departments in Marathawada region in SRTMUN. This department has UG, PG, Ph.D. courses and Research Centers in chemistry. In the month of September 19-09-2022 to 30-09-2022 the Add-on Course soil analysis was successfully held, which was organized by the Department of Chemistry, Dayanand Science College, Latur in collaboration with Assistant Director, Dist. Soil Survey & Soil Testing Office, Latur soil analytical laboratories for B.Sc. Students. The Course was attended by a total of 20 participants.

Aim and objective

- 1. To estimate the physical properties and available nutrient status (macro, secondary and micronutrients) of soils.
- 2. To provide soil test based recommendations to farmers for improving soil fertility and economic return to farmers.
- 3. To facilitate and promote use of soil amendments for reclamation of acidic/alkaline soils for improving their fertility and crop productivity.
- 4. To facilitate and promote Integrated Nutrient Management (INM) through judicious use of chemical fertilizers, including secondary and micro nutrients along with organic manures and bio-fertilizers, for improving soil health and its productivity.
- 5. To promote use of micro nutrients for improving crop productivity.

The proposed results were:

- 1. To determine the level of availability of nutrients or the need for its introduction.
- 2. To predict the increase in yields and profitability of fertilization (poor soils do not always provide yield increase due to fertilization because of possible limiting factors).
- 3. To provide the basis for calculating the required fertilizing of each crop.
- 4. To evaluate the status of each nutrient element and simultaneously determine how to manage the nutrients.
- 5. To improve economic planning and decision making for a farmer.

Outcomes of This Add-on Course:

- 1. Employment generation for rural youth.
- 2. To develop elementary understanding regarding soil analysis and testing in the students.
- 3. To introduce them with macro and micro nutrients for soil.
- 4. To enhance their skills about soil analysis.
- 5. To develop practical skill among the students

Participants:

The Add-on Course brought together more than 20 B.Sc. students from institutions in DSC, Latur. It is important to emphasize the financial support provided by College authorities.

Inauguration and Presentations

The inauguration of the value added course was conducted by following authorities.

• Chief Guest : 1. Mr. Dinesh Kandle 2. Dr. Y. P. sarnikar

Acknowledgements

It has been our pleasure to host the add on course for the students of Dayanand science college, Latur. I am thankful to all participants for coming to attend the program and demonstration of soil analysis. I am sure that the participant must have benefited by attending this programme. I would like to record my sincere thanks to our chief guest Mr. Dinesh Kandle and HOD Dr.Y. P. sarnikar sir, Dr. A. M. Chougule, Dr. J. A. Angulwar from the chemistry department.

P.S.Shinde Dr. R. S. Shinde

Course coordinator

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Davanand Science College

IQAC coordinator IQAC - Coordinator Dayanand Science College Dayanand Science (INDIA) Latur, M.S. (INDIA)

Principal PRINCIPAL Dayanand Science College LATUR

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Dayanand Education Society's **Dayanand Science College**

Latur, Maharashtra (India)

(UGC - CPE College) (DST-FIST Sponsored College)

Establishment : June 1961 Independent : 1967

Submission of

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(Best College Award by SRTMU, Nanded) (Affiliated to - Swami Ramanand Teerth Marathwada University, Nanded) Fax No. : (02382) 221149 Phone No.: (02382) 221149, 222929

Re-accreditated 'A' Grade CGPA 3.21

CGPA 3.21	E-mail : daya_scin1@rediffmail.com	Webs	site : www.dsclatur.org
Laxmiraman Lahoti President	Dr. Jaiprakash Dargad Principal		Ramesh Biyani Secretary
Ref. No. 36 /2022-23/ 2	-169		Date : 12.09.2022

Ref. No. 36 /2022-23/2169

To,

The Distric Soil Survey & Soil,

Testing officer,

Ambajogai Road,

Latur.

Subject:- Regarding information about soil analysis & testing.

Respected Sir,

With reference to above cited subject out B.Sc. studdents need your guidance about soil analysis & testing.

So we request you to organize practical demo of soil analysis for our students. Thank you for your kind cooperation.



Principal

DAYANAND SCIENCE COLLEGE, LATUR

NOTICE

Date : 12.09.2022

All the students (B. Sc., BCS & M.Sc.) are hereby informed that our college organized value added course on Soil Analysis. The course was design as per global scenario make world more competitive & requires high level of lateral thinking & spirit of entrepreneurship tocope up with emerging challenges. This course prepare the students to meet industry demands & develop their own interests & aptitudes. The interested students enroll their name before 16.09.2022 or contact to Dr. R. S. Shinde, Chemistry department.





