

**STARTED BATCH IN CERTIFICATE COURSE – 2017**



**CERTIFICATE COURSE**

**NANO BIOTECHNOLOGY**

----- Organized by -----

**Department of Chemistry (PG),**

**Hindu College, Market Centre**

**Guntur - 522003**

<b>S.NO</b>	<b>Name of the certificate course</b>	<b>Academic Year</b>	<b>From</b>	<b>To</b>
1.	Nano Biotechnology	2017-2018	01-08-2017	05-09-2017

# NANO BIOTECHNOLOGY

## SYLLABUS

### COURSE OUTLINE:

One of major applications of nano science is in biotechnology field. Since nanotechnology attracts students from various disciplines, a single course which starts by sensitizing students from a varied background about the biological/biotechnological basics and culminates into modern day applications of nano science in biotechnology field will be highly useful. This course will act as a bridge between students from non-biology course at all levels.

### COURSE DETAILS:

S.NO	TOPIC	NO OF HOURS
1	Basics of biology - cell, organelles and nucleic acids as genetic material.	04
2	Bio macromolecules - Carbohydrates, lipids, proteins and Nucleic acids.	04
3	Nanomaterial in biotechnology - nanoparticles, quantum dots, nanotubes and nanowires etc.	02
4	Biosensors ; different classes - molecular recognition elements, transducing elements	04
5	Applications of molecular recognition elements in nano sensing of different analytes	02
6	Application of various transducing elements as part of nano biosensors.	02
7	Biological nanoparticles production - plants and microbial.	04
8	Nano biotechnological applications in health and disease - infectious and chronic.	04
9	Nano biotechnological applications in Environment and food - detection and mitigation.	04
	<b>Total</b>	<b>30</b>

## **REFERENCES:**

1. Nanobiotechnology: Concepts, Applications and Perspectives (2004), Christof M.Niemeyer (Editor), Chad A. Mirkin (Editor), Wiley VCH.
2. Nanobiotechnology - II more concepts and applications.(2007) - Chad A Mirkin and Christof M. Niemeyer (Eds),Wiley VCH.

Nanotechnology in Biology and Medicine: Methods,Devices, and Applications

# CERTIFICATE COURSE

## Nano Biotechnology

### Model Question Paper

Time : 2Hrs

Max.Marks: 50

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**Answer any Three of the following**

**3x10 = 50M**

1. Write a note on Nanomaterial's used in Biotechnology?
2. Explain Nano biotechnological applications in Health and disease – infectious and chronic?
3. Write The Biological Nanoparticles production from plants?
4. Write a note on bio macromolecules?
5. Explain in detail about Nano biotechnological applications in Environment?

**Answer any Three of the following**

**4x5 = 20M**

6. Write a note on nucleic acids as genetics materials?
7. Explain quantum dots?
8. What are Nanotubes & Nanowires?
9. Nano biosensors?
10. Applications of Nano biotechnology in Food?
11. Write a note on Carbohydrates?





Ph: 0863-2220134  
2227649

**HINDU COLLEGE, GUNTUR – 522 003**  
(Re-accredited by NAAC as Grade 'A')

Dt: 24-07-2017.

**From:**  
Dr.E.H.V Subhashini,  
Head, PG Chemistry,  
Hindu College,  
Guntur.

**To:**  
The Principal,  
Hindu College,  
Guntur.

Sub: Requesting permission for Add on Course – Reg.

Respected Sir,

The department of PG Chemistry is planning to conduct Add on course on Nano Biotechnology to M.Sc Chemistry students. In this regard, I request you kindly to permit Nano Biotechnology Add on course for the benefit of students. The duration of the course is 30days. From 01-08-2017 to 05-09-2017.

Thanking you, sir.

Yours faithfully

(Dr.E.H.V Subhashini)

**Dr. E.H. VIJAYA SUBHASHINI**  
M.Sc.,M.Phil.,B.Ed.,Ph.D.  
HEAD, Department of Chemistry  
HINDU COLLEGE, GUNTUR.

CIRCULAR

25-07-2017

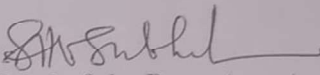
All the M.Sc. Chemistry 2nd year students are hereby informed that a certificate course will be conducted on "Nano Biotechnology" from 01-08-2017 to 05-09-2017 in our chemistry department.

