# Department of Chemistry

# Certificate Course

Hands on Training on ChemDraw and ChemSketch Softwares 30Hrs

Objectives:

- 1. The students will able to write chemical structures using softwares.
- 2. Able to predict physical propertiesusing chemistry softwares.
- 3. Able to predict spectral datausing chemistry softwares.
- 4. Students can write the chemical equations

# ChemDraw(10Hrs)

Introduction to basic features of ChemDraw, download and installation process, Chemical structure to nameconversion, Chemical name to structure conversion ,NMR spectrumsimulation(both H NMR &C13 NMR),Mass spectrum simulation, structureclean up,export to SVG,PDF. Introduction to Chemsketch-Molecularmodelling, create and modifying images of chemical structures, write andperform chemical equations and diagrams.

# Chemsketch (10 hrs)

Introduction to basic features of Chemsketch, Drawing of heterocyclic compounds and predicting physical properties such as molecular weight, molecular formula, density, refractory index and spectral data (H NMR &C13 NMR)

# Analysis of Data (5 hrs)

Analysis of data by using pi charts, bar diagrams and plotting of various 2D &3D graphs. Calculation of statistical data using formulas, conversion of graph to various file format like JPEG,GIF,EPS.

Practicals: (5Hrs)

Drawing of chemical structures, prediction of spectral data and physical properties of the following compounds 2,4,6- Tribromophenol, Nerolin, Acetophenone, Sulphinilamides, Paracetamaol, Chloroquin, Omeprazole and Penicillin G.

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Ospartment of Changery
UCS, Osmania University
Myderabsd-007

Dr. R. ROOPA
Asst. Professor, Dept. of Chemiero
MAHATMA GANGOG SHIM
NALGONDA-SCEROC A.M. LAND

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## Outcomes:

- 1. After completing the corse students can use chemdraw and chemsketchsoftwares for molecularmodeling, writing structures and chemical equations.
- 2. Students can interpret the physical properties and spectral data through chemdraw and chemsketch.
- 3. To understand scientific graphing and data analysis.

# Evaluation:

Assessment of the course will be done by based on assignments and practicals.

Assignments -

20 marks

**Practicals** 

30 marks

Head

Department of Chemistry UCS, Oemania University Hyderabad-007

assi. Professor. Den

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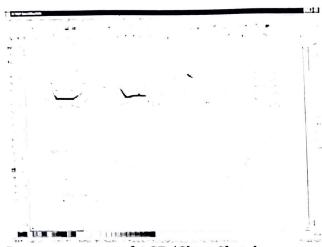
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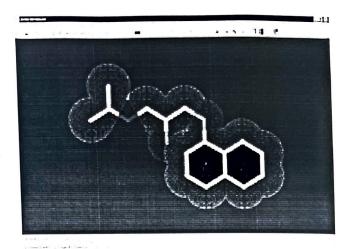
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S.NO	NAME	YEAR OF STUDY	SIGNATURE
1)	T. Jaya Naga Sni	BSC. Btbc Final year	T. Jayanagasei
2)	M. Poojitha	BSC-MBC Final year	Pooj! Hay
<b>5</b> )	P. Nethanya	BSC BtBC-final year	Porlithanya.
4)	M. Sai Sushma	BSC MBC final year	M. Janher
5,	P. Tanishca	B. Sc Btzc final year	p. Janeshca
6,	13 Manisha	B. Sc Btzc final year	B. Manisha
7,	P. Remuka	B.SC ANZC final Year	P. Sn. Renuka
8,	G.S. Bhavama	B.Sc Btzc final year	Stefrances
Op	G Bhuvaneswari	Bisc BZC final year	G. Bhuvaneswaii
10)	B. Manasa	Bisc BZC final year	B. Manasa.
11)	A. Akhila	B.SC BZC Final year	A-Akhila.
12.)	V. AKShitha	B.SC BZC Final year	V. Akshithai
13)	D. Deepthi	B-SC BZC Final year	Deepthi
14)	B. Hemalatha	BSC BZC-Final year	Hemalatha.
15)	M. Shruthi	B-Sc Bzc final year	M-Sheuthi
16)	R. sangeetha	B.sc Btbc Final year	R. sangeetha
17)	A. Sravani	BSC BZC Final Year	A. Stavoni
18)	C. Anitha.	B.Sc BZC Fénal year	C. A nitha
19)	V. Krishnassi	BSC BTZC final year	1

# Why ChemDraw?

- The drawing of chemical formulae and reaction schemes is a repetitive task for chemists on all levels of their education. While hand-sketching is most efficiently used during discussions and learning, neat drawings are required for official reports, publications, and theses.
- Such drawings can be created with several computer programs, and one example is ChemDraw.