Dayanand Education Society's **Dayanand Science College**

Latur, Maharashtra (India)

(DST-FIST Sponsored College)

Establishment : June 1961 (Affiliated to - Swami Ramanand Teerth Marathwada University, Nanded) Independent : 1967

NAAC Reaccreditated : A

Phone No : (02382) 221149, 222929 Fax No: (02382) 221149 E-mail: daya_scin1@rediffmail.com Website : www.dsclatur.org

Laxmiraman Lahoti	Dr. J.S. Dargad	Ramesh Biyani
President	Principal	Secretary

Ref. No. P. ex 2022-23/ 2190

Date : 16/09/2022

To.

Dr. A. M. Chaugule.

Head of Department.

Industrial Chemistry.

Dayanand Science College, Latur

Subject :- Regarding Add on Course.

Sir.

With reference to above subject you are appointed as a Chair person for preparation of curriculum of Add-on Course entitiled as Soil Analysis on or before 19.09.2022. Please prepare the same and submit to Dr. R. S. Shinde, Course Co-ordinator.

Thanking You.

Friedl Course Co-ordinator

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IQAC of Dayanand Science College, Latur in its CDC meeting decided to introduce new pilot add-on courses for the academic sessions from session 2022-23. The continuation of these courses after three year will be depend on interest and participation of students, course outcomes and financial provisions from the Institution.

Outcome of the Course:-

- 1. Employment generation for rural youth.
- 2. To develop elementary understanding regarding soil analysis and testing in the students.
- 3. To introduce them with macro and micro nutrients for soil.
- 4. To enhance their skills about soil analysis.
- 5. To develop practical skill among the students

Instructional Design:-

This course is of 30hrs duration which includes theory and Practical classes, field Visit, Assignment and Field Project.

Course Structure and Examination Scheme:-

Course No.	Cours e	Contact Classes	Laboratory Experiment	Internal Marks	External Marks		Total
	Name	(Hour)	(Hour)		Theory/Practical	Project	Marks
1	Soil analysis	10	20	20	50	30	100

Note: Each student should compulsorily submit Field Project Report not less than 20 pages

Eligibility: All students belongs to UG / PG are eligible to enroll for course.

Course Fee: Not Applicable/ Free

No. of Seats: 20

Grading system:- Following Percentage based grading system will be applicable to the course.

ange of % of marks	Grade
85-100	A++
80-<85	A+
75-<80	А
65-<75	B++
55-<65	B+
45- <55	В
40- <45	С
<40	Fail

Quality Assurance Mechanism: The quality of the course will be ensured through continuous evaluation of feedback from students and course coordinator by IQAC of the College.

Course time table : 6 Lectures per week, Practical's during Hollidays, Sunday, Diwali & Summer Vocations.

Course evaluation: Practical skill, attendance, project report, lab tests and tutorials require to be taken during course period to evaluate the methodology.

Theory+ journal + Practical + Viva	- 20 marks x 1= 20
Attendance + Visit report	- 20 marks $x = 1 = 20$
Project report + Viva	- 10 marks $x = 10$
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Reference Book:

- 1. Introductory Soil Science" authored by Dillip Kumar Das.
- 2. The Nature and Properties of Soil" by N.C.Brady and Ray.R.Weil.
- 3. Soils , India Physical Environment (NCERT- 11th class) : Classification of Indian Soils.
- 4. https://bsssjournals.onlinelibrary.wiley.com/doi/abs/10.1111/ejss.13259

Syllabus :- Value added courseOn Soil analysis

Theory:

Unit I- Introduction to Soil analysis, Types of soil, Soil sampling, Soil collection, Soil Screening, Soil pollutants, role of soil testing for environment, Uses of soil analysis.

Practicals:

Unit II- Practicals of Soil Analysis

- 1. To determine the PH of a given soil sample.
- 2. To determine Major nutrient content (NPK) of soil.
- 3. To determine Secondary nutrients content (Ca, Mg, S) of soil.
- 4. To determine Micro nutrients content (Zn, Fe, Cu, Mn and B) of soil.
- 5. To determine Electrical conductivity of a given soil sample.
- 6. To determine micronutrient content of soil samples.
- 7. To determine Organic carbon content of soil samples.

This proposal is placed before IQAC of Dayanand Science College, Latur for syllabus approval.

IQAC - Coordinator Dayanand Science College Latur, M.S. (INDIA)

Coordinator IQAC - Coordinator Dayanand Science College Latur, M.S. (INDIA)

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