



# BAPATLA COLLEGE OF PHARMACY

(Sponsored by Bapatla Education Society), (Recognized by A.I.C.T.E&PCI)

(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla , Bapatla (Dist), Andhra Pradesh -522101

## List of Certificate/ Add-on Programs

Academic Year: 2018-19

| S.No | Name of the Program                                                              | Duration of Course       | No. of Participants |
|------|----------------------------------------------------------------------------------|--------------------------|---------------------|
| 1    | A two week add on program on training on handling of basic laboratory animals    | 02-07-2018 to 17-07-2018 | 47                  |
| 2    | A two week add on program on protein and peptide drug delivery                   | 02-07-2018 to 17-07-2018 | 47                  |
| 3    | A two week add on program on organic chemistry for justifiable future            | 09-07-2018 to 24-07-2018 | 92                  |
| 4    | A two week add on program on computational tools used in pharmaceutical research | 03-09-2018 to 18-09-2018 | 46                  |
| 5    | A two week add on program on organic farming –relevance,problems,constraints.    | 03-09-2018 to 18-09-2018 | 47                  |
| 6    | A two week add on program on insights on Advanced NMR techniques                 | 01-12-2018 to 17-12-2018 | 23                  |

Dr. K. Rajyalakshmi  
IQAC



T. Gopalakrishna  
PRINCIPAL  
Bapatla College of Pharmacy  
Bapatla 522 101



# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

Dt: 18/06/2018

## CIRCULAR

All the IV /IV B. Pharmacy Students are here by informed that the Department of Pharmacology is Organizing a two – week add on program on “**Training on Handling of Basic Laboratory Animals**” by B. Srinivasa Rao Assistant Professor from 2-07-2018 to 17-07-2018. So here by all the students are instructed to register on or before 30-06-2018 and utilize this golden opportunity to abreast knowledge by attending the classes.

Venue: Room F13

Coordinator: Annie Mande, Assistant professor, Dept of Pharmacology

Copy forwarded to

*T. Gobalakrishna*  
Principal  
PRINCIPAL

Bapatla College of Pharmacy  
Bapatla 522 101

| Signature of all HOD'S |                                     |                  |               | TPO             | IQAC            | Office       | Library          |
|------------------------|-------------------------------------|------------------|---------------|-----------------|-----------------|--------------|------------------|
| <i>V. Saitan</i>       | <i>J.C. Rao</i>                     | <i>R. B. Rao</i> | <i>P. M.</i>  | <i>I. R. S.</i> | <i>B. P. I.</i> | <i>S. M.</i> | <i>K. S. Rao</i> |
| Pharmaceutics          | Pharmaceutical Chemistry & Analysis | Pharmacology     | Pharmacognosy |                 |                 |              |                  |



## About the College:

Bapatla College of Pharmacy is one of the seven educational institutions founded and run by Bapatla Educational Society (Estd.1962). It is one of the first private pharmacy colleges established in the year 1995 with requisite infrastructure facilities and competent human resources. The college is located in 55 acres green campus with 50,000 sq ft state of the art teaching and laboratory facilities. The college houses a FR&D centre in collaboration with Apogen Remedies Pvt Ltd, Hyderabad and CPCSEA approved animal house facility

## About the Course:

This course is aimed to improve the knowledge of students on animals handling

Topics Covered:

- Introduction of laboratory animals & experimental techniques
- Handling and restraining of laboratory animals
- Ethical discussion experiments
- Collection of body fluids like blood, cerebrospinal fluid etc
- Ethics committee in Indian system
- Ethical evaluation of research protocol
- Animal protection organization
- Discussion on research applications to the ethics committee

**Last date of registration**

**30-06-2018**

**RESOURCE PERSON**

**Mr B Srinivasarao**

Assistant professor

Department of pharmacology  
Bapatla college of pharmacy

## Bapatla College of Pharmacy

(Sponsored by Bapatla Education Society),

(Recognized by A.I.C.T.E&PCI)

(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

**A two – week add on**

**program on “Training on Handling of Basic Laboratory Animals**



**Dates 2/7/2018-17/7/2018**



## About the Department:

The Department of Pharmacology at Bapatla College of Pharmacy was established in the year 1995. The department's mission is to advise and educate students about the various career paths available in the field of pharmacology. Leading the students with adequate training so they can fulfil the demands of a business, government research agency, pharmaceutical company, or academic environment.

The department has a sophisticated animal house facility and sufficient equipment to support pre-clinical research. It has advanced pharmacological equipment that can be used for a variety of tasks related to evaluating new chemicals. Other instruments like the T, Y, water, and radial arm mazes can be used for neurological screening. A plethysmograph, bioanalyser, analgesiometer, histamine chamber, electroconvulsimeter, rota rod apparatus, and other in vivo research instruments are also included.

Students in the department gained insight into the pharmacodynamics and pharmacokinetics of many medications that are sold on the market. Students can receive training in handling a variety of equipment used in pharmacology, toxicological investigations, pharmacovigilance, and clinical pharmacology, which offers a wide range of work opportunities in the pharmaceutical industry

### Chief patron

M. SrinivasaRao garu  
President of Bapatla Education Society

### Convenor

Neelam Begum  
Associate professor  
Department of Pharmacology

### Resource Person

B.Sudheer Chowdary  
Assistant Professor  
Bapatla College of Pharmacy

### Program coordinator

B.SrinivasaRao  
Assistant Professor  
Department of Pharmacology

### Organising committee

Annie Mande  
Assistant professor  
Department of Pharmacology

M. Sushma  
Assistant Professor  
Department of Pharmacology

### Student Coordinators

Mr.B.Sriram nayak  
Ms Ch Pallavi  
III Year B.Pharmacy



**Contact : 9700920070  
9666810156**







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## Programme schedule for the two - week add on Programme "Training on Handling of Basic Laboratory Animals"

| S.No | Day        | Schedule                                                                                                                                                                                                                                                                                 |
|------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | 02/07/2018 | Inauguration of the session with the welcome address by the co ordinator Sri Annie Mande and key note address by Dr M.Sathish kumar , Associate professor the Department of pharmacology , followed by the lecture on Introduction to additive, constitutive and colligative properties. |
| 2.   | 03/07/2018 | Introduction of laboratory animals                                                                                                                                                                                                                                                       |
| 3.   | 04/07/2018 | Introduction to practical training                                                                                                                                                                                                                                                       |
| 4.   | 05/07/2018 | Handling and restraining of laboratory animals                                                                                                                                                                                                                                           |
| 5.   | 06/07/2018 | Ethical discussion experiments                                                                                                                                                                                                                                                           |
| 6.   | 07/07/2018 | Administration requirements and quality assurance during the conduct if animals studies and administration of substances                                                                                                                                                                 |
| 7.   | 09/07/2018 | Collection of body fluids like blood, cerebrospinal fluid etc                                                                                                                                                                                                                            |
| 8.   | 10/07/2018 | Euthanasia and anaesthesia                                                                                                                                                                                                                                                               |
| 9.   | 11/07/2018 | Introduction to experimental techniques                                                                                                                                                                                                                                                  |
| 10.  | 12/07/2018 | Peri-operative care and analgesia                                                                                                                                                                                                                                                        |
| 11.  | 13/07/2018 | Ethics committee in Indian system                                                                                                                                                                                                                                                        |
| 12.  | 14/07/2018 | Ethical evaluation of research protocol                                                                                                                                                                                                                                                  |
| 13.  | 16/07/2018 | Animal protection organization                                                                                                                                                                                                                                                           |
| 14.  | 17/07/2018 | Discussion on research applications to the ethics committee                                                                                                                                                                                                                              |

