

B. L. D. E Association's
S. B. Arts and K. C. P. Science College,
Vijayapur



Department of PG Studies in Chemistry

**SKILL BASED VALUE ADDED COURSE
FOR
PG STUDENTS OF CHEMISTRY**
(For the Academic Year 2019-20)

**Course Name: "Training on Principles and
Handling of Major Instruments"**

(Course Code: SBKCP/PGCHEM-01)

REPORT

SYLLABUS

Course Name: "Training on Principles and Handling of Major Instruments"

Course Code: SBKCP/PGCHEM-01

Total Duration of Teaching: 30 Hours

Course Contents:

I. OBJECTIVE

II. SCOPE

III. SYLLABUS

IV. DURATION OF THE COURSE

V. EXAMINATION PATTERN

VI. REFERENCES

I. OBJECTIVE:

The main objective is make students employees of the university and affiliated colleges to understand the basic principles and handling of some major instruments found in the chemistry laboratory. Handling of these instruments will help the students to carry out some of the important projects during their M.Sc course. It will also help the students to join industries, once they complete their M.Sc programme.

II. SCOPE:

Students, teachers and employees of the affiliated colleges and university who are interested in this course will be benefitted. The course will be initially, would be offered in the university and affiliated colleges.

III. SYLLABUS:

1. Basic principle and application of Rotary Evaporator. **5 hrs**
Principle, Instrument parts and their functions-chiller, vacuum pump, condenser, water bath. Uses of the instrument for synthetic chemists and its advantages over other conventional techniques.
2. Principle and use of UV-VIS Spectrophotometer. **5 hrs**
Principle, fundamentals of UV-VIS spectroscopy and instrumentation.
3. Handling of FTIR Instrument. **5 hrs**
Introduction, instrumentation, identification of various functional groups- alkanes, Alkenes, aromatics, carboxylic acids, carbonyl compounds (aldehydes, ketones and esters).

4. Principle and use of Flame Photometer. 5 hrs
Theory, principle and applications of flame photometer.
5. Use of BOD and COD incubator. 5 hrs
Theory, uses and applications of the COD and BOD incubator.
6. Chromatography techniques like Thin Layer Chromatography and Column Chromatography. 5 hrs
Introduction, principles, stationary and mobile phase systems RF value calculation, techniques of development, visualization and applications. Selection of column width, length, stationary phase and mobile phase. Separation of various plant pigments and organic compounds.

PRACTICAL:

1. Separation of plant pigments and organic compounds using thin layer chromatography and column chromatography.
2. Recoding of IR spectra of some important organic compounds and assigning their characteristics peaks.
3. Recording of UV-VIS spectra of some fluorescent compounds.
4. Determination of BOD and COD of different water samples.
5. Isolation of caffeine from Tea powder.

IV. DURATION OF THE COURSE:

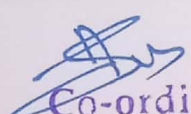
30 days and the course will be conducted on every Sunday.


V. EXAMINATION PATTERN:


Theory	Practical		Total
Exam Marks	Exam Marks	Viva	
50	40	10	100

VI. REFERENCES:

1. Introduction to chromatography-theory and practice-V.K. Srivastava and K.k. Srivastava, S. Chand Company Ltd., IV Ed (1991).
2. Basic Concepts of analytical chemistry- S.M. Khopkar, New Age International Publishers, II Ed (1998).
3. Analytical Chromatography-G.R. Chatwal, Himalaya Publishing House, VII Ed (1998).
4. Introduction to Spectroscopy. Pavia, Lampman and Kriz, 3rd edition, Thomason.
5. Spectroscopy, B.P. Straughan and S. Walker, John Wiley & Sons Inc., New York, Vol. 1 & 2, 1976.
6. Vibration Spectroscopy Theory and Applications, D. N. Satyanarayana, New Age International, New Delhi..


Co-ordinator,
P. G. Department of Chemistry,
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BIJAPUR - 586101


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SB Arts & K.C.P. Science College,
Wijayapur.


Principal,
SB Arts & K. C. P. Sc. College,
Wijayapur - 586103.