# **Introduction to ChemSketch**





Images courtesy of ACD/ChemSketch.

Most of the things we use — furniture, cars and trains, hairbrushes, houses and organisms we interact with — insects, people, pets are all large enough for us to see with the naked eye. As we learn about our world in more detail, we learn that there are organisms that are even hundreds of times smaller than our garden spider and require a microscope to see. We learn about the dust mites, our seemingly invisible neighbors. In awe, we discover that a smooth may appear jagged and rough under the microscope, something that we could not have thought of by observation with the naked eye. Just imagine, a single cell is 10,000 times smaller than the average dog, and an atom is 100,000,000 times smaller than a single cell. Since we cannot see how an atom of hydrogen or lead actually looks like, we will use molecular visualization programs and hands-on molecular models to better understand chemistry.

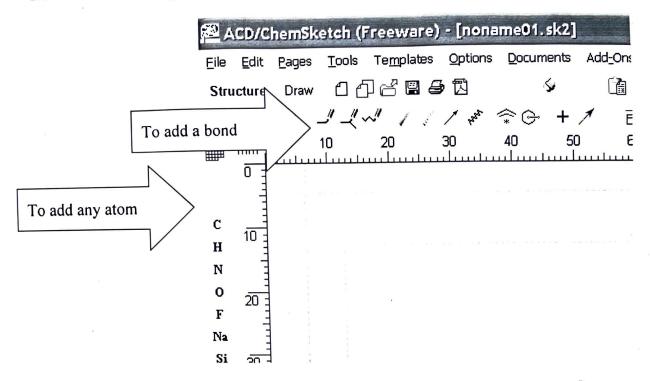
In this course, we will be using ACD/Chemsketch, a free program developed by Advanced Chemistry Development, Inc., (ACD/Labs), to draw chemical structures and render or transform these structures into 3-D pictures that we can visualize.

Info Link: http://www.acdlabs.com/products/chem\_dsn\_lab/chemsketch/

# To download Chemsketch:

- 1) Go to <a href="http://www.acdlabs.com/download/chemsk.html">http://www.acdlabs.com/download/chemsk.html</a>.
- 2) Click on the link that says:
  "Click Here to Download ChemSketch 11.0 Freeware"

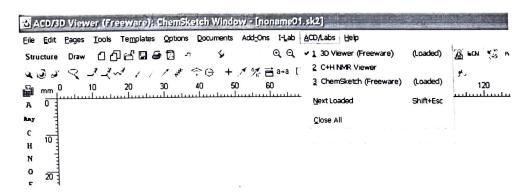
# **Tutorial: Using ChemSketch**



- 1. Click on the letter of the first atom (from left side buttons) you want to draw.
- 2. Click on the white drawing space to put the atom there.
- 3. Repeat first two steps to add other atoms.
- 4. Click on the button with the "to add a bond" arrow pointing at it to add bonds between atoms.

# To view molecules in 3D:

1. On the top menu, click on "ACD/Labs" and select "1 3D Viewer (Freeware)"



# Introduction to Data Analysis Using an Excel Spreadsheet

# Purpose

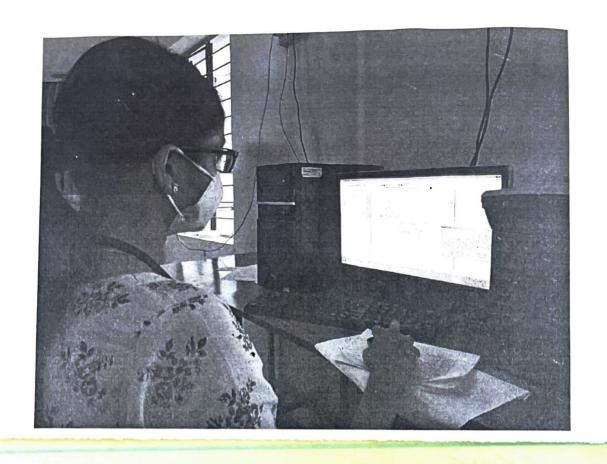
The purpose of this introductory lab is to teach you a few basic things about how to use an EXCEL 2010 spreadsheet to do simple data analysis in the labs.