*Annie M.*  
COORDINATOR

*P. Sathish Kumar*  
HOD



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Bapatla, Guntur (Dist), Andhra Pradesh -522101

Dt: 20/07/2018

## PROGRAM REPORT

Name of the Course: Organizing a two – week add on programme on **“Training on Handling of Basic Laboratory Animals”**

Date: 2-07-2018 to 17-07-2018 (Two Week)

Resource Person: Mr.B. Srinivasa Rao  
Assistant Professor  
Contact Details: 9700920070  
Mail ID: srinivasmk143@gmail.com

Course Coordinator: Mrs. Annie Mande  
Assistant Professor  
Contact Details: 7995840909  
Mail ID: anniemande@gmail.com

Number of Students Attended: 47

Venue: F13

Bapatla College of Pharmacy, Bapatla Organizing a two – week add on programme on **“Training on Handling of Basic Laboratory Animals”**

The program was inaugurated by Dr M.Satihsh Kumar, Associate professor Department of pharmacology on 2<sup>th</sup> July 2018 at F13 . During this two week session extensive deliberations on handling laboratory animals (mice), ethics, basics of animal house management, different research methodologies towards animal research & future perspectives of inter-disciplinary & multi- disciplinary research opportunities”. In addition, the workshop also aims to put forward an effort in minimizing the gap between inter disciplinary & multi disciplinary research opportunities for the well being of human kind. Participation will enhance knowledge of science and contribute in developing multi dimensional research ideas and opportunities. Participants with a certificate of participation can add to their skills, which can boost up their opening &



opportunities abroad for higher studies. In addition to lectures by the resource person, demonstrations and experimentations were also performed by student groups. On 23 July 2018 valedictory session was conducted and participation certificates were issued to the attendees. The session ended with the closing remarks of the Coordinator Mrs . Annie Mande

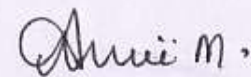
**Objectives:**

- Training on Handling animals will be provided in handling small mammals for research. In addition to it,
- Direct Observation of Procedural Skills (DOPS) method will be observed for certain techniques to ensure competency of participants.
- The animals include mice, rats, hamsters, guinea pigs and rabbits. The training includes: Providing the student with an understanding of the ethics and regulations that govern the use of animals in research as per CPCSEA guidelines.
- Hands-on training for animal handling and restraint, sexing, routes of administration and collection of body fluids.
- Imparting skills required to perform surgical and non surgical procedures

**Learning Outcomes:**

After completion of this course the students are able to:

- Trained to handle rodents like mice, rats carefully which is basic for all research.
- Students also got profound practical knowledge on route of administration of various drugs.
- They acquire knowledge on identification of sex, species based on morphological characters.
- They got knowledge on selection of suitable animals for different activities.
- Students known about animals guideline organisations like CPCSEA and its role in animal experimentation.

  
COORDINATOR

  
HOD



# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)  
Bapatla, Guntur (Dist), Andhra Pradesh-522101

DT:18-06-2018

## CIRCULAR

This is hereby to inform all students IV/IV B. Pharm that Department of Pharmaceutics is going to conduct a "TWO-WEEK ADD ON PROGRAM ON PROTEIN AND PEPTIDE DRUG DELIVERY" BY Dr. T. VENKATESWAR RAO Professor, from 02-07-2018 to 17-07-2018. So here by all the students are instructed to register on or before 29-06-2018 and utilize this Opportunity.

Venue: Classroom F02

Coordinator: G. Pavani Priya, Assistant Professor, Dept of Pharmaceutics.

*T. Gobalakrishna*  
PRINCIPAL

PRINCIPAL  
Bapatla College of Pharmacy  
Bapatla 522 101

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|------------------------|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <i>V. Saitan</i>       | <i>K. P. ...</i>                    | <i>P. ...</i> | <i>P. ...</i> | <i>J. ...</i> | <i>K. ...</i> | <i>P. ...</i> | <i>K. ...</i> |
| Pharmaceutics          | Pharmaceutical Chemistry & Analysis | Pharmacology  | Pharmacognosy |               |               |               |               |



## **BAPATLA COLLEGE OF PHARMACY (BCOP):**

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## **ABOUT THE DEPARTMENT PHARMACEUTICS:**

Department is one of the asset to our institution, having 4 ph.D and 7 M. Pharm qualified faculty to support the academic and multidisciplinary research activities. The department is equipped with Modern R&D equipment such as Rotary tablet machine, bilayered tablet machine, multimill, double cone blender, extruder spheronizer, Fluid bed coater, R&D coating pan and Brookfield viscometer are available in addition to the equipment recommended by the statutory agencies.

## **ABOUT THE ADD ON PROGRAM:**

This program explains about barriers for protein and peptide drug delivery, various routes of drug delivery of proteins and peptides, various approaches for oral drug delivery of proteins and peptide drug delivery system, various strategies for buccal delivery, nasal route, through skin and other routes, Various miscellaneous approaches.

### **Topics to be covered:**

- Protein peptide drug delivery- concept, functions, route.
- Pharmaceutical approaches.
- Incorporation into drug delivery matrix.
- Stability aspects, future application

A TWO WEEK ADD ON PROGRAM ON  
" PROTEIN AND PEPTIDE DRUG DELIVERY"

02 nd to 17 th July 2018  
DEPARTMENT OF  
PHARMACEUTICS



Bapatla College of pharmacy (Sponsored by Bapatla Education Society), (Approved by PCI and Affiliated to Jawaharlal Nehru Technological University, Kakinada) Bapatla , Guntur (Dist), Andhra Pradesh-522101



## ADDRESS FOR COMMUNICATION

Mrs. M. SUKANYA  
Assistant professor  
Department of pharmaceutics  
Phone number: 9550225353  
EmailID:sukanyamanam87  
@gmail.com

Last date for  
registration  
29-06-2018

### Organising Committee:

Patron: Office Bearers of Bapatla Education  
Society

### Convenor :

Dr. T.E. GOPALA KRISHNA MURTHY  
Principal

### Organising Secretary:

Dr. V. SAI KISHORE, HOD  
Department of pharmaceutics

### Resource person:

Dr. T. Venkateswara Rao  
Associate professor ,  
Department of pharmaceutics

### Co-ordinator:

Mrs. G. Pavani Priya (Assistant Professor,  
(Department of Pharmaceutics)