**B. L. D. E. ASSOCIATION'S
S. B ARTS AND K. C. P SCIENCE COLLEGE,**

SHRI B. M. PATIL ROAD (Solapur Road), VIJAYAPUR
ACCREDITED at 'A' Grade in 3rd Cycle by NAAC

Phone: (08352) – 261766, (08352) 262770 Extn. 2223, 2224

Fax: 08352 – 261766 E-mail: bldeasbkcp@gmail.com Web: www.bldeasbkcp.org



REF./ ಕ್ರಮಾಂಕ : _____


Date / ದಿನಾಂಕ: 01-Aug-2019

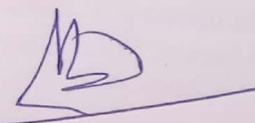
Department of PG Studies in Chemistry

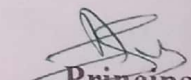
Value Added Course: 2019-2020

NOTICE

The PG Department of Chemistry is conducting value added course on “Training and handling major equipments”. All the students are hereby inform to enroll your names in the PG department of chemistry before 17th of August 2018 classes will commence on 18th of August 2018.



Coordinator
P. G. Department of Chemistry,
PG Studies in Chemistry
S. B. Arts & K. C. P. Science College
VIJAYAPUR - 586101

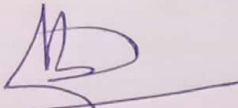

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P.G. Dept of Chemistry
Time Table for value added course 2019-20

Time (Theory)	SUNDAY	Remarks
10.00 to 11.00	SNU	
11.00 to 12.00	SDL	
Time (Practical)		
2.00 to 6.00	PKM	Batch-1
	ABT	Batch-2


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SB Arts & KCP Science College
BIJAPUR - 586101


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S.B. Arts and K.C.P. Science College Vijayapur
 P.G. Dept of Chemistry
 List of Students for value added course 2019-20

Sl. No	RCU No.	Name of the Student	Signature
01	CH192001	Aishwarya Kaladagi	
02	CH192002	Akshata Ashok Sajjan	
03	CH192003	Amarkumar B Telasang	
04	CH192004	Beebeeayasha K Bagewadi	
05	CH192005	Bhagyashree Biradar	
06	CH192006	Bhagyashri Hiremath	
07	CH192007	Bouravva Mangasuli	
08	CH192008	Deepti Masuti	
09	CH192009	Girish N Hiremath	
10	CH192010	Kavya Muttagi	
11	CH192011	Khatunabi Mulla	
12	CH192012	Megha Sajjan Bhandare	
13	CH192013	Pooja Nandakumar Patil	
14	CH192014	Priyanka Padashetti	
15	CH192016	Sagar Gayakwad	
16	CH192017	Savitri Hugar	
17	CH192018	Shabanam Maktum Kasabag	
18	CH192019	Sneha Pangudwale	
19	CH192020	Sudha Biradar	
20	CH192021	Susma Ivani	
21	CH192022	Tejashwini Mantri	
22	CH182001	Aishwarya Sajjan	
23	CH182002	Akshata Marab	
24	CH182003	Amruta Kashetti	
25	CH182004	Archana Pattar	
26	CH182005	Bandavva Pattanashetti	
27	CH182006	Bibzahera Bevanur	
28	CH182007	Daneshvani Walimarada	
29	CH182008	Deepa Kamble	
30	CH182009	Leela Harijan	

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P.G. Dept of Chemistry

List of Students for value added course 2019-20 (attendance)

