

Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD NAAC Accredited Phone No: 0836-2215410 &2215400 Fax: 0836-2744334



Email: <u>principal.kscd@gmail.com</u> Web: www.kscd.ac.in

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)

# NUMBER OF ADD ON /CERTIFICATE/VALUE ADDED PROGRAMS: 24

SI.No					Number of
				Number of	Students
	Name of Add on /Certificate /Value added			students	completing
	programs offered and online MOOC programs	Course Code	Duration of	enrolled in	the course in
	like SWAYAM, NPTEL etc. programs offered	(if any)	course	the year	the year
	2022	<mark>-23</mark> :09			
1	Bio-Chemical Techniques	BCT-01	3 months	30	30
2	Medical Geology	GEG-01	3 months	30	30
3	Basics of Surveying and Mapping	GEO-01	3 months	30	30
4	MATLAB Fundamentals	CSC-01	3 months	30	30
5	Digital Marketing	CSC-01	3 months	30	30
6	Maintenance of Labarotary Equipments	PHY-01	3 months	30	30
7	Basic Instrumentation	PHY-01	3 months	30	30
8	Trafficking of Human organs in India	FSC-01	3 months	30	30
9	Applied MicroBiology	MCB-01	3 months	30	30
	2021	<mark>-22</mark> :03			
10	Biochemical Tests	BIT-01	3 months	21	21
11	Maintenance of Labarotary Equipments	PHY-01	3 months	23	23
12	Basic Instrumentation	PHY-01	3 months	35	35
13	Applied MicroBiology	MCB-01	3 months	21	21
14	Domestic Violence Against Women in India	FSC-01	3 months	27	27
16	Catrographic Representation of Geographic Data	GEO-01	3 months	35	35
	<mark>2020</mark>	<mark>)-21</mark> :03			
16	Techniques of Biochemistry	BIT-01	3 months		
17	Combating Human trafficking in India	FSC-01	3 months	29	29
18	Techniques in Aerial photography and Remote				
	Sensing	GEO-01	3 months	30	30
		<mark>)-20</mark> :03			
19	Biological Techniques		3 months		
20	Child Trafficking in India	FSC-01	3 months	30	30

21	Natural Hazard and Disaster Management	GEO-01	3 months	30	30
	<mark>20</mark> :	<mark>8-19</mark> :03			
22	Bio-chemical Methods	BIT-01	3 months	19	19
23	Drug Trafficking in India	FSC-01	3 months	33	33
24	Morphological Analysis	GEO-01	3 months	19	19

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SI.No	Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. programs offered	Course Code (if any)	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
		<mark>2022-23</mark> :09			
1	Bio-Chemical Techniques	BCT-01	3 months	30	30
2	Medical Geology	GEG-01	3 months	30	30
3	Basics of Surveying and Mapping	GEO-01	3 months	30	30
4	MATLAB Fundamentals	CSC-01	3 months	30	30
5	Digital Marketing	CSC-01	3 months	30	30
6	Maintenance of Labarotary Equipments	PHY-01	3 months	30	30
7	Basic Instrumentation	PHY-01	3 months	30	30
8	Trafficking of Human organs in India	FSC-01	3 months	30	30
9	Applied MicroBiology	MCB-01	3 months	30	30



# Karnatak University's,

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# KARNATAK SCIENCE COLLEGE, DHARWAD

# **Department of Biotechnology**



1.2.2 - Number of Add on /Certificate programs

2022-23

**Title: Bio-Chemical Techniques** 

# LIST OF STUDENTS ENROLLED

	Cartificata	Karnatak University's Karnatak Science College, Dharwad Department of Biotechnology Course on "Bio-Chemical Techniques" 2022-23	
A	Centificate	Duration (January to March) 3 months	ntay"
SI. No.	Registration Number	List of students enrolled Name	Sign
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2	20510020	Atshala Mared	all
3	20510021	Akshay K. Hegde	Arit
4	20510028	Angu B. Lanlane	Anna -
5	20510031	Anusha K. Goudar	Alle
6	20510033	dparna. U. Karani	Dint
7	20510045	B. Dinesh	0.0
8	20510053	Basararay Narayanapura	SP'VG
9	20510064	Bhuneka S. Surgavanshe	Proyate"
10	20510096	Gayaaa	Kinglet
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11	20510144	Mahalaxme 59	Lighter
12	20510174	Megha Patil	0
13	20510179	Myanel Saeafharaj	quije
14	20510204	Poofa R. Jarali	Pour
15	20510215	Pratheba, P. Hegde	PLA
16	20510 225	Preyanka . Hirenakn	Question
17	20510 241	Rahjetha Alepalli	Katy.
18	20510 260	Rutuja, M. Chougale	SP
19	20510 267	Sahana. D. Jaday	SAHAMA
20	20510 271	Sahana . S. Mansur	CAH4
21	20510282	Sanjata Patil	Minasall
22	20510 311	Shevaani . K. B	XII
23	20510320	Shravan G.M.	Strange
24	20510335	Sinchana is kannus.	8.AT
25	20510343	Suchetra, P. Talwar.	CANTER.
26	20510 380	Vrdya M	
27	20510398	Vittal . R. Bani	about
28	20510 728	Nevedeta S.M.	MSM
29	25510001	Karya Bik	
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## CERTIFICATE



## **CURRICULUM**

## Karnatak University's

## Karnatak Science College, Dharwad

## Department of Biotechnology

## Certificate Course in "Bio-Chemical Techniques"

## 2022-23

## About the Course:

Bio-Chemical techniques are important for any clinical laboratory. In the Bio-Chemical techniques course the students analyze fluid, tissues and blood samples to perform a variety of diagnoses. They generally work under the supervision of subject experts.

## **Objective:**

## After the completion of the certificate course, students will be able to:

- Conduct chemical analysis of body fluids, such as blood or urine, using microscope or to detect abnormalities or diseases.
- Analyze the results of tests or experiments to ensure conformity to specifications, using special mechanical or electrical devices.
- Set up, maintain, calibrate, clean and test sterility of medical laboratory equipment. Collect blood or tissue samples from patients, observing principles of asepsis to obtain blood samples.
- Conduct blood tests for transfusion purposes and perform blood counts. Inoculate fertilized eggs, broths, or other bacteriological media with organisms.
- o Consult with a pathologist to determine a final diagnosis when abnormalities are found, Analyze and record test data to issue reports.

## Duration of the Course: 3 Months

# Syllabus of Certificate Course on Bio-Chemical Techniques

- 1. Estimation of blood sugar by anthrone method.
- 2. Estimation of creatinine of urine.
- 3. Determination of blood group.
- 4. Determination of clotting time of blood.
- 5. Qualitative analysis of urine.
- 6. Determination of differential leucocyte count.
- 7. Determination of bleeding time of blood.
- 8. Preparation of haematin crystals.

## **COURSE OUTCOME**

Karnatak University's



Karnatak Science College, Dharwad

Department of Biotechnology 2022-23



Certificate Course in "Bio-Chemical Techniques"

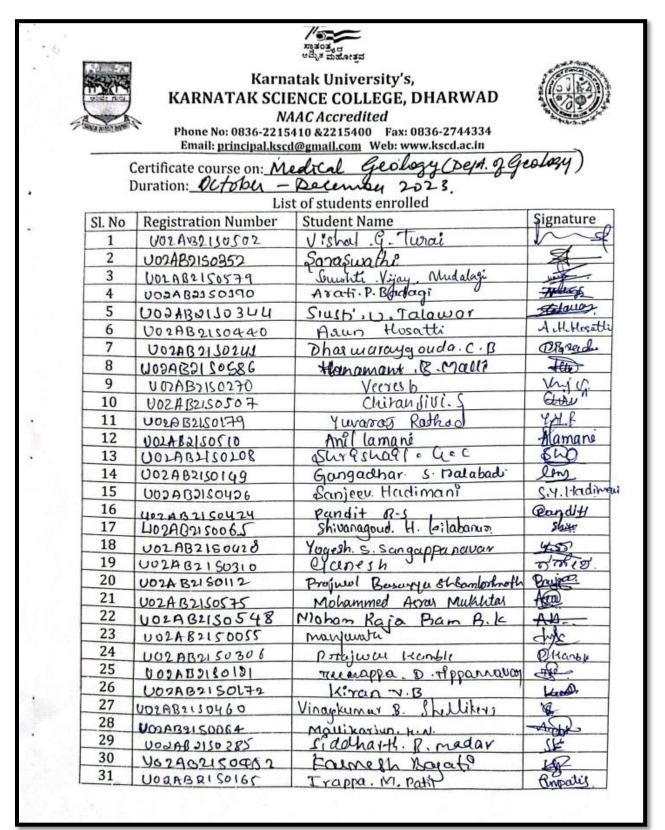
List of 30 students were enrolled for certificate course in "Biochemical Techniques" with respect to the designed curriculum. The said certificate course was started on 07-01-2023 and completed on 20-03-2023. After the completion of the course on 20-03-2023, The examination was conducted on 28-03-2023 and based on the performance of the enrolled students in examination the certificate of course completion was awarded to the students.

All the relevant and required documents are uploaded.

Dr. R. G. Wallbarro M.Z.



## LIST OF STUDENTS ENROLLED



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	KARNATAK SCH	etak University's, ENCE COLLEGE, DHARWAD AAC Accredited	
NUNC NO		4AC Accreattea 410 &2215400     Fax: 0836-2744334	The second
	Email: principal.ksco	d@gmail.com Web: www.kscd.ac.in	
(	Certificate course on: M Duration: OCHOBE	- December 4023	
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1	UOJAB2150662	Pooja, Chandrappa, Becalli	- gatt Beero
2	U02AB2150390	Laxmi . C. Angadiyavar	channe
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5	J02AB2150627	Ramya-S. Mud siban	Kunya
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7	U02AB2150016	Soundarya, C. Hatt	build
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9	U02AB2150237	Neelappa. Kadammanavar	Mulapp
10	U02 AB2150032	Panesh	Pres
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12	U02AB2150593	Komalo, Necroloratti	Kamala
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# **CERTIFICATE**

	Course Coordinator	"Certificate C		Thi			Core Charles
	ordinator	"Certificate Course" in Medical Geology_from 071.02.02.3 t	_(Register No: <u>U02AB2IS0344</u>	This is to certify that Mr./Miss <u>SRUSTE_U. TALAWAR</u>		Karnatak SCI Course	
Ond Con One D	IQAC Coordinator CIEV	Geology from 07.	AB2150344 ) has	Ar./Miss <u>SRUSTI</u>	CERTIFICATE	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARV Course Title: <u>Medical Geology</u>	
	1102	10-2023 to 30-12-2023	_) has successfully comp	U. TALAWAR_	RE DHARWAD TO THE WAR	''s E, DHARWAD <u>ology</u>	
	Principal Principal Karnatak 5 cience College	2-2023,	ly completed the				Name and American

## **CURRICULUM**



## Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD (Constituent College of Karnatak University, Dharwad)



NAAC Accredited Phone No:0836-2215410 & 2215400 E-mail: principal.kscd@gmail.com Web: www.kscd.ac.in

**Department of Geology** 

Certificate course on "Medical Geology"2022-23

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Syllabus:

Foundations of medical geology:

Ancient findings, More recent findings, Environmental classification of elements in relation to public health ; inorganic poisons affecting public health in addition to pathogens with some examples from India ; developments in medical geology. Environmental biology

Distribution of elements in Nature - A chemically variable earth; Mineral chemistry, diversity in the composition of rocks, biogeochemical cycle, establishing geochemical baselines, geochemical baseline map of India, Total composition and bioavailability, integrating epidemiological research with geochemical composition of drinking water and

Anthropogenic sources of contaminating elements:

food, agriculture and forest management.

on Ead ega, has out about a das there of each Mining, Mineral processing and metal refining; power generation, other industrial activities, waste disposal, agricultural practices, contamination from transport industry, atmospheric deposition of contaminants, contamination in urban environment, treatment and transport of drinking water.

Geogenic sources ; Volcanic emissions and health, radon and U in water, Arsenic in water and environment, fluoride in drinking and irrigation water, health effects of hardness of water, selenium and iodine deficiency, selenium toxicity

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Geophagy ; Soil borne pathogens Natural aerosolic mineral dusts and human health - dust storms, pneumoconiosis, lung diseases, silicosis, asbestosis . tuberculosis

Quality of groundwater: Thresholds for metal and non-metal ions from health point of view: as prescribed by : WHO, Bureau of Indian Standards, other international standards.

## **Recommended Leaning Resources**

#### Print Resources

1. Selinus, Olle (Ed.), 2013, Essential of Medical Geology, Revised Edition. Springer.

2. Syed E. Hasan, 2020, Medical Geology, PMCID publications.

3. Carlos-Alberto Ríos-Reyes, María-Paula Ríos-Gutiérrez and Santiago Joya-Neira, Archivos de Medicina Volumen, 2021, The importance of minerals in medical geology: impacts of the environment on health. Enero-Junio de.

Digital Resources https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7241403/ https://en.wikipedia.org/wiki/Medical\_geology

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Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD (Constituent College of Karnatak University, Dharwad)



Phone No;0836-2215410 & 2215400 E-mail: principal.kscd@gmail.com Web: www.kscd.ac.in

## **Department of Geology**

## Certificate course on "Medical Geology" 2022-23

## About the Course

Medical geology is an interdisciplinary scientific field studying the relationship between natural geological factors and their effects on human and animal health. The Commission on Geological Sciences for Environmental Planning defines medical geology as "the science dealing with the influence of ordinary environmental factors on the geographical distribution of health problems in man and animals.

In its broadest sense, medical geology studies exposure to or deficiency of trace elements and minerals; inhalation of ambient and anthropogenic mineral dusts and volcanic emissions; transportation, modification and concentration of organic compounds; and exposure to radionuclides, microbes and pathogens.

It is widely known that the state of our environment affects us in many ways. Minerals and rocks have an impact on human and animal populations because that is what the earth is composed of. Medical geology brings professionals from both the medicine field and the geology field to help us understand this relationship. There are two priorities that have been established within the medical geology field, the study of trace elements, especially their bioavailability and a need to establish baseline, or background levels of contaminants/xenobiotics/potentially harmful but naturally occurring materials in water, soil, air, food, and animal tissue. The elements and minerals in the land affect people and animals immensely, especially when there is a close relationship between the two.

All living organisms need some naturally occurring elements; however, excessive amounts can be detrimental to health. There is a direct link between health and the earth because all humans ingest and breath in these chemicals and for the most part it is done unknowingly Objectives : After the completion of the certificate course, students will be able to:

- 1 Understand the study on contamination levels of groundwater and health problems in our society from the medical geological point of view (Geogenic & anthropogenic sources)
- 2 Address health problems caused, by geologic materials (rocks, minerals, atmospheric dust, and water) and processes (including volcanic eruptions and earthquakes).
- 3 To understand the effects of drinking unsafe water (Surface & sub surface).
- 4 To educate the common public on various health issues caused due to water.

Course Coordinator

## **COURSE OUTCOME**



Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD (Constituent College of Karnatak University, Dharwad) NAAC Accredited



Phone No;0836-2215410 & 2215400 E-mail: <u>principal.kscd@gmail.com</u> Web: www.kscd.ac.in

## Department of Geology

Certificate course on "Medical Geology"2022-23

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Course Outcomes The course provides a basic understanding of Geogenic and anthropogenic distribution of trace elements, its cyclic movement through the abiotic-biotic environment and their toxic effects on human health, livestock's and that of flora and fauna. Assessment of course is as follows:

Totoal 52 students were enrolled for this course which were started from 7<sup>th</sup> October 2023 and completed on 30<sup>th</sup> December 2023. Based on the performance of the student's viva/seminar the course completion certificates were issued.

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Course Coordinator



# Karnatak University's,

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# KARNATAK SCIENCE COLLEGE, DHARWAD

Department of Geography



1.2.2 - Number of Add on /Certificate programs



**Title: Basics of Surveying and Mapping** 

# LIST OF STUDENTS ENROLLED

	4.6	Karnatak University's NATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY purse on "Basics of Surveying and Mapping" 2 Duration (May to July) 3 Months-2023	2022-23
SI.No.	Register Nos.	List of Students Enrolled Name of the Students	Signature
1	U02AB2250002	Aishwanya Andodagi	-A.D.And
2	U02AB2250121	Parmesh . B	parane
3	LI02AB2250126	Lohit . S. Rathod	Rettro
4	U02AB22S0151	Chaitra Haragi	Conop.
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8	U02AB2250263	Sudeep	Anderps
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10	102AB2250314	Nagarathna. P	Nermy
11	U02AB22S0404	0	Dbg.
12	U02AB2250422		Ry
13	LI02AB2250432	Jyoti	Juots
14	U02AB2250461	Samprita . S. Neeravari	Cam
15	U02AB2250512	Somanagouda . Tranagoud	M
16	U02AB2250 513	Monoj Pawar	Manoj
17	U02AB2250525	Raghappa	RSB
18	U02AB2250540	Alankar Walikar	ABU
19	U02AB2250586	Shoyal . S. Tamboli	Fuer
20	U02AB2250587	Darshan . I. Biradar	OFB
21	102 AB2250615	Shriniras . B. Malagi	Hondad
22	U02AB2250653	Bheemesh	ABIN.
23	LI02AB2250716	Basarakumar Haven	Barten
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F	Course Coordinator D. S. Wesseyako	IQAC Coordinator	Principal Principal atak S clence G DI arwad

# **STUDENTS ATTENDANCE**

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## CERTIFICATE



## **CURRICULUM**

#### **Course Syllabus**

#### Title of the Course "Basics of Surveying and Mapping" 2022-23

#### Unit 1: Introduction to Surveying and leveling.

- · What is surveying, different instruments used in surveying
- Necessity of surveying
- · Usefulness of surveying in map preparation

#### Unit 2: Plane Table Survey

- · What is plane table, equipments used in plane table survey
- · Advantages and disadvantages of plane table survey
- · Different methods of plane table survey
- Surveying an area using radiation and intersection methods of plane table survey and map preparation

#### Unit 3: Prismatic Compass Survey

- · Introduction to prismatic compass
- · Open and close traversing methods of prismatic compass
- · Surveying an area using prismatic compass- open and closed traverse
- Correction of bearing and closing error
- · Preparation of the map of the surveyed area

#### Unit 4: Theodolite

- · Introduction to various parts of theodolite
- Measuring vertical angle
- · Measuring height of the object, accessible and inaccessible distance

## References:

- i) Sing, R.L.: Fundamentals of Practical Geography, DVS Publication
- ii) Mishra, R.P. and Ramesh: Fundamentals of Cartography
- iii) Zamir, A. : A Text book of Surveying
- iv) Singh, G. : Map Work and Practical Geography, DVS Publication
- v) Kulkarni and Kanetkar, T.P. : Surveying and Levelling Part-I&II

Name of the programme : Basics of Surveying and Mapping Type of the programme: Certificate Course Contact Hours: 36 Full Marks: 50 Academic Year: 2022-23

## **Course Objectives:**

The main objectives of this course are to make the students compatible to handle the instruments used in survey. The learners learn to work with the conventional survey instruments which are helpful in mapping a small area conveniently. The course is designed especially for the students of geography to provide practical knowledge of preparing maps, using the data collected from the field.

## Learning Outcomes:

The learning outcomes of this course may be outlined as follows:

- 1) Students will learn to handle different instruments used in surveying an area.
- Students will be able to conduct survey using plane table, prismatic compass and theodolite.
- 3) Students will be able to prepare map of an area by surveying in the field.

## **COURSE OUTCOME**



## Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY



## Certificate Course in "Basics of Surveying and Mapping"

No. KSCD/Geog/2022-23/

Date: 10-08-2023

#### Course Outcome

The certificate course in "Basics of Surveying and Mapping" was started with 23 students of B.Sc. geography department karnatak science college Dharwad. Two batches were created and classes of said course were started on 14-05-2023 and completed on 30-07-2023. After the completion of the course, students learned to handle different instruments used in surveying an area and to conduct survey using plane table, prismatic compass and theodolite. The students also learned to prepare map of an area by surveying in the field. For all the 23 enrolled students examination was conducted on 06-08-2023 and based on the performance in examination the certificate of course completion awarded to the student.

All the relevant and required documents are uploaded.

Course coordinator

IOAC

Principal



# Karnatak University's,

# KARNATAK SCIENCE COLLEGE, DHARWAD

Department of BCA/Computer Science



1.2.2 - Number of Add on /Certificate programs



**Title: MATLAB Fundamentals** 

# LIST OF STUDENTS ENROLLED

		Karnatak Science College, Dharwad	
		<b>Computer Science Department</b>	
		Add On Course: MATLAB Fundamenta	ls
BC	Year Al∎rd Sametics: S	itudents enrolled for the Course 7) えゃうえーネペス3	
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	U02AB21S0297	SUNAYANA RAMANATH MAHEKAR	- in the second
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20	002AB21S0314	YASEEN MAHAMMAD MAIRAGOL	bseen.M
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67	U02AB21S0521	SAVITRI BURUDI	Brites
68	U02AB21S0523	MANGALAGOURI S BANNIKOPPA	Bingeloguri
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	U02AB21S0603	VIJAYALAXMI BASAVARAJ KURATTI	Aunti
	U02AB21S0605	KARAN J BANAKAR	
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# **STUDENTS ATTENDANCE**

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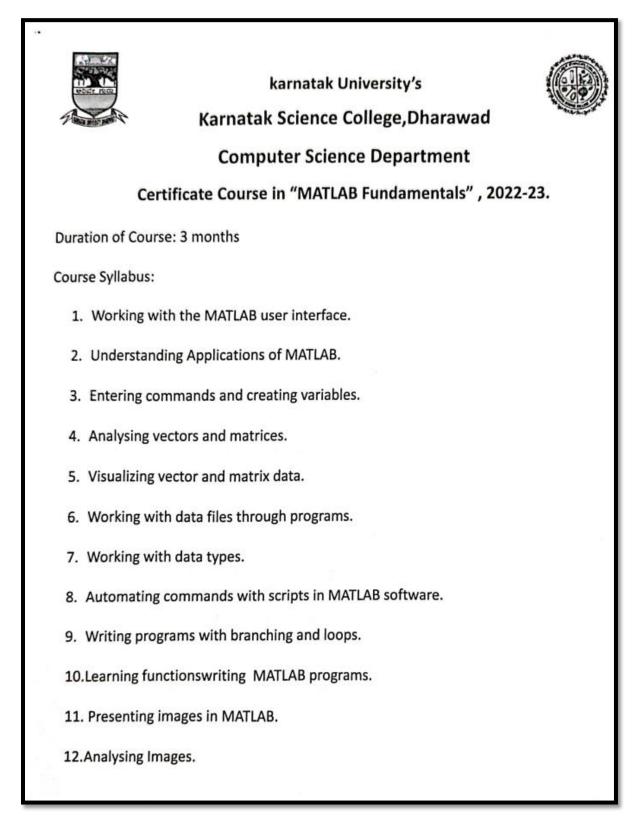
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# CERTIFICATE



# CURRICULUMN





karnatak University's

Karnatak Science College, Dharawad



### **Computer Science Department**

Certificate Course in "MATLAB Fundamentals", 2022-23.