### Organising committee:

M. Sukanya  
Assistant professor,  
Department of pharmaceutics  
Poonguzhali  
Assistant Professor,  
Department of pharmaceutics

### Student coordinators:

1. A. Srikanth Reddy
2. M. Srilakshmi

## Registration form

1. Name:
2. Regd Number:
3. Year of study:
4. Organization:
5. Sex( Male/female)
6. Address for correspondence
7. Pin:
8. Phone:
9. Email:

Signature of participant

Signature of the head of the  
institute (with official seal)





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## Programme schedule for the two - weeks Certification course on "PROTEIN AND PEPTIDE DRUG DELIVERY"

| S. No | Date         | Topic                                                                                                                                                                                                                                                         |
|-------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.    | 2 July 2018  | Inauguration of the session with the welcome address by the co-ordinator G. Pavani Priya and key note address by Dr. V. Sai Kishore, Head of the Department of pharmaceuticals, followed by the lecture on Introduction to protein and peptide drug delivery. |
| 2.    | 3 July 2018  | Need of protein & peptide drug delivery system.                                                                                                                                                                                                               |
| 3.    | 4 July 2018  | Properties of protein & peptides.                                                                                                                                                                                                                             |
| 4.    | 5 July 2018  | Functions                                                                                                                                                                                                                                                     |
| 5.    | 6 July 2018  | Advantages                                                                                                                                                                                                                                                    |
| 6.    | 7 July 2018  | Pharmaceutical approaches<br>1) Chemical modification                                                                                                                                                                                                         |
| 7.    | 9 July 2018  | Pharmaceutical approaches<br>2) Enzyme Inhibitors                                                                                                                                                                                                             |
| 8.    | 10 July 2018 | Pharmaceutical approaches <ul style="list-style-type: none"><li>• Penetration enhancers</li><li>• Formulation vehicle</li><li>• Mucoadhesive polymer system</li></ul>                                                                                         |
| 9.    | 11 July 2018 | Incorporation into drug delivery matrix <ul style="list-style-type: none"><li>• Emulsification</li><li>• Extrusion &amp; Spray drying</li><li>• Polymerisation</li></ul>                                                                                      |
| 10.   | 12 July 2018 | Stability aspect <ul style="list-style-type: none"><li>• Physical degradation Protein</li><li>• Chemical degradation Protein</li></ul>                                                                                                                        |
| 11.   | 13 July 2018 | Applications                                                                                                                                                                                                                                                  |
| 12.   | 14 July 2018 | Recent advantages                                                                                                                                                                                                                                             |
| 13.   | 15 July 2018 | Developing strategies                                                                                                                                                                                                                                         |
| 14.   | 17 July 2018 | Future aspects                                                                                                                                                                                                                                                |

Coordinator

HOD





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Bapatla, Guntur (Dist), Andhra Pradesh-522101

Dt: 18/06/2018

## PROGRAM REPORT

**Name of the Course:** A two - weeks Certification course on "Protein and Peptide Drug Delivery"

**Date and Duration:** 02-07-2018 to 17-07-2018; 2 Weeks

**Resource Person:** Dr.T. Venkateswara Rao

Contact Details: 8106028250

Mail ID: tvrao250@gmail.com

**Name of the Coordinator:** G. Pavani Priya, Assistant Professor

Contact Details: 9652068625

Mail ID: g pavanipriya86@gmail.com

**Number of Students Attended:** 47

**Venue:** Classroom F02

Bapatla College of Pharmacy, Bapatla organized the two-week certification course on "Protein and Peptide Drug Delivery".

The program was inaugurated by Dr.V.SaiKishore, Head of the Department of pharmaceuticals at Classroom F02. During this two-week session extensive deliberations on the Protein and Peptide Drug Delivery was discussed by the resource person Dr.T.Venkateswara Rao. In addition to that experimentations were also performed the students. On 17<sup>th</sup> July 2018 valedictory session was conducted and participation certificates were issued to the students. The session ended with the closing remarks of the Coordinator Mrs.G. Pavani Priya.

### Objective:

- Define protein and peptide drug delivery.
- Delineate the concept of protein and peptide drug delivery.
- Explain the protein structure and its function.
- Advantages and delivery challenges of protein delivery.



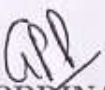
- Discuss the different barriers for drug delivery and physiochemical properties of proteins and peptides.

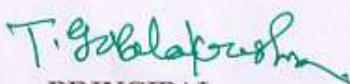
Topics to be covered:

- Protein peptide drug delivery- concept, functions, route.
- Pharmaceutical approaches.
- Incorporation into drug delivery matrix.
- Stability aspects, future application.

Learning outcomes:

- Barriers for protein and peptide drug delivery.
- Various routes of drug delivery of proteins and peptides.
- Various approaches for oral drug delivery of proteins and peptide drug delivery system.
- Various strategies for buccal delivery, nasal route, through skin and other routes.
- Various miscellaneous approaches.

  
COORDINATOR

  
PRINCIPAL





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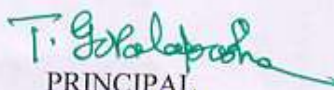
Date: 23-06-2018

## CIRCULAR

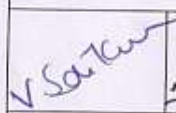
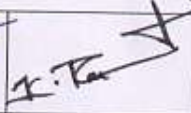
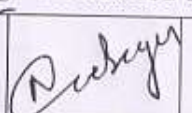
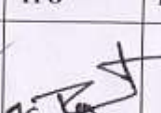
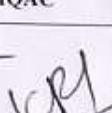
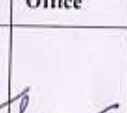
This is hereby to inform all students of II/IV B. Pharm -1<sup>st</sup> Sem/3<sup>rd</sup> Sem that Department of Pharmaceutical chemistry and Analysis is going to conduct a **"TWO-WEEK ADD ON PROGRAM ON ORGANIC CHEMISTRY FOR JUSTIFIABLE FUTURE"** by K. Poorna Chandra Rao, Assistant Professor, from 09/07/2018 to 24/07/2018. So here by all the students are instructed to register on or before 05/07/2018 and utilize this golden opportunity to abreast knowledge by attending the classes.

