SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

SCHOOL OF PHARMACY

MINUTES OF 6th MEETING OF BOARD OF STUDIES (UG)

Venue: Board Room-II, Admin Block

Date:23/06/2026

2025-26

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
AN AUTONOMOUS INSTITUTION

SMVEC – SCHOOL OF PHARMACY

BOARD OF STUDIES
ANNEXURE-I
BoS Members

Sl. No.	Name of the Member	Designation
Head of the Department (Chairman)		
1	**Dr.M.Dhanalakshmi,** Dean, Department of Pharmacy, Specialization: Pharmaceutical Quality Assurance Years of Experience: 17 years 3 months SMVEC School of Pharmacy dhanadlxb@gmail.com 9550169191	Chairman
Two subject experts from outside the Parent University nominated by the Academic Council		
2	**Dr. Kailasam Koumaravelou,** Dean, Specialization: Pharmacology Years of Experience:25 Prist School of Pharmacy , Manamainallur,Kancheepuram Dist. koumar@gmail.com,9443309034	Subject Expert
3	**Dr. V.Vijayan** Associate Dean Research Specialization: Pharmaceutics Years of Experience:16 Sri Balaji Vidyapeeth(Deemed to be University) Puducherry vijayanv@gmail.com,9751391078	Subject Expert
One expert nominated by the Vice-Chancellor from a panel of six recommended by the college principal.		
4	**Dr. Nisha Mathew,** Director Grade Scientist, ICMR-Vector Control Research Centre, Indira Nagar,Gorimedu,Puducherry-605006	Subject Expert
One representative from industry/corporate sector/allied area relating to placement.		
5	**Dr.E.Anandakirouchenane** Controlling Authority cum Licensing Authority, Department of Drug Control, Puducherry. e.anandakirouchenana@py.gov.in9443957680	Member

Experts from outside the Autonomous College, whenever special course of studies are to be formulated.		
6	Dr.N.Kannappan Professor Department of Pharmacy, Annamalai University,Annamali Nagar 608002 kannappanpharmacy@gmail.com 7010924748	Subject Expert
Internal Members		
7	Mr.S.Mathivan Assistant Professor SMVEC School of Pharmacy, Madagadipet,Puducherry	Member
8	Dr. P.Bhavani Assistant Professor SMVEC School of Pharmacy , Madagadipet,Puducherry	Member
9	Dr.K.Ramprasad Assistant Professor,SMVEC School of Pharmacy, Madagadipet,Puducherry -605107	Member
Special Invitees		
10	**Dr. S. Anbumalar** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry-605107 Mobile:9443179533	**Dean Academics**
11	**Dr. Arivalagar . A.A** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry-605107 Mobile: 78100 75545	**Dean Academics**

Dr. Arivalagar . A.A
Dean Academics

Dr.M. Dhanalakshmi
Chairman - BoS(Pharmacy)

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

SMVEC PHARMACY COLLEGE

Annexure II

6th Meeting of Board of Studies
in the
Department of Pharmacy

for the Programme
D.Pharmacy & B.Pharmacy

Venue
Board Room, Sri Manakula Vinayagar Engineering College
Madagadipet, Puducherry – 605 107