**Objective:** 

- Become familiar with the main features of the MATLAB integrated design environment and its user interfaces.
- Enter MATLAB commands, with an emphasis on creating variables, accessing and manipulating data in variables, and creating basic visualizations.
- Collect MATLAB commands into scripts for ease of reproduction and experimentation.
- Perform mathematical and statistical calculations with vectors. Use MATLAB syntax to perform calculations on whole data sets with a single command.
- Organize scripts into logical sections for development, maintenance, and publishing.
- Use matrices as mathematical objects or as collections of (vector) data.
- Import data as a MATLAB table. Work with data stored as a table.
- Extract and analyse subsets of data that satisfy given criteria.
- Organize table data for analysis. Represent data using appropriate MATLAB data types.
- Learn to analyse Images in MATLAB.

### **COURSE OUTCOME**



karnatak University's Karnatak Science College,Dharawad



**Computer Science Department** 

Certificate Course in "MATLAB Fundamentals", 2022-23.

#### Course Outcome

MATLAB can be used as a tool for simulating various electrical networks. The recent developments in MATLAB make it a very competitive tool for Artificial Intelligence, Robotics, Image processing, Wireless communication, Machine learning, Data analytics and whatnot. It is a tool that enables computation, programming and graphically visualizing the results.

To help students this MATLAB Fundamental Certificate Course was organised. 81students were enrolled with respect to the designed curriculum. The said certificate course was started on **02-11-2022** and completed on **06-2-2023**.

After the completion of the course, Course completion Certificate was issued.

Smt. Ambika R



### LIST OF STUDENTS ENROLLED

#### Karnatak University's Karnatak Science College, Dharwad Computer Science Department BCA Ist Semester: Students enrolled for the Course Add On Course: Digital Marketing

BCA Ist Sectore: Students enrolled for the Course in 20 22-2023

SI. No.	<b>Regisration No</b>	Student Name	signature
1	U02AB22S0009	RAKSHITA NINGAPPA ARAKERI	Pr.
2	U02AB22S0011	APOORVA V DODWAD	ang.
3	U02AB22S0020	SHRISHAILA G	apres
4	U02AB22S0024	ANUSHA RINDAPPA GOUDAR	ANDIA
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99	U02AB22S0390	SAMARTH KORI	Sotori
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101	U02AB22S0489	KAVITA JAMAKHANDI	Batt
102	U02AB22S0499	SAHANA SHIVAPPA RUGI	Salara.
103	U02AB22S0515	PAVAN SANJAY PUJARI	
104	U02AB22S0519	VIDYARANI HULAGERIMATH	ATA.
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# **STUDENTS ATTENDANCE**

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# CERTIFICATE



# **CURRICULUM**



karnatak University's

Karnatak Science College, Dharawad



#### **Computer Science Department**

#### Certificate Course in "Digital Marketing", 2022-23.

#### Course Overview:

Digital marketing is an essential skill for any business today. The opportunities are plenty, and so is the competition. This digital marketing course explores the concepts that help to develop the skills needed to create a winning strategy for any business. With this course, you can step into the digital marketing landscape and build the base to pursue advanced courses in this field.

#### Objectivise

- Understand the fundamentals of digital marketing and how to develop a successful digital marketing strategy for business.
- Learn about the different channels of digital marketing, like social media, email marketing, and content marketing.
- Gain hands-on experience in developing and implementing digital marketing campaigns through real-world projects and case studies.
- Create the company's mission, and unique selling proposition.
- Conduct market research, identify your target audience, and create a content marketing plan.
- Create and manage campaigns.
- Use social media to build brand awareness and drive website traffic.
- Use analytics and data to measure the effectiveness of your digital marketing campaigns and make data-driven decisions.
- Get a list of tips on how to find a job in digital marketing.
- Learn Social Media Marketing, E-mail marketing.



karnatak University's

Karnatak Science College, Dharawad



**Computer Science Department** 

Certificate Course in "Digital Marketing", 2022-23.

**Duration of Course: 3 months** 

#### Course Syllabus:

- Introduction Digital Marketing.
- Digital marketing strategy.
- Channels of digital marketing.
- Real-world projects and case studies.
- Unique selling proposition.
- Market research.
- Branding
- Marketing plan.
- Website traffic.
- Web Analytics & tools.
- Social Media Marketing (Fb, twitter, LinkedIn, YouTube, Instagram)
- E-mail marketing.

### **COURSE OUTCOME**



karnatak University's

#### Karnatak Science College, Dharawad



Computer Science Department Certificate Course in "Digital Marketing", 2022-23.

#### Course Outcome

Digital Marketing helps people to reach a broader audience and target their future customers more efficiently & effectively. Digital Marketing is best option for computer science students to start their carrier.

119 students were enrolled for the designed curriculum. The said certificate course was started on 02-11-2022 and completed on 06-2-2023. After the completion of the course, examination was conducted on 08-02-2022 And based on student performance certificate was awarded.

Smt. Lalitha R Naik



# Karnatak University's,

# KARNATAK SCIENCE COLLEGE, DHARWAD

# Department of Physics



1.2.2 - Number of Add on /Certificate programs

# 2022-23

Title: Maintenance of Laboratory Equipments

## LIST OF STUDENTS ENROLLED



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KARNATAK UNIVERSITY'S

KARNATAK SCIENCE COLLEGE, DHARWAD

**Department of Physics** 

#### Add on Course 2022-23

### **Course Title: Maintenance of Laboratory Equipments**

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1.	Shashikala M. M.	U02AB22S0294	- At
2.	Shashikala S. K.	U02AB22S0237	Ralaphacy
3.	Chaitra P. A.	U02AB22S0035	eles 1
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5.	Malatesh	U02AB22S0503	Andemani
6.	Bharath S. P.	U02AB22S0494	Bharath
7.	Chaitra K.	U02AB22S0154	Carney
8.	Soumya	U02AB22S0094	Sid
9.	Ashita B. A.	U02AB22S0487	Qui
10.	Ashwini S. D.	U02AB22S0103	Aluisi
11.	Vinamruta K.K.	U02AB22S0493	V.K.Kula I
12.	Harshavardhana V.	U02AB22S0626	berry
13.	Basavaprakash	U02AB22S0622	Cal
14.	Suma Patil	U02AB22S0569	D.
15.	Kavya S. Marathi	U02AB22S0650	Kanga
16.	Sneha Barker	U02AB22S0037	Spellage
17.	Deborah B. Veerendrapur	U02AB22S0689	Detration
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19.	Shrushti Kandagal	U02AB22S0031	Suge
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28.	Kaveri S. Pateela	U02EU21S0018	EANO	
29.	Gouri K. Koneri	U02AQ21S0145	Howy.	
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# **STUDENTS ATTENDANCE**

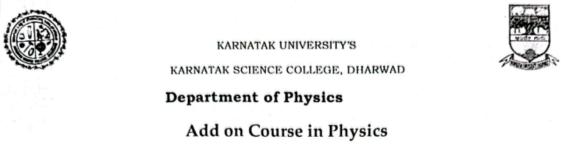
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# CERTIFICATE

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certificate course in <u>Maintenance of Laboratory Equipments</u> from.6 to .5-01-2023 Course Coordinator Course Coordinator IQAC Coordinator Fri	CERTIFICATE         This is to certify that Mr./MissKhan        (Register No: U02AB22_S022() has successfully completed the	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: Maintenance of Laborator Equipments 2022-23
nts from.G11-2022	essfully completed the	tWAD boratory

### **CURRICULUM**



**Course Title : Maintenance of Laboratory Equipments** 

Duration of the Course: 3 Months

Year: 2022-2023

#### Syllabus:

#### **Maintenance of Laboratory Equipments**

Introduction of current, voltage, resistors, capacitors, inductors. Series and Parallel connections resistors and capacitors. Uses of analog meters and Multimeter. Active and Passive components. AC sources (transformer dimmerstat), oscillators, DC sources (rectifiers, battery), AC and DC motors, fuse box, Checking the health of resistance box and rheostat, repair of extension box. Checking the health of capacitors and diodes. Soldering and de-soldering the wire. Maintenance of adaptors. Maintenance of decorative lamps and lights. Basics of wiring (phase, neutral) types of electrical wire, basics of home wiring.

Checking the health of travelling microscope, calibration of travelling microscope. Calibration of spectrometer.

#### Practical:

- Measurement of different physical quantities like resistance, voltage current using analog and digital multimeter
- 2. Checking the health of the resistance and rheostat

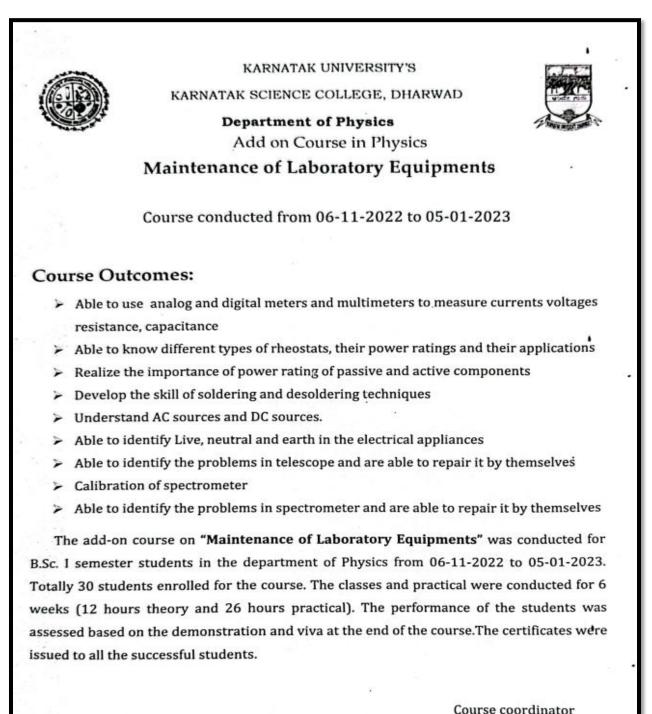
Calibration of uncalibrated instruments

- Checking the health of the diodes (Normal diode, Zener diode, photo diode, and LED's)
- 4. Checking the health of capacitors and inductors
- 5. Testing passive and active components using multimeter
- 6. Soldering and de soldering of components
- 7. Checking of the phase in AC supply (mains)
- 8. Study of Battery (Power supply)
- 9. Checking the telescope and its calibaration
- 10. Checking the spectrometers alignment, focusing of collimator and telescope.

#### **Reference Books:**

- 1. A Text book of Electrical technology by B.L. Theraja and A.K. Theraja .
- 2. Principles of electronics by V.K. Mehta and Rohit Mehta
- 3. Practical Physics by C. L. Arora

### **COURSE OUTCOME**



Dr. Nirupama J.M.



# Karnatak University's,

7

# KARNATAK SCIENCE COLLEGE, DHARWAD

# Department of Physics



1.2.2 - Number of Add on /Certificate programs



**Title: Basic Instrumentation** 

### LIST OF STUDENTS ENROLLED

#### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Physics

#### ADD On Course -2022-2023

#### "Basic Instrumentation"

S.No.	Name of the student	Roll Number	UUCMS number	Signature
1	D. ChandruNaik	46	20S10078	Ber
2	Maneeshkumar K.R.	48	20S10157	San grante
3	Sanjeevreddy C.S.	51	20S10281	they.
4	Hanumantray M. Patil	89	20S10103	Hastell.
5	VinodN.Kwati	104	20S10391	1. ANDOLPERILL'
6	GeegyaNayak	88	20S10097	G. Nayak.
7	Basavaraj M. Rotti	86	20S10052	Smethor
8	Abhishek B. Mavinakoppa	44	20S10002	Contris-
9	Rohit B. Dhupdal	100	20510254	Daishais
10	Vishnu C. Patil	53	20S10395	Protise=
11	GururajT.Kotagi	47	20S10099	60
12	ShivanandKadakol	52	20S10318	July
13	Basavaraj	45	20S10051	EL .
14	Rohit A. Sangogi	99	20S10253	Hint
15	ShivanandHalagatti	134	20S10315	Prival
16	Sangayya V. Hiremath	128	20S10278	Beile
17	Lingraj C. Yalgond	117	20S10138	1400 -
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19	VikasDattatreyaShinde	153	20S12598	-ABG
20	Vinod R. Badiger	146	20S10392	Sur
21	Gagan H.V.	114	20S10091	A
22	Basanagouda	109	20S10047	Pret.
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	Veeranagouda K. Patil	144	20S10375	agterikk
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	G. Arvindkumar Reddy	113	20S10090	Gans
	Prateek U. Jeebi	123	205/10214	Pureebi
	ShivanagKumbar	133	20S10313	Shire
	Nisar R. Sayyad	120	20S10195	Newson
	Vivek M.D.	147	20S10399	Nivell
	Mahesh	150	20S12543	Mivelle
	Poornima M. Savadattimath	122	20S10205	RMS.
	PallaviAngadi	121	20S10197	Rellan
	SanjanaTegginamani	129	20S10279	S. Tegginama
	Chennamma	106	20S10075	Chiz:
	Jayalakshmi B. Goudar	115	20S10108	Jarga

<b>STUDENTS</b>	ATTENDANCE
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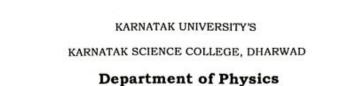
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# CERTIFICATE

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inator IQAC Coordinator	CERTIFICATE This is to certify that Mr./Miss <u><u>Bohit</u> <u>B</u>. <u>Dhus</u> (Register No: <u>205ا0254</u>) has successfull certificate course in <u>Basic Instrumentation</u> from./.3!!2.02</u>	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: Basic Instrumentati 2022-23
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### **CURRICULUM**





#### Add on Course in Physics

# **Course Title : BASIC INSTRUMENTATION**

Duration of the Course: 3 Months

Year: 2022-2023

#### Syllabus:

Multi meter: Comparison between analog and digital meters, Construction and working principle of multi range voltmeter, multi range ammeter and multi range ohm meter. Facilities available on Digital Multimeter (DMM using various makes)

Alternating Current, AC supply to home, Phase, Neutral and Earthing, Measurement of voltages between them.

DC Power Supply: Working principle of Primary cell, secondary cell, Battery eliminator, unregulated power supply, regulated power supply: regulated power supply using zener diode, regulated power supply using IC-78XX.

Introduction to Tool Kit: Types of screw drivers, Nose Plier, Cut Plier Stripper, Drilling Bits and Drilling machine, Soldering and de soldering techniques.

Active and Passive components: Difference between active and passive components, Power rating of components

Analog to digital A/D and Digital to Analog D/A conversation circuits: Flash converter, binary weighted converter, R-2R ladder converter, characteristics properties of conversation circuits.

#### Practical:

- Measurement of different physical quantities using analog and digital multimeter
- 2. Construction of multi range voltmeter
- 3. Construction of multi range ammeter
- 4. Testing passive and active components using multimeter
- Soldering and de soldering techniques: to assemble the components as in the circuit
- 6. Construction of primary cell: Leclanche and Daniel cell
- 7. Study of Battery eliminator
- 8. Study of Regulated power supply using Zener diode
- 9. Construction of Regulated power supply using IC-78XX
- 10. To study the Digital to Analog converter using R-2R ladder network

#### **Reference Books:**

- 1. A Text book of Electrical technology by B.L. Theraja and A.K. Theraja
- 2. Principles of electronics by V.K. Mehta and Rohit Mehta

### **COURSE OUTCOME**



KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD

> Department of Physics Add on Course in Physics BASIC INSTRUMENTATION

Course conducted from 13-11-2022 to 08-01-2023

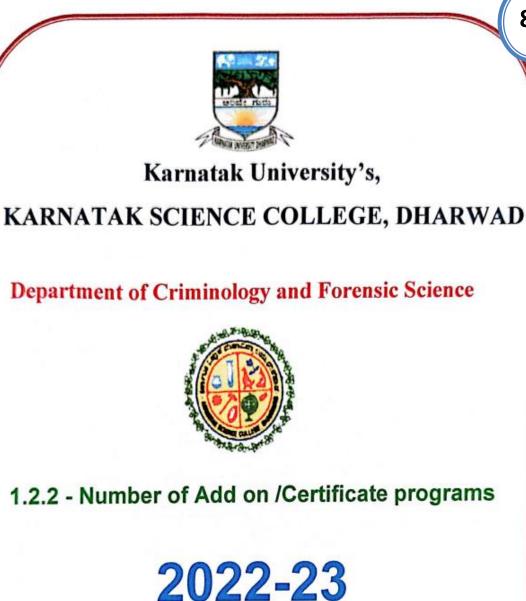
#### **Course Outcomes:**

- > Able to distinguish between analog and digital meters
- > Learn to design the voltmeter and ammeter with different ranges
- > Able to identify Live, neutral and earth in the electrical appliances
- Construct a primary cell of desired e.m.f.
- > Able to distinguish between unregulated and regulated power supply
- Design regulated power supply for desired voltage
- Develop the skill of soldering and desoldering techniques
- > Realize the importance of power rating of passive and active components
- Construct ADC and DAC, to understand the importance of ADC and DAC

The add-on course on "Basic Instrumentation" was conducted for B.Sc. V semester students in the department of Physics from 13-11-2022 to 08-01-2023. Totally 38 students enrolled for the course. The classes and practical were conducted for 7 weeks (12 hours theory and 24 hours practical). The performance of the students was assessed based on the demonstration and viva at the end of the course. The certificates were issued to all the successful students.

**Course coordinator** 

Dr. Nirupama J.M.



8

Title: Trafficking of Human Organs in India

# LIST OF STUDENTS ENROLLED



#### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science Email : <u>Principal.kscd@gmail.com</u> Website: WWW.kcd.org.in



	Duration _	Criminology and Forensic Science. 2024 3 (4440) Months	
	List o	f Student's enrolled	
Sl.No	Registration Number	Student Name	Signature
1	U02AB2150656	Aishwayya. S. Aiholli	dut
2	U02AB2150072	Ganesh. M. Devaramani.	Edt
3	U02AB 2150 599	Iranna. Kajagar	Keil
4	U02AB2150633	G. Abhishelea swamy	Path
5	U02AB21 50286	Sharad. H. Hiralli	Grad.
6	U02AB2150262	Mutturaj. M. theremath.	M.m. Herr
7	102432150023	Symeet.S. youda	Saule
8	U02AB2150313	Kamish	Quilla
9	UD2AB21SOISS	Falroz.s. Shedasanadi	Savadi
10	U02AB2150425	Ginsh Tirtheppenever	Bidge
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12	U02/782150816	Starana Basava Marrati	Jaco
13	U02AB2150226	surai. Goni	SKO
14	U02AB2150469	Siddharth. M. gudimani	9
15	UDaABalso328	Amogha K S	Comogha
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24	U02AB2150642	(Keran. S. Pattar	Alimypa
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26	U02A132150612	Archana. C. Navalur	Aug.
27	U02AB2180U35	Boushalua, M. yalavatt,	ARte
28	U02 AB2150047	Suraj B. Nadagoudra	(Sulan A
29	V02AB2150411	Prasannagonda. S.K.	Brid
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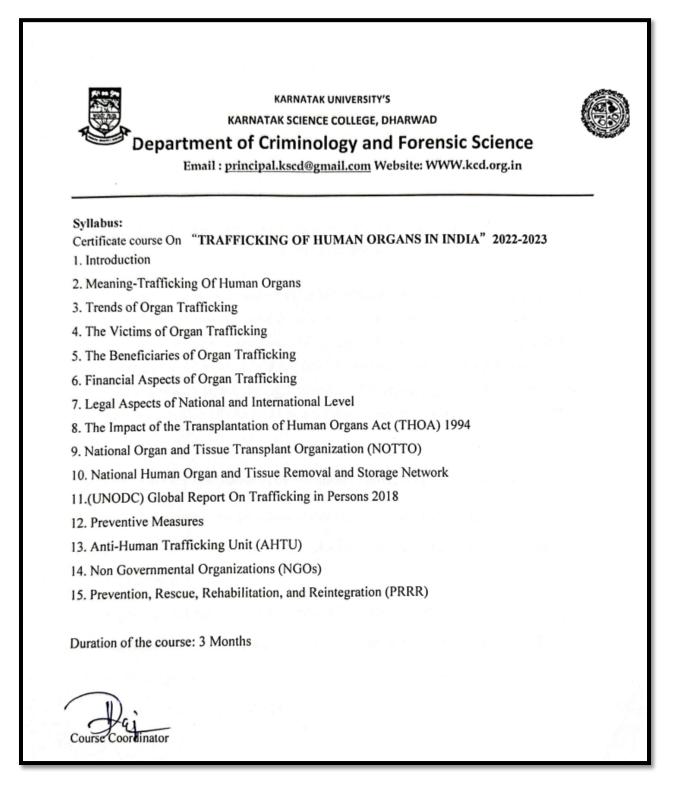
# **STUDENTS ATTENDANCE**

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# CERTIFICATE



# **CURRICULUM**





### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science

Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

### Certificate Course in "TRAFFICKING OF HUMAN ORGANS IN INDIA" (Year 2022-2023)

### About the course:

Now days so many criminal activities increasing in our society day by day, Among them are the illegal transplantation of human body organs is a serious crime, The importance of this study is very significance in today's era, How can such criminal acts be committed and what kind of law is violated in the medical field and How do criminals benefit from this? How can people become victims of such an act, the legal procedure of transplanting human organs, to know the prevention and detection of crime and also its significance role in the field of criminal justice system.