Sl. No	RCU No.	Name of the Student	18/8/19	25/8/19	1/9/19	8/9/19	15/9/19	22/9/19	29/9/19	6/10/19	13/10/19	20/10/19	27/10/19	3/11/19	10/11/19	17/11/19	24/11/19	1/12/19	15/12/19
01	CH192001	Aishwarya Kaladagi	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As
02	CH192002	Akshata Ashok Sajjan	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As	As
03	CH192003	Amarkumar B Telasang	A	A	A	A	A	AB	A	A	A	A	A	A	A	A	A	A	A
04	CH192004	Beebeeyasha K Bagewadi	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea	Bea
05	CH192005	Bhagyashree Biradar	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs
06	CH192006	Bhagyashri Hiremath	Bs	AB	Bs	Bs	Bs	Bs	Bs	Bs	AB	Bs	Bs	Bs	Bs	Bs	Bs	Bs	Bs
07	CH192007	Bouravva Mangasuli	Bm	Bm	Bm	Bm	Bm	Bm	AB	Bm	Bm	Bm	Bm	Bm	Bm	Bm	Bm	Bm	Bm
08	CH192008	Deepti Masuti	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm	Dm
09	CH192009	Girish N Hiremath	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh	Gh
10	CH192010	Kavya Muttagi	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km	Km
11	CH192011	Khatunabi Mulla	Km	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	Mulla	AB	Mulla
12	CH192012	Megha Sajjan Bhandare	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
13	CH192013	Pooja Nandakumar Patil	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp
14	CH192014	Priyanka Padashetti	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp	Pp
15	CH192016	Sagar Gayakwad	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg	Sg
16	CH192017	Savitri Hugar	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
17	CH192018	Shabanam Maktum Kasabag	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	S.MK	AB
18	CH192019	Sneha Pangudwale	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn	Sn
19	CH192020	Sudha Biradar	Sd	Sd	AB	Sd	Sd	AB	Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd	Sd
20	CH192021	Susma Ivani	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
21	CH192022	Tejashwini Mantri	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm	Tm
22	CH182001	Aishwarya Sajjan	AS	AS	AS	AS	AB	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
23	CH182002	Akshata Marab	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	AB
24	CH182003	Amruta Kashetti	Am	Am	Am	Am	Am	AB	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am
25	CH182004	Archana Pattar	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa	Pa
26	CH182005	Bandavva Pattanashetti	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	Pd	AB
27	CH182006	Bibizahera Bevanur	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	B.B	AB
28	CH182007	Daneshvani Walimarada	D	D	D	AB	D	D	D	D	D	D	D	D	D	D	D	D	D
29	CH182008	Deepa Kamble	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	Kam	AB	Kam
30	CH182009	Leela Harijan	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le	Le

Co-ordinator
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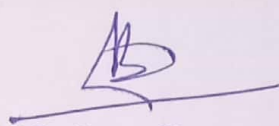
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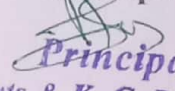
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S.B. Arts and K.C.P. Science College Vijayapur
P.G. Dept of Chemistry
Notice for value added course 2019-20

NOTICE

The PG Department of Chemistry is conducting exam (Theory and Practical) for value added course "Training on Principles and Handling of Major Instruments" On 3rd March 2020. All the students are hereby informed to attend the exam.


**Coordinator,
Co-ordinator,**
P. G. Department of Chemistry,
PG Studies in Chemistry,
S.B. Arts & K.C.P. Science College
BIJAPUR - 586101


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P.G. Dept of Chemistry

Theory Test for value added course 2019-20

Date: 03-03-2020

Time: 9.00 to 11.00

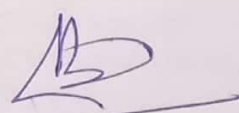
Duration: 2 hrs

1. Answer the following questions 10×5=50 Marks

1. Write a short note on vacuum pump, condenser and water bath.
2. Discuss the principle and uses of UV-VIS spectrophotometry.
3. Briefly explain the principle of FTIR.
4. Briefly explain the principle of column chromatography.
5. Discuss the principle of flame photometry.


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P.G. Dept of Chemistry

Practical Test for value added course 2019-20

Date: 03-03-2020

Time: 2.00 to 6.00


Duration: 4 hrs

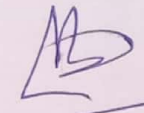
1. Determine the amount of DO in given water sample by COD method


40 Marks

Viva: 10 Marks

Total=50 Marks


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P.G. Dept of Chemistry
Marks list for value added course 2019-20

Maximum Marks: 100

Sl. No	RCU No.	Name of the Student	Marks		
			Theory(50)	Practical(50)	Total
01	CH192001	Aishwarya Kaladagi	41	47	88
02	CH192002	Akshata Ashok Sajjan	39	41	80
03	CH192003	Amarkumar B Telasang	40	45	85
04	CH192004	Beebeeayesha K Bagewadi	41	47	88
05	CH192005	Bhagyashree Biradar	38	41	79
06	CH192006	Bhagyashri Hiremath	40	45	85
07	CH192007	Bouravva Mangasuli	41	47	88
08	CH192008	Deepti Masuti	39	41	80
09	CH192009	Girish N Hiremath	39	39	78
10	CH192010	Kavya Muttagi	39	42	81
11	CH192011	Khatunabi Mulla	40	45	85
12	CH192012	Megha Sajjan Bhandare	41	47	88
13	CH192013	Pooja Nandakumar Patil	39	39	78
14	CH192014	Priyanka Padashetti	38	47	85
15	CH192016	Sagar Gayakwad	39	41	80
16	CH192017	Savitri Hugar	39	45	84
17	CH192018	Shabanam Maktum Kasabag	39	41	80
18	CH192019	Sneha Pangudwale	39	45	84
19	CH192020	Sudha Biradar	43	42	85
20	CH192021	Susma Ivani	40	39	79
21	CH192022	Tejashwini Mantri	38	47	85
22	CH182001	Aishwarya Sajjan	39	41	80
23	CH182002	Akshata Marab	39	45	84
24	CH182003	Amruta Kashetti	43	42	85
25	CH182004	Archana Pattar	48	39	87
26	CH182005	Bandavva Pattanashetti	38	41	79
27	CH182006	Bibizahera Bevanur	40	45	85
28	CH182007	Daneshvani Walimarada	40	39	79
29	CH182008	Deepa Kamble	39	45	84
30	CH182009	Leela Harijan	43	42	85