Date & Time
23/05/2026 at 10.30 A M – 1.00 PM

AGENDA OF THE MEETING

Agenda 1/ BoS /6 /2026 /Pharmacy/UG/Diploma	To confirm the minutes of 5th BoS Meeting held on 23/10/2025
Agenda 2/ BoS /6 /2026 /Pharmacy/ UG/Diploma	To discuss and approve the Curriculum and Syllabi of VIII Semester of B. Pharmacy Programme in SMVEC School of Pharmacy.
Agenda 3/ BoS /6 /2026 /Pharmacy/ UG/Diploma	To discuss and approve the New Curriculum, Syllabi and Regulation 2026(R26) for the I Semester of the B. Pharmacy Programme at SMVEC School of Pharmacy, as per the Revised NEP 2020 B.Pharmacy Syllabus, with effect from the Academic Year 2026–27.
Agenda 4/ BoS /6 /2026 /Pharmacy/ UG/Diploma	To review the Academic Activities for B.Pharmacy in Pharmacy Programme from the Academic year 2025.-26 a) Curriculum Activity b) Co-curriculum Activity c)Extra-curriculum Activity d) Extension Activity
Agenda 5/ BoS /6 /2026 /Pharmacy/ UG/Diploma	To recommend the panel of examiners for Evaluation and the External members for the B. Pharm programme to the Academic Council.
Agenda 6/ BoS /6 /2026 /Pharmacy/ UG/Diploma	Any other additional points to be discussed with the permission of Chair.

Dr. Arivalgar . AA
Dean Academics
20/05/26

M.D.
20/5/2026
Dr.M. Dhanalakshmi
Chairman - BoS(Pharmacy)

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

SMVEC School of Pharmacy

23.05.2026

The Sixth meeting of BOS approval was concluded at 1.00 PM by Dr.M.Dhanalakshmi, Chairperson, Board of Studies, Department of Pharmacy, SMVEC School of Pharmacy.

Sl. No.	Name of the Member with Official Address	Designation	Signature
1	Dr. M. Dhanalakshmi, Dean, Department of Pharmacy, SMVEC School of Pharmacy	**Chairperson**	
2	**Dr. Nisha Mathew,** Director Grade Scientist (Retd.), ICMR-Vector Control Research Centre, Indira Nagar, Gorimedu, Puducherry-605006.	**Subject Expert**	online
3	**Dr. Kailasam Koumaravelou,** Dean, Prist School of Pharmacy, Manamainallur, Kancheepuram Dist	**Subject Expert**	
4	**Dr. V. Vijayan** Associate Dean Research Sri Balaji Vidyapeeth (Deemed to be University) Puducherry.	**Subject Expert**	
5	**Dr. E. Anandakirouchenane** Controlling Authority cum Licensing Authority, Department of Drug Control, Puducherry.	**Member**	
6	**Dr. N. Kannappan** Professor Department of Pharmacy, Annamalai University, Annamalai Nagar 608002	**Subject Expert**	online
7.	**Dr. S. Anbumalar** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry.	**Special Invitees**	
8.	**Dr. Arivalagar . A.A** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry.	**Special Invitees**	

Chairperson /BOS/Pharmacy	Dean Academics	Director
(Dr.M.Dhanalakshmi)	(Dr.A.A.Arivalagar)	(Dr.V.S.K.Venkatachalapathy)

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

SMVEC PHARMACY COLLEGE

Minutes of 6th Meeting of Board of Studies (UG/DIPLOMA)

The Fifth Meeting of the Board of Studies (BoS) of the Department of Pharmacy was held on **23rd June at 10:30 AM** in Board Room – II, SMVEC School of Pharmacy, with the Head of the Department in the Chair.

The following members were present for the BoS meeting

Sl. No.	Name of the Member	Designation
Head of the Department (Chairperson)		
1	Dr. M. Dhanalakshmi, Dean, Department of Pharmacy, Specialization: Pharmaceutical Quality Assurance Years of Experience: 17 years 3 months SMVEC Pharmacy College dhanadlxb@gmail.com Mobile: 9550169191	**Chairperson**
One expert nominated by the Vice-Chancellor, Pondicherry University from a panel of six recommended by the college principal.		
2	**Dr. Nisha Mathew,** Director Grade Scientist (Retd.), ICMR-Vector Control Research Centre, Indira Nagar, Gorimedu, Puducherry-605006. nisha.mathew@icmr.gov.in / nishamathew@yahoo.com Mobile: 9444935790	**Subject Expert**
Two subject experts from outside the Parent University nominated by the Academic Council		
3	**Dr. Kailasam Koumaravelou,** Dean, Specialization: Pharmacology Years of Experience: 25 Prist School of Pharmacy, Manamainallur, Kancheepuram Dist. koumar@gmail.com Mobile: 9443309034	**Subject Expert**