Venue: Class room S08

Co-Ordinator: S. Shoba, Assistant Professor, Dept of Pharmaceutical chemistry & Analysis

  
PRINCIPAL  
PRINCIPAL  
Bapatla College of Pharmacy  
Bapatla 522 101

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| Signature of all HOD'S                                                              |                                                                                     |                                                                                     |                                                                                     | TPO                                                                                  | IQAC                                                                                  | Office                                                                                | Library                                                                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |
| Pharmaceutics                                                                       | Ph. Chemistry & Ph. Analysis                                                        | Pharmacology                                                                        | Pharmacognosy                                                                       |                                                                                      |                                                                                       |                                                                                       |                                                                                       |



## ABOUT THE COLLEGE:

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## ABOUT THE DEPARTMENT:

The Department of Pharmaceutical chemistry & Analysis is well known for its excellence in teaching and research. The faculty members of the department come from high degree profile by well known universities. The faculty members of the department are engaged in state of the art research. The department has made great strides by revising and updating pharmacy syllabus time and again. Chemistry at its most fundamental level, creating sustainable energy, improving the environment, detecting and curing the disease

### TWO-WEEK ADD ON PROGRAM ON ORGANIC CHEMISTRY FOR JUSTIFIABLE FEATURE

Program duration  
09/07/2018 to 24/07/2018

Last date for registration  
05/07/2018

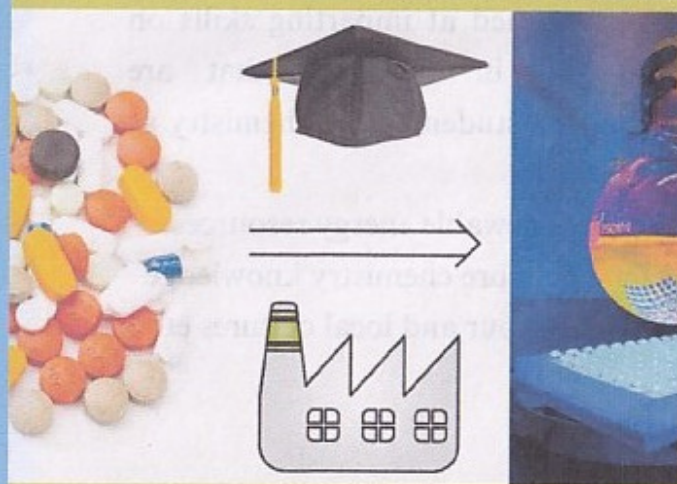
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## **ABOUT THE ADD-ON PROGRAM:**

This value add on course is designed to train the participants on the basics of organic chemistry and to provide them an understanding and analyzing the type of reaction like green chemistry, chemical enterprise, environmental chemistry, smart materials, carbon neutral economy etc which is justifiable futures. The fundamentals of the technique and applications will be discussed thoroughly. The significance of organic chemistry for justifiable future will also be explained. The resource person is well experienced in teaching the relevant subject.

## **TOPICS TO BE COVERED:**

Content of the program would touch upon the following aspects to achieve the objectives

- ☒ The course aimed at imparting skills on advanced field in chemistry that are essential for any students with chemistry as hons. Subject.
- ☒ To explain renewable energy resources.
- ☒ To understand core chemistry knowledge
- ☒ Human Endeavour and local cultures etc.,

### **Registration Form**

- 1.Name
- 2.Regd number
- 3.Year of Study
- 4.Organization
- 5.Gender
- 6.Address for correspondence
- 7.Pin
- 8.Phone and Email
- 9.Signature of participants

Signature of the head of the  
institute  
(With official s)

### **CHIEF PATRON**

Office bearers of Bapatla college of pharmacy

### **CONVENOR**

Dr.T. E.Goapala Krishna Murthy  
Principal & Professor  
Bapatla College of Pharmacy

### **ORGANISING SECRETARY**

Mr I. Sri Krishnajaneyulu – Assistant Professor  
Department of Pharmaceutical Chemistry

### **RESOURCE PERSON**

Mr. K. Poorna Chandra Rao -  
Assistant Professor

Department of Pharmaceutical Chemistry

### **PROGRAM COORDINATOR**

Ms. S. Shoba – Assistant Professor

### **ORGANISING COMMITTEE**

Mr. I. Sri Krishnajaneyulu – Assistant Professor  
Department of Pharmaceutical chemistry

Mr. K. Poorna Chandra Rao -Assistant Professor  
Department of Pharmaceutical Chemistry

Ms. S. Shoba- Assistant Professor

Department of Pharmaceutical chemistry

### **STUDENT COORDINATORS**

Mr. P.Praveen -II Year B.Pharmacy

Mr. Naveen – II Year B.Pharmacy





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Bapatla, Guntur (Dist), Andhra Pradesh -522101

Department of Pharmaceutical chemistry and Analysis

Name of the Program: A "TWO-WEEK ADD ON PROGRAM ON ORGANIC CHEMISTRY FOR JUSTIFIABLE FUTURE"

## PROGRAM SCHEDULE

| S.no | Date       | Topic                                                        |
|------|------------|--------------------------------------------------------------|
| 01   | 09/07/2018 | Introduction to clean energy technology.                     |
| 02   | 10/07/2018 | Nanomaterials preparation, characterization and applications |
| 03   | 11/07/2018 | Nanomaterials preparation, characterization and applications |
| 04   | 12/07/2018 | Detailed explanation of Corrosion science and engineering    |
| 05   | 13/07/2018 | Detailed explanation of Corrosion science and engineering    |
| 06   | 14/07/2018 | Recycling of solid waste material and applications           |
| 07   | 16/07/2018 | Recycling of solid waste material and applications           |
| 08   | 17/07/2018 | Materials used green chemistry and applications              |
| 09   | 18/07/2018 | Materials used green chemistry and applications              |
| 10   | 19/07/2018 | Detailed description of chemical enterprises                 |
| 11   | 20/07/2018 | Detailed description of chemical enterprises                 |
| 12   | 21/08/2018 | Detailed description of chemical enterprises                 |
| 13   | 23/07/2018 | Outline of smart material, carbon neutral economy.           |
| 14   | 24/07/2018 | Outline of smart material, carbon neutral economy.           |

S. Shobha  
Coordinator  
S. Shoba

K. Ranjith  
HOD  
K.Ranjith





# BAPATLA COLLEGE OF PHARMACY

(Sponsored by Bapatla Education Society), (Recognized by A.I.C.T.E&PCI)

(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

**Date: 27-07-2018**

## PROGRAM REPORT

**Name of the Program:** A Two Week Add on Program on organic chemistry for justifiable future

**Date and Duration:** 09-07-2018 to 24-07-2018; 2 WEEKS

**Resource Person:** K. Poorna Chandra Rao

Assistant Professor

Department of Pharmaceutical chemistry & Analysis

Phone number: 8919215259

Email ID: poorna7575@gmail.com

**Program Co-Ordinator:** S. Shoba

Assistant Professor

Department of Pharmaceutical chemistry & Analysis

Phone number: 9515499364

Email ID: shobhasingarapalli17@gmail.com

**Number of students participated:** 92

**Venue:** S08, Bapatla College of pharmacy

Bapatla College of pharmacy. Bapatla has organized a add on program on organic chemistry for justifiable future for B. pharm second year students by the resource person K. Poorna Chandra Rao. Organic chemistry for justifiable future is used in physical and analytical chemistry to detect, determine, or quantify the molecular and/or structural composition of a sample. Totally 92 students participated in this add on program and after completion of the program students were able to understand the following objectives and learning outcomes.

