Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA (Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664 Email: office@acop.edu.in Website: www.acop.edu.in

#### ADD ON / CERTIFICATE PROGRAM

2022-2023

S. NO	Name of add on / certificate course offered	Branch & year of offering	Number of students completing the course in the year	Type of add- on course
1	Pharmaceutical sales and marketing	IV B.PHARMACY	95	Self – Framed Course
2	Hands on Training of Laboratory Techniques In Organic Synthesis"	III PHARM D	25	Self – Framed Course
3	Good laboratory practices for fail-safe and effective experimentation"	II B.PHARMACY	97	Self – Framed Course
4	Improving mental health and suicidal prevention	I B.PHARMACY & I PHARM D	151	Self – Framed Course
5	Handling of Animals	IV PHARM D	26	Self – Framed Course
6	Hands on training program in analytical instruments	III B.PHARMACY	99	Self – Framed Course
	Total No. of Students I	493		



Descur dana

**PRINCIPAL** 





Aditya nagar, Surampalem, Andhra Pradesh 533437

A VALUE-ADDED course on "Pharmaceutical sales and marketing"

# **Eligibility: III B.Pharmacy**

ourse should contact the respective coordinator

Coordinator: K.Keerthi sai Asst. Professor, Aditya College of Pharmacy

Resource Person: P.Prashanthi
Asso. Professor,
Aditya College of Pharmacy

Convener: Dr.K.Ravishankar
Principal,
Aditya College of Pharmacy

Patron: Dr.N. Satish Reddy Vice-Chairman, Aditya Educational Institutions





All the students enrolled in this course will be provided with a certificate





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

01-07-2022

# **CIRCULAR**

This is to inform that all IV B.Pharmacy students is that our college is conducting Value Added course on "Pharmaceutical sales and marketing" as per the below schedule. The Students should contact the respective coordinator who is interested to join the Value added course.

Coordinator:

Timings: 09<sup>th</sup> July to 06<sup>th</sup> August, 2022 (Every Saturday)







(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 30Hrs** 

COURSE NAME: Value-added Course on Pharmaceutical Sales and Marketing

**Course Objective:** 

Describe the concept of pharmaceutical marketing.

Demonstrate different pharmaceutical marketing channels

Understand the role of market research

Course Outcome:

To explain the concept of product management in pharmaceutical industry

To understand the various components of promotion of pharmaceutical products

To elaborate the role and responsibility of professional sales representative

To identify the roles and responsibilities of pricing authorities in India

To demonstrate the emerging concepts of marketing

DAY 1: 09-07-2022, 6Hrs

Module 1:

**General Overview:** Definition, general concepts, and scope of marketing; Distinction between marketing & selling; Marketing environment; Industry and competitive analysis;

SURAMPRICAN A

Aditya College of Pharmacy SURAMPALEM 533 437





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

DAY 2: 16-07-2022, 6Hrs

Module 2:

**Pharmaceutical market:** Quantitative and qualitative aspects; size and composition of the market; demographic descriptions and socio-psychological characteristics of the consumer; market segmentation& targeting.Consumer profile;

DAY 3: 23-07-2022, 6Hrs

Module 3:

**Product decision:** Meaning, Classification, product line and product mix decisions, product life cycle, product portfolio analysis; product positioning; New product decisions; Product branding, packaging and labeling decisions,

DAY 4: 30-07-2022, 6Hrs

Module 4:

**Promotion:** Meaning and methods, determinants of promotional mix, promotional budget; An overview of personal selling, advertising, direct mail, journals, sampling, retailing, medical exhibition,

DAY 5: 06-08-2022, 6Hrs

Module 5:

**Pricing:** Meaning, importance, objectives, determinants of price; pricing methods and strategies, issues in price management in pharmaceutical industry. An overview of DPCO (Drug Price Control Order) and NPPA (National Pharmaceutical Pricing Authority).



Aditya College of Pharms





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMRALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) (ADBS) Website: www.acop.edu.in, Email: office@acop.edu.in

#### REFERENCE:

- 1. Lidstone, J., & MacLennan, J. (2017). *Marketing planning for the pharmaceutical industry*. Routledge.
- 2. Arora, U., & Taneja, G. (2006). An analytical study of physicians behaviour towards marketing of pharmaceutical products. *Indian Journal of Marketing*, 36(11).
- **3.** Attarabeen, O., & Alkhateeb, F. M. (2013). Rollins B, Perri M.: Pharmaceutical Marketing. *American Journal of Pharmaceutical Education*, 77(6).
- **4.** Lerer, L., & Piper, M. (2003). *Digital strategies in the pharmaceutical industry*. Basingstoke, UK: Palgrave Macmillan.

PRINCIPAL

Aditya College of Pharmacy
SURAMPALEM-533 437







(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)
Website: www.acop.edu.in, Email: office@acop.edu.in

Course Name: Value Added Course on "Pharmaceutical Sales and Marketing"

#### LIST OF STUDENTS ENROLLED

S NO	REG NO	STUDENT NAME	SIGNATURE
	1 193H1R0001	ALLURI NALINI	Nella.
s* .	2 193H1R0002	ANKANI HEMA	Hema
*	3 193H1R0003	BERA PAVANI	françoi
	4 193H1R0004	BODDETI SUDHEER	B. Judy-9
	5 193H1R0005	BOLEM DINESH TEJA	Deli
	6 193H1R0006	BONGU PRAMEELA	Run
	7 193H1R0007	CHATRATI MURALI KRISHNA	Recep
	8 193H1R0008	CHINTAKAYALA NAGUR RAJU	Chirtakayla Nagul

COLLEGE ON SURAMPALENT SURAMPA

# Aditya College of Pharman TEA EEZ -MAJAGMARUZ

9	193H1R0009	DARAPUREDDY GOWRI PRIYA	D. Gowe Plys
10	193H1R0010	DAYAM HELEENA SUKEERTHI	D. Thureeeth
11	193H1R0011	DEVARAKONDA SEETHA LAKSHMI	Potter Course
12	193H1R0012	DIVI BHARGAVI DEVI	TS hongon bui
13	193H1R0013	DWARAMPUDI MAHALAKSHMI	Kighalakeluis
14	193H1R0015	GUBBALA SONY MAHESH VARDHANI	a.s. H. vardhau
15	193H1R0016	GUJJA THARUN	Thanus.
16	193H1R0017	GUNAPU PUSHPA MADHURI	G. p. Mordheri
17	193H1R0018	INDIGA SAI SUDHA	Sai Serolis
18	193H1R0019	JAMMI SATYA VENKATA SURENUKA	J.S. V. Smemka
19	193H1R0020	KADALI KUMARA VARA PRASAD	Kimer rate Diego)
20	193H1R0021	KODE JAHNAVI	Jaluer
21	193H1R0022	KOPPISETTI LAKSHMI NARAYANA	Kricehmi Throng man
22	193H1R0023	KORIPALLI GIRISH SAI SAMPATH	Sampathy
23	193H1R0024	KOSANAM EVANGIL "	K: Evaugt 1
24	193H1R0025	KOTHADATTI MOUNIKA	121. mocenéka

PRINCIPAL
Aditya College of Pharmacy
SURAMPALEM- 533 437

	,		
25	193H1R0028	KURRU GOVARDHINI	K. Govandhene
26	193H1R0029	LANKE SOWMYA	L Sownes
27	193H1R0030	MADDALA DURGA SESHAGIRI	H.D. Maguel
28	193H1R0031	MONANGI ASRITHA	M. Amile
29	193H1R0032	MORTHA YAMINI	M. Janusi.
30	193H1R0033	NALLI ANNEPREETHAM	1. Any met
31	193H1R0034	NALLURI DIVYA SRI	M. Duyer su
32	193H1R0035	NEELAPALA SURYA MAHALAKSHMI	N. S-malierdalestruis
33	193H1R0037	PAILA KEERTHI	Kecothit
34	193H1R0039	PATTA SWAPNA	Palta Swapna
35	193H1R0040	POLAKI SIREESHA	Cereche
36	193H1R0041	POTHU SUNITHA	P. Schiffe
37	193H1R0042	REGAM SARASWATHI	
38	193H1R0043	SABBELLA DIVYA SRI	Devyagi
39	193H1R0044	SALADI LIKHITHA "	Regan Sahaswati Sivyasi Si Likhitta
40	193H1R0045	SAMUDA YAPALEPU MOUNIKA	mountage
	1/311110043	Service of the servic	1 Court of the

	<del></del>		
41	193H1R0046	SHAIK ASHROF SAMEER	S. ashot
42	193H1R0047	SIDDANTHAPU KALYANI	(Skolyer:
43	193H1R0048	SUDHABATTULA SAIBABU	Stee Bale
44	193H1R0049	SUPRAJA SIDDHANTAPU	supraja siddhal-an
45	193H1R0050	SURAMPUDI VEERA ANITHA	Supraja Riddhalan
46	193H1R0051	TEKI LEELA BHAVANI	Teki Lecta Bhavani
47	193H1R0053	TUMPALA HARIKA RAMYA	Teki Locia Rhavani T. Harike Ramyan
48	193H1R0054	BANALA LIKHITHA	Scheiffre
49	193H1R0055	VADDADI KRISHNA PRIYA	Vaddodi Krishna rrya
50	193H1R0056	AASTHA SINGH	Vaddodi Krishna Pryja MasthaSingh
51	193H1R0058	ABRAR ANSARI	Ag
52	193H1R0061	AMATAM SAI MANOGNA	A. Soi monogra
53	193H1R0062	ARCHANA KUMARI	-Archanakumasi
54	193H1R0063	SOUVIK DAS	SOURY DO
55	193H1R0064	ARYAN KUMAR	Aryan Kumair
56	193H1R0065	COLOSHISH PRASAD KOHAR	over.
	//~	Call	OBINCIPAL

			T
57	193H1R0066	BANDE NAGA GANGA RAO	B. Gonga
58	193H1R0067	BIJAY KUMAR CHAUHAN	Birai kumal Chaus
30	19311110007		Br.
. 59	193H1R0068	BIKASH KUMAR RAUNIYAR	0
60	193H1R0069	BIKASH KUMAR YADAV	don't
61	193H1R0071	GOVADA VEERAMANI	G reoxument
62	193H1R0073	HIMADRI SINHA	limadri binta
63	193H1R0074	JUJJAVARAPU HEMASATISH	State.
64	193H1R0075	JUSTIN THANGSUOLIEN KHOBUNG	Justan Klohburg
65	193H1R0076	K.KALPANA	Kafrana.
66	193H1R0077	KADA RATNAKAR RAO	K. Ratmanar Rose
67	193H1R0078	KESHAB RUNGTA	Keshab Rungta.
68	193H1R0080	MEDICHARLA KHANTESH VENKAT	M. Venket
69	193H1R0081	PAPPU MAHATO TATMA	Mappy monato takma
70	193H1R0082	PASALA DURGA MALLESHWARI	Malblue
71	193H1R0088	SOUMYADEEP KHATUA	Samuordae Khatum
72	193H1R0089	SOUVIK ADAK	Sent .
	<u> </u>	126-0F	U.

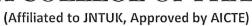
	1		
73	193H1R0090	SUMIT KHAJURIA "	new Maria
74	193H1R0091	SUMIT KUMAR GUPTA	Sinth
75	193H1R0092	SUNNY KUMAR	Surry Kindr.
٠,	_193H1R0094	TEEPARTHI RANJITH KUMAR	Pal
77:		VAKACHARLA SAI PRASANNA	V. Soi prosonna
*		**	V. Keerthana
78		VANAMADI KEERTHANA	V DA gr.
79	193H1R0098	VINNA YOGENDRA MEHER RAGHUVEER	Y. Madhavi
80	193H1R0099	YAJJALA MADHAVI	
81	193H1R00A0	YALLA ALEKHYA DEVI	Y. Alekhya Devi
82	193H1R00A1	DEVARA SRI SAI NIHARIKA	D-S-S. Nihasika
83	193H1R00A2	UMMIDI VEERA MANI GANESH	J. M. C. Gares
84	193H1R00A3	DONEPALLI SOMESWAR	
85	193H1R00A4	MALLIDI MEGHANA	M. Meghana
86	193H1R00A5	YALLA KARUNA	Caura.
87	193H1R00A6	JYOTHULA AMBICA NAGALAKSHMI	Jamesica
88	193H1R00A9	AJAY KUMAR YADAV	PRINCIPAL

Phincipal
Aditya College of Pharmacy
SURAMPALEM- 533 437

89	193H1R00B2	ARUN BAHARDAR	Ans
90	193H1R00B4	BIKRAM PANDEY	Siknan Parkin
91	193H1R00B5	ARATI KUMARI MAJHI	Cond-
92	193H1R00B6	NIRAJ KUMAR SAH	QSL)
93	193H1R00B7	SHYAM MANOHAR SHAH	Srasa
94	203H5R0001	LEELA SRI VENKATA DURGA	T. L. Veuldenta dronger
95	203H5R0002	PADALA VEERA VENKATA SIVAJI	P. Smfri







(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

CO	URSE	MIA	MI
4 . 4 .	TIME TO BY	I N A	LIVIE

: Pharmaceutical Sales and Marketing

MARKS: 30

DATE	: 08-08-2022	REC	GNO: 193HIROOO
		F	
1. Mar	keting is a process which aims at	l	
a)	Selling products		
b)	Maximizing profits		
c)	Satisfying customers		
d)	Producing		
2. "Ma	ny people want a BMW but only a few are able to buy", is an example	[	C
a)	Need		
b)	Want		
c)	Demand		
d)	status		
3	is the father of modern marketing.	[	B
a)	Peter Drucker		
b)	Philip Kotler		
c)	Adam Smith		
d)	Henry Fayol		
4. Mai	keting is	[	C
a)	Art		
b)	Science		
c)	Both		
d)	Neither		
5. The	buying process starts when the buyer recognizes a	[	D/ 1
۵)	Product		

b) an advertisement for the product



SURAMPALEM- 533 437

		e,
	c)	a salesperson from a previous visit
	d)	problem or need
).		refers to collecting goods of the same type from various sources of supply. [
	a)	Buying
	b)	Selling
	c)	Assembling
	d)	Financing
7.	Whi	ch function helps in place utility?
	a)	Transportation
	b)	Financing
	c)	Risk bearing
	d)	Selling
8.	Wh	ich function gives "time utility"?
	a)	Transportation
	b)	Financing
	c)	Risk bearing
	d)	Warehousing
9.	The	standardised grade name for agricultural product is [ A ]
	a)	Agmark
	b)	ISI
	c)	Aavin
	d)	BIS
10	). Aş	ggressive selling is a characteristic of which of the following concept of marketing?
		$\begin{bmatrix} C \end{bmatrix}$
S	elect	correct option:
	a)	Production concept  SURAMPALEM PAINCIPAL  Aditya College of Pharmacy  SURAMPALEM-533 437
		13 Control 1994 1994 1994 1994 1994 1994 1994 199

	b)	Management Research	CIPAL e of P	harman 3 437
13	o a)	includes the complete analysis of the market.  Marketing Research	[	H /1
1.6	d)		ľ	Λ 3
	c)	Maintenance Information System		
	b)	Management Information System  Maintenance Information System		
	a)	Marketing Information System  Management Information System		
14		provides fast and accurate marketing information.	[	A /1
	d)	Pizza		
	c)	Burger		
	b)	French-fries		
	a)	Food		
13	. W	hich one of the following BEST describes the human need?		A 1
	d)	To do marketing surveys		
46	c)	To differentiate their products from those of competitors		÷
	b)	To promote sales of products		
	a)	To make products easily visible and available		
he	pro	oduct is worth purchasing.	[	C/1
12.	. On	e of the key tasks of marketers is and to create consumer pe	erception	ons that
	d)	Selling Approach		
	c)	Marketing Approach		
	b)	Production Approach		
	a)	Product Approach		
1.	Ad	ding new features to a product is advocated by which of the approaches?	[	B
	d)	Product concept		· x
	c)	Selling concept		
	b)	Marketing concept		NI.