4	**Dr. V. Vijayan** Associate Dean Research Specialization: Pharmaceutics Years of Experience:16 Sri Balaji Vidyapeeth (Deemed to be University) Puducherry . vijayanv@gmail.com Mobile: 9751391078	**Subject Expert**
One representative from industry/corporate sector/allied area relating to placement.		
5	**Dr. E. Anandakirouchenane** Controlling Authority cum Licensing Authority, Department of Drug Control, Puducherry. e.anandakirouchenana@py.gov.in Mobile: 9443957680	**Member**
Experts from outside the Autonomous College, whenever special course of studies is to be formulated.		
6	**Dr. N. Kannappan** Professor Department of Pharmacy, Annamalai University, Annamalai Nagar 608002 kannappanpharmacy@gmail.com Mobile: 7010924748	**Subject Expert**
7.	**Mr. S. Mathivanan** Assistant Professor, SMVEC Pharmacy College, Madagadipet, Puducherry – 605501 drxmathinanotech@gmail.com Mobile: 9344438146	**Member**
8.	**Dr.P.Bhavani** Assistant Professor, SMVEC Pharmacy College, Madagadipet, Puducherry – 605501 Bhava.biochemist0221@gmail.com Mobile: 8438310221	**Member**
9.	**Dr.K.Ramprasad** Assistant Professor,SMVEC Pharmacy College , Madagadipet,Puducherry -605107 ramrampari23@gmail.com Mobile:7538843986	**Member**

Special Invitees		
10.	**Dr. S. Anbumalar** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry-605107 Mobile:9443179533	**Dean Academics**
11.	**Dr. Arivalagar. A.A** Dean Academics Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry-605107 Mobile: 78100 75545	**Dean Academics**

Agenda of the Meeting	
Agenda 1/BoS /6 /2026 /Pharmacy/UG/Diploma	To confirm the minutes of 5th BOS Meeting held on 23/10/2025
Agenda 2/BoS /6 /2026 /Pharmacy/ UG/Diploma	To discuss and approve the Curriculum and Syllabi of VIII Semester of B. Pharmacy Programme in SMVEC School of Pharmacy.
Agenda 3/BoS /6 /2026 /Pharmacy/ UG/Diploma	To discuss, review, and approve the new curriculum and syllabi for the I Semester of the B. Pharmacy Programme at SMVEC School of Pharmacy, as per the Revised NEP 2020 B.Pharmacy Syllabus, with effect from the Academic Year 2026–27.
Agenda 4/BoS /6 /2026 /Pharmacy/ UG/Diploma	To review the Academic Activities for B. Pharmacy in Pharmacy Programme from the Academic year 2025.-26 a) Curriculum Activity b) Co-curriculum Activity c)Extra-curriculum Activity
Agenda 5/BoS /6 /2026 /Pharmacy/ UG/Diploma	To recommend the panel of examiners for Evaluation and the External members for the B. Pharm programme to the Academic Council.
Agenda 6/BoS /6 /2026 /Pharmacy/ UG/Diploma	Any other additional points to be discussed with the permission of Chair.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Dr. M. Dhanalakshmi, Chairperson, BoS opened the meeting by welcoming all the members and the meeting thereafter deliberated on agenda items that had been approved by the Members of BoS.

Agenda 1/BoS /6 /2026 /Pharmacy/UG/Diploma

To Confirm the minutes of 5th BOS Meeting held on 23/10/2025.