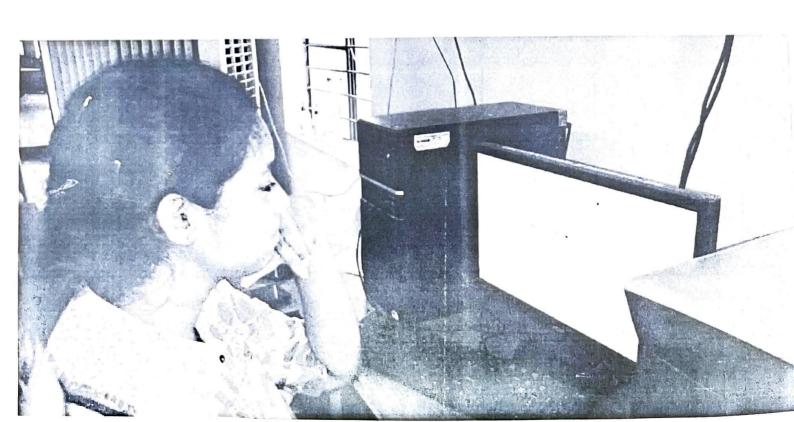
# Spreadsheets - What they are and what they are good for.

A spreadsheet is a computer program that turns your computer screen into a smart piece of paper. It removes much of the grunt work associated with repetitive calculations and lets you easily see the results of your work. We use spreadsheets in the labs, because they reduce the amount of time needed to look at and understand the data taken in the labs. With a spreadsheet, we can enter raw data, manipulate it and plot it all with a few simple commands. They are especially useful because of their built in ability to plot data.

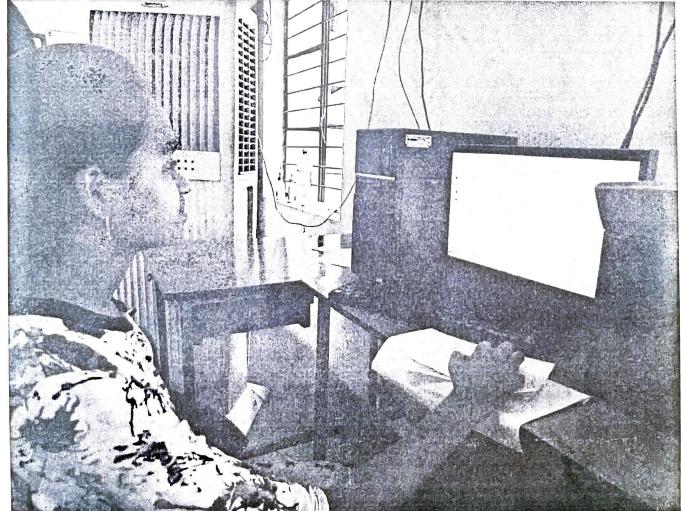
Yet another reason spreadsheets are extremely useful for data analysis is because of their ability to plot data. Rather than having to draw a graph by hand, you can just select the numbers you want to plot and the spreadsheet will do the work. Even better, if you change the numbers or formulas, the graph changes automatically. Still another advantage of a spreadsheet is that it can easily handle the statistical analysis of data sets with hundreds, thousands, or even tens of thousands of points, something that you would never want to try doing on a calculator. Several examples of functions that are particularly useful in analyzing real data are the average, the standard deviation and a least square fits of a straight line (known as a linear regression) to find the slope and the intercept.

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Submit any of five compounds structures using chemicraw I chemisketch Software along with chemical plane, Physical Properlies, and spectral data.

Paraceland [.