*	c)	Maintenance Research		*
	d)	All of the above		
16.		is a function of physical supply.	[	A 1
Y S	a)	Transportation		
	b)	Financing		
	c)	Risk bearing		
	d)	Selling		
17.		is a means to reduce risk.	]	A
	a)	Insurance		
	b)	Financing		
	c)	Risk bearing		
	d)	Selling		
18.	Th	ne word "market" is derived from the latin word	[	B/1:
	a)	Marketing		
	b)	Marcatus		
	c)	Marque		
	d)	Markatus		
19.	Sto	ock exchange of Mumbai is an example for	[	c 11
	a)	Perfect market		
	b)	Manufacture market		
	c)	Imperfect market		
	d)	Regulated market		
20.		is a connecting link between the consumer and the producer.	. [	A 1
	a)	Marketing	\$ _\$ v.	
	b)	Selling		
	c)	Consumption		
	d)	Buying		
21	. Ai	nything that can be offered to a market attendent, acquisition, use,	Aditya C	ption that PRINCIPAL pllege of Pharman. PALEM-533 437

i ~lot	acticfy a yeart or need is called a(n).		г	
migni	satisfy a want or need is called a(n):		L	
a)	Idea.			F .
b)	Demand.			Ž.
c)	Product.			
d)	Service.			
22. Th	e most basic level of a product is called the:		[	A
a)	Core product.			
b)	Central product.			
c)	Fundamental product.			
d)	Augmented product			
23.A(ı	n) product exceeds customer expectations.		[	c/1
a)	Strategic			
b)	Superior			
c)	Augmented			
d)	Anticipated			
24. Id	entify the products that the customer usually buys frequer	ntly and with a min	nimur	n of
compa	arison and buying effort.		[	B/1
a)	Specialty			
b)	Convenience			
c)	Unsought			
d)	Augmented			
25. Bı	read and milk are which kind of products?		[	BI
a)	Specialty Products			
b)	Convenience products			
c)	Shopping products			
d)	Unsought products			
26.W	hich of the following is NOT included in product decision	ns?		C
	SURAMPALEM)	PRINCIPAL PRINCIPAL College of Phi	Arria A27	cy

a	)	Styling	Yw.				
b		Brand name					
		Warehousing	41				
		Packaging					
2.7. Y	c			,	. mi		
27.1	t a	ctual performance of the product exceeds the expected per	formance of the	produ	et, Then		
custo	m	er is		[	D	] {	_
a	.)	Satisfied					
b	)	Dissatisfied					
C	()	Delighted					
C	l)	Neutral					
28. V	Wł	no pioneered sachet strategy in shampoos?		[	D	]	L
a	1)	Clinic plus					
ł	)	Chik = =	<b>0.</b> 	:			
(	2)	Sunsilk					
(	(h	Dove			ė		
29. `	Wł	nich of the following is a name, term, sign, symbol, design,	, or a combinati	on of tl	nese, tha	t	
iden	tif	ies that maker or seller of a product or service?		[	C	1	
i	a)	Label					
1	o)	Co-brand					
,	c)	Brand					
	d)	Product					
30.	Th	e identifies the product or brand.		[	B .	]_	
	a)	Container					
	b)	Label					
	c)	Advertisement					
	d)	Warranty	(a	er-			
		The state of the s	Adilya College Surampale	e of Pf M-533	armac 437		

# COLLEGE OF PHARMACY

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA

(Formerly known as Sri Sai Aditya Institute of Pharmaceutical Science & Research

Ph: 99498 76664 Email: office@acop.edu.in Website: www.acop.edu.in

#### **CERTIFICATE COURSE SUMMARY 2022-23**

COURSE CODE AND NAME :

VPSM and Pharmaceutical Sales and Marketing

COURSE DURATION

30Hrs

**BRANCH AND YEAR OFFERED:** 

IV B.Pharmacy

COURSE INSTRUCTORS

.

#### **COURSE OUTCOME**

Student would be able to understand the concept of product management in pharmaceutical industry, various components of promotion of pharmaceutical products and to elaborate the role and responsibility of professional sales representative

**COURSE TYPE** 

Self framed course

ASSESSMENT MODE

**DURATION** 

30 Hours

NO.OF PARTICIPANTS

95

SCHEME OF EXAM

MCQ Offline

DATE OF EXAM

..

08-08-2022

Course coordinator



Principal

Aditya College of Pharmacy SURAMPALEM-533 437



Certificate of

# Completion

This is to certify that Mr./Ms.

#### PAILA KEERTHI

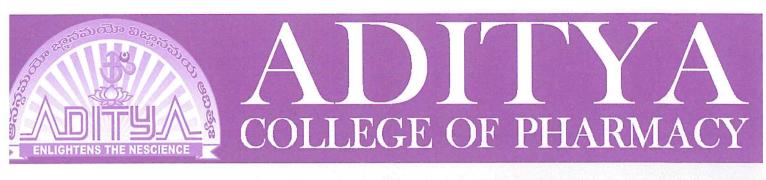
bearing roll number 193H1R0037 has successfully completed the Value Added course entitled "Pharmaceutical sales and marketing"held in Aditya College of Pharmacy, Surampalem from 09th July to 06th August, 2022

N. Sale Sedly

Vice-Chairman



XauniChauan—
Director & Principal



A VALUE ADDED COURSE ON
HANDS ON TRAINING OF LABORATORY TECHNIQUES
IN ORGANIC SYNTHESIS



SUBAMPALEM





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

16-08-2022

### **CIRCULAR**

This is to inform all the III PharmD students that our college is conducting value added course on "Hands on training of laboratory techniques in organic synthesis" as per the schedule given below. Students who are interested to join this course should contact the respective coordinator.

Coordinator: A.Gayatri

Timings: 26<sup>th</sup> August to 21<sup>st</sup> October, 2022 (Every Friday)



PRINCIPAL

Aditya College of Pharmacy SURAMPALEM-533 437





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 45Hrs** 

COURSE NAME: Hands on training of laboratory techniques in organic synthesis

#### Course objective:

- 1. To create awareness on instruments used in organic synthesis.
- 2. Purification and drying organic solvents and reagents by distillation in an inert and moisture-free atmosphere.
- 3. Micro-scale synthesis.
- 4. Running a reaction for a long time (also under reflux), Running a reaction at low temperature.
- 5. Synthesis under moisture- and air-free conditions.
- 6. Isolation of the product by distillation, crystallization and chromatography.

#### **Course Outcome:**

- 1. To get information about easy handling of instruments and reagents involved in organic synthesis.
- 2. To get knowledge about various techniques, preparation of various reagents and their applications involved in organic synthesis.
- 3. To know about Reaction conditions and precautions involved in various synthetic procedures.

DAY 1: 26-08-2022 (6 Hrs)

Module: 1

Using lab equipment and basic experimental techniques:

Using a Balance, Pipette, magnetic stirrer, folding fluted filter paper, rotary evaporators, vacuum and gravity filtration, extraction and usage of drying agents, Steam distillation, distillation, vacuum distillation crystallization, Recrystallization, evapouration, sublimation techniques, determination of melting point, molecular weight, density etc



DAY 2: 02-09-2022 (6 Hrs)

DAY 3: 09-09-2022 (6Hrs)

Module: 2

Systematic qualitative analysis of unknown organic compounds like

1. Preliminary test: Color, odour, aliphatic/aromatic compounds, saturation and unsaturation, etc. 2. Detection of elements like Nitrogen, Sulphur and Halogen by Lassaigne's test 3. olubility test 4. Functional group test like Phenols, Amides/ Urea, Carbohydrates, Amines, Carboxylic acids, Aldehydes and Ketones, Alcohols, Esters, Aromatic and Halogenated Hydrocarbons, Nitro compounds and Anilides. 5. Melting point/Boiling point of organic compounds 6. Identification of the unknown compound from the literature using melting point/ boiling point. 7. Preparation of the derivatives and confirmation of the unknown compound by melting point/ boiling point

DAY 4: 16-09-2022 (6Hrs)

Module: 3

Separation of components from mixture by chromatography

Thin layer chromatography, paper chromatography, column chromatography

DAY 5: 23-09-2022, (6Hrs)

DAY 6: 30-09-2022 (5Hrs)

Module: 4

Solvent Free Organic Synthesis:

1.Pinacol coupling reaction 2. Reformatsky reaction/Luche 3. Knoevenagel condensation 4. Dieckmann condensation 5. Corrole Synthesis 6. Knoevenagel condensation, 3-carboxycoumarin 7. 3-(ethoxycarbonyl)-4-hydroxy-5-(1-hydroxyalkyl)-2-isoxazoline-2-oxide 8. Biginelli reaction

9. Claisen reaction 10. Pechmann reaction.

DAY 7: 14-10-2022, (5Hrs)

DAY 8: 21-10-2022 (5Hrs)

Module: 5

Methods involved in organic compounds: Asymmetric synthesis, carbon-carbon bond-forming reactions, disconnection reactions, reterosynthesis.



#### References:

- 1. J. C. Gilbert, S. F. Martin, "Experimental Organic Chemistry. A Miniscale and Microscale Approach", Thomson 2006
- 2. A. I. Vogel, A. R. Tatchell, B. S. Furnis, A. J. Hannaford, P. W. G. Smith "Vogel's Textbook of practical organic chemistry", Prentice Hall 1996.
- 3. Solvent-free Organic Synthesis by Koichi Tanaka (Copyright © 2009 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, ISBN: 978-3-527-32264-)

4. Practical organic chemistry. Cambridge. F. G. Mann. May 1936. B. C. Saunders.

Caevaa PRINCIPAL





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Value added Course on "Hands on Training of Laboratory Techniques In Organic Synthesis".

#### LIST OF STUDENTS

S NO	REG NO	STUDENT NAME	SIGNATURE
			(Inthe well)
1	193H1T0028	RAKESH KUMAR PANDIT	E) 20%
		,	A 1.00m
2	193H1T0035	KANIKELLA ELIZABETH VERONICA	Veroni Con
	,	•	
3	203H1T0001	ALLA ESWARA SATYA SAI	&
	20311110001	TIBER ES WING SITT IN SAI	
ā	202111220000	BHAMIDIPATI KANAKA	B. L. Duviga.
4	203H1T0002	DURGA	V
5	203Н1Т0003	BODDU MEENAKSHI	B. Meenakshi
		,	1 - 1 - 1
6	203H1T0004	GADI PRIYANKA	Unjut
	ž.	GUMMALLA PREMA	
7	203H1T0005	FLORENCE	G. Prem Florence
8	203H1T0006	KORLAKUNTA DEVA HARSHINI	K. Dwa Hanshui
0	20371110000	HARSHINI	10 1,300 -1 1
9.			
9	203H1T0007	KUDIPUDI VENKATA PRATIGNA	k. v. Prothiguer
		La 2002 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
		KUSUMA LALITHA	I woodswin
10	203H1T0008	MADHURI CHINTALA	CH. K.L. Madhwi
J. 78.44	. S. E. S. 10g		
11	203H1T0009	LALAM SWARNAKUMARI	L. Swagnokeemore

Aditya College of Pharmacy
SURAMPALEM-533 437



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

12	203H1T0010	MABUTO MICHELLE TANAKA	M. Mabuto
13	203H1T0011	MADDU GIRIJA BHAVANI	M. Girija Bhavavi
14	203H1T0012	MAHITHA KANUMURI	k Malithal.
15	203H1T0013	MAKIREDDI VENKATALAKSHMI	M. Penhater Bakthuri
16	203H1T0014	MANGAM SRAVANI	M. syavani
17	203H1T0015	MATTA PURNA RAJEENA	M. P. Rosserna
18	203H1T0016	MD ZOYA ALVIRA	Zoya Aleira
19	203H1T0017	¿PITANI MANISHA	Manisha =
20	203H1T0018	RAMAVATH SAI KUMAR NAIK	Naik
21	203H1T0019	SAMANA SURYA ISWARYAMBICA POOJA	5.8.7. Pooja.
22	203H1T0020	SATHISETTI LAKSHMI PRAVEENA	S. proveene
23	203H1T0022	SHREYASI MAITY	S. Maity.
24	203H1T0023	SIVAKOTI YAMINI	7
25	203H1T0024	PEDIREDLA VENKATA MANGA SINDHU VARSHINI	P. Sendhu.