### Objectives:

Under graduate departments of chemistry & Analysis, Bapatla College of pharmacy, Bapatla offers 15 days certificate course on "ORGANIC CHEMISTRY FOR JUSTIFIABLE FUTURE." The course aimed at imparting skills on advanced field in chemistry that are essential for any student with chemistry.



**Topics to be covered:**

- Green chemistry overview
- The chemical enterprises and environment chemistry
- Smart materials and carbon economy
- Renewable energy resource, core chemistry knowledge

**Learning outcomes: After successful completion of the course**

- Students to learn about the scientific methods and gain skills in critical thinking, deductive reasoning, problem solving and communication.
- Correlation with everyday life.
- An understanding of the concepts and theories in chemistry.

**Outcome of the Program:**

The Bapatla College of Pharmacy, BAPATLA, arranged a highly successful add-on program. The applications of organic chemistry for justifiable future thoroughly taught to the students. Totally 92 students have participated in the program. The student will be able to estimate required succeeding in the chemical industries or professional life.

S. Shobha

Signature of the Program Coordinator





# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)  
Bapatla, Guntur (Dist), Andhra Pradesh -522101

Dt: 18-08-2018

## CIRCULAR

This is hereby to inform all students of III/IV B.Pharm -1<sup>st</sup> sem /5<sup>rd</sup> sem that Department of Pharmaceutical chemistry is going to conduct a **"TWO-WEEK ADD ON PROGRAM ON COMPUTATIONAL TOOLS USED IN PHARMACEUTICAL RESEARCH"** by Mr. K. Poorna Chandra Rao, Assistant Professor, from 03-09-2018 to 18-09-2018. So here by all the students are instructed to register on or before 28-08-2018 and utilize this golden opportunity to abreast knowledge by attending the classes.

Venue: S08, Bapatla College of pharmacy

Coordinator: S. Shobha , Assistant Professor, Dept of Pharmaceutical Chemistry & Analysis

*T. Gobalakrishna*  
PRINCIPAL  
PRINCIPAL  
Bapatla College of Pharmacy  
Bapatla 522 101

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|------------------------|---------------------------------|--------------------|---------------|--------------|--------------|----------------|-----------------|
| <i>V. Satish</i>       | <i>J.C. Rao</i>                 | <i>R. Subbarao</i> | <i>P. U.</i>  | <i>K. B.</i> | <i>K. B.</i> | <i>R. Venk</i> | <i>K. S. S.</i> |
| Pharmaceutics          | Ph. Chemistry &<br>Ph. Analysis | Pharmacology       | Pharmacognosy |              |              |                |                 |



## ABOUT THE COLLEGE

Bapatla College of Pharmacy is one of the seven educational institutions founded and run by Bapatla Educational Society (Estd.1962). It is one of the first private pharmacy colleges established in the year 1995 with requisite infrastructure facilities and competent human resources. The college is located in 55 acres green campus with 50,000 sq ft state of the art teaching and laboratory facilities. The college houses a FR&D centre in collaboration with INNOVIND PHARMA Ltd, Vijayawada and CPCSEA approved animal house facility.

## ABOUT THE DEPARTMENT

The Department of Pharmaceutical chemistry & Analysis is well known for its excellence in teaching and research. The faculty members of the department come from high degree profile by well known universities. The faculty members of the department are engaged in state of the art research. The department has made great strides by revising and updating pharmacy syllabus time and again. Chemistry at its most fundamental level, creating sustainable energy, improving the environment, detecting and curing the disease and development material with new properties.

## ABOUT THE ADD-ON PROGRAM

This value add on course is designed to train the participants on the basic concept of Molecular modeling for drug discovery. Molecular modeling describes the generation, manipulation (or) representation of three dimensional structures of molecules and associated physico-chemical properties. They enable participants to understand the structure and behavior of molecule, predict their interactions. The resource person is well experienced in teaching the relevant subject.

## TOPICS TO BE COVERED

Content of the program would touch upon the following aspects to achieve the objectives

- Introduction of molecular modeling
- What is the role of target identification
- What is a lead in drug discovery
- Pharmacophore modeling and docking techniques

## TWO -WEEK ADD ON PROGRAM ON "COMPUTATIONAL TOOLS USED IN PHARMACEUTICAL RESEARCH"

03 rd Sept to 18 th Sept  
2018

organized by  
Department of  
pharmaceutical chemistry &  
Analysis



Bapatla college of Pharmacy  
( sponsored by Bapatla Educational Society)  
(Approved by Affiliated to PCI and JNTU  
Kakinada) Bapatla, Guntur(dst), Andhra  
Pradesh-522101



## ADDRESS FOR COMMUNICATION

S Shobha  
Assistant Professor  
Department of pharmaceutical chemistry  
Phone number: 9515499364  
Email:  
shobhasingarapalli7@gmail.com

Last date of Registration  
on before 28-08-2018

## ORGANIZING COMMITTEE

Patron: Office Bearers of Bapatla Educational  
Society

## CONVENOR

Dr. T. E. Goapala Krishna Murthy Principal

## ORGANISING SECRETARY

K. Ranjith, Associate Professor, Department of  
Pharmaceutical Analysis

## RESOURCE PERSON

Mr K. Poorna Chandra rao , Assistant Professor,  
Department of Pharmaceutical Chemistry

## PROGRAM COORDINATOR

Ms. S. Shobha , Assistant Professor

## ORGANISING COMMITTEE

Ms. Poonguzhali , Assistant Professor

Mr I. Krishnanjaneyulu , Assistant Professor

## STUDENT COORDINATORS

Mr. K. Satish- III Year B. Pharmacy

Ms. C. Sukanya – III Year B. Pharmacy

## REGISTRATION FORM

1. NAME:
2. REGD NUMBER:
3. YEAR OF STUDY:
4. ORGANIZATION:
5. SEX (MALE/FEMALE):
6. ADDRESS FOR CORRESPONDENCE:
7. PIN:
8. PHONE:
9. EMAIL:

Signature of participant

Signature of the head of the  
institute (with official seal)

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# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

**Department of Pharmaceutical chemistry**

**Name of the Program: A TWO-WEEK ADD ON COMPUTATIONAL TOOLS USED IN PHARMACEUTICAL RESEARCH**

## PROGRAM SCHEDULE

| Sno | Date       | Topic                                             |
|-----|------------|---------------------------------------------------|
| 01  | 03-09-2018 | Introduction of computer aided drug design        |
| 02  | 04-09-2018 | Lecture on Structure based drug design            |
| 03  | 05-09-2018 | Lecture on Ligand based drug design with examples |
| 04  | 06-09-2018 | Introduction to various tools                     |
| 05  | 07-09-2018 | Over view of Chem Draw                            |
| 06  | 08-09-2018 | Training on Chem Draw                             |
| 07  | 10-09-2018 | Lecture on importance of Auto Dock                |
| 08  | 11-09-2018 | BIO VIA discovery studio                          |
| 09  | 12-09-2018 | Introduction on PyMOL                             |
| 10  | 14-09-2018 | Training on PyMOL                                 |
| 11  | 15-09-2018 | introduction on PYRX                              |
| 12  | 16-09-2018 | Chimera                                           |
| 13  | 17-09-2018 | Schrodinger suite                                 |
| 14  | 18-09-2018 | Open discussion and valedictory session           |