### Objectives: After the completion of the certificate course, students will be able to:

- 1) Understand about the meaning and concept of Human Organs Trafficking
- To know the mode of Organ Trafficking, preventive measures, efficient solutions, and Investigative mode
- 3) Understanding the Legal Aspects, National and International Level
- 4) To Understand the Prevention and Detection of Human Organs Trafficking through law

Enforcement agencies

5) To know the role OF Police and NGOs



# **COURSE OUTCOME**



KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science

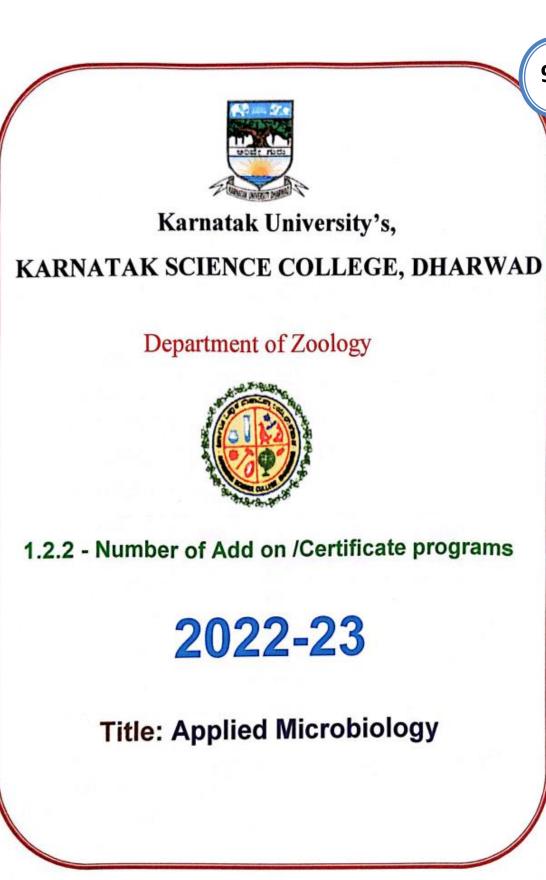
Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

### Certificate Course in "TRAFFICKING OF HUMAN ORGANS IN INDIA"

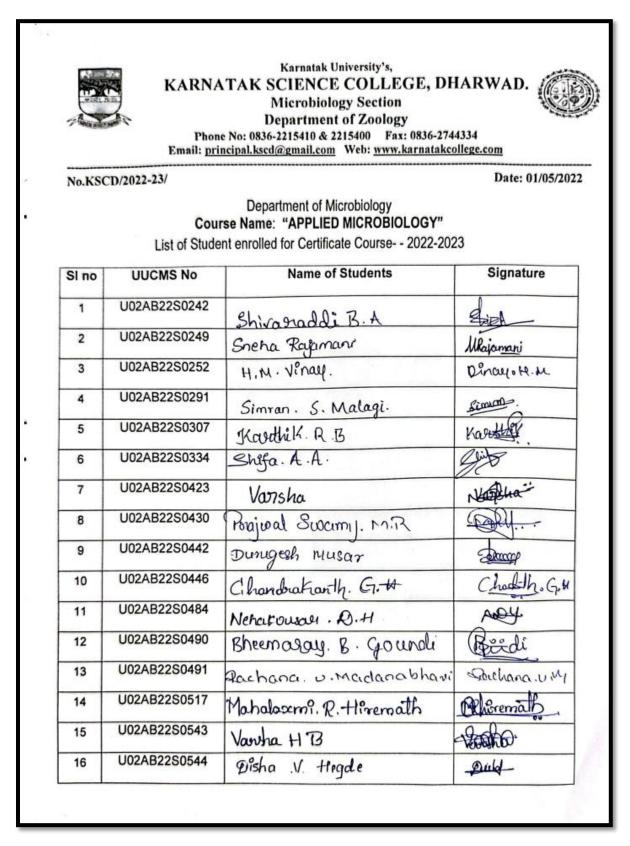
(Year 2022-2023)

### **Course outcome**

List of 30 students were enrolled for certificate course in "TRAFFICKING OF HUMAN ORGANS IN INDIA" with respect to the designed curriculum. The said certificate course was started on 15/01/2023 and completed On 14/04/2023. After the completion of the course On 14/04/2023. The Examination was conducted On 30/04/2023 and based on the performance of the enrolled students in examination the certificate of course completion was awarded to students. All the relevant and required documents are uploaded.



### LIST OF STUDENTS ENROLLED



17	U02AB22S0550	Prabhuras	Prating
18	U02AB22S0581	Aoun A B	Ann
19	U02AB22S0590	Mailarappa B. tangouder	Qu-
20	U02AB22S0641	Chinmaya Kulkarni	akulkarus
21	U02AB22S0642	Bajwal. R. Revanka	Duajual
22	U02AB22S0661	Komal. G. Mangalgatte	Jules)
23	U02AB22S0692	Tejashree N	Rige
24	U02AB22S0700	Sanjana. Hiremath	Sarya.
25	U02AB22S0703	Niharika , S. Bajantri	AL.
26	U02AB22S0704	SRUJANA PATIL	Sutel

Course Coordinator

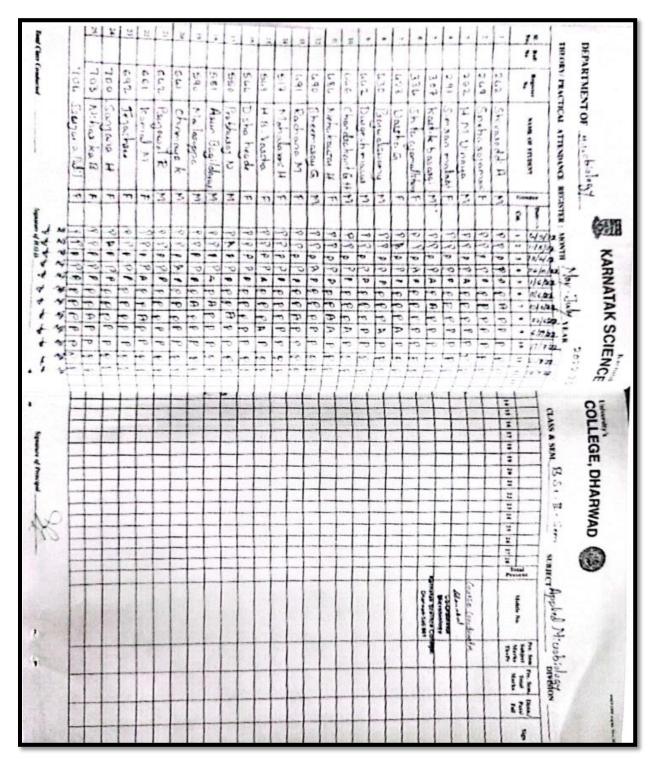
plauakal 01/5/22

Co-Ordinator Microbiology Karnatak Sceince College, Qttarwad-580 001

4

COORDINATOR, IQAC Karnatak Science College Dharatta

## STUDENTS ATTENDANCE



# CERTIFICATE

Principal Principal Karnatak & cience College Di arwad	Course Coordinator IQAC Coordinator	Course Coordinator
fully completed the	(Register No: <u>المراجعة 22.505</u> ) has successfully completed the certificate course in APPLIED MICRBIOLOGY from مالا المراجع م مجاربة (مجاربة م مجاربة) from مالا المراجع م مجاربة (مجاربة المحافية) from مالا المحافية من محالية المحافية المح	(Register No: certificate course in <u>APPLIE</u>
seonal	This is to certify that Mr./Miss Mahalaxmi Hisemath	• • • • • • • • • • • • • • • •
RWAD	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: <u>APPLIED MICROBIOLOGY</u> 2022-23	KARNATA Course Ti

# **CURRICULUM**



### Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD. **Microbiology Section** Department of Zoology Phone No: 0836-2215410 & 2215400 Fax: 0836-2744334



Email: principal.kscd@gmail.com Web: www.karnatakcollege.com

No.KSCD/2022-23/

Date: 01/05/2022

### Karnatak Sicence College, Dharwad Department of Microbiology 2022-2023

Course Name: "APPLIED MICROBIOLOGY"

Course duration: Three Months (01/05/2022- 31/07/2022)

About The Course: The Applied Microbiology is one of the Skill oriented course in the Field of Microbiology which focus on laboratory techniques in field of Agricultural, Dairy Food, Water and Waste water microbiology. All the techniques will be managed with experimental based procedures which will make students hands-on Expert.

### Course Objectives:

After completing the certificate course in Applied Microbiology the students will be able to manage the :

- ✓ Microbiology related food testing experiments such as Resazurin assay Clot on Blot will help to identify the Microbial quality of Milk.
- ✓ Yeast and mould enumeration will help to analyze the contamination level of tested food sample.
- ✓ BOD and COD are the popular methods to analyse the quality of water and waste water of Industrial outlets.
- ✓ The Most Probable Number test is essential to check the potable quality of any fresh water bodies
- ✓ Testing of soil germs will help to manage role of soil health in plant growth promotion
- ✓ Study on antagonism is one of the emerging field in Agricultural Microbiology
- ✓ Study on plant pathogens will help in Disease management of many commercial crops

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Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD. Microbiology Section Department of Zoology Phone No: 0836-2215410 & 2215400 Fax: 0836-2744334 Email: principal.kscd@gmail.com Web: www.karnatakcollege.com

No.KSCD/2022-23/

Date: 01/05/2022

Karnatak Sicence College, Dharwad Department of Microbiology - 2022-2023

Course Name: "APPLIED MICROBIOLOGY"

### Course Syllabus:

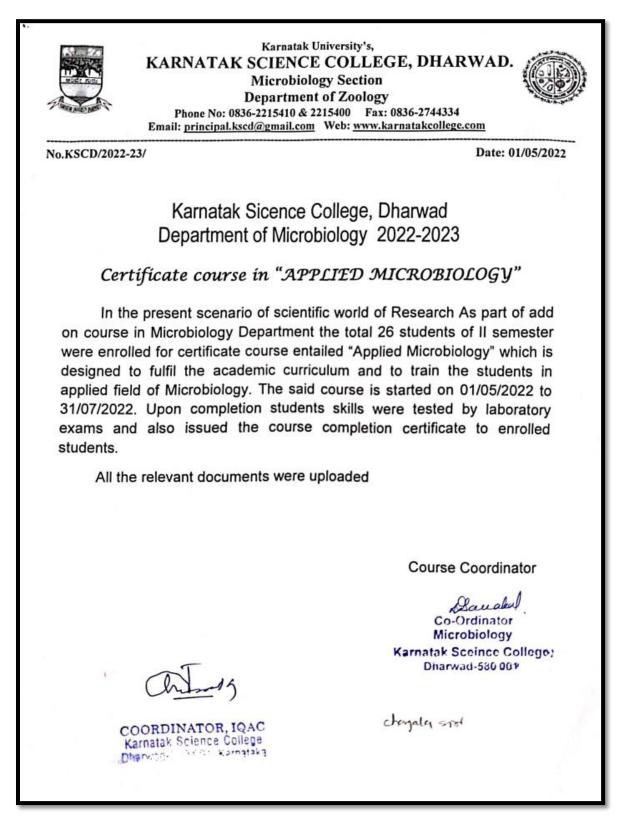
36 hrs

- 1. Rapid testing methods for Microbial Quality of Milk
- 2. Physical and Chemical tests for waste water TDS, TSS and COD
- 3. Microbiological tests for waste water DO and BOD
- 4. Isolation and Identification of microbes from Soil
- 5. Mass cultivation and applications of Bio fertilizers Azolla
- Isolation and Identification of plant pathogens Tikka, downy mildew of sorghum, Blast of Rice and Rust of Wheat
- 7. Study of antagonism with Soil isolates and pathogens
- 8. Mass cultivation and applications of Bio pesticides Trichoderma
- 9. Isolation and Identification of Rhizosphere microbes

**Course Coordinator** 

Co-Ordinator Microbiology Karnatak Sceince College, Dharwau-580 001

### **COURSE OUTCOME**



# 

SI.No	Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc.	Course Code (if	Duration of	Number of students enrolled in the	Number of Students completing the course
	programs offered	any) 2021-22 :03	course	year	in the year
1	Biochemical Tests	BIT-01	2021-22	1	3 months
2	Maintenance of Labarotary Equipments	PHY-01	2021-22	1	3 months
3	Basic Instrumentation	PHY-01	2021-22	1	3 months
4	Applied MicroBiology	MCB-01	2021-22	1	3 months
5	Domestic Violence Against Women in India	FSC-01	2021-22	1	3 months
6	Catrographic Representation of Geographic Data	GEO-01	2021-22	1	3 months



1

# Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

# Department of Biotechnology



# ADD ON/CERTIFICATE PROGRAMS

# 2021-22

**Course Title: Biochemical Tests** 

### LIST OF STUDENTS ENROLLED

		Duration (January to March) 3 months List of students enrolled	
Sl. No.	Registration Number	Name	Sign
1	19510045	Anusha . D. Hurale	Aushatt
2	19510052	Akuna Patel	Asung
3	19510076	chandeakala. B. Arenad	Chandrakator
4	19510131	Tusti · R. Enagi	- Hoto
5	19510198	Namen . S. yaraqueli	Havent
6	19510327	Shivakumar A. Shilashyed	Shille A.
7	19510329	Sherane . S. Tonne	A.
8	19510395	Veena R.	Vena
9	19510006	Abhishek Angadi	AbhishelsA
10	19510046	Anudra NB	Anusha
11	19510048	Apporra Pausar	Afareas
12	1951 0050	Kpita . K. Pujar	Bapt
13	19510070	Bhunika . S.S	BALLO
14	PF0012P1	chandrashekhar. B.	- <del>CD</del> -
15	19510158	Maaz . H. Sanadi	Mar
16	19510237	Poorve . S. Patel	P-
17	19510260	Rhadhika . C . Avaradhi	RE
18	1951 0309	Satyashee . S. Ganager	Catyoshie -
19	19510312	Sayam . V. Alayak	Say
20	19510336	Sharaksher . R. Adasp?	COAL
21	19510382	Thalayara Lakshnepulie	the

COURSE CO-ORDINATOR IQAC-CO-DEDINATOR PEINCSPAL OR P. G. Leullibert OI. L.T. Naifar OR. A-S. Bellad

# **STUDENTS ATTENDANCE**

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# from 01-01-2022 to 31-03-2022 19S10312) has successfully completed the certificate course in "Biochemical Tests" **Course Coordinator** This is to certify that Mr./Miss Sayam V Nayak (Register No: Certificate Course in "Biochemical Tests" KARNATAK SCIENCE COLLEGE, DHARWAD Karnatak University's 2021-22 IQAC Coordinator Principa

# CERTIFICATE

### **CURRICULUMN**



Karnatak University's

Karnatak Science College, Dharwad



Department of Biotechnology

### <u>Certificate Course in "Biochemical Tests"</u> <u>2021-2022</u>

### About the Course:

Biochemical Tests advance our understanding of the chemical structures and processes that underpin human health and disease, revealing the underlying transformations between them. Bio-Chemical techniques are important of any clinical laboratory. In thiscertificate course the students analyze fluid, tissues and blood samples to perform a variety of diagnoses. They generally work under the supervision of subject experts.

### **Objective:**

### After the completion of the certificate course, students will be able to:

- Set up, maintain, calibrate, clean and test sterility of medical laboratory equipment. Collect blood or tissue samples from patients, observing principles of asepsis to obtain blood samples.
- Conduct chemical analysis of body fluids, such as blood or urine, using microscope or to detect abnormalities or diseases.
- Conduct blood tests for transfusion purposes and perform blood counts. Inoculate fertilized eggs, broths, or other bacteriological media with organisms.
- Analyze the results of tests or experiments to ensure conformity to specifications, using special mechanical or electrical devices.
- Consult with a pathologist to determine a final diagnosis when abnormalities are found. Analyze and record test data to issue reports.

**Duration of the Course: 3 Months** 

Syllabus of Certificate Course on Biochemical Tests

1. Pathological examination of urine for proteins Sulpho salicylic acid test.

2. The colorimetric estimation of uric acid in urine by the reduction of arsenophosphotungstate by Benedict and Franke.

**3.Total RBC Count.** 

4. Total WBC Count.

5. Estimation of Haemoglobin.

6. The colorimetric estimation of ascorbic acid (Vitamin C).

7.Determination of blood group and Rh factor.

8. The quantitative analysis of urine volume , specific gravity , odour , colour and transparency .

### **COURSE OUTCOME**



Karnatak University's



Karnatak Science College, Dharwad

Department of Biotechnology

<u>Certificate Course in "Biochemical Tests"</u> <u>2021-2022</u>

### Course outcome

List of 21 Students were enrolled for certificate course on Biochemical Tests. With respect to the designed course curriculum, the assessment of the course was done. The said course was started on 01-01-2022 and completed on 31-03-2022, after completion of the course the examination was conducted in the department of biotechnology and based on the students performance in the examination the course completion certificates were issued to the students.

Course coordinator Dr. R. G. Kallehansblez



2

# Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

DEPARTMENT OF PHYSICS



# ADD ON/CERTIFICATE PROGRAMS

2021-22

**Course Title: Maintenance of Laboratory Equipments** 

# LIST OF STUDENTS ENROLLED

	Demoster	nt of Physics	<i>e</i>
	Departme	nt of Physics	
	Add on Co	ourse 2021-22	
	Course Title: Maintenan	ce of Laboratory F	auinments
		9127.0	quipments
Lis	t of the students Registe	ared.	
SI.No.	Name	UUCMS No.	Signature
1.	Veeranagouda S. S.	U02AB21S0235	-anto-
2.	Akkamahadevi M. Badiger	U02AB21S0240	A Ger
3.	Anjali S. Hippali	U02AB21S0164	Rent'
4.	Lavanya R. Pawar	U02AB21S0520	Lavany
5.	Musharafa R. Landage	U02AB21S0673	M. R. Landage
6.	Swati Y. Mulimani	U02AB21S0377	San .
7.	Mallikarjuna H. N.	U02AB21S0064	-Doot
8.	Ashwath A.	U02AB21S0615	HE
9.	Nagaraj D. R.	U02AB21S0272	Aprijunnie
10.	Sambaji D. H.	U02AB21S0561	Dondennase
11.	Sughas S. M.	U02AB21S0052	In
12.	Anusha N.S.	U02AB21S0071	ARO
13.	Sherya Potadar	U02AB21S0671	Diato
14.	Praveen F. Sogalad	U02AB21S0442	TEL
15.	Leelavati M.	U02AB21S0058	CALR .
16.	Koteppagouda N.P	U02AB21S0118	()
17.	Kavya B. C.	U02AB21S0238	WDO
18.	Srusti S. K.	U02AB21S0249	State
19.	Hemavati V.	U02AB21S0640	Hama
20.	Aishwarya S. G.	U02AB21S0641	(Anager
21	Shamant R.S.	U02AB2150120	
22.	Basavaraj s.K.	U 02AB2150159	Buck
23.	Srushti G.B.	U02AB2150418	890

# **STUDENTS ATTENDANCE**

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SI.	Rell No.	Register No.	NAME OF STUDENT	Gender	Date::	20/00	81/10	RIII/	3/11/2	21/12	21/2	3	3	2		
				Ű	Cat.	1	2	3	4	5	6	7	8	9	10	1
1		50235	Veeranagouda s.s.		1.0	P	P	P	P	P	P	P	P	P		
2		002A821	Akkamahaderi M.B.			A	P	P	P	P	P	P	P	P		Γ
3		50164	Anjali S.H.			A	P	P	P	A	A	P	P	P		T
4		U02AB21	Lamana R A.M.			A	P	P	P	+	P	P	P	P		
5		002402	Mushraja R.L.			A	P	P	V	P	P	P	P	P		1
6		002AB1	Swath y. Mulimen	10.1		A	P	P	P	P	P	P	A	P		F
7		UD2AB21	Mallikakuma H.N.			A	P	P	Ð	A	A	P	P	P		
\$	1	U02A821	Ashwath A			A	P	P		P	P	b	A	P		
9			Nagaraj D.R.	-		A	P	P	P	A	P	P	A	P		
10		1.00 A.0 D I	Sambaji D.H.	77		P	P	P	P	P	P	P	P	P	-	
11		U02AB21	Suhas S.M.	-		A	₽	P	P	A	A	P	P	2		-
12	-	002AB21	Anusha N.S.			P	P	P	P	P	P	P	Þ	P	-	1
13		002482	Sherya Potadar	-		A	P	P	-	P	A	P	Þ	P		T
14		0024821 50442	Phaneen F. sogalad		1	A	P	P	-	P	P	P	P	P		
15			Leclavati M.	1		P	₽	P	P	P	P	P	P	P		
16		0024B21 SOU 8	Koteppagouda N.P.			A	P	-	A	P	P	P	P	P		-
17		50238	Kavya B.c.	14	10000	P	P	P	p	P	P	P	P	P		-
18		UD2A821	Shusti S.K.			A	8	P		P	P	P	P	P		-
19		506 4D	Hemavati V.		10000	-	P	4		P	P	P	P	P		
20		50641	Aishwarya S.G.			*	A		P	P	P	P	P	P		Ì
21		50120	shamant R.S.			P	,	P	P	P	-	P	P	P	1	
22		50159	Basavaraj S.K.			A	P	P	_	P	P	P	P	P		
23		021021 50418	Shustili G.B.			A	P	P		P	P	P	-	P		
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# CERTIFICATE

Principal	IQAC Coordinator	Course Coordinator
_from30:.102021	certificate course in <u>Maintenance of Laboratory Equipments</u> from3010202. to 0.7012022	to 0.7. Pl. 2022
<u>anagenda_SiS</u>	This is to certify that Mr./Miss <u>Velsanageuda</u> _ (Register No: <u>vo2AB21so235</u> ) has successfull	This is to certify (Register N
	CERTIFICATE	
u atory	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: Maintenance of Laboratory Equipments 2021-22	KARNATAI Course

### CURRICULUMN

KARNA



KARNATAK SCIENCE COLLEGE, DHARWAD

### **Department of Physics**

Add on Course in Physics

KARNATAK UNIVERSITY'S

### **Course Title : Maintenance of Laboratory Equipments**

Duration of the Course: 3 Months

Year: 2021-2022

### Syllabus:

### Maintenance of Laboratory Equipments

Introduction of current, voltage, resistors, capacitors, inductors. Series and Parallel connections resistors and capacitors. Uses of analog meters and Multimeter. Active and Passive components. AC sources (transformer dimmerstat), oscillators, DC sources (rectifiers, battery), AC and DC motors, fuse box, Checking the health of resistance box and rheostat, repair of extension box. Checking the health of capacitors and diodes. Soldering and de-soldering the wire. Maintenance of adaptors. Maintenance of decorative lamps and lights. Basics of wiring (phase, neutral) types of electrical wire, basics of home wiring.