SIGNATURE OF COORDINATOR





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-20000\$)

Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Hands on training of laboratory techniques in organic synthesis

MARKS: 30

DATE

: 22-10-2022

REGNO: 203HIT0004

1. Containers or laboratory glassware having chemicals in them should be properly labelled.

When should you place a label on a container?

- a. After adding a chemical to a container
- b. Before adding a chemical to a container
- c. after the container has been emptied
- d. none.
- 2. If a substance decomposes when heated to its boiling point, the suitable method is ( A
  - a. Simple distillation b. vacuum c. fractional distillation d. crystallization
- 3. What is true about pure substance:



- b. They have fixed exact melting points
- c. They form one point on chromatogram.
- d. All
- 4. One of the most common solvent used for recrystallization is a.water b.alcohol c.benzene d.hexane



5. Which of the following (to be converted by FGI) is not a good alternative target for the synthesis of a carboxylic acid, RCO<sub>2</sub>H?

6. Which combination of reagents is appropriate for the following transformation?



1) HOCH<sub>2</sub>CH<sub>2</sub>OH, H+; 2) LiAlH<sub>4</sub>, Et<sub>2</sub>O; 3) H<sub>3</sub>O+

Aditya College of Pharmacy. SURAMPALEM- 533 4374

- b. 1) NaBH<sub>4</sub>, MeOH; 2) LiAlH<sub>4</sub>, Et<sub>2</sub>O; 3) H<sub>3</sub>O+
  c. 1) LiAlH<sub>4</sub>, Et<sub>2</sub>O; 2) H<sub>3</sub>O+
- 7. Which of the following statements best describes retrosynthesis?

a. The reaction conditions required to convert the product of a reaction back to the original starting materials

- b. A strategy used to design a synthesis of a target molecule by working back from the target to simple starting materials
- c. The design of a synthetic scheme using cheap, traditional reagents, rather than expensive modern reagents
- d. The design of reaction conditions such that an equilibrium reaction is pushed towards the products rather than the starting materials.
- 8. Sublimation, dissolving, and filtration can only be carried out in

- A. soluble-substances in solution
- B. insoluble substances in liquids
- C. liquid-liquid mixtures

d. NaBH<sub>4</sub>, MeOH

- D. solid-solid mixtures
- 9. The anhydrous agent used to remove water from ethanol distillate maybe

· (C)

- A. iodine
- B. hydrocarbon
- C. calcium chloride
- D. naphthalene
- 10. Chromatography can be used to



- A. form mixtures
- B. change mixture compositions
- C. separate mixtures into pure substances
- D. none of above
- 11. The phase that never gains in sublimation is



PRINCIPAL Aditya College of Pharman

- A. solid
- B. liquid
- C. gas
- D. vapours
- 12. which of the following is a product formed in claisen condensation.

(B) L

a.  $\beta$ -ester b.  $\beta$ - ketone c.  $\beta$ -ketoester d.none

product with NaOEt in EtOH?

13. Which ester will not give a good yield of the claisen condensation

(A)

- 14. Condensation reaction is the reverse of which of the following reaction?
  - a) lock and key hypothesis b) oxidation c) hydrolysis



- d) glycogen formation.
- 15. Which compound gets precipitated in the detection of carbon and hydrogen?
- (A)

- a) Copper
- b) Carbon dioxide
- c) Calcium carbonate
- d) Copper sulphate
- 16. Identify the element that cannot be detected by Lassaigne's test.
- a) Nitrogen b) Fluorine c) Sulfur d) Phosphorous



(B)

PRINCIPAL Aditya College of Pharmacy

17. What is the color of the precipitate obtained in the test for sulphur?  a) White b) Black c) Violet d) Blue	(C)
18. Camphor is separated from common salt	(A)
a) By sublimation (b) by distillation (c) By filtration (d) by boiling	
19. Filter paper used in paper chromatography is a) What man No 1 paper (b) normal filter paper (c) both (a) & (b) (d) none	(C)
20. The process of changing a solid substance into liquid by heating is called	(B)
a) Boiling (b) Melting (c) Freezing (d) none	
21. The Product formed from pinacol coupling reaction is	( A)
a) Diols b)aldehydes c) ketones d) amines	
22. The starting material in reformatsky reaction is	(D) d
a)Aldehyde b) phenol c) amide d) amines	
23. A corrole is	(D) 2
a)An aromatic tetraPyrrole b) an aromatic tripyrrole	
c) Pyrrolidine d) hexahydropyridine	
24. The claisen condensation involves reaction between	(A)
a) 2 ester molecules b) ester and alcohol c) ester and amine d) none.	
25. Pechmann's condensation is used for synthesizing	( A)
a) coumarine b) alkaloids c) glycosides d) none	
26. The catalyst used in Biginelli reaction is	(A)
a) Acid b) base c) none d) a& b	

Adity College of Pharmesy SURAMPALEM-533 437 27. What is the advantage of vacuum filtration

a) Efficiency b) fast c)cost effective d) low power cost

28. What is the advantage of hot filtration?

a) To prevent virus during filtration

b) To prevent bacteria during filtration

c) Minimize crystal during filtration

d) None

29. Why is cotton wool used in filtration?

a) Remove fine Particles

b) Remove moderately coarse particles

c) Remove big particles

d) Remove uniform particles



a) Vacuum pump b) centrifuge c) dessicator d) muffle furnace

30. Identify the filtration equipment.

PRINCIPAL Addy College of Phatrically College of Phatrical Colleg

# ADITYA COLLEGE OF PHARMACY Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA (Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research) Ph: 99498 76664 Email: office@acop.edu.in Website: www.acop.edu.in

#### VALUE ADDED COURSE SUMMARY 2022-23

COURSE CODE AND NAME:

HLOS and Hands on training of laboratory

techniques in organic synthesis

**COURSE DURATION** 

45Hrs

**BRANCH AND YEAR OFFERED:** 

III PharmD

COURSE INSTRUCTORS

B.N.B. Vaidehi, Associate Professor

#### **COURSE OUTCOME**

Student would be able to get information about easy handling of instruments and reagents involved in organic synthesis, to get knowledge about various techniques, preparation of various reagents and their applications involved in organic synthesis, and to know about Reaction conditions and precautions involved in various synthetic procedures.

**COURSE TYPE** 

Self framed course

ASSESSMENT MODE

**ATTENDANCE** 

45 Hours

NO.OF PARTICIPANTS

2.5

SCHEME OF EXAM

MCQ Offline

DATE OF EXAM

22-10-2022

Course coordinator



Principal

Dlacm cuc



# CERTHICATE OF COMPLETION

This is to certify that Mr./Ms

SATHISETTI LAKSHMI PRAVEENA

bearing roll number 203H1T0020 has successfully completed the Value added course entitled "Hands on training of laboratory techniques in organic synthesis"

held in Aditya College of Pharmacy, Surampalem from 26th August to 21st October, 2022.

N. Sale ledly

Vice-Chairman SULAMPALEM

Wanighaua

Director & Principal

Aditya College of Pharmac

# AD TUMENTENS THE NESCIENCE

# ADITYA COLLEGE OF PHARMACY

Aditya nagar, Surampalem, Andhra Pradesh 533437

# VALUE ADDED COURSE ON GOOD LABORATORY PRACTICES FOR FAIL-SAFE AND EFFECTIVE EXPERIMENTATION



Students who are interested to join the value-added course should contact the respective coordinator

Coordinator: T.Prashanthi
Asst. Professor,
Aditya College of Pharmacy



Resource Person: S.P.N.Kumar Asso. Professor, Aditya College of Pharmacy

PRINCIPAL Adding College of Pharmaco

All the students enrolled in this course will be provided with a certificate





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

05-11-2022

# **CIRCULAR**

This is to notify all the students of II B.PHARMACY that our college is providing a Value added course on "GOOD LABORATORY PRACTICES FOR FAIL-SAFE AND EFFECTIVE EXPERIMENTATION". Interested students can contact the concerned co-coordinator for further details.

Coordinator: T. Prashanthi

Course duration: 12<sup>th</sup> November to 17<sup>th</sup> December,2022 (Every Saturday)



PRINCIPAL

PRINCIPAL
Aditya College of Pharmac
SURAMPALEM-533 437





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 36Hrs** 

Certificate course: A value added course on good laboratory practices for fail-safe and effective experimentation.

#### Course description:

This certificate value added course on good laboratory practices for fail-safe and effective experimentation, provides a collective knowledge on the significance of ensuring reliability and integrity of pharmaceuticals. Therefore, the course comprises the principles of GLP that is to be followed in a laboratory or organisation which deals with non-clinical safety tests.

#### Course objectives:

The course is built based on the following objectives:

- 1. Insights in the importance of GLP
- 2. Ability to understand the process and product requirements as per standards
- 3. Inculcate good manufacturing practices
- 4. A firm hand on the techniques of quality control
- 5. To practice safety standards and to evaluate future hazards

DAY 1: 12-11-2022 (6Hrs)

Module: 1

This module includes introduction to good laboratory practices. The student will learn about the significance of GLP in pharmaceuticals and the relevant fields of applications. This introductory session will also include about the GMP and quality management in good laboratory practices.

DAY 2: 19-11-2022 (6Hrs)

Module: 2

In this module, the student will learn about the general aspects of quality good services. The module tools of quality management along with SPC techniques. The student will also learn the importance of productivity. The module comprises of quality management principles along with ISO 9001 structure.

DAY 3: 26-11-2022 (6Hrs)



#### Module: 3

The importance of GMP based regulatory and application aspects will be taught in this module. The student will learn about the concepts of equipment qualification and validation along with good documentation practices and quality risk management. The documentation practices will include standard operating procedures and standard testing procedures.

DAY 4: 03-12-2022 (6Hrs)

Module: 4

The lecture will include the day to day problems associated with quality science along with the methodologies and techniques used to deal with such problems to produce an effective quality control.

DAY 5: 10-12-2022 (6Hrs)

Module: 5

This introductory lecture will include about the significance of bio-safety. The student will learn about the various requirements of bio-safety standards, bio-safety levels and risk assessment.

DAY 6: 17-12-2022 (6Hrs)

Module: 6

In this session, the student will learn about the safety programs and acceptable risks. The module also includes government laws and regulations along with process safety management. Toxicological studies will also be taught based on various study models

#### References:

- 1. Pharmaceutical quality assurance vol. I &II BY Wagh Kaveri Raman et al., PV publications.
- 2. Qualitative pharma analysis by Jenkins, The Blakiston division, New York
- 3. How to practice GMP- A plan for total quality control by P.P. Sharma, Vandana publications, Agra

SURAMPALEM &

PRINCIPAL



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Value added course on "Good laboratory practices for fail-safe and effective experimentation"

#### LIST OF STUDENTS

S NO	REG NO	STUDENT NAME	SIGNATURE
1	213H1R0001	AISHWARYA DANDUBOYINA	Aish.
2	213H1R0002	AKONDI SAI LAHARI	Lahan
3	213H1R0003	BALANAGU DINESH VENKAT RAJU	(T wi)
4	213H1R0004	BOKKA DEEPTHI	B. Deepthi
5	213H1R0005	BONTHU SUPRIYA	CAN-B
6	213H1R0006	BURGULA LAKSHMI PRASAD	Larshmi Polasad. R
7	213 <u>H</u> 1R0007	CHEEPURUPALLI BHUVANESWARI	ch. Bhywanes war?
8	213H1R0008	CHEPURI NAGA LAKSHMI	Ch. Bhyvanes ward
9	213H1R0009	CHINTHA LOKESH KUMAR	Ch. Loketh Kuman
10	213H1R0010	DASI LAKSHMI JAYASRI	D. Laterton Tayorsi
11	213H1R0011	DEVAVARAPU VIJAYA LAKSHMI	D. Wjaya Lakshmil
12	213H1R0012	GANGIREDDY RAGA SUREKHA	y-Raga Suxelfor.
13	213H1R0013	GEDDAM NAGA MAHITHA	G. Mahitha
14	213H1R0014	GUTTIMDEEVI AISWARYA	Atehnorya, Gr.
15	213H1R0015	JANGAM NOOKARATNAM	J. Nivola according
16	213H1R0016	JANIPATI PRASHANTHI	J. Prashanthe
17	213H1R0017	JOGI SAI SIVA	J. Sai siva
18	213H1R0018	KADALI HIMA SRI	K-Hima Sn



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

			$\sim$
19	213H1R0019	KARIMISETTI RAJESH	X Rajesh
20	213H1R0020	KARINGI BHARATHI	k. Bhasiaithi
21	213H1R0021	KATTA SWAPNA MADHURI	Le Lewonn Merchan
22	213H1R0022	KOLUTURI KAVYA SRI	Karya Svi. L
23	213H1R0023	KUCHIBHOTLA GAYATHRI SRI NAGA PRANATHI	K.G.S.N. Peramath
24	213H1R0024	KUMPATLA UMA SRI LAKSHMI	A. Muss
25	213H1R0025	LANKA SIDDU	L.Sigoli
26	213H1R0026	MALLA RAVISYAMALA	Ravi syamala. M.
27	213H1R0027	MEDA KIRAN KUMAR	Meda. (Ciran Camar
28	213H1R0028	MOGALLAPU SWAPNA	Swapna
29	213H1R0029	MOHAMMAD SHAHUL	MD Shalul.
30	213H1R0030	MOLLETI MOUNIKA LAKSHMI	M. Hand har
31	213H1R0031	NAGOTU SUDHARSHINI DURGA DEVI	Sudhansheni. N
÷ 32	213H1R0032	NALLAPU SRAVANI :	Nistavani.
33	213H1R0033	PALAGANI SATYA PRAVEEN	Ps Proneed
34	213H1R0034	PILLI LAKSHMI SUREKHA	P. h. smells
35	213H1R0035	PITLA LAVANYA	P. Lavangle
36	213H1R0036	PRATHI JEMEEMA	P. Jencema
37	213H1R0037	PUTTA NAGA DIVYA	P. Nage Duyer.
38	213H1R0038	RAMANAM SRI DURGA NAGA PAVANI	Rodan
39	213H1R0039	SADI VASANTHA LAKSHMI	S. Vasanta
40	213H1R0040	SAMBANGI SURENDRA	3. Livendra
41	213H1R0041	SANA SAI	Sana bai
42	213H1R0042	SATHA PAVANI	5. Powari
43	213H1R0043	SOORAJ KUMAR SURENDRA	Solonej
44	THE PARTY NAMED IN COLUMN	SUVARNAM JHANSI LAKSHMI	S: Thousi Lakishmi
	COLLEG		