*S. Shobha*  
**Coordinator**  
S.Shobha

*K. Ranjith*  
**HOD**  
K. Ranjith





# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

Date: 24-09-2018

## PROGRAM REPORT

**Name of the Program: A TWO-WEEK ADD ON PROGRAM ON COMPUTATIONAL USED IN PHARMACEUTICAL RESEARCH**

**Date and Duration:** 03-09-2018 to 18-09-2018; 2 WEEKS

**Resource Person:** Mr. K. Poornachandra rao  
Assistant Professor  
Department of Pharmaceutical Chemistry  
Phone number: 9885071976  
Email ID: poorna7575@gmail.com

**Program Co-Ordinator:** S. Shobha  
Assistant Professor  
Department of Pharmaceutical Chemistry  
Phone number: 9515499364  
Email ID: Shobhasingarapalli17@gmail.com

**Number of students participated:** 46

**Venue:** S08, Bapatla College of pharmacy

Bapatla College of pharmacy. Bapatla has organized an add on program on "Computational tools used in Pharmaceutical Research" for B.pharm third year students by the resource person Mr. K. Poornachandra rao. Computational methods in drug discovery allow rapid screening of a large compound library and determination of potential binders through modeling or stimulation and visualization techniques. Totally 46 students participated in this add on program and after completion of the program students were able to understand the following objectives and learning outcomes.

### Objectives:

- Students able to recognize 2D and 3D rendering of molecules, calculating molecular properties, generating chemical names and performing basic molecular modeling tasks.
- They will able to understand pymol tool. It is used to view, rotate, translate, and change the representation of objects. It is a powerful utility for studying Proteins, DNA & Other Biological methods.
- The main objective of molecular modeling is to investigate the structure, dynamics, surface properties and thermodynamics of inorganic, biological and polymeric systems.



**Topics to be covered:**

- How to use computational tools in pharmaceutical research
- Introduction of computer aided drug design
- What is structure based drug design
- Lecture on Ligand based drug design with examples

**Learning outcomes: After successful completion of the course the students are able to**

- To know how to use these tools in drug design.
- How to screen libraries of compounds against potential drug target.
- To know how to perform basic molecular modeling tasks, calculating molecular properties and generating chemical names.

**Outcome of the Program:**

The Bapatla College of Pharmacy, Bapatla, arranged a highly successful add-on program. They enable students to understand the structures which are use in database queries, to prepare the graphics for lab reports and journal articles and also calculating molecular properties, generating chemical names and electronic description of molecules and reactions. Totally 46 students are participated in the program. The Student will able to understand the concept of various CADD used in pharmaceutical research.

*S. Shobha.*  
Signature of the Program Coordinator





# BAPATLA COLLEGE OF PHARMACY

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(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

Date: 18-08-18

## CIRCULAR

All the III / IV B.Pharmacy Students are here by informed that the Department of Pharmacognosy is organizing a two week Certification course on "Organic Farming – Relevance, Problems and Constraints" by J.V.Suresh from 03-09-18 to 18-09-18. So the interested students can register their names at the respective department on or before 31-8-18 and utilise this opportunity.

Venue: Seminar Hall (S06)

Coordinator: Mrs. Neelam Begum, Assistant Professor

*T. Gopalakrishna*  
PRINCIPAL

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Bapatla College of Pharmacy  
Bapatla 522 101

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|------------------------|-------------------------------------|------------------|---------------|----------------|-------------|------------------|------------------|
| <i>V. Saikrishna</i>   | <i>K. Ravi</i>                      | <i>R. Suresh</i> | <i>P. @</i>   | <i>K. Ravi</i> | <i>IQAC</i> | <i>R. Suresh</i> | <i>K. Suresh</i> |
| Pharmaceutics          | Pharmaceutical Chemistry & Analysis | Pharmacology     | Pharmacognosy |                |             |                  |                  |



## ABOUT THE COURSE

This course is aimed to improve the knowledge of the student towards farming in holistic approach. It helps the student understand the effects of usage of pesticides on health and how it degrades the environment increasing the pollution. The student will understand the importance of organic farming, different challenges faced. It helps to maintain sustainable agriculture conserving the fertility of the soil. Due to awareness in the public for organic products, there is an opportunity for establishing start up for such products. Organic products help to maintain good health.

Bapatla College of Pharmacy is one of the seven educational institutions founded and run by Bapatla Educational Society (Estd.1962). It is one of the first private pharmacy colleges established in the year 1995 with requisite infrastructure facilities and competent human resources; The College is one of the "oldest and reputed pharmaceutical institutions in the state of Andhra Pradesh. It is located in 55 acres green campus with 50,000 sq ft state of the art teaching and laboratory facilities, the college houses an A.P. State Govt approved FR &D centre in its campus.

### RESOURCE PERSON

**Dr. J.V. SURESH**

**Professor**

**Department of Pharmacognosy  
Bapatla College of Pharmacy**



## BAPATLA COLLEGE OF PHARMACY

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Affiliated to JNTUK, Kakinada

BAPATLA

### A TWO WEEK CERTIFICATION COURSE ON

### ORGANIC FARMING – RELEVANCE, PROBLEMS & CONSTRAINTS



**Last date for registration:  
31-8-18**



## ABOUT THE DEPARTMENT

Department of Pharmacognosy is engaged in the study of drugs from natural products. Research areas include extraction, isolation, characterization and biological studies of phytoconstituents using animal models. The department also deals with development and standardisation of novel herbal formulations. The department also organizes seminars and workshops on current topics at regular intervals. The institute also developed a medicinal garden having varied species of plants.

Contact: 9182613089  
9666810156

### Convenor

**Dr. TEGK.Murthy**

Principal,

Bapatla College of Pharmacy

### Program Coordinator

**Mrs. Neelam Begum**

Assistant Professor

Department of Pharmacology

### Organising secretary

**Dr. K. Rajya Lakshmi**

Associate Professor

Department of Pharmaceutics

### Organising Committee

**Mrs. M. Sukanya**

Assistant Professor

Department of Pharmaceutics

**Annie Mande**

Assistant Professor

Department of Pharmacology

### Student Coordinators

**Ms.B. Bhavana**

III Year B.Pharmacy

**Mr. Sy. Nagul Sharief**

III Year B.Pharmacy

## KEY HIGHLIGHTS

- Organic farming and practices
- Benefits
- Challenges faced
- Present market for organic products







# BAPATLA COLLEGE OF PHARMACY

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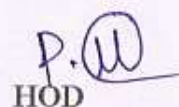
Bapatla, Guntur (Dist), Andhra Pradesh -522101