2. Aspirin 3. Isoquinoline 4. Quinoline

5. Anthracene

6. Sulfanilanide

Endole

8. Salicylic acid

Tryptophon

Pyrrole w.

11. Cinnomic acid

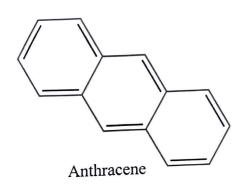
13. styrene

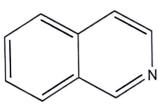
19. Malonic acid

14. Ethy aceto acelate

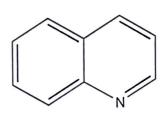
15. Phenenthrene

R Sangeetha 108519572026 **BSC BTBC** FINAL YEAR





Isoquinoline



Quinoline

Indole

Boiling Point: 500.57 [K] Melting Point: 354.08 [K] Critical Temp: 757.27 [K] Critical Pres: 43.45 [Bar] Critical Vol: 404.5 [cm3/mol] Gibbs Energy: 301.71 [kJ/mol]

Log P: 1.85 MR: 43.5 [cm3/mol] Henry's Law: 1.47 Heat of Form: 178.54 [kJ/mol]

tPSA: 12.03

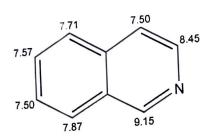
Boiling Point: 504.88 [K] Melting Point: 321.35 [K] Critical Temp: 770.49 [K] Critical Pres: 44.15 [Bar] Critical Vol: 402.5 [cm3/mol] Gibbs Energy: 321.01 [kJ/mol] Log P: 2.04 MR: 39.96 [cm3/mol]

Henry's Law: 4.55 Heat of Form: 231.3 [kJ/mol] tPSA: 12.36

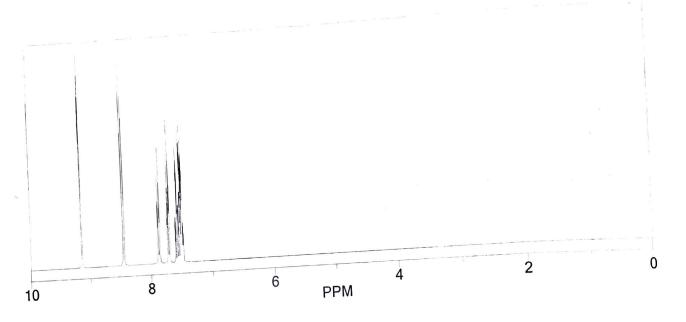
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ChemNMR <sup>1</sup>H Estimation

T. Jaya Naga Sai 108519572033 BSC. Btbc Final ye



Estimation quality is indicated by color: good, medium, rough



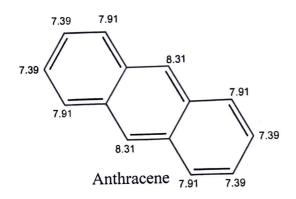
Protocol of the H-1 NMR Prediction:

Node	Shift	Base + Inc.	Comment (ppm rel. to TMS)
CH 9.15 CH 8.45 CH 7.50 CH 7.71 CH 7.50 CH 7.50	5 7 L	9.15 8.45 7.50 7.87 7.71 7.50 7.57	isoquinoline isoquinoline isoquinoline isoquinoline isoquinoline isoquinoline isoquinoline