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

45	213H1R0045	VELAGALA URMILA	V- Ornula
46	213H1R0046	VINEELA PAMMI	1. Vincola-
47	213H1R0047	VITTANALA DIVYA POOJITHA	v. Divya poojitha
48	213H1R0048	VURADASU NAVYA LATHA	V. May & Lott.
49	213H1R0049	YALAMATI CHARMI SRI SIVANI	Y-ch-sri Sivani
50	213H1R0050	YALLA POOJA ALEKHYA	y Povja Auchy
51	213H1R0051	ABHISHEK MAHATO	Aphishel mahato
52	213H1R0052	ALLU DIVYA	A. Plyza
53	213H1R0053	AMAN KUMAR RAWANI	America Sacroligação
54	213H1R0054	NEELIMA BIKKINA	Wallnes
55	213H1R0056	ANADI DAS	A. Aug
56	213H1R0057	ANISH SHARMA	deen say
57	213H1R0058	ANKUR DAS	- Award
58	213H1R0059	AVIJIT NAYEK	Anijt Mayok
59	213H1R0060	AVINASH KUNDRAL	Aringh lembol
= 60	213H1R0061	BISHAL SAH	The had
61	213H1R0062	CHAKKA NAGA LAKSHMI MANGATHAYARU	Ch. N. L. M. Thayour
62	213H1R0063	CHITTIMENU MAHALAKSHMI VIDYA	
63	213H1R0064	DINESH MURAU	QU
64	213H1R0065	DWIPJOY MALAKAR	Glad.
65	213H1R0066	GEDDAM SANJEEV KUMAR	G. Saveen Janes
66	213H1R0068	JUNAID AHMAD BHAT	1 lingland
67	213H1R0069	KAKARLAPUDI VENKATA SAI MANIKANTA VARMA	K. V.S. in illina K. Lahari
68	213H1R0070	KANCHARLA LAHARI	K. Lahari?
69	213H1R0072	MA. AMAN ANSARI	annant
-70	213H1R0073	MD AZEEZ RAIN	Ascerascien
71	213H1R0074	MD IRSHAD	rad: Two oud
	100		~

TOVER TO TO THE PARTY OF PER LANGE P

PRINCIPAL
Aditya College of Pharmacy
SURAMPALEM-533 437



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

72	213H1R0075	MOLLI PRADEEP	U pradcop
73	213H1R0076	MUKESH KUMAR	Mokert Amar
74	213H1R0077	NAKAJJA LETICIA	Mototo
75	213H1R0078	PASUPULETI VENKATA SATYA PRASAD	li sopra bong
76	213H1R0079	PILLI NEERAJA	steerajo
77	213H1R0080	RANJEET RAAZ THAKUR	(N)W
78	213H1R0081	RIJU KAR	Riju Kop
79	213H1R0082	RITESH KUMAR PATHAK	Quy
80	213H1R0083	SANDALLA SRAVYA SRI	& sough
81	213H1R0084	SANIPINI RAHITYA	S. Rahithuga
82	213H1R0085	SANKALPA MALLICK	Saraluk
83	213H1R0086	SHAIK KARISHMA	SK. Karushma
84	213H1R0087	SHAMBHU YADAV	Stember,
85	213H1R0088	SINGANA RASI SRAVYA	Rud.
86	213H1R0089	SNEHA ROY	Gneha
87	213H1R0090	SOHAM MAITY	Johan Maity
88	213H1R0091	SUBHANKAR ROY	Silverblov Ruy
89	213H1R0092	SUTHAPALLI THARUNA SREE	Sithaluna Sree.
90	213H1R0093	GURRALA ESTHER HEPHZIBAH	G. Esthoutephribater-
91	213H1R0094	TORLAPATI SWATHI SREE	7. Swathi
92	213H1R0095	YALLA DIVYA SINDHU	Y. D. Londhu.
93	213H1R0096	GURRAM GANGABABU	G. gangobalon
94	213H1R0097	TIPPALA GAMYA DEVI	T. Gamya Devi
74	21311110077	THITTEN OUNTINDEVI	1. Claringa Devi
95	213H1R0098	VANGA RAMA KRANTHI	Kraithe Vagar,
		KAPPALA SURYA LAKSHMI GAYATHRI	Kraelle Vage.
96	213H1R0099	DEVI	7.00
	at the second		



PRINCIPAL
Aditya College of Pharmacu
SURAMPALEM- 533 437



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

		THANDROTU SUSRITHA APARNA VEERAVALLI	T. B. C. Septla.
97	213H1R00A0	DEVI	1.5.A.V.V. Beve

COURSE COORDINATOR



PRINCIPAL
Aditya College of Pharmous
SURAMPALEM-533 437



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

5) (730

COURSE NAME : Good	Laboratory Pr	actices For Fail-Sa	afe And Effective	<b>Experimentation</b>	
ŧ	•			MARKS: 30	
DATE: 19-12-2022 1. Generally key posts should	l be occupied by	personnel.		REG NO: 213H	1R0013
a) Part time				· ·	
b) Full time					
c) Both A&B					
d) None of the above					
2. Which department is respo	nsible for evalua	tion of batch record	is?	[A]	
a) QA					
b) QC	• •	3		<u>.</u>	9a.
c) Both A&B			8		
d) None of the above					
3. The finished products commarketing authorization.	ntaining active in	ngredients should o	comply with	composition of the	ne
a) Qualitative					
b) Quantitative					
c) Both A&B					
d) None of the above	,				
4. The scope of sanitation an	d hygiene covers	S		[D]	

a) Personnel

b) Premises

c) Equipment



PRINCIPAL
Aditya College of Pharmacy
Surampalen-533 437

d) All the above
5. The reserve sample should contain at leastthe quantity needed for all tests required to determine the sterility and pyrogen testing.
a) Twice
b) Thrice
c) Similar
d) None of these
6. During examination and testing of samples at least test should be conducted on each lot of component drug product to verify identity.
a) 2
b) 3
c) 1
d) None of the above
7. A high level of personal hygiene should be followed and observed by all those concerned with processes.
a) Manufacturing
b) Transporting
c) Warehousing
d) None of the above
8. To approve or reject the starting materials, packaging materials, and intermediate, bulk and finished products is responsibility of which department?
a) QC
b) QA  c) Production  PRINCIPAL  Aditya College of Pharmacu
SURAMPALEM- 533 437

d) All of the above	
9. Which of the following department is responsible for quality monitoring and audit?	[ B ]
a) QC	
b) QA	
c) Production	
d) All of the above	
10. During sampling and testing in - process materials should be tested for which of the	e following?
a) Identity	
b) Strength	
c) Purity	<u>-</u>
d) All of the above	
11. GMP ensures which of the following parameters?	(C)
a) Quality	
b) Safety	
c) Efficacy	
d) All of the above	
12. To identify and prepare the necessary SOPs related to the control of quality is a res department.	sponsibility of
a) Production	
b) QA	
c) QC	
d) None of the above  Aditya College of I SURAMPALEM- 5.	Dha
SURAMPALEM- 5.	33 437

13. QC activities focus on identifying in actual product produced	[ C ]
a) Defects	
b) Strength	
c) Both A&B	
d) None of the above	
14. According to WHO QC is the part of	[ C ]
a) GLP	J
b) GCP	
c) GMP	
d) None of the above	
15. According to dictionary, quality is the degree of	*[A]
a) Excellence	
b) Agreement	
c) Greatness	
d) None of the above	
16. Beers law is related with	[A]
a) Concentration	
b) Thickness of medium	
c) Wavelength of incident radiation	
d) Wavelength of transmitted radiation a	
17. Deciding to collect a sample from a population is often:	[ B ]
a) A personal decision	_
b) An economical decision  PRINCIPAL  Aditya College of Pl  SURAMPALEM-53	harmacy 3 437

c) A risky decision	
d) A team decision b	
18. We use to calculate the estimate of the process standard deviation	i. [A]
a) Sample standard deviation	
b) Sample average	
c) Sample variance	
d) Sample mean a	
19. The packaging that envelops the product and is in direct contact with the	e content is called
	[ A]
a) Primary packaging	
b) Secondary packaging	•
c) Tertiary packaging	
d) None of the above a	
20. Accelerated stability testing is done to:	
a) Predict shelf life of the formulation	
b) Predict dissociation constant	
c) Predict diffusion constant	
d) Determine activation energy a	
21. Stability testing is done to:	[AJ
a) Determine shelf life of product	
b) Determine the components used for packaging	
c) Get information at pre-formulation stage	
d) All of the above	Occurc PRINCIPAL dilya College of Pharmacy SURAMPALEM-533 437

22. The desire to maintain a safe laboratory environment for all begins with?	[B]X
a) Prevention	*
b) Ubiquity	
c) Microbiology	
d) Accidents	•
23. When a chemical splashes in the eye rinse for?	[C]/
a) 10 seconds	
b) 30 seconds	
c) 5 minutes	
d) 15 minutes	
24. Which of the following type(s) of Personal Protective Equipment (PPE) is frequently	used? [D-]
a) Safety glasses	
b) Lab coats	
c) Gloves	
d) All of the above	
25. Chemical, reagents or broth cultures should be pipette by?	[ C]/
a) Mouth	
b) Ear	
c) Pipette	
d) Nose	,
26. Good work practices include,	[C]
a) Smelling and tasting chemicals	
b) Not washing hands before and after lab	
c) Confining long hair and loose clothing	
d) Using damaged equipment and glassware Surampalem Aditya College Surampalem	of Pharmacy W-533 437

27. What is the name of the procedure performed under sterile conditions to eliminate contamination in
hopes to obtain a pure culture of one type of microorganism?
a) Sterilization technique
b) Aseptic technique
c) Disinfectant technique
d) Pathogen technique
28. After a biohazard spill is covered with paper towels and disinfectant solution, it must sit for minutes?
a) 5
b) 30
c) 60
d) 20
29 is needed as a source of nutrient for the growth and reproduction of microbes. [D]
a) Pathogens
b) Bacteria
c) Reagents
d) Media
30. To prevent the contamination of microscopes and surrounding areas disinfect/clean used slides, prepared by student, with:
a) 70% ethanol and lens paper
b) 5% methylene blue and lens paper
c) Acetone and lens paper
d) Water and lens paper





# ADITYA COLLEGE OF PHARMACY Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA (Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664
Email: office@acop.edu.in
Website: www.acop.edu.in

#### VALUE ADDED COURSE SUMMARY 2022-23

COURSE CODE AND NAME : VAGMP and Good laboratory practices for fail-

safe and effective experimentation

COURSE DURATION : 36Hrs

BRANCH AND YEAR OFFERED: II B.Pharmacy

**COURSE INSTRUCTORS** : K. Venkateswarulu, Asso. Professor

#### COURSE OUTCOME

The course is built based on the following objectives:

1. Insights in the importance of GLP

2. Ability to understand the process and product requirements as per standards

3. Inculcate good manufacturing practices

4. A firm hand on the techniques of quality control

5. To practice safety standards and to evaluate future hazards

COURSE TYPE : Self framed course

ASSESSMENT MODE

ATTENDANCE : 36 Hours

NO.OF PARTICIPANTS : 97

SCHEME OF EXAM : MCQ Offline

DATE OF EXAM : 19-12-2022

Course coordinator



Principal

Damino

# CERTIFICATE



This is to certify that Mr./Ms.

#### CHINTHA LOKESH KUMAR

bearing Reg no. 213H1R0009 has Successfully completed the Value added course

entitled, "Good laboratory Practices for fail-safe and effective experimentation"

conducted from 12th November to 17th December ,2022 (Every Saturday) at Aditya College of Pharmacy

N. Sale Jedly Chairman

N. 67. 31. Kang

Vice-Chairman

xuanichaum

Principal

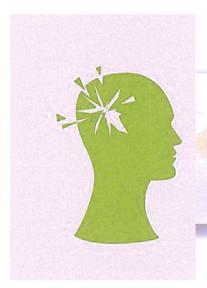
PRINCIPAL Aditya College of Pharmac, SURAMPALEM-533 437



(Affiliated to JNTUK, Approved by AICTE & PCI) Website:www.acop.edu.in, Email:office@acop.edu.in (ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664)

# ganizing

# VALUE ADDED COURSE ON



IMPROVING MENTAL HEALTH AND SUICIDAL PREVENTION

# DURATION 21st January to 25th February 2023 (every saturday)

Co-ordinator

Resource Person & convenor

Patron

K.Gnaneswari

Dr.K.Ravi Shankar

**Dr.N.Satish Reddy** 

Asst.Professor

Principal

**Vice Chairman** 

Aditya college of Pharmacy Aditya Educatinal institutions

PRINCIPAL Aditya College of Pharm SURAMPALEM- 533 437





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

10-01-2023

## **CIRCULAR**

This is to inform all I B.PHARMACY & I PHARM D students that our college will be offering a Value Added Course on "IMPROVING MENTAL HEALTH AND SUICIDAL PREVENTION" on the dates listed below. Students interested to enrolling in the value added course should contact the appropriate coordinator.