## SCHEDULE FOR THE PROGRAM

Name of Programme : A two - weeks Certification course on "Organic Farming – Relevance, Problems and Constraints"

| S.No | Day      | Schedule                                                                                                                                                  |
|------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | 03-09-18 | Inauguration of session with introductory speech by Dr. TEGK Murthy, Principal followed by lecture by Dr. J. Suresh on introduction to Farming Practices. |
| 2.   | 04-09-18 | Introduction to Organic farming, Cultivation map in India.                                                                                                |
| 3.   | 05-09-18 | Advantages and benefits of Organic farming.                                                                                                               |
| 4.   | 06-09-18 | Role of pesticides in growth of plants.                                                                                                                   |
| 5.   | 07-09-18 | Effect of pesticides in human health.                                                                                                                     |
| 6.   | 08-09-18 | Water pollution and conservation                                                                                                                          |
| 7.   | 10--9-18 | Importance of sustainable agriculture                                                                                                                     |
| 8.   | 11-09-18 | Effects of Modern Farming Technology                                                                                                                      |
| 9.   | 12-09-18 | Integrated organic farming systems                                                                                                                        |
| 10.  | 13-09-18 | Environmental benefits of organic agriculture                                                                                                             |
| 11.  | 14-09-18 | Evaluation of farm waste recycling technique for organic farming                                                                                          |
| 12.  | 15-09-18 | Biochemical characterisation and molecular identification of microbial population of different organic manures                                            |
| 13.  | 17-09-18 | Plantation program in campus                                                                                                                              |
| 14.  | 18-09-18 | Present market of organic products.                                                                                                                       |

  
COORDINATOR

  
HOD





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Bapatla, Guntur (Dist), Andhra Pradesh -522101

Date: 20-09-18

## PROGRAM REPORT

|                                 |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Name of the Course              | A two - weeks Certification course on “Organic Farming – Relevance, Problems and Constraints”. |
| Date                            | 03-09-18 – 18-09-18                                                                            |
| Resource Person                 | Dr. Jilakara Suresh<br>Professor<br>Department of Pharmacognosy<br>9866882091                  |
| Name of the Program Coordinator | Mrs. Neelam Begum<br>Assistant Professor                                                       |
| Contact Details                 | 9666810156                                                                                     |
| Mail ID                         | neelammpharm@gmail.com                                                                         |
| Number of Students Attended     | 47                                                                                             |
| Venue                           | Seminar Hall, Second Floor(S06)                                                                |

Bapatla College of Pharmacy, Bapatla organized the two-week certification course on “Organic Farming – Relevance, Problems and Constraints”.

The program was inaugurated by Dr. TEGK Murthy, Principal, on 3 September 2018 at Seminar Hall. During this two week session extensive deliberations on benefits and challenges of organic farming, effect of pesticides on health, how to attain sustainable agriculture etc was discussed by the resource person Dr. J. Suresh. In addition to lectures by the resource person, case studies were also discussed. On 18 September 2018, valedictory session was conducted and participation certificates were issued to the attendees. The session ended with the closing remarks of the Program Coordinator Mrs. Neelam Begum.



### Objectives:

The ultimate goal of this course is

- Improve efficiency of nutrient use to produce more robust crops
- To encourage biological cycles within farming system
- To make understand holistic cultivation method
- To maintain sustainable agriculture
- Importance of reducing use of pesticides.

### Learning Outcomes:

After completion of this course the students are able to:

- Develop critical understanding on various aspects of farming.
- Effect of pesticides on health, environment, soil and water.
- Recycling farm waste.
- know the benefits of organic culture.
- To gain knowledge about the staple food crops and their cultivation practices.
- Understand new crop management practices.
- Gain information about the impact of organic farming and indigenous practices on environment.

### Overall summary of the Program:

The Department of Pharmacognosy has organised a two week certification program on “Organic Farming – Relevance, Problems and Constraints”. The importance of organic farming, benefits, how to practice sustainable agriculture, how to preserve soil fertility were discussed in the course. About 47 students from III B.Pharm has attended the course and achieved their certificates. The students will understand holistic approach of agricultural methods by this course.

  
COORDINATOR





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Bapatla, Guntur (Dist), Andhra Pradesh -522101

Dt: 15-11-2018

## CIRCULAR

This is hereby to inform all students of I/II M. Pharm -1<sup>st</sup> sem that Department of Pharmaceutical Chemistry & Analysis is going to conduct a "TWO-WEEK ADD ON PROGRAM ON INSIGHTS ON ADVANCED NMR TECHNIQUES" by K. Ranjith, Associate Professor from 01-12-2018 to 17-12-2018. So here by all the students are instructed to register on or before 26-11-2018 and utilize this golden opportunity to abreast knowledge by attending the classes.

Venue: Classroom F13

Coordinator: Y. Sushma, Assistant Professor, Dept of Pharmaceutical Chemistry & Analysis.

*T. Gokulabasha*  
PRINCIPAL

PRINCIPAL  
Bapatla College of Pharmacy  
Bapatla 522 101

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| <i>V. S. S.</i>        | <i>K. R.</i>                | <i>N. S.</i> | <i>P. W.</i>  | <i>K. R.</i> | <i>K. R.</i> | <i>H. Ven.</i> | <i>K. S.</i> |
| Pharmaceutics          | Ph. Chemistry<br>& Analysis | Pharmacology | Pharmacognosy |              |              |                |              |



## ABOUT COLLEGE:

Bapatla College of Pharmacy is one of the seven educational institutions founded and run by Bapatla Educational Society (Estd 1962). It is one of the first private pharmacy colleges established in the year 1995 with requisite infrastructure facilities and competent human resources. The college is located in 55 acres green campus with 50,000 sq ft state of the art teaching and laboratory facilities. The college houses a FR&D centre in collaboration with INNOVIND Pvt Ltd, vijayawada and CPCSEA approved animal house facility.

## ABOUT DEPARTMENT:

The Department of Pharmaceutical Analysis, is committed to excellence in the field of same to produce a competent pharmaceutical analyst to meet the current scenario of pharmaceutical industries. The department aims to focus on the development of analytical methods using new combinations of established instrumentation and approaches. A broad knowledge of pharmaceutical analysis is disseminated to the students by a team of inspired and enthusiastic faculty members who are involved in teaching and learning process. The department mainly involves in qualitative and quantitative analysis of natural and synthetic compounds using spectroscopy, chromatography and various other analytical techniques.



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(AFFILIATED TO JAWAHARLAL NEHRU TECHNOLOGICAL  
UNIVERSITY, KAKINADA)

A TWO WEEK ADD ON  
PROGRAM ON "  
INSIGHTS ON ADVANCED  
NMR TECHNIQUES

**PROGRAM DATES:**  
**01-12-2018 TO 17-12-2018**  
**DEPARTMENT OF**  
**PHARMACEUTICAL**  
**CHEMISTRY & ANALYSIS**

## ABOUT ADD-ON PROGRAM:

This value add on course is designed to train the participants on the basics of Advanced NMR techniques and to provide them an understanding and analysing the NMR spectral data, that facilitate skills and extend their interest in different areas. The fundamentals of the technique, instrumentation and applications will be discussed thoroughly. The significance of NOESY & COSY technique will also be explained. The resource person is well experienced in teaching the relevant subject.