Checking the health of travelling microscope, calibration of travelling microscope. Calibration of spectrometer.

### Practical:

- Measurement of different physical quantities like resistance, voltage current using analog and digital multimeter
- 2. Checking the health of the resistance and rheostat

Calibration of uncalibrated instruments

- Checking the health of the diodes (Normal diode, Zener diode, photo diode, and LED's)
- 4. Checking the health of capacitors and inductors
- 5. Testing passive and active components using multimeter
- 6. Soldering and de soldering of components
- 7. Checking of the phase in AC supply (mains)
- 8. Study of Battery (Power supply)
- 9. Checking the telescope and its calibration

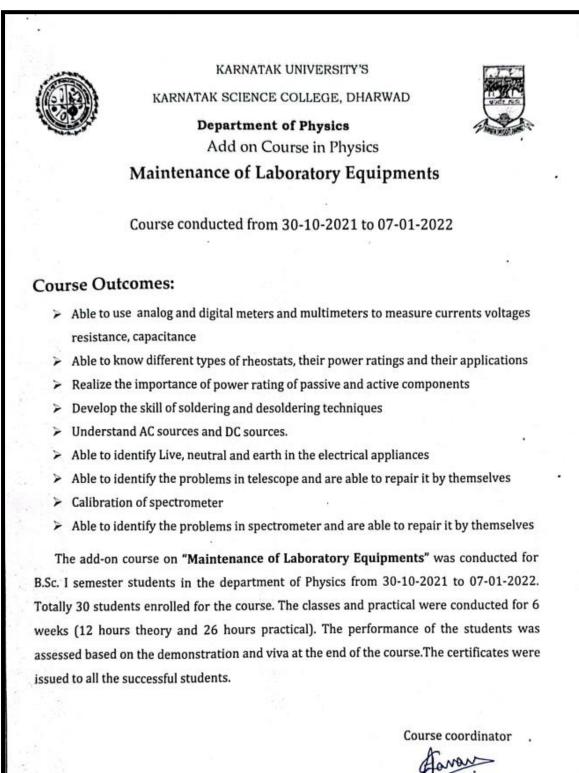
10. Checking the spectrometers alignment, focusing of collimator and telescope.

### **Reference Books:**

1. A Text book of Electrical technology by B.L. Theraja and A.K. Theraja

- 2. Principles of electronics by V.K. Mehta and Rohit Mehta
- 3. Practical Physics by C. L. Arora

### **COURSE OUTCOME**



Dr. Geeta Chavan.



3

# Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

# DEPARTMENT OF PHYSICS



# ADD ON/CERTIFICATE PROGRAMS

**Course Title: Basic Instrumentation** 

2021-22

### LIST OF STUDENTS ENROLLED



### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Physics



ADD On Course 2021-2022

### **Basic Instrumentation**

S.No.	Name of Students	Roll Number	UUCMS number	Signature
1	Ravi Y. Bisali	159	19S10279	Port-
2	Mahesh B.S	65	19S10169	nanhad-
3	Anil.S.Talawar	121	19S10035	that .
4	Ravikumar Patil	109	19S10280	Dew. Li
5	Surekha B.Y.	109	19S10367	Field
6	Rahul Baragali	107	19S10266	Se
7	Vijaykumar	116	19S10266	Juily .
8	Sudha H.N	85	19S10360	que
9	Ravi S. Tegur	158	19S10223	agence .
10	Sidram lali	172	19S10346	Cart-
11	Pandureddi Halemani	51	19510223	gaues
12	Laxmi N.M	74	19S10152	But
13	Shweta S.Manure	57	19S10343	At
14	Basavaraj Sattigeri	125	19S10064	duer .
15	Bheemaraddy	41	19S10068	Dent
16	Kishor P Pawar	94	19S10148	Coluc
17	Laxman M	95	19S10151	Que
18	Shredevi M	170	19S10334	Qui
19	Kavita D.C	139	19S10138	at
20	Vena Badagi	068	19510391	a de la dela dela dela dela dela dela de
21	Vanishree K.	101	19S10390	on
22	Shweta A.	98	19S10342	P
23	Sneha Jatyakar	173	19S10352	Sile
24	Gangabai N.S	93	19S10106	BAS
25	Vidya Kamble	177	19S10401	sheetae
26	Rakhesh J. Waddar	108	19S10274	83
27	Mahadevi M.B.	48	19S10163	Maliadeve
28	Kirankumar H.K	140	19S10147	HKirran
29	Sangamesh H.V	163	19S10298	Sanonnels
30	Basavraj M.H	104	19S10062	Albainty
31	Deepa Y.A	133	19S10094	A
32	Lakshmi M.H	141	19S10150	Labermill.H.
33	Shana Patil	160	19S10290	Shand .
34	Shrinath Nayak	115	19S10335	Speed
35	Veeranna Kusali	61	19S10396	Ree Danna:

Course Coordinator

Smt. Jyothi S.Doddamani

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# **STUDENTS ATTENDANCE**

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# CERTIFICATE

Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: Basic Instrumentation 2021-22 CERTIFICATE This is to certify that Mr./Miss/LiShel?lewen (Register No:19SI0148) has successfully completed the certificate course in <u>Basic Instrumentation</u> from15/8/.eve? to	KARNATAK S Course I Inis is to certify th certificate course in Basic I Course Coordinator
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### **CURRICULUMN**



KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD



Department of Physics Add on Course in Physics Course Title : BASIC INSTRUMENTATION Duration of the Course: 3 Months Year: 2021-2022

### Syllabus:

Multi meter: Comparison between analog and digital meters, Construction and working principle of multi range voltmeter, multi range ammeter and multi range ohm meter. Facilities available on Digital Multimeter (DMM using various makes) Alternating Current, AC supply to home, Phase, Neutral and Earthing, Measurement of voltages between them.

DC Power Supply: Working principle of Primary cell, secondary cell, Battery eliminator, unregulated power supply, regulated power supply: regulated power supply using zener diode, regulated power supply using IC-78XX.

Introduction to Tool Kit: Types of screw drivers, Nose Plier, Cut Plier Stripper, Drilling Bits and Drilling machine, Soldering and de soldering techniques.

Active and Passive components: Difference between active and passive components, Power rating of components

Analog to digital A/D and Digital to Analog D/A conversation circuits: Flash converter, binary weighted converter, R-2R ladder converter, characteristics properties of conversation circuits.

### Practical:

- Measurement of different physical quantities using analog and digital multimeter
- 2. Construction of multi range voltmeter
- 3. Construction of multi range ammeter
- 4. Testing passive and active components using multimeter
- Soldering and de soldering techniques: to assemble the components as in the circuit
- 6. Construction of primary cell: Leclanche and Daniel cell
- 7. Study of Battery eliminator
- 8. Study of Regulated power supply using Zener diode
- 9. Construction of Regulated power supply using IC-78XX
- 10. To study the Digital to Analog converter using R-2R ladder network

### **Reference Books:**

- 1. A Text book of Electrical technology by B.L. Theraja and A.K. Theraja
- 2. Principles of electronics by V.K. Mehta and Rohit Mehta

# **COURSE OUTCOME**



KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD



### **Department of Physics**

### Add on Course in Physics

### **Course Title : BASIC INSTRUMENTATION**

Duration of the Course: 3 Months

Year: 2021-2022

### **Course Outcomes:**

After completion of the course the student should be able to

- Differentiate between analog and digital multimeter and know the construction and working of the both multimeters.
- Analyse AC supply of home and able to know phase, Neutral and earthing and should be able to measure voltage between them.
- Realize the working principle of primary cell, secondary cell, battery eliminator, unregulated power supply, regulated power supply
- Realize the zener diode as regulated power supply
- Know the use of Tool Kit: Types of screw drivers, Nose Plier, Cut Plier Stripper, Drilling Bits and Drilling machine, Soldering and de soldering techniques.
- Differentiate between active and passive components, Power rating of components
- Analyse analog to digital A/D and Digital to Analog D/A conversation circuits: Flash converter, binary weighted converter, R-2R ladder converter, characteristics properties of conversation circuits.

Add on Course on basic instrumentation was conducted for 35 students with the 36 teaching hours which includes 12 hour of theory and 24 hour of practical from 15<sup>th</sup> August to 3<sup>rd</sup> of October 2021. Assessment of students was based on their demonstration and viva to the coordinator and teachers. The certificates are issued to students who have successfully completed the course.

**Course Coordinator** 

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Smt. Jyothi S. Doddamani



# Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

# DEPARTMENT OF ZOOLOGY

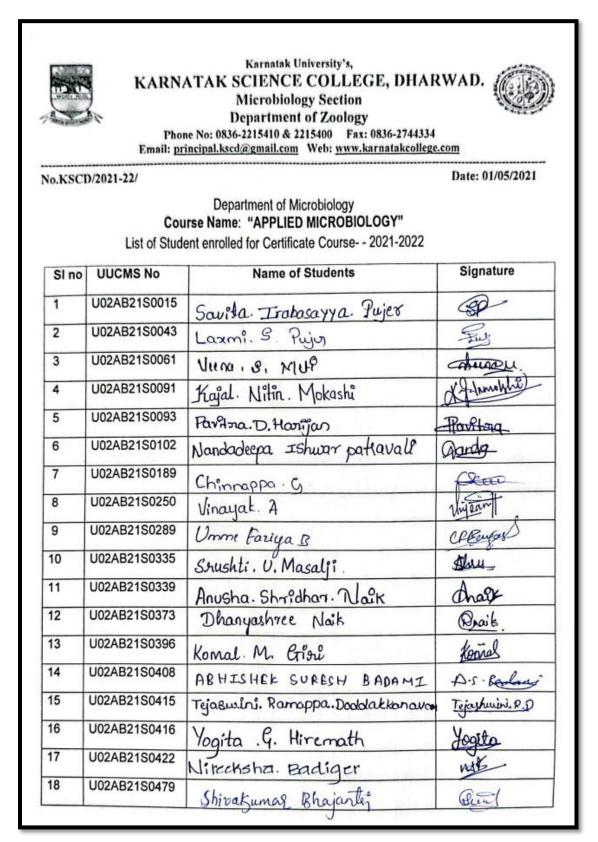


# ADD ON / CERTIFICATE PROGRAMS

# 2021-22

**Course Title: Applied Microbiology** 

## LIST OF STUDENTS ENROLLED



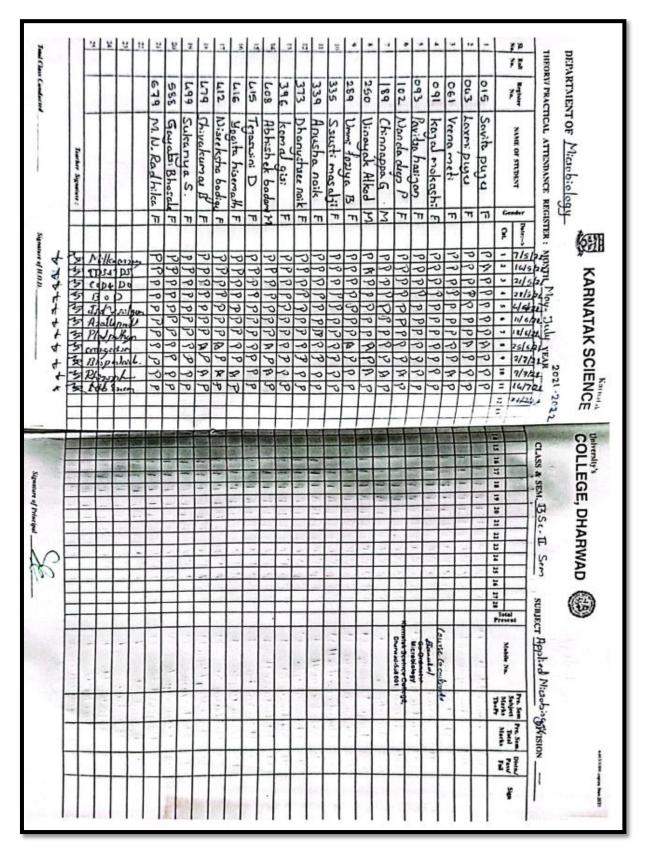
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21	U02AB21S0679		

**Course Coordinator** 

Co-Ordinator 01/5/21 Microbiology

Microbiology Karnatak Sceince College, Dharwad-580 001

COORDINATOR, IQAC Karnatak Science College Dharwod-0 1001 Karnataka



## **STUDENTS ATTENDANCE**

## CERTIFICATE

Principal	IQAC Coordinator	Blouabel Course Coordinator
21 to .14/07/2021	certificate course in APPLIED MICRBIOLOGY from.07./05/2021 to	certificate course in APPUE
ully completed the	_(Register No: <u>U02AB21S0408</u> ) has successfully completed the	(Register No:_
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RWAD	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: <u>APPLIED MICROBIOLOGY</u> 2021-22	KARNATAK Course Title:

## **CURRICULIMN**



Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD. **Microbiology Section Department of Zoology** Phone No: 0836-2215410 & 2215400 Fax: 0836-2744334



Email: principal.kscd@gmail.com Web: www.karnatakcollege.com

No.KSCD/2021-22/

Date: 01/05/2021

## Karnatak Sicence College, Dharwad Department of Microbiology 2021-2022

Course Name: "APPLIED MICROBIOLOGY"

Course duration: Three Months (01/05/2021- 31/07/2021)

About The Course: The Applied Microbiology is one of the Skill oriented course in the Field of Microbiology which focus on laboratory techniques in field of Agricultural, Dairy Food, Water and Waste water microbiology. All the techniques will be managed with experimental based procedures which will make students hands-on Expert.

#### Course Objectives:

After completing the certificate course in Applied Microbiology the students will be able to amanage the :

- ✓ Microbiology related food testing experiments such as Resazurin assay Clot on Blot will help to identify the Microbial quality of Milk.
- ✓ Yeast and mould enumeration will help to analyze the contamination level of tested food sample.
- ✓ BOD and COD are the popular methods to analysis the quality of water and waste water of Industrial outlets.
- ✓ The Most Probable Number test is essential to check the potable quality of any fresh water bodies
- ✓ Testing of soil germs will help to manage role of soil health in plant growth promotion
- ✓ Study on antagonism is one of the emerging field in Agricultural Microbiology
- ✓ Study on plant pathogens will help in Disease management of many commercial crops



Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD. Microbiology Section Department of Zoology Phone No: 0836-2215410 & 2215400 Fax: 0836-2744334 Email: principal.kscd@gmail.com Web: www.karnatakcollege.com

No.KSCD/2021-22/

Date: 01/05/2021

## Karnatak Sicence College, Dharwad Department of Microbiology - 2021-2022

Course Name: "APPLIED MICROBIOLOGY"

#### Course Syllabus:

36 hrs

- 1. Rapid testing methods for Microbial Quality of Milk
- 2. Physical and Chemical tests for waste water TDS, TSS and COD
- 3. Microbiological tests for waste water DO and BOD
- 4. Isolation and Identification of microbes from Soil
- 5. Mass cultivation and applications of Bio fertilizers Azolla
- Isolation and Identification of plant pathogens Tikka, downy mildew of sorghum, Blast of Rice and Rust of Wheat
- 7. Study of antagonism with Soil isolates and pathogens
- 8. Mass cultivation and applications of Bio pesticides Trichoderma
- 9. Isolation and Identification of Rhizosphere microbes

#### Course Coordinator

Baudea Co-Ordinator . Microbiology Karnatak Sceince College, Dharwad-580 001

## **COURSE OUTCOME**



Karnatak University's, KARNATAK SCIENCE COLLEGE, DHARWAD. Microbiology Section Department of Zoology Phone No: 0836-2215410 & 2215400 Fax: 0836-2744334 Email: principal.kscd@gmail.com Web: www.karnatakcollege.com

No.KSCD/2021-22/

Date: 01/05/2021

### Karnatak Sicence College, Dharwad Department of Microbiology 2021-2022

Certificate course in "APPLIED MICROBIOLOGY"

In the present scenario of scientific world of Research, as part of add on course in Microbiology Department the total of 21 students of II B.Sc semester were enrolled for certificate course entailed "Applied Microbiology" which is designed to fulfil the academic curriculum and to train the students in applied field of Microbiology. The Said course is started on 01/05/2021 to 31/07/2021. Upon completion of this course the students skills were tested by laboratory exams and also issued the course completion certificate to the enrolled students.

All the relevant documents were uploaded

**Course Coordinator** 

Karnatak Sceince College, Dharwad-580 001

COORDINATOR, IQAC Karnatak Science College Dharwad-500.001, Karnataka

chapter in.