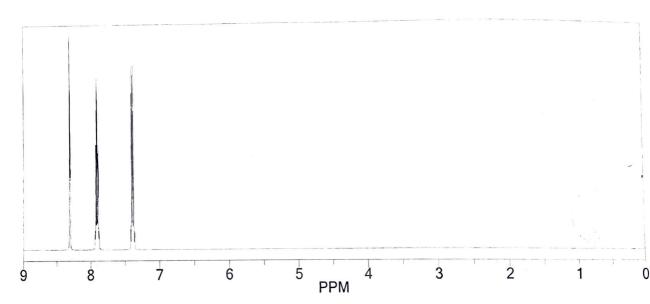
21/2/22

# ChemNMR <sup>1</sup>H Estimation

R. Sangeetha 108517572026 BSC·Btbc Final year



Estimation quality is indicated by color: good, medium, rough



# Protocol of the H-1 NMR Prediction:

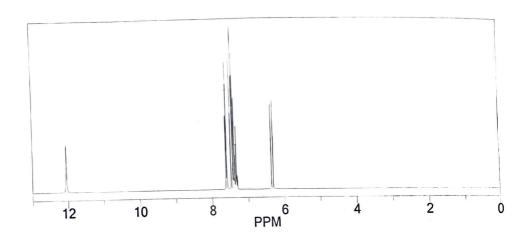
No	de	Shift	Base + Inc.	Comment (ppm rel. to TMS)
CH CH CH CH CH CH CH	8.31 7.91 7.91 7.91 7.91 7.39 7.39 7.39		8.31 8.31 7.91 7.91 7.91 7.91 7.39 7.39 7.39	anthracene
CH	7.39		7.39	anthracene

2/01/22

# ChemNMR <sup>1</sup>H Estimation

Gr. Bhuvaneswari 108519445037 B.Sc BZc Final year

Estimation quality is indicated by color: good, medium, rough



Protocol of the H-1 NMR Prediction:

Node	Shift	Base + Inc.	Comment (ppm rel. to TMS)
ОН 12	.05	11.00	carboxylic acid general corrections
CH 7.	60	1.05 7.26 0.04	1-benzene 1 -C=C
сн 7.	60	0.30 7.26	general corrections 1-benzene
		0.04	<pre>1 -C=C general corrections</pre>
CH 7.	40	7.26 -0.05	1-benzene 1 -C=C
СН 7.	. 40	0.19 7.26	general corrections 1-benzene
		-0.05 0.19	<pre>1 -C=C general corrections</pre>
CH 7	.33	7.26 -0.12	1-benzene 1 -C=C
н 7	.45	0.19 5.25	<pre>general corrections 1-ethylene</pre>
		1.38 0.98	1 -1:C*C*C*C*C*C*1 gem 1 -C(=0)0 cis
н 6	.33	-0.16 5.25	general corrections 1-ethylene
	A STATE OF THE STA	0.36	1 -1:C*C*C*C*C*C*1 cis 1 -C(=0)0 gem
		-0.08	general corrections

2/2/22

# **GOVERNMENT DEGREE COLLEGE FOR WOMEN**

(AUTONOMOUS)
BEGUMPET, HYDERABAD, TELANGANA
Accredited by NAAC with 'B + ' Grade



# DEPARTMENT OF CHEMISTRY

# CERTIFICATE

This is to	This is to certify that MsThis is to certify that Ms
completed the Cert	completed the Certificate Course in " ${\cal H}ands$ on ${\it Training}$ on ${\it CHEM}$
DRAW and (	DRAW and CHEM SXETCH software" conducted by the
Department of Che	of Chemistry during the academic year 2021-2022.

HOD

PRINCIPAL



# GOVENRNMENT DEGREE COLLEGE FOR WOMEN (A), BEGUMPET, HYDERABAD RE-ACCREDITED WITH "B+" GRADE BY NAAC DEPARTMENT OF HINDI SYLLABUS FOR CERTIFICATE COURSE

CREATIVE WRITING IN HINDI BA/B.Sc /B.Com / BBA 2021 - 2022

### Unit-I

- कहानी, परिभाषा, तत्व, प्रकार, विविध प्रकार, विशेषताएं।
- कविता, परिभाषा, लेखन विधि, विशेषताएं, महत्व।

### Unit -II

- निबंध, परिभाषा तत्व, प्रकार, लेखन विधि, विशेषताएं।
- पत्र , परिभाषा, लेखन विधि, तत्व, प्रकार, महत्व, विशेषताएं ।

# Unit-III

- अनुच्छेद, लेखन विधि, परिभाषा, विशेषताएं, महत्व।
- रिपोर्ट लेखन, परिभाषा, तत्व प्रकार, महत्व, विशेषताएं , उदाहरण ।

# Unit-IV

- संवाद लेखन, परिभाषा, विधि, महत्त्व, उदाहरण।
- विज्ञापन लेखन, परिभाषा ,विधि, महत्त्व, उदाहरण।

Dr.W.MAYADEVI
Chairperson
Board of Studies
Depatment of Hindi
Osmania University, Hyderabad-7

&

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Gachibowli, Hyderabad-500 032.