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P.G. Dept of Chemistry
Value added course 2019-20

COURSE OUTCOME

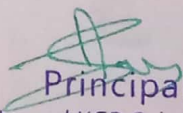
Skill based value added course on "Training on Principles and Handling of major Instruments" for PG Students of Chemistry for the Academic Year 2019-20.

In this course students were able to handle major instruments like Rotary Evaporator, UV-VIS Spectrophotometer, FTIR, Flame Photometer and they were also able to test the water by BOD and COD method.

These instruments helped to the students to carry out some of the important projects during their M.Sc course. It also helped the students to join in various industries.


Co-ordinator
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B. L. D. E. Association's

S.B. ARTS & K.C.P. SCIENCE COLLEGE, VIJAYAPUR

(Re-Accredited by NACC at 'A' Level in 3rd Cycle)

Internal Quality Assurance Cell Initiative

VALUE ADDED COURSE

Certificate



This is to certify that Mr./Ms. Aishwarya Kaladagi

has Completed the Value Added Course on Training on principles and handling of major instruments.

Conducted by the Department of PG Chemistry during the

Year 2019 - 20

IQAC, Co-ordinator

S.B.Arts & K.C.P.Science College
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Co-Ordinator, IQAC

S.B. Arts and KCP Science College
VIJAYAPUR

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S.B. ARTS & K.C.P. SCIENCE COLLEGE, VIJAYAPUR

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Internal Quality Assurance Cell Initiative

VALUE ADDED COURSE

Certificate



This is to certify that Mr./Ms. Akhata . khok . Sajjan

has Completed the Value Added Course on Training on principles and handling of major instruments

Conducted by the Department of PG Chemistry during the

Year 2019-20

Head of the Department Vijayapur.

IQAC, Co-ordinator

S.B.Arts & K.C.P.Science College

Co-Ordinator, IQAC

S.B. Arts and KCP Science College

Principal

Principal

VIJAYAPUR



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Internal Quality Assurance Cell Initiative

VALUE ADDED COURSE

Certificate



This is to certify that Mr./Ms. Amar Kumar, B. Telavadi
has Completed the Value Added Course on Training on Principle & Handling of
major instruments
Conducted by the Department of PG - Chemistry during the
Year 2019-20

Head of the Department

IQAC, Co-ordinator

S.B. Arts & K.C.P. Science College,
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Co-ordinator, IQAC

Principal,
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Internal Quality Assurance Cell Initiative

VALUE ADDED COURSE

Certificate



This is to certify that Mr./Ms. Beebeeyendra K. Bahundi
 has Completed the Value Added Course on Training on Principle & Handling of
major Instruments
 Conducted by the Department of PG Chemistry during the
 Year 2019-20

Head of the Department

IQAC, Co-ordinator

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
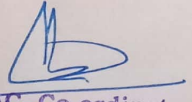

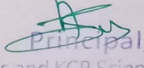

Principal



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S.B. ARTS & K.C.P. SCIENCE COLLEGE, VIJAYAPUR
 (Re-Accredited by NACC at 'A' Level in 3rd Cycle)
 Internal Quality Assurance Cell Initiative
VALUE ADDED COURSE

Certificate

This is to certify that Mr./Ms. Bhagyashree Bindar
 has Completed the Value Added Course on Training on principle and Handling of
major Instruments
 Conducted by the Department of PG - Chemistry during the
 Year 2019-20


 Head of the Department

 IQAC, Co-ordinator
 K.C.P. Science College,
 Vijayapur.

 Co-ordinator, IQAC

 Principal,
 S.B. Arts and KCP Science College
 VIJAYAPUR

 Principal