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## Karnatak University's

## KARNATAK SCIENCE COLLEGE DHARWAD

#### DEPARTMENT OF CRIMINOLOGY AND FORENSIC SCIENCE



## ADD ON/CEETIFICATE PROGRAMME

**Title:** DOMESTIC VOILENCE AGAINST WOMEN IN INDIA

# 2021-22

## LIST OF STUDENTS ENROLLED

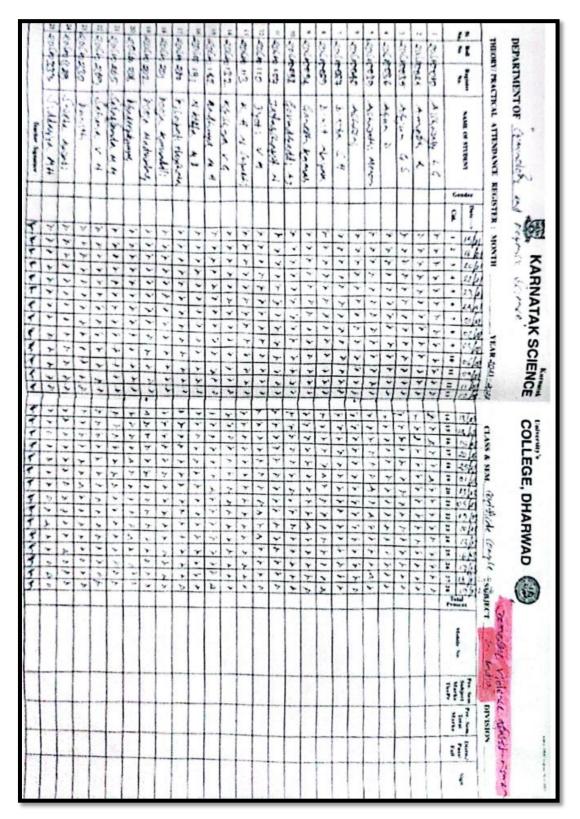


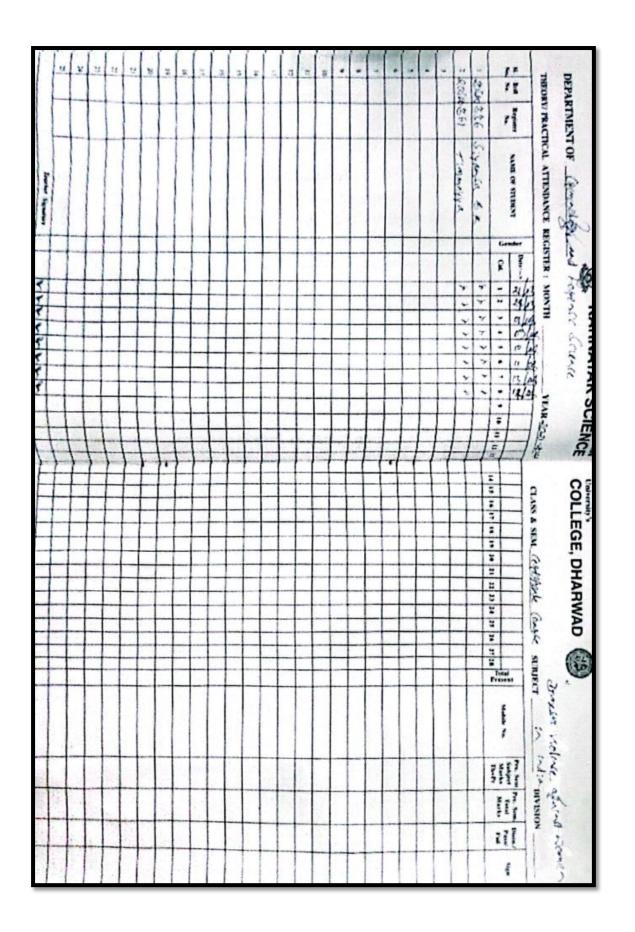
KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science Email : principal.kscd@gmail.com Website: WWW.kcd.org.in



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## STUDENTS ATTENDANCE





## CERTIFICATE

Course Coordinator IQAC Coordinator Principal	CERTIFICATE         This is to certify that Mr./Miss <u>DIX'LE MAYAK</u> (Register No: <u>20510-029</u> ) has successfully completed         the certificate course in "Domestic Violence Against Women in India"         from 15.01 2022, to .14042020	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Course Title: "Domestic Violence Against Women in India" 2021-22

## **CURRICULUMN**

#### KARNATAK UNIVERSITY'S

KARNATAK SCIENCE COLLEGE, DHARWAD

#### **Department of Criminology and Forensic Science**

Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

#### Syllabus:

Certificate course On "DOMESTIC VIOLENCE AGAINST WOMEN IN INDIA" 2021-2022

- . Introduction
- . Meaning. Definition and forms of domestic violence against women
- . Scope and significance of the issue
- . Intersectionality and differential experiences of violence
- . Types of abuse and patterns of victimization
- . Risk Factors and Protective Factor
- . Individual, relational, community, and societal determinants
- . Intersectional perspectives on risk and resilience
- . Implications for prevention and intervention strategies
- . Consequences of Domestic Violence
- . Physical, psychological, and emotional health outcomes
- . Economic and social impacts
- . Legal and Policy Responses
- . Legislative frameworks and legal reforms
- . Public awareness campaigns and education programs

Duration of the course: 3 Months

KARNATAK UNIVERSITY'S



KARNATAK SCIENCE COLLEGE, DHARWAD

Department of Criminology and Forensic Science Email: principal.kscd@gmail.com Website: WWW.kcd.org.in

Certificate Course in "DOMESTIC VIOLENCE AGAINST WOMEN IN INDIA" (Year 2021-2022)

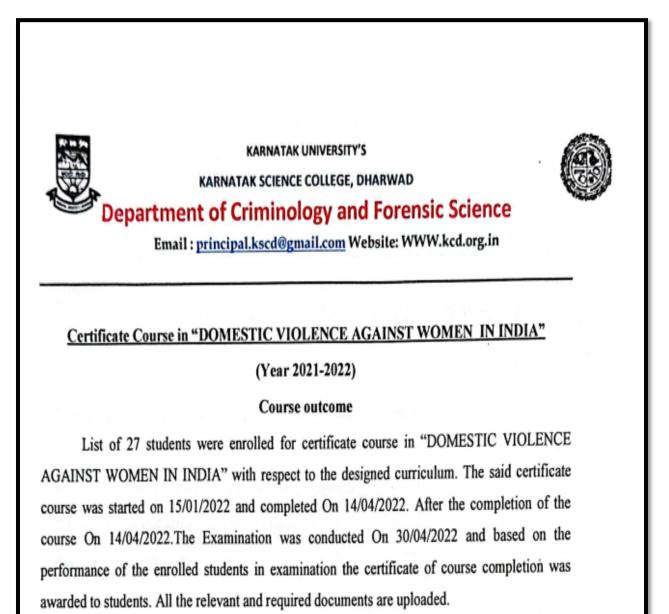
#### About the course:

Domestic violence against women is a pervasive and deeply rooted human rights issue with significant social, economic, and health implications. It provides a comprehensive literature on domestic violence against women, examining its prevalence, risk factors, consequences, and interventions. It explores the complex dynamics of domestic violence and highlights the multifaceted nature of this phenomenon. Additionally, it critically evaluates the effectiveness of various interventions, including legal reforms, support services, community-based initiatives, and prevention programs, and also to combat domestic violence and promote the safety, autonomy, and well-being of women worldwide.

Objectives: After the completion of the certificate course, students will be able to:

- 1. Understanding the Prevalence and Patterns of Domestic Violence
- 2.To know the Risk Factors and Protective Factors
- 3. To understanding Consequences of Domestic Violence
- 4. To know the Legal and Policy Responses
- 5. Understanding Support Services and Interventions

## **COURSE OUTCOME**





6

## Karnatak University's

## KARNATAK SCIENCE COLLEGE DHARWAD

DEPARTMENT OF GEOGRAPHY

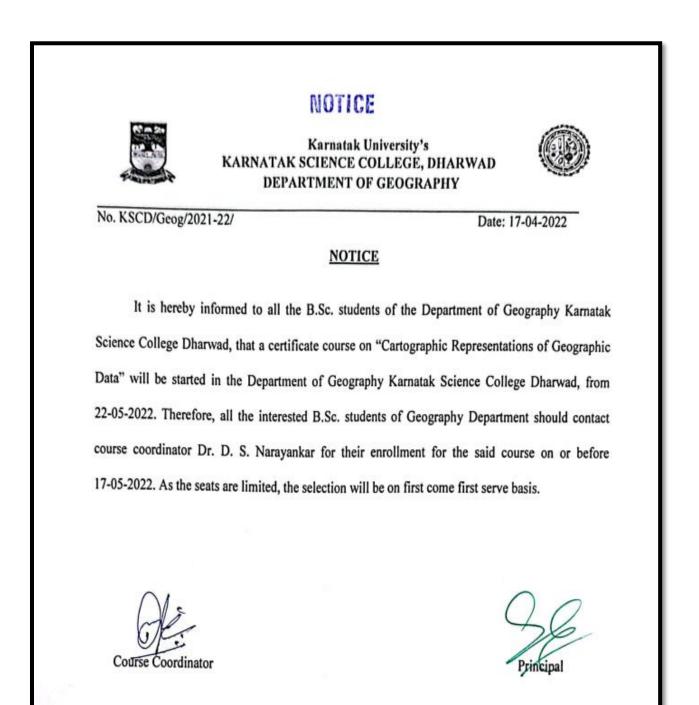


## ADD ON/CEETIFICATE PROGRAMME

**Title:** CARTOGRAPHIC REPRESENTATION OF GEOGRAPHIC DATA

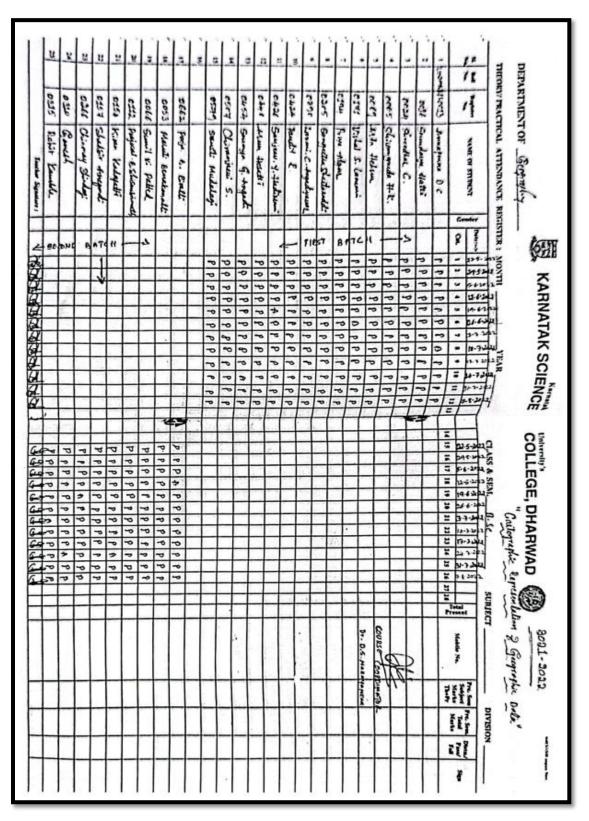
# 2021-22

## NOTICE



## LIST OF STUDENTS ENROLLED

		List of Students Enrolled	1
I.No.	Register Nos.	Name of the Students	Signature
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2		rundarya, Antti	Buskatt
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## STUDENTS ATTENDANCE

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## CERTIFICATE



## **CURRICULUMN**

#### **Course Syllabus**

#### Title of the Course "Cartographic Representation of Geographic Data"

#### Unit 1: Cartogram:

- 1. Rectangular Cartogram
- 2. Traffic flow Cartogram
- 3. Isochronic Cartogram

#### Unit 2: Distribution Maps

- 4. General Requirements for the construction of distribution maps
- 5. Methods for drawing distribution maps
- 6. Types of distribution maps
- 7. Advantages and disadvantages of distribution maps

#### Unit 3: Conventional Symbol for Landform Features, Surface Material and Process wise Landforms:

- 8. Mapping of Surface Materials
- 9. Mapping Process
- 10. Anthropogenic Features

#### Unit 4: Types of Maps:

- 11. Types of Maps
- 12. Colours used
- 13. Preparation of Geomorphological Map
- Preparation of Climatological Maps: Isotherm, Isobars, Isohyet, Isoneph, Isonomals and Isopleths of Aridity and Moisture.

#### **References:**

- Clarke, K.C.(1990): Analytical Computer Cartography, Englewood Cliffs, N.J. Practice-Hall
- 2. Mishra, R.P. and Ramesh(1989): Fundamentals of Cartography
- 3. Singh, G. : Map Work and Practical Geography, DVS Publication
- Sing R.L. and Singh R.P.B.(1999): Elements Practical Geography, Kalyani Publishers.
- 5. Sing, R.L.: Fundamentals of Practical Geography, DVS Publication
- 6. Singh, G. : Map Work and Practical Geography, DVS Publication
- Pijushkanti Saha, Pratha Basu.,(2010):Advanced Practical Geography,Books and Allied (P) Ltd, Kolkata.

Name of the programme : "Cartographic Representation of Geographic Data"

Type of the programme: Certificate Course

Contact Hours: 36

Full Marks: 50

Academic Year: 2021-22

#### **Course Objectives:**

The main objectives of this course are to make the students to learn about the different types of maps and learned to prepare distributional map and geomorphological by using different cartographic methods.

#### Learning Outcomes:

The learning outcomes of this course are as follows:

- 1. To understand the cartogram
- 2. To understand the general requirements for the construction of distribution maps.
- 3. To learn different methods for drawing distribution maps
- 4. To understand Anthropogenic Features
- 5. To learn how to prepare geomorphological and climatological maps

#### Assessment and Grading:

After completion of the course, an examination of 20 marks will be held containing 10 multiple choice and short type questions carrying 2 marks each. Practical examination of 30 marks will be held to test the learner's compatibility in working with different instruments used in survey.

Successful candidates will be awarded a certificate of completion of the course mentioning the grade secured in the examination.

## **COURSE OUTCOME**



#### Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY 2021-22



Certificate Course in "Cartographic Representation of Geographic Data"

No. KSCD/Geog/2021-22/

Date: 18-08-2022

#### Course Outcome

The certificate course in "Cartographic Representation of Geographic Data" was started with 35 B.Sc. students of Geography Department Karnatak Science College Dharwad. Created two batches and classes were conducted from 22-05-2022 and completed on 07-08-2022. The class hour was of 36 comprising of both theory and practical. After the completion of the course, students learned different techniques and methods in cartogram also leaned to prepare geographical distribution and geomorphological maps. Students also learned about the advantages and disadvantages of the distributional maps. All the 35 enrolled students appeared in the examination which was conducted on 14-08-2022 and based on the performance in examination, the certificate of course completion was awarded to the student.

All the relevant and required documents are uploaded.

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IQAC Coordinator

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SI.No	Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. programs offered	Course Code (if any) 2020-21 :03	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
1	Techniques of Biochemistry	BIT-01	3 months	29	29
2	Combating Human trafficking in India	FSC-01	3 months	29	29
3	Techniques in Aerial photography and				
	Remote Sensing	GEO-01	3 months	30	30



## Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

## Department of Biotechnology



## ADD ON/CERTIFICATE PROGRAMS

# 2020-21

**Course Title: Techniques of Biochemistry** 

## LIST OF STUDENTS ENROLLED

List of students enrolled         * Techniques of Biochermistor"         St. No.       Registration Number       Name       Sign         1       1 \$\$ \$101 \$\$ Malush U. Waghore       Multiple       Multiple         2       1 \$\$ \$100 09       Afrinag.       M. Moal       Multiple         3       1 \$\$ \$100 09       Afrinag.       M. Malush       Aveland         4       1 \$\$ \$100 162       Laxmi Talwar       Aveland         5       18 \$100 162       Laxmi Garayuntol       Jami         6       18 \$101 47       Maduutnee.       Guade       Multiple         7       1 \$\$ \$102 47       Radinal.       S. fawa       Maria         8       1 \$\$ \$102 89       Sathen \$\$ \$\$.       Guade       Maria         9       1 \$\$ \$102 90       Sathen \$\$.       Sathen \$\$.       Guade         10       1 \$\$ \$10 305       Bana       \$\$.       Guade       Sathen \$\$.         11       1 \$\$ \$10 361       Sounda       \$\$.       Guade       Sathen \$\$.         11       1 \$\$ \$10 365       Ashua       \$\$.       Guade       Guade         12       1 \$\$ \$10 367       Asathen \$\$.       \$\$.       Guade       Guade <tr< th=""><th>1         18510175           2         1851000           3         18510019           4         18510059           5         185100162           6         18510147</th><th><ul> <li>Techniques of Biochermistor"</li> <li>Prince</li> <li>Mahesh U. Waghore</li> <li>Afrinaz . M. Alon</li> <li>Atchala . V. Handi</li> <li>Atchala . V. Handi</li> <li>Atchala Gravunkol</li> </ul></th><th></th></tr<>	1         18510175           2         1851000           3         18510019           4         18510059           5         185100162           6         18510147	<ul> <li>Techniques of Biochermistor"</li> <li>Prince</li> <li>Mahesh U. Waghore</li> <li>Afrinaz . M. Alon</li> <li>Atchala . V. Handi</li> <li>Atchala . V. Handi</li> <li>Atchala Gravunkol</li> </ul>	
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# Biochemistry" from 01-01-2021 to 31-03-2021 1 & S 1 0 0 7 & ) has successfully completed the certificate course in "Techniques of **Course Coordinator** This is to certify that Mr./Miss CHAITRA MANNIKERI (Register No: Certificate Course in "Techniques of Biochemistry" KARNATAK SCIENCE COLLEGE, DHARWAD Karnatak University's 2020-21 **IQAC Coordinator** Principal A

## CERTIFICATE

## **CURRICULUMN**



Karnatak University's

Karnatak Science College, Dharwad



Department of Biotechnology

## <u>Certificate Course in "Techniques of Biochemistry"</u> <u>2020-2021</u>

#### About the Course:

Techniques of Biochemistry advance our understanding of the chemical structures and processes that underpin human health and disease, revealing the underlying transformations between them. Bio-Chemical techniques are important of any clinical laboratory. In thiscertificate course the students analyze fluid, tissues and blood samples to perform a variety of diagnoses. They generally work under the supervision of subject experts.

#### **Objective:**

#### After the completion of the certificate course, students will be able to:

- Conduct blood tests for transfusion purposes and perform blood counts. Inoculate fertilized eggs, broths, or other bacteriological media with organisms.
- Set up, maintain, calibrate, clean and test sterility of medical laboratory equipment. Collect blood or tissue samples from patients, observing principles of asepsis to obtain blood samples.
- Conduct chemical analysis of body fluids, such as blood or urine, using microscope or to detect abnormalities or diseases.
- Analyze the results of tests or experiments to ensure conformity to specifications, using special mechanical or electrical devices.
- Consult with a pathologist to determine a final diagnosis when abnormalities are found. Analyze and record test data to issue reports.

#### **Duration of the Course: 3 Months**

Syllabus of Certificate Course on Techniques of Biochemistry

1. Pathological examination of urine Esbach's quantitative method for albumin.

2. Total RBC Count.

3. Total WBC Count.

4. Estimation of Haemoglobin.

5. Determination of blood group and Rh factor.

6. Quantitative determination of total nitrogen by Kjeldahl-Gunning method.

7. Colorimetric estimation of vitamin D2 and D3.

8. Estimation of blood urea and serum creatinine.

## **COURSE OUTCOME**



Karnatak University's



Karnatak Science College, Dharwad

Department of Biotechnology

<u>Certificate Course in "Techniques of Biochemistry"</u> <u>2020-2021</u>

## Course outcome

List of 29 Students were enrolled for certificate course on Techniques of Biochemistry. With respect to the designed course curriculum, the assessment of the course was done. The said course was started on 13-01-2021 and completed on 26-03-2021. After completion of the course the examination was conducted in the department of biotechnology and based on the student's performance in the examination the course completion certificates were issued to the students.

Dr. PG Vallehcom blar



## Karnatak University's

# KARNATAK SCIENCE COLLEGE DHARWAD

DEPARTMENT OF CRIMINOLOGY AND FORENSIC SCIENCE



## ADD ON/CEETIFICATE PROGRAMME

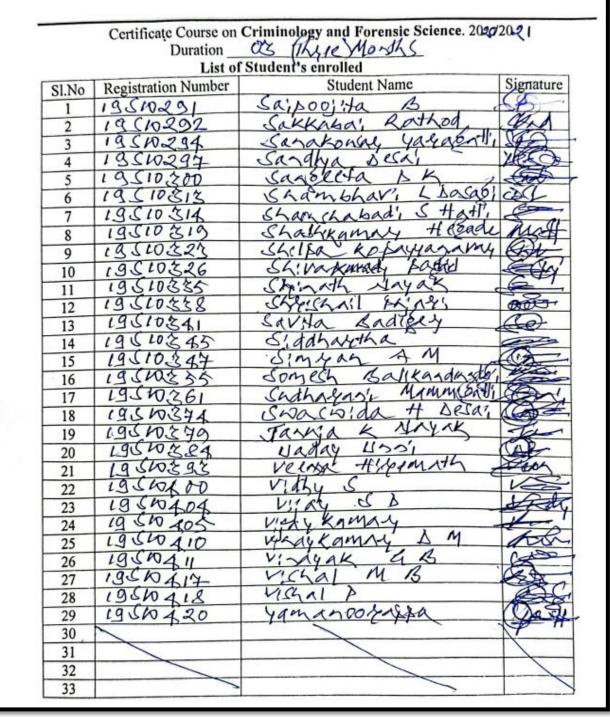
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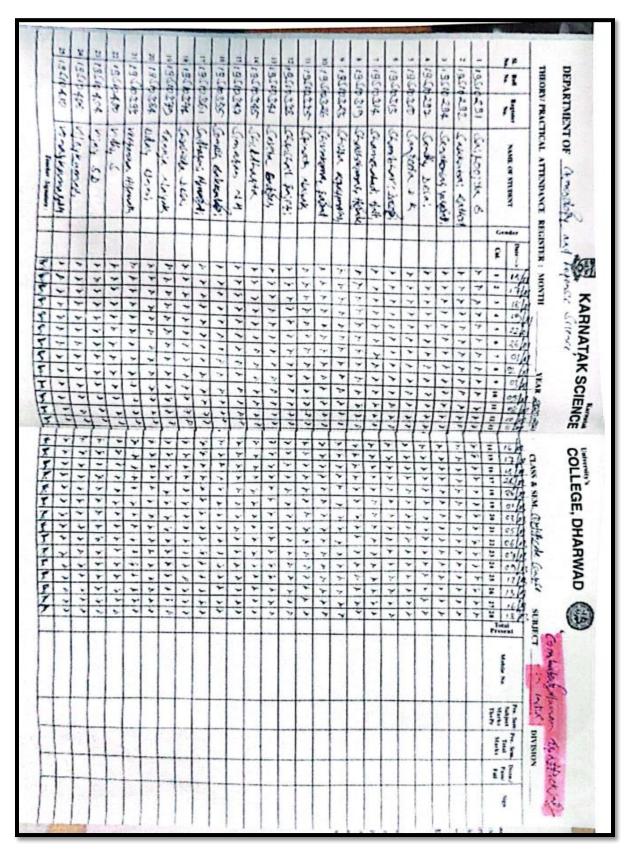
# 2020-21

## LIST OF STUDENTS ENROLLED

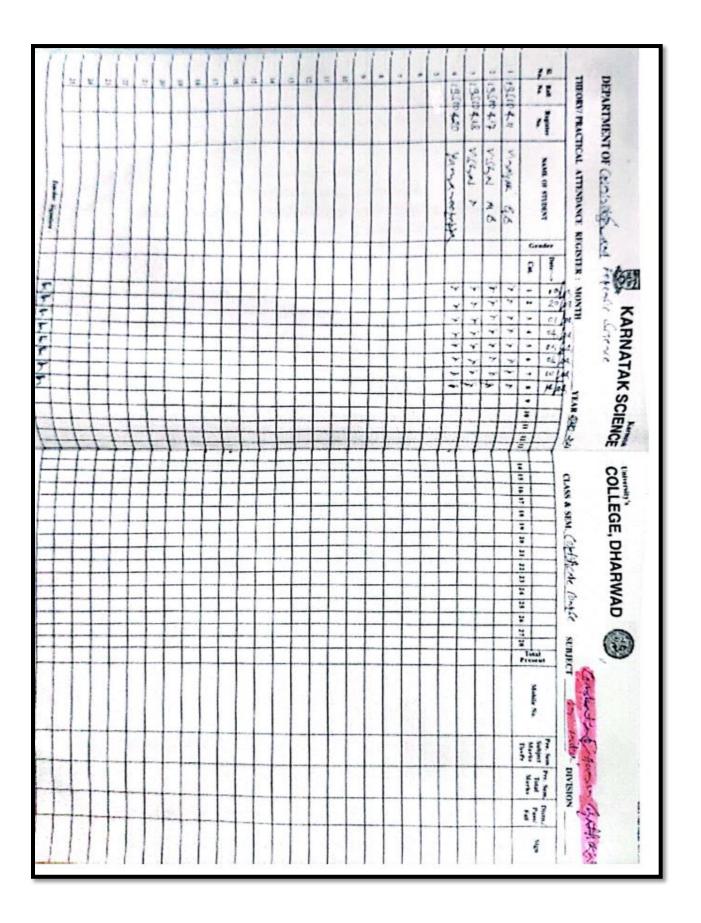


#### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science Email : principal.kscd@gmail.com Website: WWW.kcd.org.in





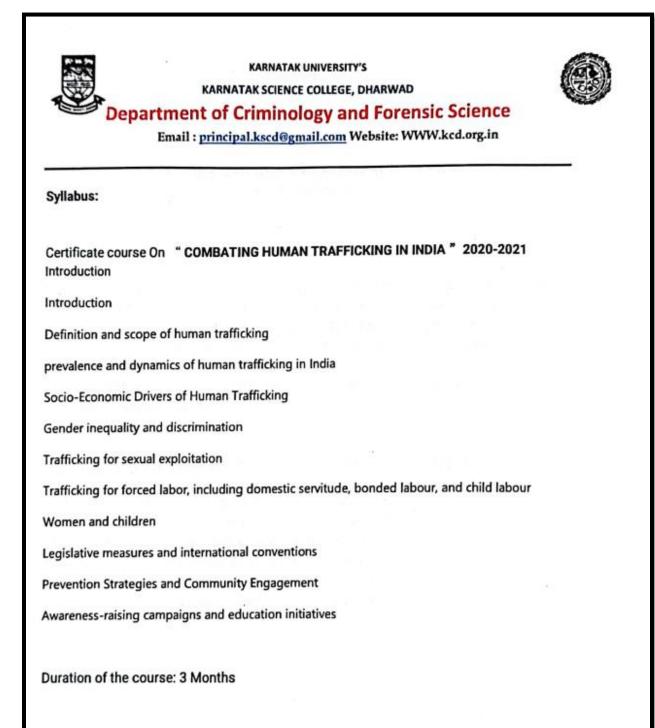
## STUDENTS ATTENDANCE



## CERTIFICATE



## **CURRICULUMN**







#### Certificate Course in "COMBATING HUMAN TRAFFICKING IN INDIA " (Year 2020-2021)

#### About the course:

Combating Human Trafficking in India

Human trafficking is a grave violation of human rights and a significant global challenge, with India being one of the countries most affected by this crime. It provides an in-depth examination of the complex phenomenon of human trafficking in India, It explores the socioeconomic, cultural, and institutional factors that contribute to the perpetuation of human trafficking in India. Additionally, it evaluates the effectiveness of legal frameworks, law enforcement efforts, victim support services, and prevention strategies, combating human trafficking and protecting the rights and dignity of victims.