S.No	Suggestion given by BoS Members	Action taken
1	For all the Mandatory Non-Credit courses, subject code to be changed as suggested by BoS Members (5th BoS meeting held on 23.10.2025)	Hence, based on the recommendation by BoS members, Subject code has been allotted for the Mandatory Non-Credit Courses.
2	For Industrial training, Institute has to allot 4-5 students for one industry.	Conversations made with the MoU signed Industries, and planning for furthermore MoU's with the industries.
3	To conduct soft skill program for students	Steps are taken to conduct soft skill programs for the students

Agenda 2/BoS / 6 /2026 /Pharmacy/UG/Diploma

To discuss and approve the Curriculum and Syllabi of VIII Semester of B. Pharmacy Programme in SMVEC School of Pharmacy.

Members of BoS confirmed the curriculum and syllabi of VIII Semester of B. Pharmacy Programme in SMVEC School of Pharmacy. **Annexure I**

Agenda 3/BoS /6 /2026/Pharmacy/ UG/Diploma

To discuss, review, and approve the new curriculum and syllabi for the I Semester of the B. Pharmacy Programme at SMVEC School of Pharmacy, as per the Revised NEP 2020 B.Pharmacy Syllabus, with effect from the Academic Year 2026–27.

Agenda 4/BoS /6 /2026/Pharmacy/ UG/Diploma

To review the Academic Activities for B. Pharmacy in Pharmacy Programme from the Academic year 2025.-26

a) Curriculum Activity

b) Co-curriculum Activity

c)Extra-curriculum Activity

The Members of the Board of Studies appreciated the academic activities, including curriculum, co-curricular, and extra-curricular activities, conducted for the B.Pharmacy Programme from the academic year

M.D

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

2025–26. **Annexure II**

Agenda 5/BoS /6 /2026/Pharmacy/ UG/Diploma

To recommend the panel of examiners for Evaluation and the External members for the B. Pharm programme to the Academic Council.

Members of BoS confirmed the Panel of examiners for B. Pharm Programme to the Academic Council. The List of Examiners are given in **Annexure III**

Agenda 6/BoS /6 /2026/Pharmacy/ UG/Diploma

Any other additional points to be discussed with the permission of Chair.

The End Semester Examination (ESE) results are submitted and Members of the Board of Studies (BoS) appreciated the efforts made by the Dean and Staff members in the Academic Progress.

The SMVEC pharmacy Dean enclosed the presentation for the upcoming events like National Pharmacy Week Celebration and Online FDP Program.

The Dean of Pharmacy, SMVEC, presented the proposal to the Members of the Board of Studies for the change of the institution's name in the Pharmacy Council of India (PCI) records from **'SMVEC Pharmacy College'** to **'SMVEC School of Pharmacy'**, from the academic year 2025–26.

The Dean of Pharmacy, SMVEC, presented and enclosed the Pharmacy Council of India (PCI) affiliation details for the Academic Year 2025–2026 for both D. Pharmacy and B. Pharmacy programmes.

The BoS members suggested the following

The Fifth BoS Meeting was concluded at 4.00 PM by proposing a Vote of Thanks by **Dr. M. Dhanalakshmi**, Chairperson, Board of Studies, SMVEC Pharmacy College.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

Conducting of 6th BOS in SMVEC School of Pharmacy -Reg

2 messages

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in> Fri, May 15, 2026 at 3:49 PM
To: Koumaravelou Kailasam <koumar@gmail.com>

Respected Sir/Madam,

Greetings from the SMVEC School of Pharmacy,

We are pleased to inform you that the **6th Meeting of the Board of Studies** in the Department of Pharmacy is proposed to be held on **Saturday,May 23, 2026**, at **Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry**.

We request your kind approval for the same. Kindly confirm your acceptance at your earliest convenience through email.

Thank you for your continued support and cooperation.

--
With Regards,
Dr. M. Dhanalakshmi
Dean
SMVEC- Pharmacy College
Puducherry

koumaravelou <koumar@gmail.com> Fri, May 15, 2026 at 6:16 PM
To: Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

Greetings of the day Madam

Thanks for the mail. I am accepting the same.