**Training program schedule:**

**Dates:**01/08/2017 onwards

**Time:**3.00pm to 4.30 pm

**Venue:** PG chemistry class room



Head of the Department

Dr. E.H. VIJAYA SUBHASHINI  
M.Sc.,M.Phil.,B.Ed.,Ph.D.  
HEAD, Department of Chemistry  
HINDU COLLEGE, GUNTUR.





EXAM ATTENDED - MARKS.

HINDU COLLEGE PG COURSES, GUNTUR

DEPARTMENT OF CHEMISTRY (PG) NANOBIO TECHNOLOGY.

S.NO	NAME OF THE STUDENT	MARKS
1	ALLAM KAVYA	44
2	BANAVATHU KRISHNA PRIYA	44
3	BHAVANA RAMYA	45
4	BHIMANADUNI SAI SURYA MUDIRAJ	47
5	BHUMIREDDY OBULA REDDY	40
6	BUDATI VASANTHA LAKSHMI	44
7	DEVI REDDY PRASANNA KUMAR	42
8	DUSARI MANASA	40
9	INDUKURI RAJASEKHARA REDDY	43
10	JAGANNADAM SUVARCHALA	41
11	JONNAKUTTI NARESH	41
12	JUPUDI LENIN BABU	40
13	KANUGOLU THIRISHA	42
14	KARRI LAKSHMI TIRUPATHAMMA	46
15	KARUMURI VAMSI	42
16	KASIMALLA BALAIAH	42
17	KORAMUTLA PRASANNAJANEYULU	41
18	MADANU RAJESH	46
19	MANDALAPU PRAVEEN KUMAR	42
20	MANGA SUNANDA DURBHAKULA	44
21	MOGLI VENKATA KOTAIAH	40
22	MUTYALA ASWINI	41
23	PATHURI BRAHMAIAH	40
24	PONDURI LAKSHMI	42
25	PONNEKANTI TIRUPATHAMMA	45
26	SALISAM NARENDRA BABU	42
27	SRI LAKSHMI MANELAM	40
28	SURABATHUNI RAMA DEVI	43
29	ULLIBOINA SRIKANTH	42
30	UNDRALLA KOMALI	44
31	YARAGORLA REVATHI	42
32	NARESTT VIDYA	43
33	JONNALAGADDA SYAM PRASAD	40

# HINDU COLLEGE, GUNTUR

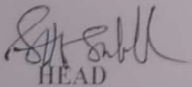


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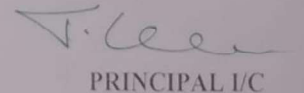
Re-accredited By NAAC as Grade A

## CERTIFICATE

This is to certify that Mr./Miss ALLAM KAVYA studying  
\_\_\_\_\_ has successfully completed certificate course on Nano Biotechnology  
conducted by Dept. of Chemistry (P.G), Hindu College, Guntur,  
from ~~01/08/2017~~ 05/09/2017. We wish all the best in his/her future endeavors.

  
HEAD

Dr. E.H. VIJAYA SUBHASHINI  
M.Sc., M.Phil., B.Ed., Ph.D.  
HEAD, Department of Chemistry  
HINDU COLLEGE, GUNTUR.

  
PRINCIPAL I/C

PRINCIPAL I/C  
HINDU COLLEGE P.G. COURSES  
GUNTUR.

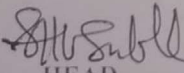
# HINDU COLLEGE, GUNTUR

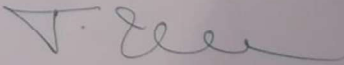


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Re-accredited By NAAC as Grade A

## CERTIFICATE

This is to certify that Mr./Miss I. RATASEKHARA REDDY studying  
\_\_\_\_\_ has successfully completed certificate course on Nano Biotechnology  
conducted by Dept. of Chemistry (P.G), Hindu College, Guntur,  
from 01/08/2017 to 05/09/2017. We wish all the best in his/her future endeavors.

  
HEAD  
Dr. E.H. VIJAYA SUBHASHINI  
M.Sc., M.Phil., B.Ed., Ph.D.  
HEAD, Department of Chemistry  
HINDU COLLEGE, GUNTUR.

  
PRINCIPAL I/C  
PRINCIPAL I/C  
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