Objectives: After the completion of the certificate course, students will be able to:

- 1. To know the Socio-Economic Drivers of Human Trafficking,
- 2. To study about Forms and Manifestations of Human Trafficking
- 3. To understand Vulnerable Populations and Risk Factors
- 4. Understand Legal Frameworks and Policy Responses
- 5. To know the Prevention Strategies and Community Engagement
- 6. To know the Role of international organizations and NGOs

## **COURSE OUTCOME**

KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

## Certificate Course in "COMBATING HUMAN TRAFFICKING IN INDIA"

(Year 2020-2021)

#### **Course outcome**

List of 29 students were enrolled for certificate course in "COMBATING HUMAN TRAFFICKING IN INDIA" with respect to the designed curriculum. The said certificate course was started on 15/01/2021 and completed On 14/04/2021. After the completion of the course On 14/04/2021. The Examination was conducted On 30/04/202I and based on the performance of the enrolled students in examination the certificate of course completion was awarded to students. All the relevant and required documents are uploaded.



## Karnatak University's

## KARNATAK SCIENCE COLLEGE DHARWAD

#### DEPARTMENT OF GEOGRAPHY



## ADD ON/CEETIFICATE PROGRAMME

Title: TECHNIQUES IN AERIAL PHOTOGRAPHY AND REMOTE SENSING

# 2020-21

## NOTICE

## **"OTICE**



Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY



No. KSCD/Geog/2020-21/

Date: 25-11-2020

#### NOTICE

It is hereby informed to all the B.Sc. students of the Department of Geography Karnatak Science College Dharwad, that a certificate course on "Techniques in Aerial Photography and Remote Sensing" will be started in the Department of Geography Karnatak Science College Dharwad, from 03-01-2021. Therefore, all the interested B.Sc. students of Geography Department should contact course coordinator Dr. D. S. Narayankar for their enrollment for the said course on or before 27-12-2020. As the seats are limited, the selection will be on first come first serve basis.

Course Coordinator

Principal

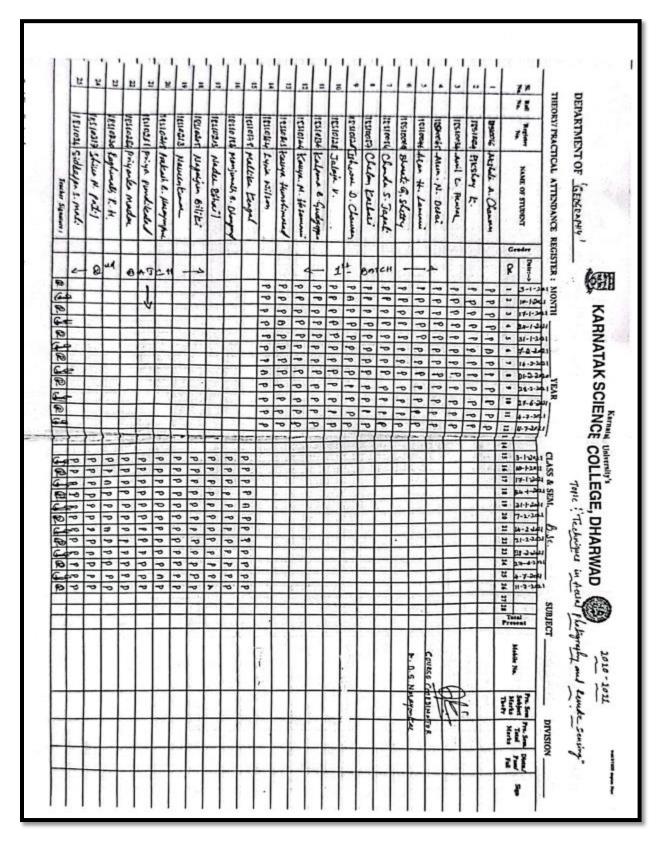
## LIST OF STUDENTS ENROLLED



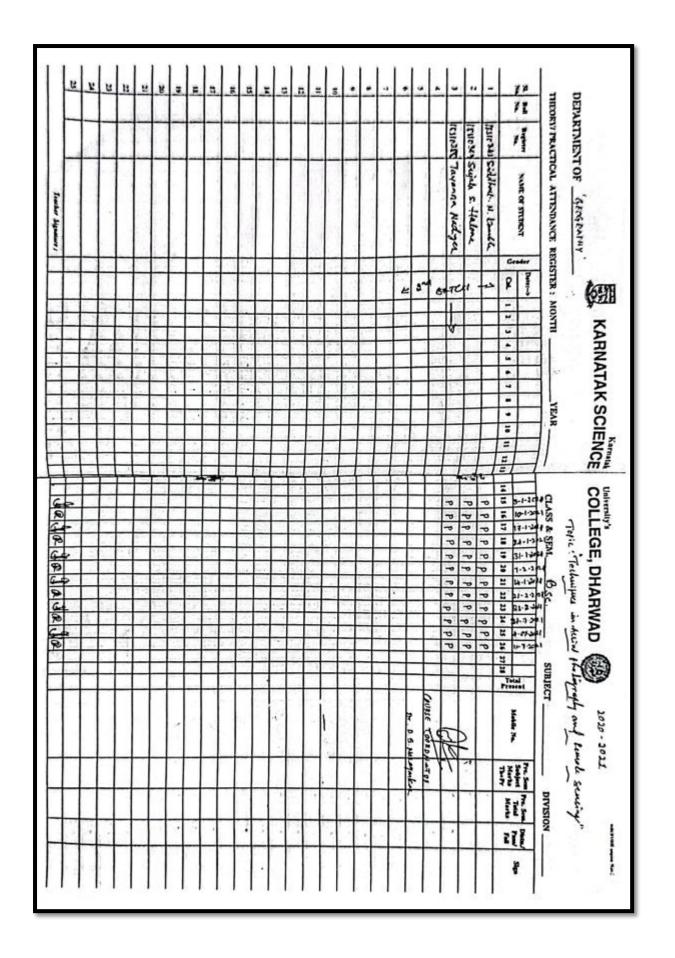
#### Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY Certificate Course on "Techniques in Aerial Photography and Remote Sensing" Duration (January to March) 3 Months – 2020-21



SI.No.	Register Number	Name of the Students	Signature
1	18510016	Akshala. A chawan	-Abshito
2	18510024	Abshay 10	- Anbarrie
3	18510034	Anil L. Pawar	Adour
4	18510045	Alun N. Desai	Acal
5	18510046	Asun H. Lamani	Gui
6	18510069	Bharati 9. Shetty	Sharts
7	18510084	Chandu, S. Japali	Ipali
8	18510087	Chelan Kalbhasi	Varce
9	18510126	Ishwar, D. Chavean	haven?
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11	18110136	Kalpana B. Gudigoppa	(De-
12	18310144	Kauya M. Hosamani	Karyent
13	18510143	Kauya Hunsimalad	Klunshimalad
14	18510164	Lynia wilson	ien .
15	18510178	Mallika Kengal	MK.
16	18510184	Manjurgalh, S. Dhangond	Mangunat.
17	18110003	Nader Schail	Achil
18	18510205	Nagarjun Bililei	Sillet N.
19	1810213	Naucentumar	Nauenkung
20	18500248	Prabash Marayanpur	Dalash
21	18310261	priya pundikalad	Priston
22	18110264	priyanka madar	Diya
23	18360220	Regherally R.H.	PHP.
24	18510317	Shivan N. Patil	Part 1
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26	18510343	Shidhauth N. Kamble	Sample.
27	18310367	Sujata, S. Halane	dijata S.
28	18110388	Tayanna Nagigel	Textar.
29			
6	H.	Alak	A



## STUDENTS ATTENDANCE



## CERTIFICATE

A COLOR OF THE OWNER					
to 11-07-2021. Course Coordinator	Certificate Course in Techniqu	This is to certify that Miss L	Course Title : Tee	KARNATAR	
IQAC Coordinator	Certificate Course in Techniques in Aerial Photography and Remote Seasing	This is to certify that Miss Lynia Wilson (Register No.: 18S10164) has successfully completed the	Course Title : Techniques in Aerial Photography and Remote	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARW Department of Geography 2020-21	
Principal	Seasing from 03-01-2021	as successfully completed the	Remote Seasing	LARWAD	

## **CURRICULUMN**

#### **Course Syllabus**

#### Title of the Course "Techniques in Aerial Photography and Remote Sensing"

#### Unit 1: Aerial Photos and their interpretation:

- 1. Types of Aerial Photos
- 2. Determination of scale of Aerial Photos

#### Unit 2: Arrangement of Aerial photos and Stereo-vision

- 3. Aerial Photos and Stereo-vision
- 4. Fused Photographs or Stereo-pairs
- 5. Use of Stereoscope
- 6. properties of Aerial Photos

#### Unit 3: Identification Features:

- 7. Distortion of Shape on Aerial Photo and Identification of Relief
- 8. Spectral Sensitivity Variation in Films and Identification
- 9. Identification of Features based on Tonal Variation

#### Unit 4: Image Interpretation:

- 10. Satellite Image Interpretation
- 11. Visual Interpretation

#### Unit 5: Application of Remote Sensing and Image Classification:

- 12. Application of Remote Sensing in Land Resources, Meteorology and Hydrology
- 13. Image classification on a computer platform
- 14. Mapping from satellite image
- 15. Ground truth verification using Google Earth.

#### References:

- Avery T.E and Berlin G.L., (1992): Fundamentals of Remote Sensing and Aerial Photo Interpretatio, 5<sup>th</sup> Edition, Prentice Hall, New Jersey.
- Lillesand T. Mand Kiefer R. W. (2021): Remote Sensing And Image Interpretation, 7<sup>th</sup> Edition, Jhon Wiley & Sons, Canada.
- Jensen J. R. (2012): Remote Sensing of Environment: An Earth Resources Perspective, 2<sup>nd</sup> Edition, Pearson Education, Upper Saddle River, Prentice Hall, New Jersey.
- Narayan LRA, (1999): Remote Sensing and Its Application, Universities Press (India)Pvt Ltd, Hydrabad.
- Rampal K.K.(1999): Handbook of Aerial Photography and Interpratation, Concept Publising Co, New Delhi.

Name of the programme : "Techniques in Aerial Photography and Remote Sensing"

Type of the programme: Certificate Course

Contact Hours: 36

Full Marks: 50

Academic Year: 2020-21

#### **Course Objectives:**

The main objectives of this course are to make the students to understand the remote sensing techniques to apply modern technology in various geographical areas. To interpret remotely sensed data. To analyze digital images and it also make the students to interpret the aerial photos.

#### Learning Outcomes:

The learning outcomes of this course are as follows:

- 1. To understand the remote sensing techniques
- 2. To apply modern technology in various geographical areas.
- 3. To interpret remotely sensed data.
- 4. To analyze digital images and also to interpret the aerial photos.

#### Assessment and Grading:

After completion of the course, an examination of 20 marks will be held containing 10 multiple choice and short type questions carrying 2 marks each. Practical examination of 30 marks will be held to test the learner's compatibility in working with different instruments used in survey.

Successful candidates will be awarded a certificate of completion of the course mentioning the grade secured in the examination.

## **COURSE OUTCOME**



#### Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY



Certificate Course in "Techniques in Aerial Photography and Remote Sensing"

2020-21

No. KSCD/Geog/2020-21/

Date: 21-07-2021

#### Course Outcome

About 28 students were enrolled for certificate course in "Techniques in Aerial Photography and Remote Sensing" with respect to the designed curriculum. Two batches were created consisting 14 students per batch, the said certificate course was started on 03-01-2021 and completed on 11-07-2021. The class hour was of 36 comprising of both theory and practical. After the completion of the course, students learned remote sensing techniques, learned to apply modern technology in various geographical areas and also learned to analyze digital images and Aerial photo interpretation. After completion of course the examination was conducted on 18-07-2021 and based on the performance of the enrolled students in examination the certificate of course completion was awarded to the students.

All the relevant and required documents are uploaded.

Course coordinator

**IQAC** Coordinator

Principal

# 2019-20

SI.No	Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. programs offered	Course Code (if any) 2019-20 :03	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
1	Biological Techniques	BIT-01	3 months	30	30
2	Child Trafficking in India	FSC-01	3 months	30	30
3	Natural Hazard and Disaster Management	GEO-01	3 months	30	30



## Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

# Department of Biotechnology



## ADD ON/CERTIFICATE PROGRAMS

# 2019-20

**Course Title: Biological Techniques** 

## LIST OF STUDENTS ENROLLED

9 <b>.</b> 1980		Certificate	Karnatak University's Karnatak Science College, Dharwad Department of Biotechnology Course on "Biological Techniques" 2019-20	
	7 843	Armen C	Duration (January to March) 3 months	
	SI. No.	Registration Number	List of students enrolled r Name	Sign
	1	17510006	Akkamahaderii . B	ARC
	2	17510016	Aksheryakumar V	Akehop
	3	1751 0019	Arrand kadakal	A
	4	17510032	Archana Mallolli	Archanaly
	5	1751 0062	Chaltre Benni	Chilithe
	6	17510080	Disha Belavadi	
	7	17510087	Geela Lanani	Geela
	8	17510089	Land Lamane	Car
	9	19510091	Gunerath . B. Gudle	Kaugathi
	10	17510097	Japrov? Rathod	ofalmare
	11	17510109	Kalmesh Salagathe	Salmesh-
	12	17510114	Kavila Bhangi	Kome
	13	17510119	Komal Wagh	Kong
	14	17510121	Kjulika Belgaum	Kruthika.
	15	17510132	Mahunnisa Gummagol	napung.
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	18	17510158	Megha Ratnakar	MAR I
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	24	17510317	Shrushte · Biradar	Stouetie
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## STUDENTS ATTENDANCE

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## CERTIFICATE

Course Coordinator	This is to certi <u>17510097</u> ) has succ Techniques" from <u>01-0</u>	KARNA Certifica
IQAC Coordinator	This is to certify that Mr./Miss Jahnavi Rathod (Registr         17510097)       has successfully completed the certificate course in "Biological         Techniques" from 01-01-2020 to 31-03-2020	Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD Certificate Course in "Biological Techniques" 2019-20
Principal	<b>Rathod</b> (Register No: te course in "Biological	HARWAD Techniques"

#### **CURRICULUMN**



Karnatak University's

Karnatak Science College, Dharwad

#### Department of Biotechnology

## <u>Certificate Course in "Biological Techniques"</u> <u>2019-2020</u>

#### About the Course:

Biological Techniques advance our understanding of the chemical structures and processes that underpin human health and disease, revealing the underlying transformations between them. Bio-Chemical techniques are important of any clinical laboratory. In thiscertificate course the students analyze fluid, tissues and blood samples to perform a variety of diagnoses. They generally work under the supervision of subject experts.

#### **Objective:**

#### After the completion of the certificate course, students will be able to:

- Conduct chemical analysis of body fluids, such as blood or urine, using microscope or to detect abnormalities or diseases.
- Set up, maintain, calibrate, clean and test sterility of medical laboratory equipment. Collect blood or tissue samples from patients, observing principles of asepsis to obtain blood samples.
- Analyze the results of tests or experiments to ensure conformity to specifications, using special mechanical or electrical devices.
- Conduct blood tests for transfusion purposes and perform blood counts. Inoculate fertilized eggs, broths, or other bacteriological media with organisms.
- Consult with a pathologist to determine a final diagnosis when abnormalities are found. Analyze and record test data to issue reports.

#### **Duration of the Course: 3 Months**

Syllabus of Certificate Course on Biological Techniques

1. Pathological examination of detection of reducing sugar in urine by Benedict's method.

2. Colorimetric estimation of amino acids in urine by Folin method.

3. The quantitative estimation of Creatinine in urine by Jaffe'-Folin method.

4. Total RBC Count.

5. Total WBC Count.

6. Estimation of Haemoglobin.

7. Determination of blood group and Rh factor.

8. Colorimetric estimation of tocopherols (Vitamin E).

## **COURSE OUTCOME**



Karnatak University's

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Karnatak Science College, Dharwad

Department of Biotechnology

<u>Certificate Course in "Biological techniques"</u> <u>2019-2020</u>

## Course outcome

List of 30 Students were enrolled for certificate course on Biological techniques. With respect to the designed course curriculum, the assessment of the course was done. The said course was started on 17-01-2020 and completed on 27-03-2020. After completion of the course the examination was conducted in the department of biotechnology and based on the students performance in the examination the course completion certificates were issued to the students.