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Dr. PARWATI

Acci Assistant Professor

Dept. of Hindi, Telangana University

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# GOVENRNMENT DEGREE COLLEGE FOR WOMEN (A), BEGUMPET, HYDERABAD RE-ACCREDITED WITH "B+" GRADE BY NAAC DEPARTMENT OF HINDI PATTERN OF QUESTION PAPER FOR CERTIFICATE COURSE IN CREATIVE WRITING Hindi -2021-2022

Time 3 Hrs

Marks .100

निम्नलिखित प्रश्नों में से किन्ही पांच प्रश्नों के उत्तर लिखिए ?

5 X 20 = 100 Marks

- पत्र लेखन की परिभाषा और विशेषताएं बताइए।
- पत्र कितने प्रकार के होते हैं उनके संबंध में अपनी जानकारी दीजिए?
- अनुच्छेद लेखन की परिभाषा लिखकर उसकी विधि व नियम बताइए?
- अनुच्छेद लेखन की विशेषताएं बताते हुए उदाहरण स्वरुप कोई एक अनुच्छेद लिखिए?
- संवाद लेखन की परिभाषा एवं विधि पर प्रकाश डालिए?
- अच्छे संवाद लेखन की विशेषता बताकर उदाहरण स्वरुप कोई एक संवाद का उल्लेख कीजिए ?
- निबंध की परिभाषा और अंगों का उल्लेख कीजिए ?
- पत्र लेखन की विधि और प्रकार बताइए ?

Dr.W.MAYADEVI Chairperson Board of Studies Department of Hindi Osmania University, Hyderabad-7

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M.A.M.Phil.,Ph.D.
Asst. Professor
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MA, P.G. DIP, OL, B.Ed, M.phil, Ph.D.
Asst. Professor, Head & Chair Person
Department of Hindi
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Dr. PARVATI
Assistant Professor
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# GOVENRNMENT DEGREE COLLEGE FOR WOMEN (A), BEGUMPET, HYDERABAD RE-ACCREDITED WITH "B+" GRADE BY NAAC Department of Hindi

# IN CREATIVE WRITING

# **Course Outcome**

- Co.1. To develop Reading Writing and communication skills in Hindi.
- Co2. To develop the writing concept in Story writing, Poetry writing, Letter writing, Essay writing, Dialog writing, reporting writing, Advertisement skill and Article writing in Hindi.
- Co3. To inculcate knowledge on social sense and language style

# Program specific outcome

- Po1. Acquires the skill set to be placed as Teacher, Reporter, Editor, Typist.
- Po2. Higher studies can be continued in both Journalism and Literature.
- Po3. Develops vision regarding literary value.

Dr.W.MAYADEVI
Chairperson
Board of Studies
Depatment of Hindi

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Asst. Professor
Dept. Of Hindi

Maulana Azad National Urdu University Gachibowli, Hyderabad-500 032. Dr. H.K. VANDANA
M.A. P.G. P. OL. B.Ed, M.phil, Ph.D.
Asst. Pr. Head & Chair Person
Depi Ment of Hindi
Govt. City college (Autonomous)-A
Nayapul, Hyderabad-500 002, T.S.

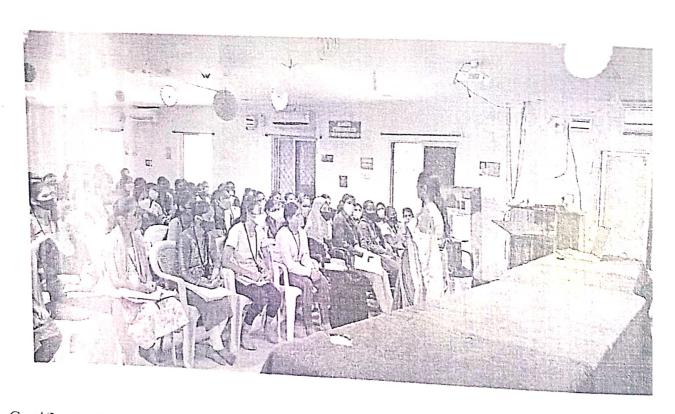
Dr. PARVATI
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Dept. of Hindi, Telangana University
Dishpally.Nizamabad-503 322, (T.S.)