Coordinator: K.Gnaneswari

Timings: 21st January 2023 to 25th February, 2023 (Every Saturday)



PRINCIPAL





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 30Hrs** 

#### COURSE NAME: "IMPROVING MENTAL HEALTH AND SUICIDAL PREVENTION"

#### Course objective:

- What mental health is, and the impact of stress on mental health
- Identify and explain contributing factors to suicide and poor mental health
- Strategies to increase mental fitness
- Understand why self-harm may be used as a coping strategy
- Recognise risk factors for mental health crisis and suicidality
- Understand the types of questions you can ask a person who may be at risk of suicide

#### Course outcome:

Student is able to improve the mental health condition and able to increase mental fitness, able to learnt the prevention of suicidal thoughts in poor mental health

DAY 1: 21-01-2023 (6Hrs)

#### **MODULE I:**

#### Mental fitness

- Explain what mental health is
- Identify and explain contributing factors to suicide and poor mental health
- Understand the impact of stress of mental health
- Understand your own mental fitness

DAY 2: 28-01-2023 (6Hrs)

#### MODULE II:

#### Strategies to increase mental fitness

- Explain why we worry
- Identify and explain contributing factors to negative thinking
- Understand how to apply the ABC model



DAY 3: 04-02-2023 (6Hrs)

#### **MODULE III:**

#### Non-suicidal self-injury (NSSI)

- Describe the difference between deliberate self-harm and Non-Suicidal Self-Injury (NSSI)
- Understand why NSSI may be used as a coping strategy
- Describe alternative strategies for regulation of emotions
- Learn to use a mindfulness-based task

DAY 4: 11-02-2023 (6Hrs)

#### MODULE IV:

#### Suicidal behaviour in young adults (SBYA)

- Explain the risk factors often associated with suicidal behaviours in young adults
- Understand the types of questions you can ask a person who may be at risk of suicide
- Learn to use a mindfulness-based task

DAY 5: 25-02-2023 (6Hrs)

#### **MODULE V**

#### Interventions in SBYA

• Explain general methods of suicide prevention

#### References

- 1. https://www.edx.org/course/talk-to-me-improving-mental-health
- 2. Alarcón RD. Mental health and mental health care in Latin America. World Psychiatry 2003;2:54-6
- 3. World Health Organization. Multisite Intervention Study on Suicide Behaviour SUPRE-MISS. Geneva: World Health Organization, 2002.
- 4. Krug EG, Dahlberg LL, Mercy JA et al (eds). World report on violence and health. Geneva: World Health Organization, 2002.
- 5. https://www.sciencedirect.com/science/article/abs/pii/S2215036618300579

PRINCIPAL





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Value added Course on "IMPROVING MENTAL HEALTH AND SUICIDAL PREVENTION"

#### LIST OF STUDENTS

SNO	REG NO	STUDENTS	SIGNATURE
1	223H1R0001	ACHANTA VEERA RAMA SAI	AUTHUS C
2	223H1R0002	AGURU TEJASWINI	A Peroxueni
3	223H1R0003	ARUGULLA SOWMYA	A. Coromula
4	223H1R0004	ASHA DEEPTHI GURUGUBILLI	G. Asha Deepthi
5	223H1R0005	BARAVA RAMYA	B. Ranya
6	223H1R0006	BINGU SRINIVASA RAO	B. Snihilasovao
7	223H1R0007	CHIKKALA BHAVANI	ch-Bhavan;
8	223H1R0008	CHIKKAM PAVAN SRIKANTH DHANA SAI	CH. Parall
9	223H1R0009	CHILAKAPATI GRACE SUBHASHINI MARYROSE	C-Goare of
10	223H1R0010	CHODISETTI NAGA SATYA SRI	Ch-Naga Satya Svi
11	223H1R0011	DAVALA TANUSHA	D. Tanky
12	223H1R0012	DAVILESWARAPU GAYATRI SRI VARSHITHA	D.G.S. Voerhilo
13	223H1R0013	DONEPUDI SWATHI	P. Swatts:
14	223H1R0014	VANTAKULA SIDDU MANIKANTA KUMAR	V viddlu
15	223H1R0015	ELLANKI BHAVANI	E Bhavani
16	223H1R0016	GANNI MAHA DURGA BHAVANI	G·M· D·Bhavami
17	223H1R0017	GEMBALI LAXMI MADHAVI	G-laxri madhavi
18	223H1R0018	GIDLA SATYA EUNICE	G-Eurice.

19	223H1R0019	GOLLAVILLI ESTHERU RANI	G. Estheru Rani
20	223H1R0020	GUDALA HEMA NANDHINI	G. Hema Naudhini.
21	223H1R0021	GUTHULA CHANDRA HASINI	·G. chandra Hasini
22	223H1R0022	INAGADAPU SUSHMA	I. Sushma
23	223H1R0023	KATAKAM PRAVALLIKA	K. Ponovallika.
24	223H1R0024	KESANA DINESH KUMAR	K. Diresh Kumar.
25	223H1R0025	KONDAPALLI SRAVANI	k. Stavani
26	223H1R0026	KOTHAPALLI JAGADEESWARI	k. Jagadee Swari
27	223H1R0027	KUDIPUDI SATYA DURGA	u satza purga
28	223H1R0028	KURA SARASWATHI	K. Scirciswalthi
29	223H1R0029	KURRE DEEPIKA	k. Deepika
30	223H1R0030	MADAKAM YAMINI	M. Yamini
31	223H1R0031	MALLIDI V D MAHALAKSHMI	M.V.D. Mahalakshmi
32	223H1R0032	MATTURTHI KRISHNA VENI	M. Krishnaveni
33	223H1R0033	MEESALA SURYA BHASKAR	M. Suryo, Bhorkos
34	223H1R0034	MORTHA ROSHINI	M. Roshini
35	223H1R0035	NAGALLA SEETHA	"N. Scothor
36	223H1R0036	NAINALA BHAVYA	N. Bhavya
37	223H1R0037	NAKKA DEVID RAHUL	N. Devla Rahul
38	223H1R0038	NALLI SRAVANI	N. Stavani
39	223H1R0039	NATI DHANYASRI MANGADEVI	N. D.SM. Devi
40	223H1R0040	NIMMAKAYALA MOHANA JYOTHI	n). Jyothi
41	223H1R0041	PABBIREDDY DURGA SRI SURYA KISHOR	histor
42	223H1R0042	PADALA VIJAYA DURGA	P.V. Durga
43	223H1R0043	PAKKURTHI PRAKASH	P. Prokosh
44	223H1R0044	PANGA PUSHPALATHA	P. Pushpalatha.
45	223H1R0045	PERUMALLAKOVELA RAMA SIVA GANGA BHAVANI	P. Bhavany
46		PILLI BHARATHI	P. Bhorathi
	FGEO		11

PRINCIPAL
Aditya College of Pharmac
SURAMPALEM- 533 437

	T		
47	223H1R0047	PILLI KIRAN KUMAR	P. Kiran Kurran
48	223H1R0048	PILLWAR SRUTHI	P. Szuthi
49	223H1R0049	PINAPOTU SATYA SAI DURGA	P. Satya Sni Duoga
50	223H1R0050	POLURU NAYAB RASOOL	P. Nayab Pasod
51	223H1R0051	RAGHUMANDA BINDU MADHAVI	R-Bindumadhavi
52	223H1R0052	ROTTA TAMMAYYA	R Frammongya
53	223H1R0053	SADHANALA CHAKRADHAR	· S. Chq Kra dhar
54	223H1R0054	SETTI RAMA	s.Rama
55	223H1R0055	SHEIK SOFIA BEGUM	Sleik sofia Bogun
56	223H1R0056	SURLA SIRISHA VEERA RAMYA	5 Simisha
57	223H1R0057	TADI BHAVYA SRI	T. Bhanya Saj_
58	223H1R0058	THATA NARENDRA	T. Niusandra
59	223H1R0059	THIRUMALARAJU SRI HARSHITHA	Sittar Dika !
60	223H1R0060	UMMIDI SREE RAMYA	U. Sree Ramya
61	223H1R0061	ACHANTA PREM CHAND	
62	223H1R0062	ADAPA ASWITHA	A Perem church
63	223Ĥ1R0063	ANISETTI VAITREYA	= A. valtregor
64	223H1R0064	ATANU KUMAR DE	Afanu Kumar De
65	223H1R0065	BAILAPUDI NIHARIKA	B. Nihazika
66	223H1R0066	BIBEK KUMAR SAH	Dis-te
67	223H1R0067	LOHITHA SAI VARSHITH BOKKA	B. I. S. Worth Ith
68	223H1R0068	BRISTI DEY	Brusti Dey
69	223H1R0069	BUSALA GOWTHAMI	Browtham?.
70	223H1R0070	SIDDA LAKSHMI GOWRI JAHNAVI	S. L. G. Jahnavi
71	223H1R0071	CHANDAN KUMAR SHAH	Child
72	223H1R0072	DHIRAJ SAH	de de la company
73	223H1R0073	DHIRENDRA KAPAR	Ohisonder
74	223H1R0074	HAFEEZ ULLAH	Haleer
	COLLEGE		1 +



		000
223H1R0075	IBRAR MUSALMAN	Estra y
223H1R0076	ITHI SUVARNA KEERTHI	2. Suraina Keerthi
223H1R0077	JENNA KHUSHIPRIYA	J.Khushi pviya
223H1R0078	K KISHAN KUMAR	Kin
223H1R0079	KALLA JYOTHI	K. Tyothi
223H1R0080	KATNAM KRISHNA PRAVEEN	R.J.
223H1R0081	KARRI MAHITHA REDDY	K. Mahitha Reddy
223H1R0083	KHULAKPAM SHAKIRA	Kh. Shaking
223H1R0084	KOMANDURI E LAKSHMI SAMYUKTHA	K.E.L. Samyukta.
223H1R0085	KRISHMA GUBBALA	G. taxishma
223H1R0086	KRISHNA KUMAR MEHTA	20
223H1R0087	MAREEDU VYSHNAVI	M-Myshnavi
223H1R0088	MD HAFIJUDDIN	Md. Hapijuddin
223H1R0089	MOHAMMAD ANAS	Md Ans
223H1R0090	PALLA RANI	P. Rani
223H1R0091	PILLA SANTHOSHI	P. Santho.Shi
223H1R0092	PREMANGSHU PRAMANIK	P. Bramanile
223H1R0093	GANDHAM SATYA DEVI	G. Satya Revi
223H1R0094	TUPATI DIVYA SAI RAMA LAKSHMI	T. Drup sai Ramo
223H1R0095	RANI ISWARYA INDURTI	J. Bun Iswary
223H1R0096	RANJIDA KHATUN	Paniele
223H1R0097	RAVI PANDEY	
223H1R0098	RIYA KUMARI MISHRA	RME
223H1R0099	RYALI VENKATA LAKSHMI SRIJA	Snija/
223H1R00A0	SANTOSH KUMAR SHAH	Parton
223H1R00A1	SAYYAD NEHA	Sd. Neha
223H1R00A2	SODAGAM MEGHANA	Sd. Neha s. Meghana
223H1R00A3	SOMASHRI MAJI	SMayi
	223H1R0076 223H1R0077 223H1R0079 223H1R0080 223H1R0081 223H1R0083 223H1R0084 223H1R0085 223H1R0086 223H1R0087 223H1R0088 223H1R0089 223H1R0090 223H1R0091 223H1R0091 223H1R0092 223H1R0093 223H1R0095 223H1R0095 223H1R0096 223H1R0097 223H1R0098 223H1R0098 223H1R0098 223H1R0099 223H1R0099	223H1R0076         ITHI SUVARNA KEERTHI           223H1R0077         JENNA KHUSHIPRIYA           223H1R0078         K KISHAN KUMAR           223H1R0079         KALLA JYOTHI           223H1R0080         KATNAM KRISHNA PRAVEEN           223H1R0081         KARRI MAHITHA REDDY           223H1R0083         KHULAKPAM SHAKIRA           KOMANDURI E LAKSHMI         SAMYUKTHA           223H1R0084         KRISHMA GUBBALA           223H1R0085         KRISHMA GUBBALA           223H1R0086         KRISHNA KUMAR MEHTA           223H1R0087         MAREEDU VYSHNAVI           223H1R0088         MD HAFIJUDDIN           223H1R0099         PALLA RANI           223H1R0090         PALLA RANI           223H1R0091         PILLA SANTHOSHI           223H1R0092         PREMANGSHU PRAMANIK           223H1R0093         GANDHAM SATYA DEVI           223H1R0094         TUPATI DIVYA SAI RAMA LAKSHMI           223H1R0095         RANI ISWARYA INDURTI           223H1R0096         RANJIDA KHATUN           223H1R0097         RAVI PANDEY           223H1R0098         RIYA KUMARI MISHRA           223H1R0099         RYALI VENKATA LAKSHMI SRIJA           223H1R00A1         SAYYAD NEHA



103	223H1R00A4	SOUMEN MAJI	S-MOGY
104	223H1R00A5	CHANDAKA KASI ANNAPURNA	CHAMO Pione
105	223H1R00A6	SUMIT KUSHWAHA	Domit
106	223H1R00A7	TAMPAKMAYUM SANJANA	Im Sanjana
107	223H1R00A8	TANU PRIYA	Tame Poringal
108	223H1R00A9	VAJJA DHANALAKSHMI	- Oh ana Lak Mi
109	223H1R00B0	VALLABHANI SINDHU SATYA SRI PRIYA DURGA	V-Sindhu
110	223H1R00B1	DUNABOYINA KAVYANJALI	D. Karyo
111	223H1R00B2	VASAMSETTI MANIKANTA SWAMY	V. Manikanta Sidally
112	223H1R00B3	VILLURI TINNU	many .
113	223H1R00B4	VINNA MEHER GAYATRI DEVI	vmehergayabi devi
114	223H1R00B5	YALLA GANGABHAVANI	Y. Ganga bhawani
115	223H1R00B6	YAMIJALA SAI GAYATHRI	Y. Sai Gayathr
116	223H1R00B7	YARRAM SURYA PRAKASH REDDY	SUTURA
117	223H1R00B8	YELUBANDI VINAY	180 yang
118	223H1R00B9	YELURI ANUSHA	y. Anusha
119	223H1T0001	ABHINAV KUMAR	Abhinar kumer
120	223H1T0002	ADAPA SAILA BHANU	A-Soul
121	223H1T0003	ALAM KHAN CHESAM	Afamethan
122	223H1T0004	ARBUD DE	A
123	223H1T0005	ARNAB GIRI	Crow of.
124	223H1Ţ0006	BABY WOSSEN JUNIAS KOFFI	A
125	223H1T0007	BODDEDA VAISHNAVI	B Valshnaui
126	223H1T0008	BOKKA SATYA SRAVYASREE	B. Satys Sravye Free
127	223H1T0009	BONALA CHAITANYA KRISHNA	B fries reva.
128	223H1T0010	BUYAMAYUM ABDUR RAHAMAN	A Ratharson.
129	223H1T0011	DEVAVARAPU SHANMUKHI	D. Shanneigh
130	223H1T0012	DIVYANSH CHHETRY	Bergansh
Δ,	EGEOF		