Course coordinator Dr. R. G. Kallehambkar



2

## Karnatak University's

# KARNATAK SCIENCE COLLEGE DHARWAD

DEPARTMENT OF CRIMINOLOGY AND FORENSIC SCIENCE



# ADD ON/CEETIFICATE PROGRAMME

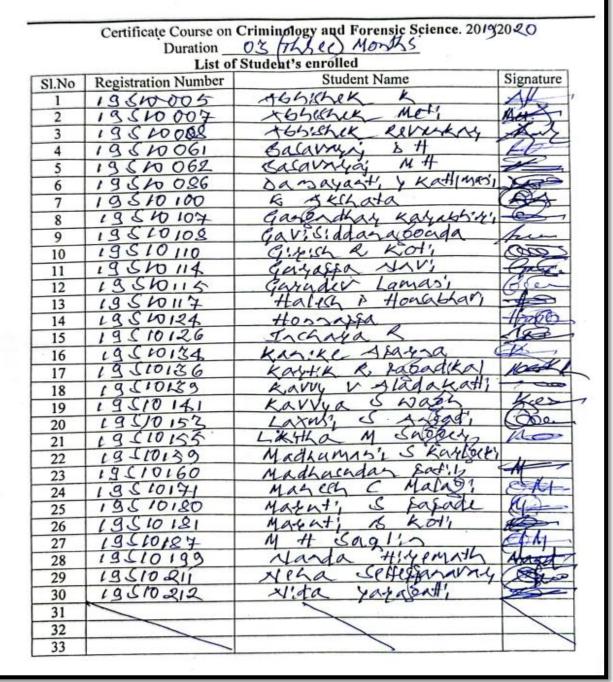
**Title:** Child Trafficking in India

2019-20

## LIST OF STUDENTS ENROLLED

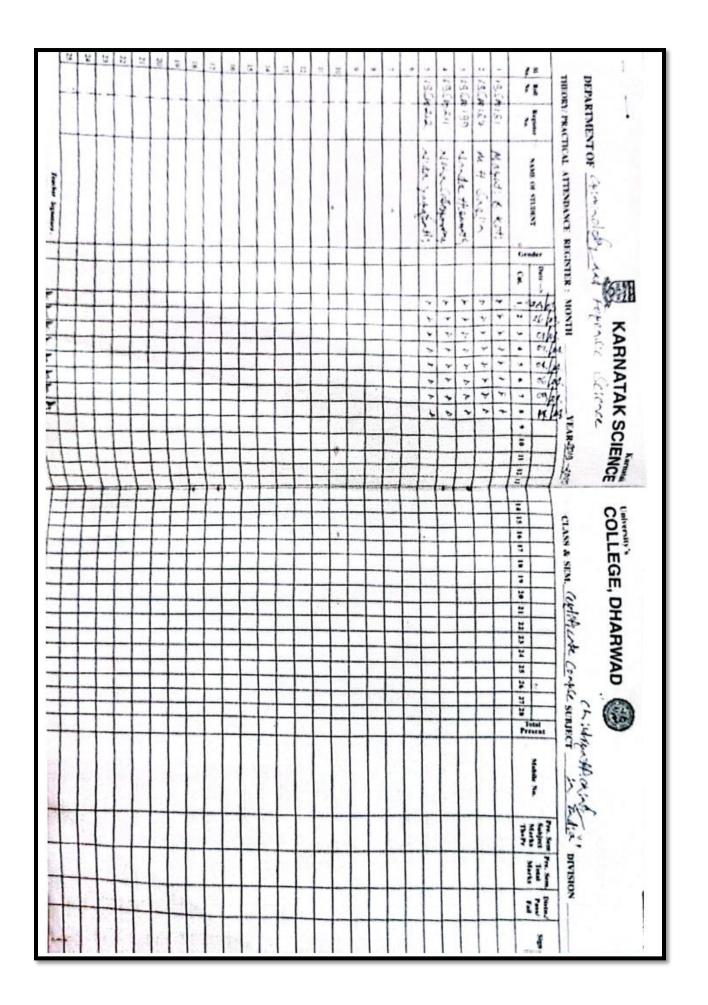


#### KARNATAK UNIVERSITY'S KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science Email : principal.kscd@gmail.com Website: WWW.kcd.org.in





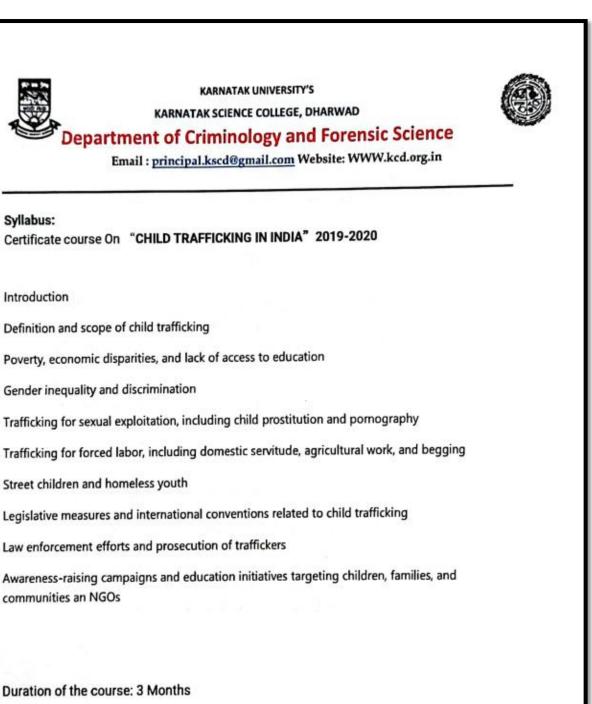
#### STUDENTS ATTENDANCE LIST



## CERTIFICATE



#### **CURRICULUMN**





#### KARNATAK UNIVERSITY'S



## KARNATAK SCIENCE COLLEGE, DHARWAD Department of Criminology and Forensic Science

Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

#### Certificate Course in "CHILD TRAFFICKING IN INDIA" (Year 2019-2020)

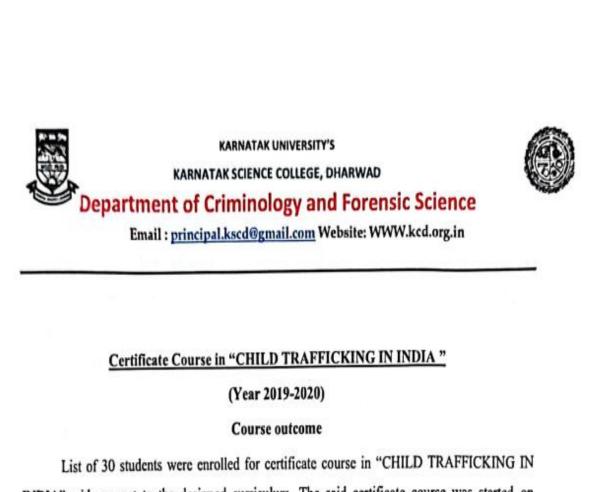
#### About the course:

Child trafficking remains a grave violation of human rights and a significant challenge in India, where thousands of children are trafficked each year for various forms of exploitation. It explain of child trafficking in India, examining its underlying causes, patterns, and consequences. And explores the socio-economic, cultural, and institutional factors that contribute to the vulnerability of children to trafficking. effectiveness of legal frameworks, law enforcement efforts, victim support services, and prevention strategies in addressing this issue. combating child trafficking and protecting the rights and well-being of children

#### Objectives: After the completion of the certificate course, students will be able to:

- 1. To understanding about Socio-Economic Drivers of Child Trafficking
- 2. To know the Forms and Manifestations of Child Trafficking
- 3. Understand the Vulnerable Groups and Risk Factors
- 4. To study about Legal Frameworks and Policy Responses
- 5. To understand Prevention Strategies and Community Engagement

## **COURSE OUTCOME**



INDIA" with respect to the designed curriculum. The said certificate course was started on 15/01/2020 and completed On 14/04/2020. After the completion of the course On 14/04/2020. The Examination was conducted On 30/04/2020 and based on the performance of the enrolled students in examination the certificate of course completion was awarded to students. All the relevant and required documents are uploaded.



## Karnatak University's

## KARNATAK SCIENCE COLLEGE DHARWAD

DEPARTMENT OF GEOGRAPHY



# ADD ON/CEETIFICATE PROGRAMME

**Title:** NATURAL HAZARD AND DISASTER MANAGEMENT

# 2019-20

## NOTICE

## MOTICE



Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY

No. KSCD/Geog/2019-20/

Date: 05-12-2019

#### NOTICE

It is hereby informed to all the B.Sc. students of Department of Geography, Karnatak Science College Dharwad, that a certificate course on "Natural Hazard and Disaster Management" will be started in the Department of Geography Karnatak Science College Dharwad, from 05-01-2020. Therefore, all the interested B.Sc. students of Geography Department can contact course coordinator Dr. D. S. Narayankar for their enrollment for the said course on or before 25-12-2019. As the seats are limited, the selection will be on first come first serve basis.

Course Coordinator

#### LIST OF STUDENTS ENROLLED



#### Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY Certificate Course on "Natural Hazard and Disaster Management" Duration (January to March) 3 Months – 2019-20

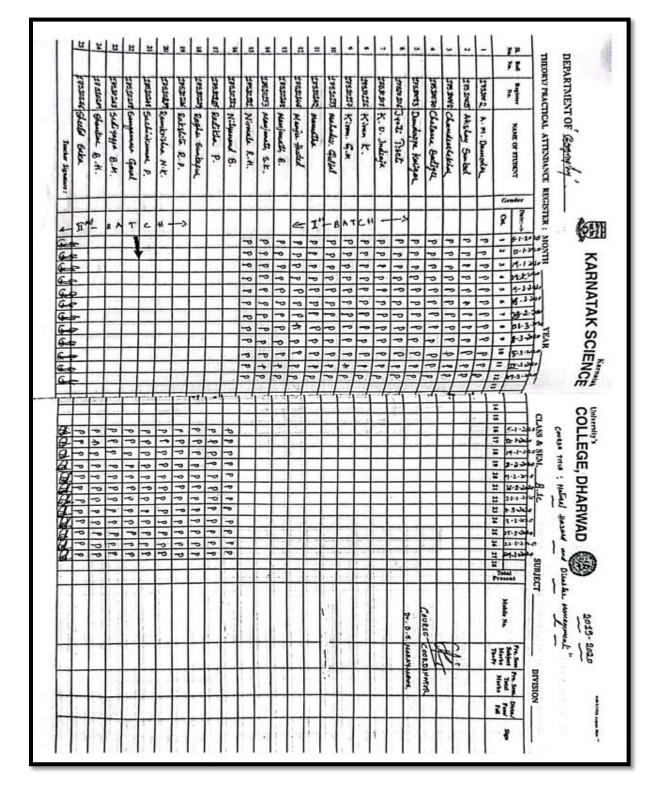


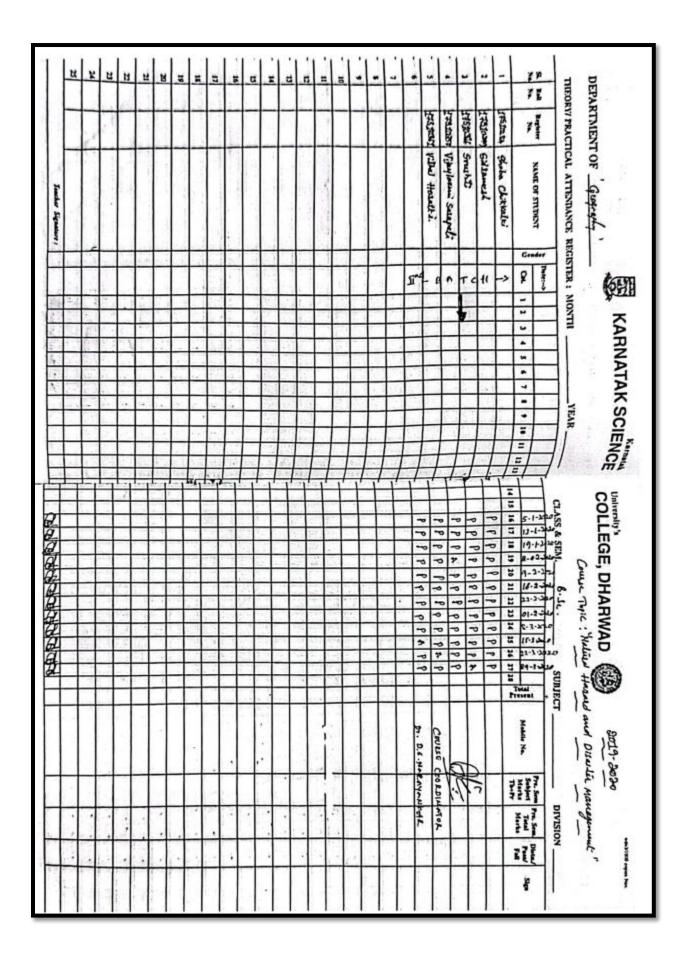
SI.No.	Register Number	Name of the Students	Signature
1	17510002	A. M. Damodar	AD2,
2	17510015	Akshaya Sunkad	-Norya
3	17510068	Chandsashekhar_	the
4	17510070	Chelana Badiger	Ediger.
5	17510083	Dundappa. Kariger	Sundage
6	17510106	Jyeili Tibeli	Develou
7	17510107	K. V. Indraja	The
8	17510116	Kiran K.	Kiran.
9	17510117	Kisan G.m.	Gint.
10	17510 133	Mahader Gulbal	Gilbolin
11	17510142	Mamatha	Halko
12	17510146	Manjunath fluded	Hadedm.
13	17510148	Manjunath. B.	Damunate
14	17510153	Manjunath J.K	topo,
15	17510 181	Nirmala. R.H	Normal Rt
16	175 10 182	Hityanand . B.	Hilyes
17	175 10 205	Radhika P.	Redika
18	175 00 229	Ragher Sunbapair	Paghe
19	17510236	Rakchita R. P.	Recheta.
20	17510239	Ramkrishna N.K.	Rele
21	17510248	Sachintemar P.	- achilef
22	17510258	Sanangamma Gonal	Gonala
23	17510263	Sediyappa. B.M.	Elippe-
24	17510269	Stankal . B. tt.	Gaskertt.
25	17510276	Sheelal Saka	Scela
	17510 284	Shabha Chikka(ki	Shotta
27	17510299	Siddavamesh.	Sindersh
28	17510316	Shrushti	Straubt?
	17910350	Vijayalazmi Sarapali	Fogali
30	178(0361	Vitta Hosatti	Heatti

Course Coordinator

Principal /

## STUDENTS ATTENDANCE LIST





# CERTIFICATE



# **CURRICULUMN**

#### **Course Syllabus**

#### Title of the Course "Natural Hazard and Disaster Management"

#### Unit 1: Introduction:

- Meaning and Definition
- Significance of Disaster Management
- .

#### Unit2 : Hazard And Disaster Management:

- Types of Hazards
- · Classification of Disaster
- · Effects of Hazards
- · Pattern and Causes of Damage

•

#### Unit 3: Flood Disaster Management:

- Flood Forecasting
- · Reduction of Runoff, Reducing Flood Peaks by Volume Reduction
- · Reducing Flood levels and Flood Zooming

#### Unit 4: Flood Control Programmes and Policies:

- · Immediate, Short term and Long term measures
- Post Flood Management
- · Help and Rescue Management

#### References:

- 1. Coenrads, R.(2006): Natural Disaster and How we cope, Miilanium House.
- 2. Coch, N.K. (1994):Geohazard, Natural and Human, Pearsn College.
- Cutter, S.L. (2006):Hazards Vulnerability and Environmental Justice, Roulledge Govt. of India.
- 4. Gupta, H.K.(2013): Disaster Management, University Press.
- 5. Hyndman, D.,(2016): Natural Hazard and Disasters, 5th ed, Brookes Cole.
- 6. Kapur, A.(2010): Vulnerable India: A Geographical Study of Disastrs, Sage.
- Pine, J.C.(2014): Hazard Analysis: Reducing the Impact of Disasters, 2 nd ed, CRC Press.
- Robbins, P., Hintz, J. (2014): Environment and Society: A Critical Introduction n 2<sup>nd</sup> ed, Wiley.
- Smith, K.(2013): Environmental Hazards: Assessing Risk and Reducing Disaster, 6<sup>th</sup> ed, Routledge.

Name of the programme : "Natural Hazard and Disaster Management"

Type of the programme: Certificate Course

Contact Hours: 36

Full Marks: 50

Academic Year: 2019-20

#### Course Objectives:

The main objectives of this course are to make the students to understand the natural disaster related to lithosphere. To discuss the atmospheric disaster and their types. To understand hydrospheric disaster and to study the biospheric disaster and their impact.

#### Learning Outcomes:

The learning outcomes of this course are:

- 1. To define the Natural Hazards and Disasters related to Lithosphere.
- 2. To identify different types of atmospheric disaster and their impact..
- 3. To discuss the nature and types of hydrospheric disaster and its impact.
- To define the biospheric disaster and its impact.

#### Assessment and Grading:

After completion of the course, an examination of 20 marks will be held containing 10 multiple choice and short type questions carrying 2 marks each. Practical examination of 30 marks will be held to test the learner's compatibility in working with different instruments used in survey.

Successful candidates will be awarded a certificate of completion of the course mentioning the grade secured in the examination.

# **COURSE OUTCOME**



Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY Certificate Course in "Natural Hazard and Disaster Management" 2019-20

No. KSCD/Geog/2019-20/

Date: 10-04-2020

#### Course Outcome

The certificate course in "Natural Hazard and Disaster Management" was started with 30 B.Sc. students of geography department karnatak science college Dharwad. Created two batches and classes were conducted from 05-01-2020 and completed on 29-03-2020. The total theory class hour was of 36. After the completion of the course, students learned to handle the issues of natural hazard and disasters . The students also learned about the effects and pattern of damages and remedies. All the 30 enrolled students appeared in the examination which was conducted on 05-04-2020 and based on the performance in examination the certificate of course completion was awarded to the student.

All the relevant and required documents are uploaded.

Course Coordinator

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# 2018-19

SI.No	Name of Add on /Certificate /Value added programs offered and online MOOC programs like SWAYAM, NPTEL etc. programs offered	Course Code (if any) <mark>2018-19</mark> :03	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
1	Bio-chemical Methods	BIT-01	3 months	19	19
2	Drug Trafficking in India	FSC-01	3 months	27	27
3	Morphological Analysis	GEO-01	3 months	30	30





# Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD

Department of Biotechnology



ADD ON/CERTIFICATE PROGRAMS

# 2018-19

Course Title: Biochemical Methods

# LIST OF STUDENTS ENROLLED

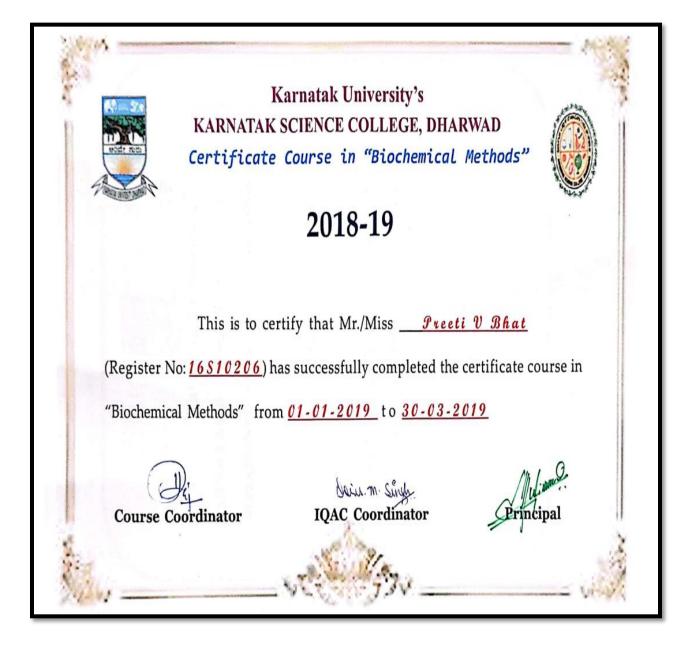
	Certificate C	Karnatak University's Karnatak Science College, Dharwad Department of Biotechnology Course on <b>"Bio-Chemical methods"</b> 2018-19 Duration (January to March) 3 months <u>List of students enrolled</u>	
SI, No.	Registration Number	Name	Sign
. 1	16510007	Aish warya . B. Yendigere	Are
2	16510031	Aishwarya B. Yendigeri Annapoorna C. Hi Hinnah	sturepreases ;>
3	16510051	Bhoanika R	The
4	16510066	Deepa Guddoppa Jujar	Derpud
5	16510069	Deepte . M. Bellad	Deyra
6	16510082	Gulnaz Naser Khan	-lappa
7	16510 084	Gunder? Dash araby Totad	O HRAY
8	16510154	Mubeenbann Karegar	there !
9	16510165	Navena .E.	Naweum .
10	16510190	Pooja. R. Kalagoudar	Banko
11	16510206	Preete Viehwanals Bhat	Parts.
12	16510218	Rajahusals	Chloherin
. 13	16510257	Sangamesh Maganoor -	Caup
14	16510282	Shelpa Ishisarayya nelly	Abre
15	16510319	Sujan M. Salemath	A.
16	16510333	Sucesh . H. Tarenal	Surrettet
17	16510 354	Usha	the a
18	16510374	Kishal Araballi	Hold
19	1651 0386	Laxmi Kannur	and
Ourse 60000 Or R G- Unit	DI NATOR hhamable	Seine m. Singer Ipac - Co-ORDENATOR P Di (Arrof) O.M. Singh Dr	EINETPAL C. E. MuliMani

# **STUDENT'S ATTENDANCE**

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# CERTIFICATE



#### **CURRICULUMN**



Karnatak University's

Karnatak Science College, Dharwad



Department of Biotechnology

# <u>Certificate Course in "Bio-chemical Methods"</u> <u>2018-2019</u>

#### About the Course:

Bio-chemical Methods advance our understanding of the chemical structures and processes that underpin human health and disease, revealing the underlying transformations between them. Bio-Chemical techniques are important of any clinical laboratory. In thiscertificate course the students analyze fluid, tissues and blood samples to perform a variety of diagnoses. They generally work under the supervision of subject experts.

#### **Objective:**

#### After the completion of the certificate course, students will be able to:

- Consult with a pathologist to determine a final diagnosis when abnormalities are found. Analyze and record test data to issue reports.
- Set up, maintain, calibrate, clean and test sterility of medical laboratory equipment. Collect blood or tissue samples from patients, observing principles of asepsis to obtain blood samples.
- Conduct chemical analysis of body fluids, such as blood or urine, using microscope or to detect abnormalities or diseases.
- Analyze the results of tests or experiments to ensure conformity to specifications, using special mechanical or electrical devices.
- Conduct blood tests for transfusion purposes and perform blood counts. Inoculate fertilized eggs, broths, or other bacteriological media with organisms.