27/12/2021

# Cestificate Course

Compressed to the contract of
Dept. Obganized a one month Cestificate wose on "Statistical methods Using R Programming" for B-SC (M-S.Cs M-S.Ds MES)
ausse un "Statistical methods Using R
Tyeurs con 27/12/2021 to 27/01/2022. The
DO SOUNCE DOTSON FOX HOIX CENTIFICATE COURSE CUCIS
Ms. K. Bhasathi, Asst- Box of Computer Science,
Lovella Academili Alway Fox This Course 70
Students were Participated. The Seperate Attendance segistered aus maintained.
Segiste sed was maintained.





A Certificate Course on "Statistical Methods using R programming" by Ms. K.Bharat Asst. Prof in Computer Science, Loyola Academy, Alwal.

# సర్టిఫికెట్ కోర్సు

# రచనారీతులు:

# మొదటి మరియు రెండవ సెమిస్టర్లలో

- 1. ఉపోద్ఘాతము
- 2. వ్యాసరచన
- 3. సంక్షిప్త రచన
- 4. విపులీకరణ

మూడు మరియు నాలుగు సెమిస్టర్ల లో

- 1. లేఖా రచన
- 2. కరపత్ర రచన
- 3. ప్రకటన రచన
- 4. సృజనాత్మక రచన

1. K. Vaishnavi - BSC (MSCs) 1st yr Klait.  1. S. Shirisha	-			
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# GOVERNMENT DEGREE COLLEGE FOR WOMEN, BEGUMPET Dept. of Biotechnology and Zoology CERTIFICATE COURSE ON MEDICAL CODING

### Dt.03.11.2022

Seminar on career guidance in medical coding was organized for final year students on 03rd November 2022 by ARISE FOUNDATION.

**Inaugural Session:** Attended by faculty of Zoology and Biotechnology

### **Objective:**

For the Students who require a job after graduation to support their family and higher education Medical coding can be a great career choice as qualified healthcare providers are always in high demand. Medical coders fulfill a vital role in the healthcare industry and flexible job timings make it easier.

Arise Foundation conducted an orientation program for final year life Science Students regarding how the entry level medical coders can improve their earning potential with skills and experience and also emphasized the need of Medical coders in the Market. The program also included how it eliminates the necessity for electronic medical billing and helps insurance companies and healthcare providers share patient information. and protection of patient records to unauthorized facilities.

The enrolled students were given 45 days Course during zero hours (8:00 to 9:00) in college premises and certificate was given after completion of the course

The Course was started on 03rd November 2022, It included -

Medical Terminology: Students are trained to learn to divide and combine difficult medical words to help you understand and meanings of these words. The last lesson on medical terminology teaches students to recognize common medical abbreviations, symbols and plural words. This lesson also discusses special terms such as eponyms, acronyms, homophones, and antonyms.

Documenting Medical Records: Students learn about the role medical records play in a coding specialist's job. They explore the importance of documentation in medical records and learn to recognize the various types of dictation formats. This lesson also discusses how healthcare professionals manage medical records.

Medical ethics: Concepts of ethics, compliance, fraud and abuse and teaches students how these concepts apply to medical coding specialists. Students also learn about the importance of confidentiality when dealing with medical records and discuss insurance audits and the legal concepts.

Diagnostic Coding: Students are introduced to the actual coding process. Students learn about the history of the International Classification of Diseases and the development of the ICD-10-CM coding system. Additionally, students learn to identify main terms and sub terms and describe coding pathways. Students learn to handle abbreviations, cross references, and punctuation when coding, and they gain an introduction to Volumes I and II of the ICD-10-CM.

### **OUTCOME OF THE PROGRAM:**

Students start coding diagnoses. Students learn about infections, parasitic diseases, and neoplasms, as well as how to code them. The Students were also taught Basics of computer, Excel.

Certificates were distributed by Dr.K.Padmavathi,PrincipalGDC FOR Women,Begumpet No.of students attended:75.

