			11016
131	223H1T0013	DULLA GAYATHRI	Groyled Vice
132	223H1T0014	LAKSHYA GAYATHRI REDDY KARRI	K. Gayathn secoldy
133	223H1T0015	LOYISO ALEXANDRA NDIWENI	AL
134	223H1T0016	MANDALA MAHI GANGOTHRI	M. Nilyatti
135	223H1T0017	MEDI SUSEELA	M. Sunka
136	223H1T0018	MEDISETTI NAGENDRA	m: Nagendra
137	223H1T0019	MOHAMMAD JAKIA RASHEEDA	MD.J. Reflect
138	223H1T0020	MONDI KEERTHANA	M. Coollas
139	223H1T0021	MPHOKUHLE ZINHLE STHANDWA MNKANDLA	Zwa.
140	223H1T0022	MUDAVATH YASWANTH NAIK	m. gashulants
141	223H1T0023	MUKKAMALLA KAVYA	NA KaryaReddu
142	223H1T0024	PODILI BHAGYA LAKSHMI	P. Blagyalakshme
143	223H1T0025	RAMAGIRI ABHIGNA	R. Abhigman
144	223H1T0026	RANDHI CHATURYA	R. Chaturya
145	223H1T0027	SEELAM GEETHA PAVANI	s. Geetha pavani
146	223H1T0028	SHAIK GAFUR	Sh. G. :
147	223H1T0029	SHUBHADEEP PANDA	S. Runda.
148	223H1T0030	THALLAPALLI RAJYALAKSHMI	Raphuil.T
149	223H1T0031	TUMMALAPALLI VEERA VENKATA GAYATHRI DEVI	J.V.V. Gayather: Devi
150	223H1T0032	RAJAGOPAL MUTHYA SATYA VENKATA SRI GANESH	Rand
151	223H1T0033	BUDITHI NOWSHIYA	B. Nowshinga

O. Chaneshoo







Approved by PCI, Recognised by UGC (Section 2f) ISO 90001:2015 Certified Institution

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Value added course on improving mental health and suicidal prevention

				;	
				MARKS: 30 M	
DATE:	27-02-2023			REG NO: 223HIN	0009
1.What is the	primary focus of n	nental health develop	ment?	REG NO: 223HIR (B)	
, -	and medication B lospitalization and	) Promoting well-be treatment	ing and resilience C)	Identifying mental	
2.What is the	most common me	ntal health disorder g	lobally?	(C)	
A) Bipolar dis	sorder B) Schizopl	nrenia C) Depression	D) Obsessive-Comp	ılsive Disorder	
3.Which of th	e following is NO	T a common risk fact	or for suicide?	(B)	•
A) Substance suicide	abuse B) Social	support C) Previous	suicide attempts D	) Family history of	
4.Which age g	group has the high	est risk for suicide?		(B)	
A) Adolescer Children unde		ults B) Middle-aged	individuals C) Eld	erly individuals D)	
5.What does t	the acronym "QPR	" stand for in the con	text of suicide preven	ntion? ( C ) 🗸	
A) Quick, Pro Quell, Protect		B) Question, Persua	de, Refer C) Qualify	, Prevent, React D)	
6. Which is a p	protective factor for	or suicide?		(C)	
A) Access to Impulsive bel		Isolation and lonel	iness C) Connectedr	ess and support D)	
	anization is know lers worldwide?	n for the promotion	of mental health an	d the prevention of	/
	ers for Disease	nization) B) UNICE Control and Preven	The second secon	, ,	
8. Which neu treatment of c	depression?	ften associated with	mood regulation an		

	A) Serotonin B) Dopamine C) Acetylcholine D) GABA (Gamma-Aminobutyric Acid)
	9. What is the primary goal of psychoeducation in mental health development? ( B).
٠	A) Treating mental disorders B) Reducing stigma C) Promoting medication use D) Isolating individuals with mental illness
	10. Which is a common warning sign that someone may be at risk of suicide? (B)
	A) Improved mood and behavior B) Giving away personal belongings C) Engaging in healthy activities D) Seeking professional help
	11. Which psychological theory emphasizes the role of unconscious conflicts and early childhood experiences in shaping mental health?
	A) Humanistic psychology B) Behavioral psychology C) Psychodynamic psychology D) Cognitive psychology
	12. What does the acronym "CBT" stand for in mental health treatment?
	A) Cognitive Behavioral Therapy B) Comprehensive Behavioral Treatment C) Clinical Biomedical Testing D) Creative Brain Training
	13. Which mental health disorder is characterized by alternating periods of mania and depression?
	(B)
	A) Generalized Anxiety Disorder B) Bipolar Disorder C) Borderline Personality Disorder D) Obsessive-Compulsive Disorder
	14. What is the primary goal of gatekeeper training in suicide prevention? ( C )
	A) Teaching gatekeepers to take on the role of mental health professionals B) Identifying individuals at risk and connecting them to help C) Locking people in crisis out of dangerous places D) Providing crisis intervention through phone hotlines
	15. Which demographic group has the highest suicide rate in the United States? ( A )
	A) White males B) African American females C) Hispanic males D) Asian American females
	16.In the context of suicide prevention, what does the acronym "ASIST" stand for? ( $\triangle$ )
	A) Advanced Suicide Intervention Strategies and Training B) Alliance for Suicide Intervention and Support Teams C) American Society for the Improvement of Suicide Tactics D) Association of Suicide Information and Support Training
	17. What is the first step in helping someone who may be suicidal?
	A) Providing immediate solutions to their problems B) Offering a shoulder to cry on C) Asking if they are thinking about suicide D) Telling them to "snap out of it"
	18. Which mental health intervention involves a combination of medication and talk therapy?  ( ) PRINCIPAL Aditya College of Pharmacy SURAMPALEM 533 437

- 28. What is the primary goal of a safety plan in suicide prevention?
- A) Restricting access to lethal means B) Keeping the individual isolated from others C) Creating a roadmap for staying safe during a crisis D) Reducing social support
- 29. Which mental health intervention focuses on changing maladaptive thought patterns and behaviors?
- A) Medication management B) Psychoeducation C) Dialectical Behavior Therapy D) Mindfulness meditation
- 30. What does the acronym "NAMI" stand for in the context of mental health and suicide prevention?
- A) National Alliance on Mental Illness B) National Association for Mental Improvement C) Network for Advocacy and Mental Independence D) National Authority for Mental Intervention

SORAMPALEM AN

# ADITYA COLLEGE OF PHARMACY Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA (Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664
Email: office@acop.edu.in
Website: www.acop.edu.in

#### **VALUE ADDED COURSE SUMMARY 2022-23**

COURSE CODE AND NAME

IMSP and Improving Mental Health and Suicidal

Prevention

**COURSE DURATION** 

30Hrs

**BRANCH AND YEAR OFFERED:** 

I B.Pharmacy & I Pharm D

**COURSE INSTRUCTORS** 

Dr. K. Ravi Shankar, Principal

#### **COURSE OUTCOME**

Students would be able ensure availability of minimum mental health care for all in the future, to the most underprivileged sections of society and Increase knowledge of the factors that offer protection from suicidal behaviours and that promote wellness and recovery.

**COURSE TYPE** 

Self framed course

#### ASSESSMENT MODE

**ATTENDANCE** 

30 Hours

NO.OF PARTICIPANTS

151

SCHEME OF EXAM

MCQ Offline

DATE OF EXAM

•

27-02-2023

Course coordinator

Damama Principal

SURAMPAIEM RA

PRINCIPAL
Aditya College of Pharmac,
SURAMPALEM- 533 437





# CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms

GIDLA SATYA EUNICE

bearing roll number 223H1R0018 has successfully completed the Value added course entitled "Improving mental health and suicidal prevention" held in Aditya College of Pharmacy, Surampalem from

21st January 2023 to 25th February, 2023.

N. Sale ledly

N. S.J. L. Waldy Vice-Chairman

Xuan Chauw

ctor & A

Aditya College of Pharmacy
SURAMPALEM- 533 437

Chairman



(Affiliated to JNTUK, Approved by AICTE & PCI)

Website:www.acop.edu.in, Email:office@acop.edu.in

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664)

# VALUE ADDED COURSE ON HANDLING OF ANIMALS

# **Eligibility: IV PHARM D**

Students who are interested to join the value-added course should contact the respective coordinator

Coordinator: K.Shruthi Asst. Professor, Aditya College of Pharmacy

Resource person: Dr.K.Ravishankar
Principal,
Aditya College of Pharmacy

DUR FIJONS

PRINCIPAL

OSRD FEBRUARY TO OSRD MARCH SURAMPAIEM STRAMPAIEM STRA





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

25-01-2023

# **CIRCULAR**

This is to inform all IV PHARM D students that our college will be offering a value added course on "Handling of Animals" on the dates listed below. Students interested in enrolling in this course should contact the appropriate coordinator.

Coordinator: K.sruthi

Timings: 03<sup>rd</sup> February to 03rd March, 2023 (Every Friday)



Man. Com. Com. PRINCIPAL





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 30Hrs** 

**COURSE NAME:** Certificate course on Handling of Animals

#### **Course Objectives:**

- To provide basic knowledge on handling of laboratory Animals like Mice, Rats, Rabbits and Guinea pigs.
- To have a proper knowledge on the legislations, Ethics, and about the rules & regulations of CPCSEA.
- Training also provides the information about IAEC approvals while conducting research works on laboratory animals.

#### Course outcomes:

Upon successful completion, students will have the knowledge and skills to:

- 1. To understand the species, specific biology of laboratory Animals.
- 2. Maintence of laboratory animals with proper diet and facilities.
- 3. Environmental factors that may influence animal Experiments.
- 4. Euthanasia, Anaesthesia, & Analgesia for minor & Long-Lasting procedures.

DAY 1: 03-02-2023, 6Hrs

#### Module 1:

Appropriate methods & principles of handling animals & describe common techniques procedures including administration and sampling techniques. Describing the basic biology of the relevant animal species, including basic anatomy, physiology, reproduction& behaviour, & recognise the importance of attending to biological & behavioural needs.

DAY 2: 10-02-2023, 6Hrs

#### Module 2:

Various routes of administration & to describe about the importance providing of an enriched environment to laboratory animals & also monitoring of appropriate health status for the animals.







(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

DAY 3: 17-02-2023, 6Hrs

#### Module 3:

Describe abnormal behaviour &signs of discomfort, pain, suffering or distress & also monitor the microbiological health of laboratory animals.

DAY 4: 24-02-2023, 6Hrs

#### Module 4:

Listing of potential human health hazards associated with contact with laboratory animals & describe how these can be prevented or reduced.

DAY 5: 03-03-2023, 6Hrs

#### Module 5:

Define the term "Humane killing" & list appropriate Euthanasia, methods for the relevant animal species & recognise the choice of Euthanasia method may influence the scientific outcomes.

#### References:

- 1. Handbook of Laboratory Animal Anesthesia and Pain Management: Rodents. 1st Edition.
- 2. Animal handling techniques and protocol development strategies, *Bhushan P Hatwar*, *Arunabha Mallik*.
- 3. Pharmacology: A Comprehensive Approach by Ravi Shankar K, G.V.N Kiranmayee Pharma Med Press, ISBN: 9789383635566.
- 4. Animal Care and Resource Centre (ACRC) IAEC project proposal documents. [ https://www.ncbs.res.in/research-facilities/acrc-IAEC ]



Xaana— PRINCIPAL



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) — Website: www.acop.edu.in, Email: office@acop.edu.in

# COURSE NAME: VALUE ADDED COURSE ON HANDLING OF ANIMALS LIST OF STUDENTS

S NO	REG NO	STUDENT NAME	SIGNATURE
1	183H1T0010	MAHE NAZSHAYEED	Neelle
2	193H1T0001	ADABALA GAANA LAKSHMI S	A. Granalakshmi
3	193H1T0002	ANKAM BABY SAI DURGA PADMASRI	A Sai deorge
4	193H1T0003	BASWANI JAYA CHANDRA VARMA	Z. Jayachandiet
5	193H1T0004	BOBBY SAMBA	Bul
6	193H1T0005	CHEEPURUPALLI BHAVYA DEEPIKA	Ch Bharley Deepiled.
7	193H1T0007	INAMPUDI DILEEP VARMA	I Dilip :
8	193H1T0008	KARRI HARIKA	K, Harika
9	193H1T0009	KELANGI ADARSH	A Adald
10	193H1T0010	KOYYURU KRANTHI KIRAN	K. K. Kirang
11	193H1T0011	MOLLETI VIJAYRAJ KUMAR	M. Varlejkumi
12	193H1T0012	NADIPALLI ANNIE CHRISTINE	N-Aniee Christine
13	193H1T0014	PARASH NIROULA	Parkarh
14	193H1T0016	RUTENDO MOLEEN MAUTSA	R.M. Mautie
15	193H1T0019	SANIPINI SRI LAKSHMI	S. Szilabahni