#### **Duration of the Course: 3 Months**

#### Syllabus of Certificate Course on Bio-chemical Methods

1. Estimation of creatinine blood by Folin's Method.

2. The colorimetric estimation of total cholesterol in blood (Bloor-Sacket Modified).

3. Total RBC Count.

4. Total WBC Count.

5. Estimation of Haemoglobin.

6. The colorimetric estimation of ascorbic acid (Vitamin C).

7. Estimation of blood Glucose.

8. Pathological examination of hemin crystals in detection of blood by Betrand's method.

# **COURSE OUTCOME**



Karnatak University's

#### Karnatak Science College, Dharwad



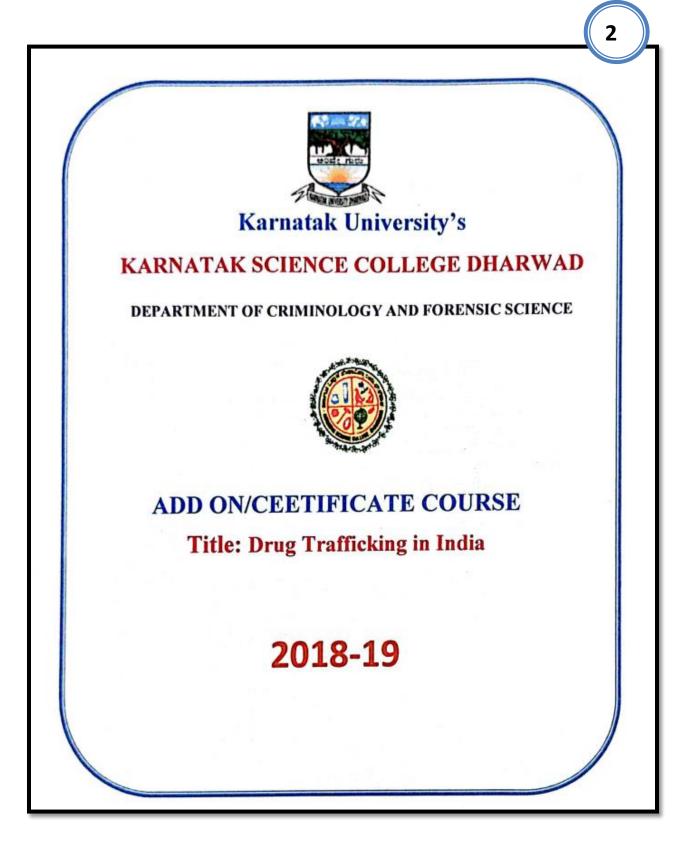
# Department of Biotechnology

# <u>Certificate Course in "Bio-chemical Methods"</u> <u>2018-2019</u>

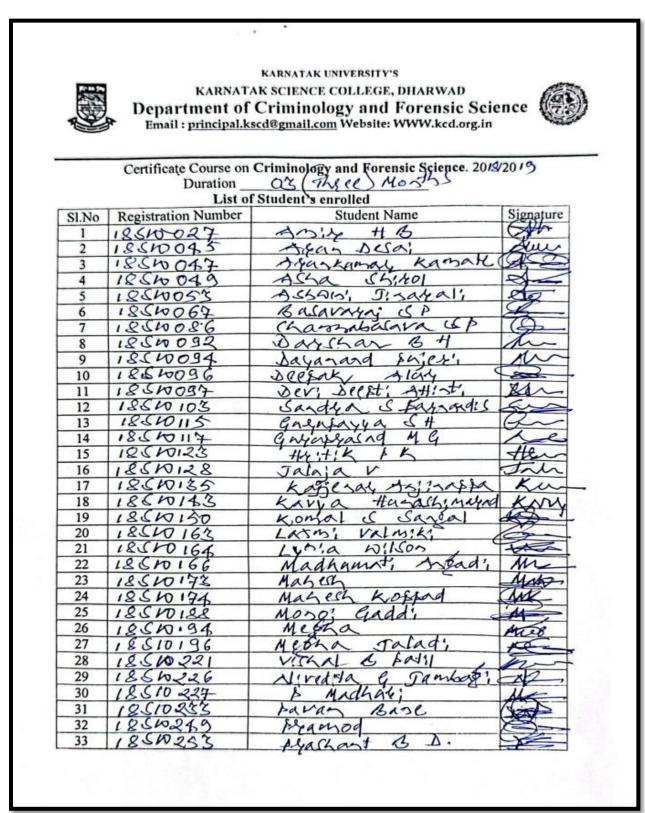
# Course outcome

List of 19 Students were enrolled for certificate course on Bio-chemical methods. With respect to the designed course curriculum, the assessment of the course was done. The said course was started on 16-01-2019 and completed on 29-03-2019. After completion of the course the examination was conducted in the department of biotechnology and based on the students performance in the examination the course completion certificates were issued to the students.

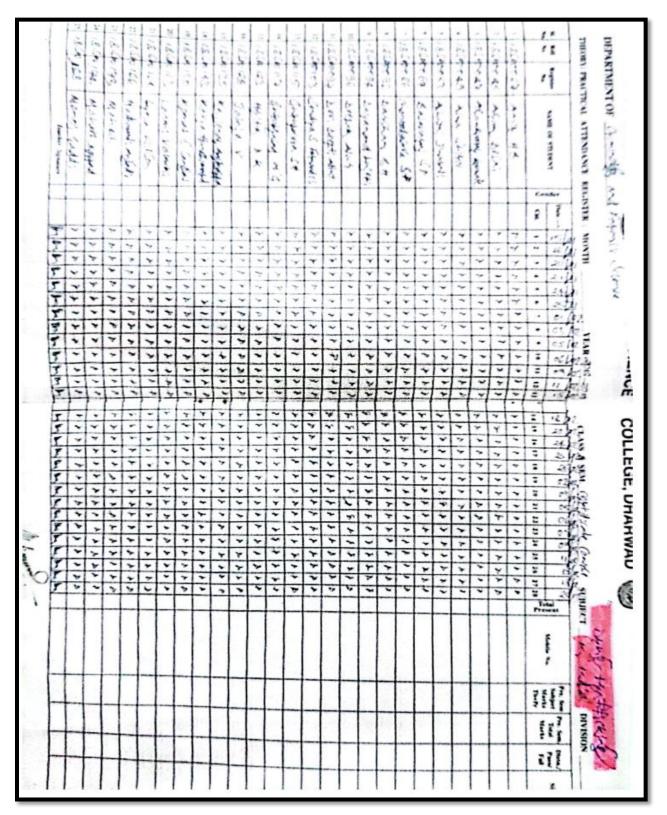
Course coordinator Dr. R. G. Kallehanshler

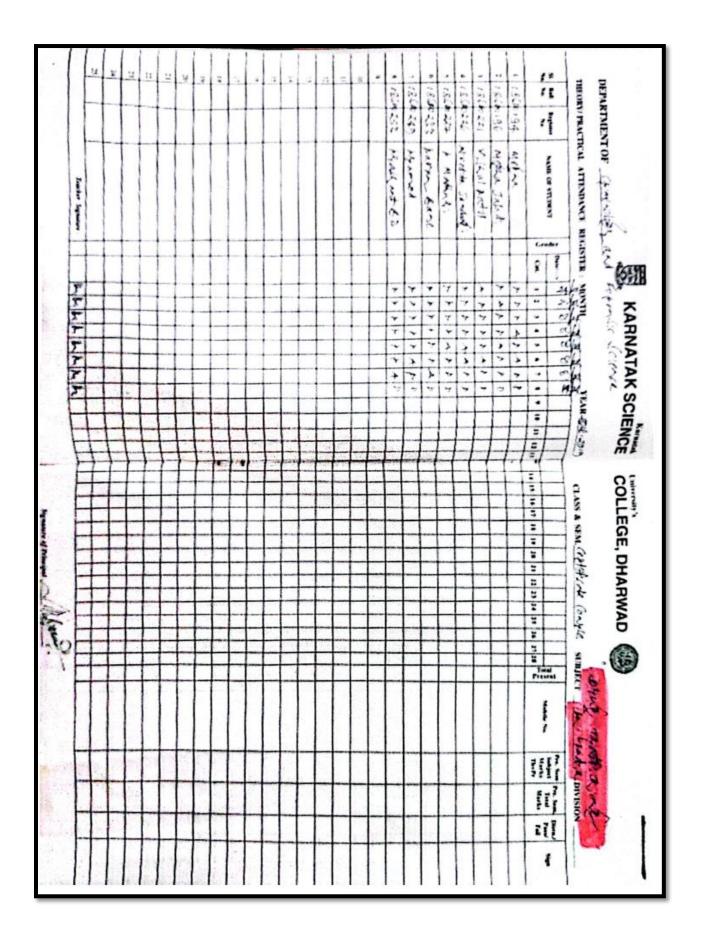


# LIST OF STUDENTS ENROLLED

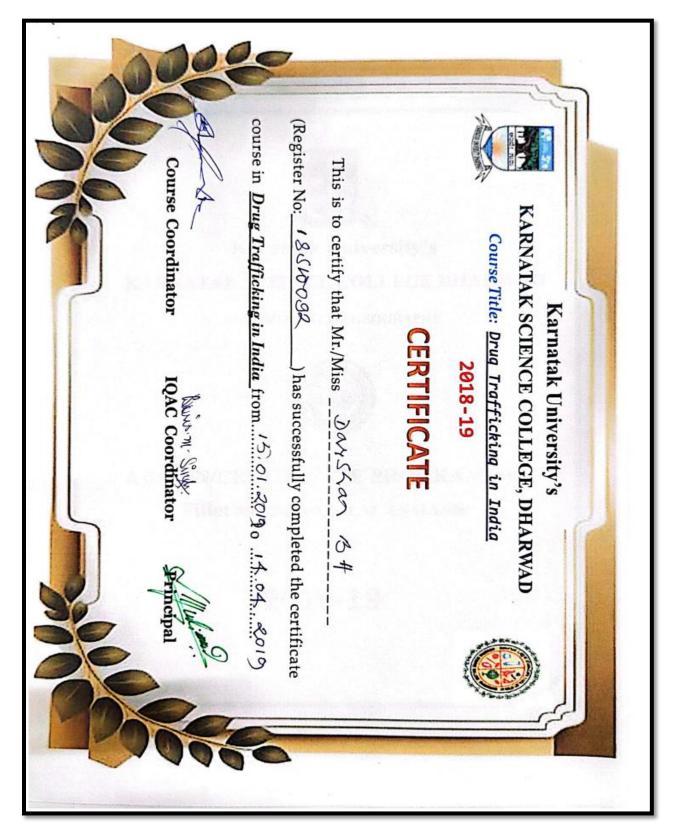


# STUDENTS ATTENDANCE





# CERTIFICATE



# **CURRICULUMN**







Email : principal.kscd@gmail.com Website: WWW.kcd.org.in

#### Certificate Course in "DRUG TRAFFICKING IN INDIA" (Year 2018-2019)

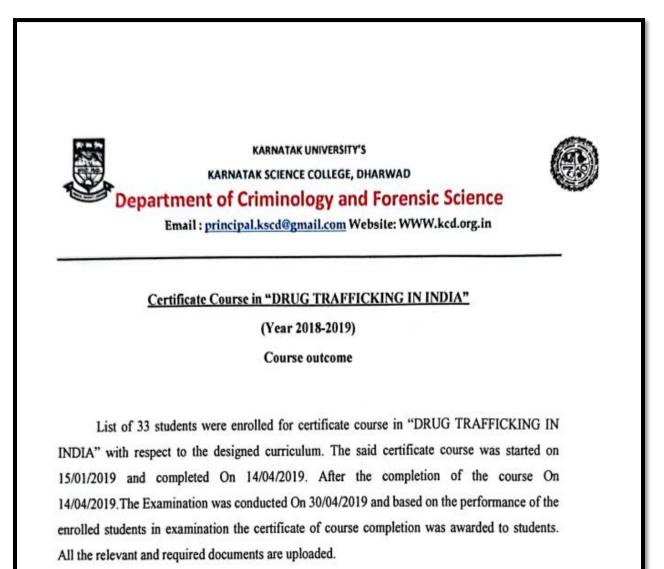
About the course:

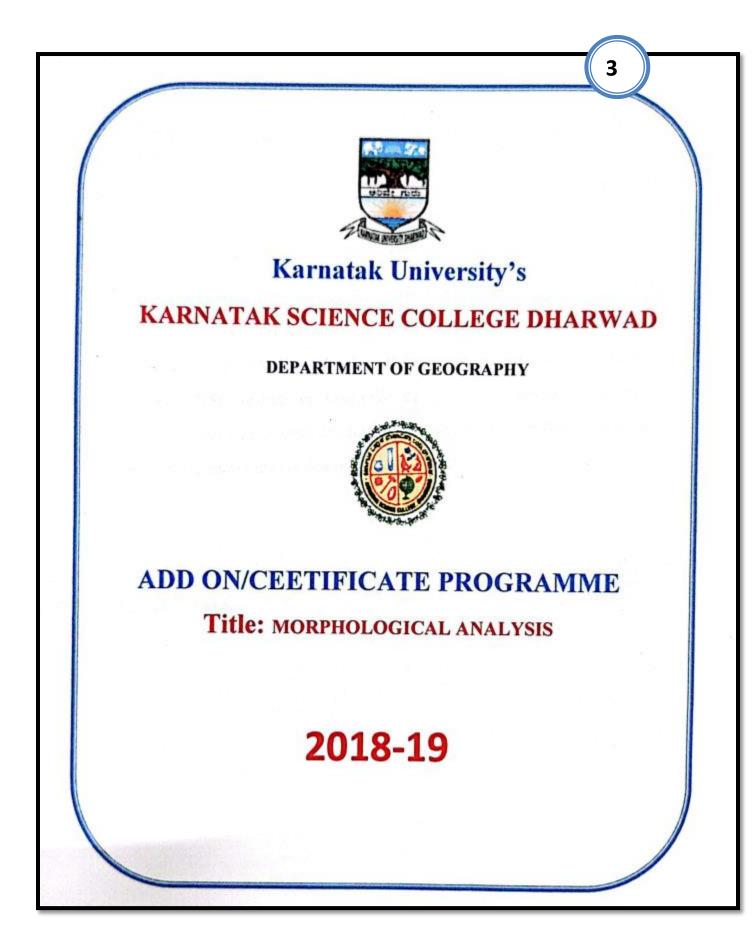
Drug trafficking poses a significant challenge to public health, security, and social stability in India, with implications for individuals, communities, and the nation as a whole. It explores of drug trafficking in India. causes, patterns, and consequences. the socio-economic, cultural, and institutional factors that contribute to the illicit drug trade. the effectiveness of legal frameworks, and law enforcement efforts, combating drug trafficking and promoting public health and safety.

Objectives: After the completion of the certificate course, students will be able to:

- 1. To know the prevalence and dynamics of drug trafficking in India
- 2. Understanding about the Socio-Economic Drivers of Drug Trafficking
- 3. To know about various Forms and Routes of Drug Trafficking
- 4. To understand Vulnerable Populations and Risk Factors
- 5. Studying about Socio-Economic Impact of Drug Trafficking
- 6. TO Know the Legal Frameworks and Policy Responses

# **COURSE OUTCOME**





#### NOTICE

# NOTICE



Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY



No. KSCD/Geog/2018-19/

Date: 02-01-2019

#### NOTICE

It is hereby informed to all the B.Sc. students of the Department of Geography Karnatak Science College Dharwad, that a certificate course on "Morphological Analysis" will be started in the Department of Geography Karnatak Science College Dharwad, from 20-01-2019. Therefore, all the interested B.Sc. students of Geography Department can contact course coordinator Dr. D. S. Narayankar for their enrollment for the said course on or before 17-01-2019. As the seats are limited, the selection will be on first come first serve basis.

Course Coordinator

Principal

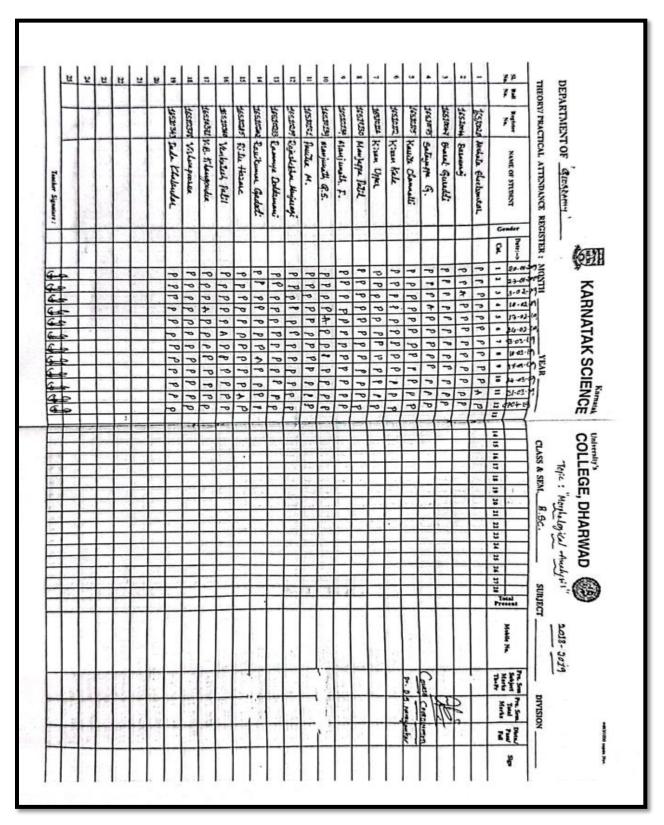
# LIST OF STUDENTS ENROLLED

	Certificate C	Karnatak University's NATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY ourse on "Morphological Analysis" 2018-19 ration (January to March) 3 Months - 2019	
SI.No.	Register Number	List of Students Enrolled Name of the Students	Signature
1	16510020	Akshala Sheeluanlar	
2	166100 44	Basavraj	Agingter.
3	16510047	Bharal Guraddi	Bassis :-
4	16510073		Guiddi
5	16510105	Batyappa G. Kawilà Chomalli	Ch in h
6	16610112	Kiran Kale	Chanto-
7	16510114		Marle
8	-	Kiran Uppar	Reppar
9	16510130	Manjappa Patis Manually F.	Tacit
10	16510334		Orinalh .
11	-	Manjunally G.S.	gins .
12	16510181	Paulitra M.	dap.
13	16510219	Rajashekhar Manjargi	Paying
14		Rammya Doddamani	Dallami
15	16510242	Rauikur Gadadi	Pari
16	16510 245	Ritu Hasare	-therand
17	16510360	Venktech Patil	Datil
18	16510371	V.B. Khangoudra	Vaubhangatha
19	16510378 16510343	Vishwapoorua Dada Khalandar	John Dalas

Course Coordinator

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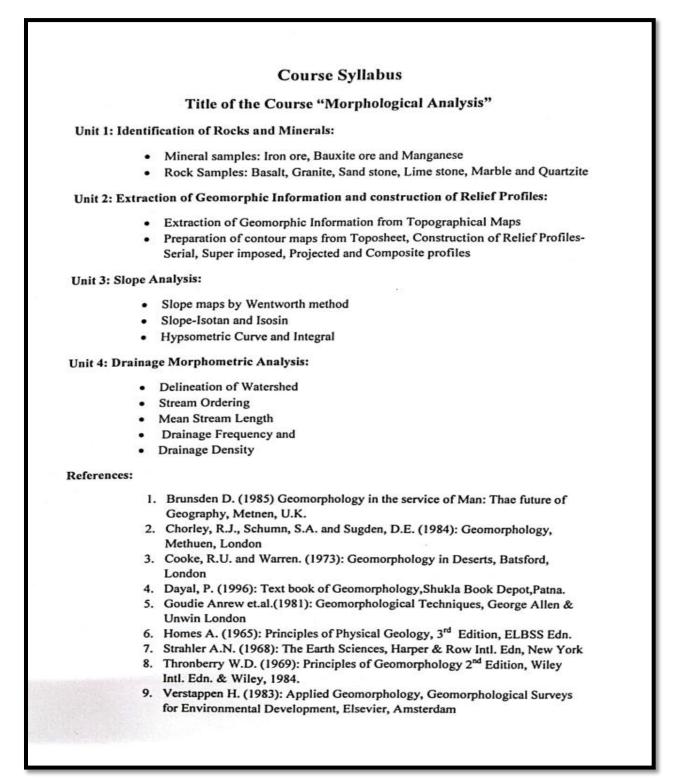


# STUDENTS ATTENDANCE

# CERTIFICATE



## **CURRICULUMN**



Name of the programme : "Morphological Analysis" Type of the programme: Certificate Course Contact Hours: 36 Full Marks: 50 Academic Year: 2018-19

Course Objectives:

The main objectives of this course are to make the students compatible to define the minerals, rocks and their characteristics, which explore the students to extract the geomorphic information from the topographical maps, the course will help the students to understand the slope Analysis from different methods and it also enables the students to study the drainage morphometry and its characteristics.

#### Learning Outcomes:

The learning outcomes of this course may be outlined as follows:

- 1) To identify the different types of minerals through their characteristics.
- 2) To interpret the topographical maps extracted the geomorphic information.
- 3) To illustrate the slope analysis and prepare the Hypsometric curve and integral.
- To delineate the watershed area, stream ordering, Drainage frequency and Drainage Density.

#### Assessment and Grading:

After completion of the course, an examination of 20 marks will be held containing 10 multiple choice and short type questions carrying 2 marks each. Practical examination of 30 marks will be held to test the learner's compatibility in working with different instruments used in survey. Successful candidates will be awarded a certificate of completion of the course mentioning the grade secured in the examination.

#### **COURSE OUTCOME**



Karnatak University's KARNATAK SCIENCE COLLEGE, DHARWAD DEPARTMENT OF GEOGRAPHY 2018-19



Certificate Course in "Morphological Analysis"

No. KSCD/Geog/2018-19/

Date: 18-04-2019

#### **Course Outcome**

The certificate course in "Morphological Analysis" was started with 19 students of B.Sc. Geography Department Karnatak Science College Dharwad. The classes of said certificate course was started from 20/01/2019 and completed on 07-04-2019. The class hour was of 36 comprising of both theory and practical. This course is designed especially for the B.Sc. students of geography to provide practical knowledge to illustrate the slope analysis and prepare the Hypsometric curve and Integral and also to delineate the watershed area, stream ordering, Drainage Frequency and Drainage Density of the study region with the help of topographical maps. The examination was conducted on 14-04-2019 and all the 19 enrolled students appeared in the examination, based on the performance in examination, the certificate of course completion was awarded to the student.

All the relevant and required documents are uploaded.

Course coordinator