## TOPICS TO BE COVERED:

Content of the program would touch upon the following aspects to achieve the objectives

- Basic theory and fundamentals of NMR spectroscopy
- Principle of NMR spectroscopy
- Types of techniques like NOESY & COSY
- Factors influencing chemical shifts
- Instrumentation
- Detectors
- Applications
- Interpretation of NMR spectrum



**Last date for  
registration  
on or before  
26-11-2018**

**ADDRESS FOR  
COMMUNICATION**

**Y. Sushma**  
Assistant professor  
Dept of Ph. Chemistry and  
Analysis  
Contact: 7013950117  
Email-id:  
sushma4venu@gmail.com

**CHIEF PATRON**

**M. Srinivasa Rao**  
President of Bapatla Education Society

**CONVENOR**

**Dr. T. R. Chalapala Krishna Murthy**  
Principal & Professor  
Bapatla College of Pharmacy

**ORGANISING SECRETARY**

**K. Poorna Chandra Rao**  
Assistant Professor  
Department of Pharmaceutical Chemistry &  
Analysis

**RESOURCE PERSON**

**Mr. K. Ranjith**  
Associate Professor  
Department of Pharmaceutical Chemistry &  
Analysis

**PROGRAM COORDINATOR**

**Y. Sushma** - Assistant Professor

**ORGANISING COMMITTEE**

**K. Poorna Chandra Rao** - Assistant Professor  
**S. Shobha** - Assistant Professor

**STUDENT COORDINATORS**

**Akhil** - I Year M. Pharmacy  
**Sushma** - I Year M. Pharmacy

**REGISTRATION FORM:**

1. NAME :
2. REGISTRATION NUMBER :
3. YEAR OF STUDY:
4. SEX (MALE /FEMALE) :
5. ADDRESS FOR  
CORRESPONDANCE:
6. ORGANIZATION :
7. PIN :
8. PHONE :
9. E-MAIL ID :

SIGNATURE OF THE PARTICIPANT

SIGNATURE OF THE HEAD OF THE INSTITUTE

(WITH OFFICIAL SEAL ONLY)



# BAPATLA COLLEGE OF PHARMACY

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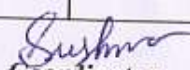
Bapatla, Guntur (Dist), Andhra Pradesh -522101

**Department of Pharmaceutical Chemistry & Analysis**

**Name of the Program: A TWO-WEEK ADD ON PROGRAM ON INSIGHTS ON ADVANCED NMR TECHNIQUES**

## PROGRAM SCHEDULE

| S.No | Date       | Topic                                                                |
|------|------------|----------------------------------------------------------------------|
| 1.   | 01-12-2018 | Introduction to NMR                                                  |
| 2.   | 03-12-2018 | Fundamental principles and theory                                    |
| 3.   | 04-12-2018 | Flow chart of Instrumentation                                        |
| 4.   | 05-12-2018 | Types of NMR solvents                                                |
| 5    | 06-12-2018 | Concept of Chemical Shift                                            |
| 6    | 07-12-2018 | Factors affecting chemical shift                                     |
| 7    | 08-12-2018 | Spin-Spin Coupling, Coupling constant                                |
| 8    | 10-12-2018 | Introduction, theory and principle of $^1\text{H}$ - NMR             |
| 9    | 11-12-2018 | Introduction, Theory and principle of $^{13}\text{C}$ -NMR technique |
| 10   | 12-12-2018 | Introduction, theory and principle of 2D-NMR                         |
| 11   | 13-12-2018 | Introduction, theory and principle of NOE                            |
| 12   | 14-12-2018 | Introduction, theory and principle of NOESY                          |
| 13   | 15-12-2018 | Introduction, theory and principle of COSY                           |
| 14   | 17-12-2018 | Applications                                                         |

  
Coordinator  
Y. Sushma

  
HOD  
K. Ranjith





# BAPATLA COLLEGE OF PHARMACY

(Sponsored by Bapatla Education Society), (Recognized by A.I.C.T.E&PCI)

(Affiliated to Jawaharlal Nehru Technological University, Kakinada)

Bapatla, Guntur (Dist), Andhra Pradesh -522101

**Dt: 20-12-2018**

## **PROGRAM REPORT**

**Name of the Program:** A Two-week Add on program on INSIGHTS ON ADVANCED NMR TECHNIQUES

**Date & Duration:** 01-12-2018 TO 17-12-2018; 2 WEEKS

**Resource person:** Mr. K. Ranjith  
Associate Professor  
Department of Pharmaceutical Chemistry & Analysis  
Phone number: 9491668829  
Email ID: ranjith.kapu@gmail.com

**Program Coordinator:** Y. Sushma  
Assistant Professor  
Department of Pharmaceutical Chemistry & Analysis  
Phone number: 7013950117  
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**Number of students participated:** 23

**Venue:** Final year class room, Bapatla College of pharmacy

Bapatla college of pharmacy, Bapatla has organized an add on program on "Insights on Advanced NMR techniques" for M. pharm first year students by the resource person Mr. K. Ranjith. The NMR spectroscopy is an advanced characterization technique used to determine the molecular structure at the atomic level of the sample and knowledge about advanced NMR techniques provides a detailed information about the number and location of hydrogen atoms in a molecule in natural and synthetic molecules. Totally 23 students participated in this add on program and after completion of the program students were able to understand the following objectives and learning outcomes.



**Objectives:**

- To know the basic principle of NMR Spectroscopy
- To aware of some important terms like chemical shifts, coupling constant etc
- To explain how NMR works with the flow chart of instrumentation
- To focus on theory and principles of various advanced techniques
- To Illustrate the applications
- To Interpret the data for structural characterization

**Topics to be covered:**

- Fundamental Principles of NMR spectroscopy
- Instrumentation
- Types of advanced NMR techniques like 2D, NOE, NOESY and COSY
- Applications
- Spectral data interpretation

**Learning outcomes:** By the completion of the program the student come to know about

- Principle of NMR spectroscopy: how nuclear spins are affected by a magnetic field
- Some relative terms like chemical shift, coupling constant, signal splitting etc
- Working of NMR spectrometer
- Different techniques of NMR like 2D, NOE, NOESY and COSY
- Interpretation of spectra
- No of different types of protons from no of signals
- Types of environments of neighboring protons from Splitting of peaks
- Chemical shift: a diagnostic feature for molecular structure determination
- Integration of peaks
- Calculating coupling constant

**Outcome of the program:**

The Bapatla College of Pharmacy, Bapatla, arranged a highly successful add-on program. The importance of Advanced techniques of NMR spectroscopy, thoroughly taught to the students. Totally 23 students have participated in the program. The student will able to take and interpret the NMR spectrum confidently.

  
Signature of the Program Coordinator