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

16	193H1T0020	SHAIK RESHMA	Sk-Reshne
17	193H1T0021	SHAIK SAFIYA MOHIDDIN	Sk Johnson
18	193H1T0022	SHIPHRAH ZULU UPAMO	Shipe Temp
19	193H1T0023	SURLA POOJITHA	S. Poojetha
20	193H1T0024	UPPE ROSHINI	O. Roshini
21	193H1T0026	VISWANADHAPALLI SAI SRINIDHI	V. Skindhi
22	193H1T0027	SINGARI DHANYASIRI	& Dhanya Sikis.
23	193H1T0029	AVINASH KUMAR SHAH	Avival timas
24	193H1T0030	PEDDINTI LAKSHMI PADMINI	P. Padmini
25	193H1T0031	VELISETTI KRANTHI SWAROOPA	V. Krantli Swaroofe
26	193H1T0033	SANNIDHIRAJU V B S R NAGAMANI INDRAJA	S. Indraja

d. Griffi SIGNATURE OF COORDINATOR





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

$\alpha$	URS		TAT	
(,,,,	UKO	I 13	AI	

: Handling of animals

MARKS: 30

Aditya College of Pharmacy SURAMPALEM- 533 437

DATE: 04-03-2023

REG NO: 193 H1T0008

Answer all the bits. Each bit carries one mark 30 X 1 = 10M						
1. What is the experimental use of G	uinea pig			[C]		
a) Pyrogen testing	b) Bioassay of	acetyl choline		<b>V</b>		
c) Evaluation of Bronchodilators	d) Gastric acid	secretion studi	es.			
2. What is the full form of CPCSEA				[ C, ]		
a) Council for the purpose of control	and strength of	experimental a	nimals			
b) Committee for the post of control	and supervision	of experiment	ation animals			
c) Committee for the purpose of cont	trol and supervi	sion of experim	ental animals			
d) Council of post control and streng	th of experimen	tation animals				
3. Sacrifing the animals for ethical re	easons is called	as		[6]		
a) Analgesia b) Euthanasia	c) Resu	scitation	d) Anesthesia			
4. Which of the following animals ha	ave DNA simila	r to human		[d]		
a) Chimpanzees b) Rodents	c) Dogs	d) Rabbits				
5. Which of the following are hazard	ls associated wi	th laboratory ar	nimals	[dv]		
a) Bites, Scratches and kicks	b) Alle	rgic reactions				
c) Possible zoonotic diseases	d) all o	f the above				
6. Physical methods of Euthanasia ir	ncludes			[d]		
a) Cervical dislocation b) Dec	apitation	c) Stunning	d) all of the above			
7. Which of the following microbial	diseases are mo	est common in	rodents	[a]		
a) Hanta virus b) Avi	an flu	c) Fowl pox	d) Small pox	1- 2		
8. Glucagon				[ p^/		
a) Accelerates protein synthesis with	nin cells	b) accelerates	conversion of glycog	gen to glucose		
c) Decreases conversion of glycogen to glucose d) slows down glucose formation from lactic Acid						

9. Damaged Thymus may	result in			[a]
a) Loss of antibody- medi	tion			
c) Deafness		d) loss o	of cell mediated immuni	ty
10. The duration of norma	al menstrual cycle	usually lasts for		[ ]
a) 27 days b) 3	30 days	c) 28 days	d) 40 days	[ d ]
11. Guinea pig is not used	l in which of the f	ollowing experim	ients.	[d,x
a) Anaphylactic and imm	unological studies			
b) Evaluation of local ana	esthetics	c) study of spas	smogens & amp; antispas	smodics
d) Psychopharmacologica	l studies			
12. Vomiting center is ab	sent in which anin	nals		
a) Chimpanzee b)	Dog	c) Cat	d) Albino	o rat
13. Albino rat can be used	d for the bioassay	of which hormon	ies	$[\ \ \ \ \ ]$
a) Insulin b)	Gonadotropin	c) Androgen	d) Thyro	id :
14. Albino mouse can be	effectively used for	or the study of wl	hich of the following ex	cept [d]
a) Chemotherapeutic age	nts b) tox	ricological studies	S	
c) histamine studies	d) ana	algesic studies		
15. The enzyme present i	n Rabbit against t	he tolerance of be	elladonna is	[ ]
a) squalene epoxidase	b) atr	opine esterase		
c) Glutamine synthase	d) hy	ocyamine decarbo	oxylase	
16. Pyrogen testing of pa	renteral preparation	ons is commonly	used in which animals	[ C)
a) Swiss rats	b) Rabbit	c) Albii	no mouse	l) Guinea pig
17. Study of Mydriatics a	and Myotics are do	one in which expe	erimental animals	
a) Frog	b) Chimpanz	cee c) Rabb	oit d) Dog	
18. Experiment carried o	n Frog			
a) Hepato-toxicity studie	s b) Ne	euromuscular stud	lies	
c) Histamine studies	d) Py	rogenic study		
19. Instrument used to st	udy effect of drug	on locomotor ac	tivity of experimental a	nimal [ a ]
a) Actophotometer	b) Ec	ldy's hot plate		V
c) Rota-rod apparatus	d) Y-	-march OF DE ANDRESSE	Aditya C	PRINCIPAL PRINCIPAL Ollege of Pharmacy MPALEM- 533 437

20. Student organ bath is used to stud	ly the effect of drug or	the following isolated tissue	
except			[C]
a) Ilium b) Intestine	c) Liver	d) Rectus abdominus muscle	•
21. The instrument used to move the	kymograph paper at a	desired speed.	[ Q]
a) Sherrington rotating drum	b) Frontal lever		v
c) Organ bath	d)Rota-rod apparatus		
22. Tail-flick method is also called a	S		[CV]
a) Eddy's hot plate	b) Radial maze		
c) Analgesiometer	d) Cookes pole climb	ing apparatus	
23. Rota-rod apparatus is used for id-	entifying the study of	which property	[a]
a) Anti-psychotic effect	b) Locomotor effect		
c) Skeletal muscle relaxation	d) Neuromuscular blo	ocking	
24. Behavior and Memory of experin	nental animals is studi	ed by which apparatus	[ ]
a) Radial maze	b) Sherrington rotating	ng drum	
c) Cookes pole climbing apparatus	d) Actophotometer		
25. Histamine aerosol chamber is us	ed to study the effect of	of one of the following action	
a) Bronchodilation	b) Skeletal muscle co	ontraction	
c) Mydriasis	d) Analgesic action		
26. Symes venous cannula is used to	supply physiological	salt solution of which organ	[C/]
a) Kidney b) Lungs	c) Heart	d) Brain	
27. Frontal writing lever is used to re	ecord contraction of is	olated muscle preparation on	[ ]
a) Kymograph paper b) Recording	drum c) Organ bath	d) Physiological salt	solution
28. For recording of contractions of	isolated heart preparat	ion which lever is useful	[ 5/
a) Complex writing lever b) Star	rling Heart lever	c) Simple lever d) From	ontal lever
29. Biological name of Rat			[ p./
a) Rana tigrana b) Rattus nors	vegicus c) Ory	yctolagus cuniculus	
d) Mesocriceius auratus			
30. Use of Digital tele thermometer	for experimental anim	als	[ 0]
a) pyrogenic testing b) log	omotor lecting c) me	mory testing d) an	algesic testing
03 41	SORAMPALEM RALEM	PRINCIPAL Aditya College of Pha SURAMPALEM- 533	ilmac) 437

# OLLEGE OF PHARMAC

Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA (Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664 Email: office@acop.edu.in Website: www.acop.edu.in

#### **CERTIFICATE COURSE SUMMARY 2022-23**

COURSE CODE AND NAME

VHA and handling of animals

COURSE DURATION

30Hrs

BRANCH AND YEAR OFFERED:

IV PharmD

COURSE INSTRUCTORS

Dr. K. Ravi Shankar, Principal and Professor

COURSE OUTCOME

Upon successful completion, students will have the knowledge and skills to understand the species, specific biology of laboratory Animals, Maintenance of laboratory animals with proper diet and facilities, Environmental factors that may influence animal Experiments, Euthanasia, Anaesthesia, & Analgesia for minor & Long-Lasting procedures.

COURSE TYPE

Self framed course

#### ASSESSMENT MODE

ATTENDANCE

30 Hours

NO.OF PARTICIPANTS

26

SCHEME OF EXAM

MCQ Offline

DATE OF EXAM

04-03-2023

K. Buthi Course coordinator



Dlacurcha

Principal





# Certificate of Commodition

This is to certify that Mr./Ms.

#### PEDDINTI LAKSHMI PADMINI

bearing roll number 193H1T0030 has successfully completed the Value added course entitled "HANDLING OF ANIMALS" held in Aditya College of Pharmacy, Surampalem from 03rd February to 03rd March, 2023 (Every Friday)

N. Sale Sedly

N. S. Lally Vice-Chairman XdaniChaum—
Director & Principal



Aditya nagar, Surampalem, Andhra Pradesh 533437

A VALUE-APPEP course on

# "HANDS ON TRAINING PROGRAM IN ANALYTICAL INSTRUMENTS"

Resource Person: N.Divya Asso. Professor, Aditya College of Pharmacy

Coordinator: M.Vinny Therissa Asst. Professor, Aditya College of Pharmacy

Eligibility: III B.Pharmacy





All the students enrolled in this course will be provided with a certificate





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

03-03-2023

### **CIRCULAR**

This is to inform all III B.PHARMACY students that our college will be offering a ValueAdded Course on "HANDS ON TRAINING PROGRAM IN ANALYTICAL INSTRUMENTS" on the dates listed below. Students interested in enrolling in this certificate programme should contact the appropriate coordinator.

Coordinator: M. Vinnytherissa

Timings: 11<sup>th</sup>March,2023 to29<sup>th</sup>April,2023 (Every Saturday)



PRINCIPAL





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

#### **COURSE SYLLABUS**

**DURATION: 40Hrs** 

Certificate course: Hands on training program in Analytical instruments

#### **Course Objectives:**

- To provide basic understanding on sophisticated instruments like UV Visible Spectrophotometer, Flourimeter, Karl Fischer Titrator.
- Impart training on procedures in handling sophisticated analytical instruments and
- Training on data keeping and routine maintenance of analytical instruments.

#### Course outcomes:

Upon successful completion, students will have the knowledge and skills to:

- 1. Explain the theoretical aspects of key analytical techniques and instruments
- 2. Undertake the correct sample preparation and characterization prior to analysis by the chosen techniques or instruments.
- 3. Design an analytical work-flow to acquire data and achieve the research objectives of their project.
- 4. Process data from the chosen instruments and demonstrate understanding of the limitations and quality of the data.

DAY 1, 2: 11-03-2023, 18-03-2023 (12Hrs)

#### Module 1:

Introduction of Instrumental Analysis, Need of chemical analysis, Methods of chemical analysis, various methods of instrumental analysis and their appropriateness, some important applications.

DAY 3, 4: 25-03-2023, 01-04-2023 (12Hrs)

#### Module 2:

UV-Visible Spectrophotometer, use and maintenance, sampling applications of UV-Visible spectroscopy, Instrument control: Spectra Measurement, Time Course, Fixed Wavelength, Abs/%T Monitor, Quantitative Analysis

DAY 5: 08-04-2023 (6Hrs)

#### Module 3:

Spectra Analysis: spectra view features, processing commands and data output



PRINCIPAL
Aditya College of Pharmac
SURAMPALEM-533 437

#### DAY 6: 15-04-2023 (5Hrs)

#### Module 4:

Principle of fluorescence – Measurement of fluorescence – Single beam and double beam filter fluorimeter- Ratio fluorimeter. Spectro fluorimeters.

DAY 7: 29-04-2023 (5Hrs)

#### Module 5:

Introduction to the use of equipment, to prepare Karl-Fischer reagents, understand water equivalence, standardise auto titrator, record reading on auto titrator, applications of auto titrator in analytical laboratory.

#### References:

- 1. Instrumental Methods of Chemical Analysis, Chatwal and Anand, Himalaya Publishing House.
- 2. UV-VIS Spectroscopy and Its Applications, Heinz-Helmut Perkampus, Springer, Berlin, Heidelberg.
- 3. agilent.com/en/product/molecular-spectroscopy/fluorescence-spectroscopy/fluorescence-spectrophotometer

GE OF PYAR

PRINCIPAL.

PRINCIPAL
Aditya College of Pharmas,
SURAMPALEM-533 437



(Affiliated to JNTUK, Approved by AICTE)



(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME: Value added course on "Hands on Training Program in Analytical Instruments"

#### LIST OF STUDENTS

S NO	REG NO	STUDENT NAME	SIGNATURE
1	203H1R0001	ADAM USHARANI	A-Villaga P
. 2	203H1R0002	ALAMURI KRISHNA CHAKRA MADHU LAKSHMI	A. K.c. Malhue lakshmi
3	203H1R0003	ARIGELA TEJA	A. Fefer
4	203H1R0004	ALAVALA MAHESH BABU	1) makesh. bahu
5	203H1R0005	BALA BHASKARUDU PEDDIREDDY	P.Bala Bhas Koswdu.
6	203H1R0006	BETHA NAGA RAMYA KRISHNA	B-NVanya Dodine
7	203H1R0007	CHAMAKURI BALA SRI	Ch. Bala Stř
8	203H1R0008	: CHAVABHATTINA NAGA SURENDER	Ch. Bala Sti Ch. Nagasvrender
9	203H1R0009	CHELLINGI SRI KALYANI	Ch-Sri Kalyen.
10	203H1R0010	CHIKKALA SAI VENKATA LEELA KUMAR	Ch.S. V. Zekol
11	203H1R0011	CHINNAM DAYAKAR	d. Days. km
12	203H1R0012	DESAMSETTY SIRISHA	D. Sirisha D. Sandhyar,
13	203H1R0013	DIDLA SANDHYA	D. Sandhyor,

PRINCIPAL
Aditya: College of Pharmacy
SURAMPALEM- 533 437



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

14	203H1R0014	ELURI DEVI NAGA VYSHNAVI	Gerffu.
15	203H1R0015	GARIKINA MANASA	G.Manasa
16	203H1R0016	GODA VAMSI KRISHNA	G :000
17	203H1R0017	GORUPUTI BHARATHI	G. Bharathe
18	203H1R0018	KADIYALA LAKSHMI PRASANNA	d' Lakshni pocilence
19	203H1R0019	KAMAVARAPU KAVYA SINDHU	K. Karya K. Karya Sintlur.
20	203H1R0020	KARRI SHOBHARANĮ	K. Shobharani
21	203H1R0021	KETHA GOWRISRI	K. Gocosi 2551
22	203H1R0022	KORLA DEVI CHANDRIKA	K-Devidalah
23	203H1R0023	KOTAGIRI V P G ANJANA MONIKA	K. Ansona
24	203H1R0024	MADEPALLI GANI LAKSHMI	M. Gair katahu
25	203H1R0025	MADEPALLI SAMYUKTHA	M. Gais letcher M. Sauguktha.
26	203H1R0026	MANE AMRUTHA	M. Amsuetha
27	203H1R0027	MANE SRI SURYA KALA	Ankala.
28	203H1R0028	MARRI SATYA BHULAKSHMI	M.S. Bhulakshnű





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

		-	
29	203H1R0029	MARRIPUDI PULLAIAH	p. 2. Wish
30	203H1R0030	NADIMPALLI LOHITHA	M. Lohitha
31	203H1R0031	NAKKA SANDHYA	Nakka Sandhya
32	2031-11R0032	NAKKA SATISH	N. Balieh
33	203H1R0033	NALLAM MAHALAKSHMI SANDYA SRI	su satist Sandlyer
34	203H1R0034	NASHEELA BEGUM	Nasheela Beguns,
35	203H1R0035	NEMALA JESSY ELIZABETH	N. Temy
36	203H1R0036	NUTHI VANITHA	M. Vanitha.
37	203H1R0037	PACHIMALA PRATAP	P. Prathap
38	203H1R0038	PAMMI SURATNA	P. Suratna
39	203H1R0039	PEYYALA NAMRATHA RAGHA	P. Suratna P. Namatla ragle
. 40	203H1R0040	PILLA LAKSHMI LAHARI	P. L. Lahari
41	203H1R0041	PITTA TITUS	p. Titus
42	203H1R0042	POSINA N V D G LAKSHMI TULASI	P. Lakshmi Tiles
43	203H1R0043	POTHALA RAJI CHANDRIKA	P. Raji chandrika
44	203H1R0044	RAJABOINA BHARATH KUMAR	P. Raji chandrika R. Bharath kuman
45	203H1R0046	SIVARATHRI ANIL KUMAR	S. Avil bamper)
46	203H1R0047	SUNKARA PUSHPA	S. Avillicoman
	105	$\sim$	





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

			I
47	203H1R0048	TATTA LAKSHMI LALITHYA	T. L. Lalithya
48	203H1R0049	THOKALA LIKITHA RAJA SRI	T. L. Kalithya T. Likilla Raja Sri
49	203H1R0050	TOLETI LAKSHMI SAI KEERTHANA	T. C.S Keerthang
50	203H1R0051	VACHEPALLI ROSHITHA	v. Robbitha
. 51	203H1R0052	VALLURI SUREKHA	V. SUTALO
52	203H1R0053	VEGI SRUJALA	V. Sorrjala
53	203H1R0054	VENDI VEERA KUMARI	V. Veora Kumari
54	203H1R0055	VIPPARTHI ANIL KUMAR	V. Anif Cumar
55	203H1R0056	YALLA PRASANTHI	y. prasavithi Abherlik - Paul
56	203H1R0057	ABHISHEK PAUL	Abhertuk - Paul
57	203H1R0058	AJAY KUMAR KUSHWAHA	A. Kus knakA
58	203H1R0059	ANUSURI SUJATHA	A Sujathe
59	203H1R0060	ARITRO PAUL	Aghapar
60	203H1R0061	ARPAN GHOSH	Sharayan
61	203H1R0062	ASHOK KUMAR BARUN DHOBI	
62	203H1R0063	ATTULURI SAI JAHNAVI	A.S. Johnavi
63	203H1R0064	BHUPENDRA PRASAD KURMI	Back.
64	203H1R0065	BODDU S.L.V. SAI VASANTH	B. G.L. V. C. Valenth-

COE OF A STATE OF CHARACTER AS



(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

65	203H1R0066	DIVESH SINGH	Dhah signigh ~
66	203H1R0067	GOLDEN GUPTA	Golden
67	203H1R0068	GYANSAGAR CHAUDHARY	TYON.
68	203H1R0069	KANNABATHULA AKHILA	KAkhila.
69	203H1R0070	KARRI SHYAM SANDEEP REDDY	K-shya
70	203H1R0071	KOTIPALLI MOHAN KRISHNA SAI SRI RAM	K-Sv. Dein
71	203H1R0072	KUNISETTI DIVYA	K. Drya.
72	203H1R0073	KUPPALA PAVAN SATYA CHAKRADHAR	X.O.
73	203H1R0074	MADDIPATI VIVĘK CHOWDARY	M. Vivell Chowday
74	203H1R0076	MALLIDI RUPIKA REDDY	M. Zyda Felly
75	203H1R0077	MANAUWAR ALAM	Manualis Alam
76	203H1R0078	MARNI VINAY KUMAR CHOWDARY	M.V.K. Chow dary
77	203H1R0079	MUDUNURI MONA SRI NEHA	M. Jeho.
78	203H1R0081	MYGAPULA SESHA SAILAJA	M-S-seulaja
79	203H1R0082	NIMMALA NAVARATNA DURGA PRASAD	N. W. Dugg pros A.





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

		OBBILIREDDY KAVYA	O. Lawy
80	203H1R0083	KANAKA MAHALAKSHMI	U U
81	203H1R0084	PABOLU LIKHITHA	( likhidada
82	203H1R0087	PIRLA ROHITH YADAV	P. fulin
83	203H1R0088	PRIYANKA MANGA	M. Prigade
84	203H1R0089	PURUSHOTHAM VISHNU SOWJANYA	P.v. Son Janya
85	203H1R0090	RAYUDU ASWITHA	RASIDITE.
86	203H1R0091	RIJU BHANDARI	Riphanti
87	203H1R0093	VALLURI DIVYA SRI DEVI	V. Divya Si Deif
88	203H1R0094	RUPAM BHANDARI	Dupulpandi
89	203H1R0095	SALAHU KABIRAJ	
90	203H1R0096	SANGEETA BAITALIK	<u>\$0</u>
91	203H1R0097	SANTOSH DAS	TAI)
92	203H1R0098	SATHI ADITYA VANAMA REDDY	Adetya, Sethi
93	203H1R0099	SATTI MARIYA RANI	an.
94	203H1R00A0	SHREYANSHU KUMAR MAITY	Sail-
95	203H1R00A1	SUDIP HANRA	Sudio Harma
96	203H1R00A2	SUMAN PATI	Suman Pati
. 97	203H1R00A3	SUNIL KUMAR SAH	Dif





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005) Website: www.acop.edu.in, Email: office@acop.edu.in

98	213H5R0001	BALASADI JAYANTHI	B. sayahi
99	213H5R0002	PALEMPATI SAI SRI VARSHA	Vans

M. Moss

COURSE COORDINATOR

SURAMMALEM R.

PRINCIPAL
Aditya College of Phatitlac
SURAMPALEM- 533 437





(Affiliated to JNTUK, Approved by AICTE)

(ADITYA NAGAR, ADB ROAD, SURAMPALEM 533 437, E.G.Dt, Ph.9949876664, 08852-200005)

Website: www.acop.edu.in, Email: office@acop.edu.in

COURSE NAME	: Hands on training programme in Analytical Instruments	MARKS: 30
DATE	: 29-04-2023	REG NO: 203HIROO
1. Beer Lambert	's law gives the relation between which of the following	REG NO: 203H 114001
a) Reflected radi	ation and concentration	
b) Scattered radi	ation and concentration	
c) Energy absorp	otion and concentration	
d) Energy absorp	ption and reflected radiation	
2. In which of th	ne following ways, absorption is related to transmittance?	[ ]
a) Absorption is	the logarithm of transmittance	
b) Absorption is	the reciprocal of transmittance	*
	the negative logarithm of transmittance	* *
d) Absorption is	a multiple of transmittance	
3. Beer's law sta	ntes that the intensity of light decreases with respect to	_ [ a ]
a) Concentration	n	
b) Distance		
c) Composition		
d) Volume		
4. The represent	tation of Beer Lambert's law is given as A = abc. If 'b' represent	· · · · · · · · · · · · · · · · · · ·
represents conce	entration and 'A' represents absorption, what does 'a' represent?	[d]
a) Intensity		
b) Transmittanc	ve	
c) Absorptivity		
d) Admittance		
5. Which of the	following is not true about Absorption spectroscopy?	[C]

- a) It involves transmission
- b) Scattering is kept minimum
- c) Reflection is kept maximum
- d) Intensity of radiation leaving the substance is an indication of concentration
- 6. What is the unit of absorbance which can be derived from Beer Lambert's law?



- a) L mol<sup>-1</sup> cm<sup>-1</sup>
- b) L gm<sup>-1</sup> cm<sup>-1</sup>
- c) Cm
- d) No unit
- 7. Which of the following statements is false about single beam absorption instruments?



- a) Tungsten bulb is used as source
- b) Beamsplitter is used to get parallel beam
- c) Test tube is used as sample holder
- d) Photovoltaic cell as detector
- 8. Which of the following statement is false about double beam absorption instruments?



- a) It is similar to single beam instruments except two beams are present
- b) Tungsten bulb is used as source
- c) Reference beam must have higher intensity than sample beam
- d) Both the beams after they pass through respective samples are compared
- 9. In photometers, the readings of the specimen are initially obtained in the form of which of the following parameters?
- a) Transmittance
- b) Absorption
- c) Wavelengths
- d) Volume



10. In the diagram of single beam photometer given below, identify the component that is marked.	not [d]
a) Monochromator	
b) Absorption filter	
c) Sample holder	
d) Interference filter	
11. Which of the following is the purpose of the beam splitter in double beam photometer colorimeter?	r or
a) Splits beam into two equal intensity beams	
b) Splits beam in such a way that sample beam has higher intensity	
c) Splits beam in such a way that reference-beam has higher intensity	•
d) Merge two equal intensity beams into single beam	
12. Which of the following is a source used in spectroscopy?	[6]
a) LASER	
b) Tube light	
c) Sodium vapor lamp	
d) Tungsten lamp	
13. Which method is used to determination of water content?	
A. Kjeldahl method	
B. Karl-fischer titration	
C. Diazotization titration	
D. All of the above	
14. How many gm iodine is used in KFR REAGENT?  Con Pancipal  Aditya College of Pharmacy  SURAMPALEM- 533 437	

A. 40 B. 45 C. 30 D. 50 15. 1 ml of KRF =A. 2.4 gm water B. 3.6 gm water C. 3.5 mg water D. 1.4 mg water 16. Which material are used as moisture protection? A. Calcium chloride B. Silica gel C. A and B D. None of this 17. Karl fischer titration working principal is? A. Iodine reaction B. Iodide reaction C. A and B D. None of the above 18. When molecules are excited in visible region which lamp is used? A. Hydrogen deturium lamp

B. Xenon lamp C. Tangustan lamp C. Mercury lamp 19. Which filter are absorbed UV radiation and transmit visible radiation? A. Primary filter B. Secondary filter C. A and B D. None of this 20. Which filter are absorbed visible radiation and transmit UV radiation? A. Primary filter B. Secondary filter C. A and B D. All of the above 21. At low pressure Mercury lamp liner radiation wavelength is? A. 254 nm B. 700 nm C. 800 nm D. 600 nm 22. Sample cell shape is A. Cylindrical B. Quadrangular

C. A and B	۵,
D. None of this	4 °
23. How many mm path length is sample cell?	
A. 10 mm	
B. 20 mm	
C. 30 mm	
D. 40 mm	
24. During first rotation of chopper radiation beam is transmit through?	[b]
A. Sample cell	
B. Reference cell	
C. A and B	
D. None of this	
25. During second rotation of chopper radiation beam is transmit through?	[0]
A. Sample cell	
B. Reference cell	
C. A and B	
D. None of this	
26. Which detector are used in Fluorimetry?	[5]
A. Photo voltaic cell	

B. PMT

C. Photo tube



OCCUPAL

PRINCIPAL

Adilya College of Pharmacy

SURAMPALEM- 533 437

D. All of the above	
27. Which are the varient of Fluorimetry instrument?	[d]
A. Single beam	1
B. Double beam	
C. Spectroflourimeter	
D. All of the above	
28. Which of the following is not a limitation of Beer Lambert's law, which gives the rebetween absorption, thickness, and concentration?	lation
a) Concentration must be lower	
b) Radiation must have higher bandwidth	
c) Radiation source must be monochromatic	<u>.</u>
d) Does not consider factors other than thickness and concentration that affect absorbance	ee
29. Transmittance is given as $T = P/P_0$ . If $P_0$ is the power incident on the sample, what define $P_0$ is the power incident on the sample.	oes P
represent?	[ 0.1
a) Radiant power transmitted by the sample	
b) Radiant power absorbed by the sample	
c) Sum of powers absorbed and scattered	
d) Sum of powers transmitted and reflected	
30. Lambert's law states that the intensity of light decreases with respect to	[ by
a) Concentration	
b) Distance	
a) Campa aiking	

- c) Composition
- d) Volume





# ADTYA COLLEGE OF PHARMACY Approved by AICTE & PCI - NEW DELHI, Affiliated to JNTUK KAKINADA

(Formerly known as Sri Sai Aditya Institute of Pharmaceutical Sciences & Research)

Ph: 99498 76664
Email: office@acop.edu.in
Website: www.acop.edu.in

#### VALUE ADDED COURSE SUMMARY 2022-23

**COURSE CODE AND NAME** : VTAI and Hands on training programme in

**Analytical Instruments** 

COURSE DURATION : 40Hrs

BRANCH AND YEAR OFFERED: III B.Pharmacy

COURSE INSTRUCTORS : N.Divya, Associate professor

#### **COURSE OUTCOME**

Students will have the knowledge and skills to:

- 1. Explain the theoretical aspects of key analytical techniques and instruments
- 2. Undertake the correct sample preparation and characterization prior to analysis by the chosen techniques or instruments.
- 3. Design an analytical work-flow to acquire data and achieve the research objectives of their project.
- 4. Process data from the chosen instruments and demonstrate understanding of the limitations and quality of the data.

COURSE TYPE : Self framed course

ASSESSMENT MODE

ATTENDANCE : 40 Hours

NO.OF PARTICIPANTS : 99

SCHEME OF EXAM : MCQ Offline

DATE OF EXAM : 29-04-2023

**Course Coordinator** 

SURAMPALEM AND SURAMPALEM

Principal

PRINCIPAL

PRINCIPAL

Principal
PRINCIPAL
Aditya College of Pharmac
SURAMPALEM- 533 437



# Pertificate of completion

This is to certify that

Mr./Ms. CHAMAKURI BALA SRI

bearing roll no. 203H1R0007 has successfully completed the certificate course entitled

"Hands on Training Program in Analytical Instruments" conducted in Aditya College of Pharmacy, Surampalem from 11th March, 2023 to 29th April, 2023 (Every Saturday)

N. Sale hedly

N. S.J. J. Karoj

Xelani Chauar

CHAIRMAN

VICE-CHAIRMAN

PRINCIPAL



PRINCIPAL
Aditya College of Pharma
SURAMPALEM- 533 437