Thanks & Regards



Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Dr.Kailasam Koumaravelou, M.Pharm,Ph.D.
Ph: +91 94433 09034
[Quoted text hidden]

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

Conducting of 6th BOS in SMVEC School of Pharmacy -Reg

2 messages

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in> Fri, May 15, 2026 at 3:49 PM
To: Kannappan Nagappan <kannappanpharmacy@gmail.com>

Respected Sir/Madam,

Greetings from the SMVEC School of Pharmacy,

We are pleased to inform you that the **6th Meeting of the Board of Studies** in the Department of Pharmacy is proposed to be held on **Saturday,May 23, 2026**, at **Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry**.

We request your kind approval for the same. Kindly confirm your acceptance at your earliest convenience through email.

Thank you for your continued support and cooperation.

--
With Regards,
Dr. M. Dhanalakshmi
Dean
SMVEC- Pharmacy College
Puducherry

Kannappan Nagappan <kannappanpharmacy@gmail.com> Fri, May 15, 2026 at 5:07 PM
To: Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

Respected sir/madam

Noted the contents of the email and as I requested you in our telephonic conversation, i wish to attend the BOS meeting in online mode. Kindky share the link on the day of meeting.

With regards
Dr.N.KANNAPPAN M.Pharm., Ph.D.
Professor of Pharmacy
Department of Pharmacy
Annamalai University (Tamil Nadu State Govt. University)
Annamalai Nagar Post 608002
Tamil Nadu, India



RI MANAKULA VINAYAGAR
NGINEERING COLLEGE

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in

nducting of 6th BOS in SMVEC School of Pharmacy -Reg

ssages

n Pharmacy SMVEC <deanpharmacy@smvec.ac.in> Fri, May 15, 2026 at 3:49 PI
NANDAKIROUCHENANE E <e.anandakirouchenane@py.gov.in>

spected Sir/Madam,

eetings from the SMVEC School of Pharmacy,

e are pleased to inform you that the **6th Meeting of the Board of Studies** in the Department of Pharmacy is proposed to be held on **Saturday,May 23, 2026**, at **Sri Manakula Vinayagar ngineering College (Autonomous), Puducherry**.

e request your kind approval for the same. Kindly confirm your acceptance at your earliest convenience through email.

ank you for your continued support and cooperation.

ith Regards,
. M. Dhanalakshmi
ean
MVEC- Pharmacy College
uducherry

NDAKIROUCHENANE E <e.anandakirouchenane@py.gov.in> Fri, May 15, 2026 at 4:14 PI
Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

ir/ Madam,

oted .

ith regards,

r.E.Anandakirouchenane,
rugs Controlling cum Licensing Authority,
epartment of Drugs Control,
overnment of Puducherry
Quoted text hidden]

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in>

Conducting of 6th BOS in SMVEC School of Pharmacy -Reg

2 messages

Dean Pharmacy SMVEC <deanpharmacy@smvec.ac.in> Fri, May 15, 2026 at 3:50 PM
To: Nisha Mathew <nishamathew@yahoo.com>

Respected Sir/Madam,

Greetings from the SMVEC School of Pharmacy,

We are pleased to inform you that the **6th Meeting of the Board of Studies** in the Department of Pharmacy is proposed to be held on **Saturday,May 23, 2026**, at **Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry.**

We request your kind approval for the same. Kindly confirm your acceptance at your earliest convenience through email.

Thank you for your continued support and cooperation.

--
With Regards,
Dr. M. Dhanalakshmi
Dean
SMVEC- Pharmacy College
Puducherry

Nisha Mathew <nishamathew@yahoo.com> Sun, May 17, 2026 at 2:31 PM
Reply-To: Nisha Mathew <nishamathew@yahoo.com>
To: deanpharmacy@smvec.ac.in

Dear Madam,

Approved

With regards
Dr Nisha Mathew

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Yahoo Mail: Search, organise, conquer
[Quoted text hidden]

Annexure I

The curriculum and syllabi of VIII Semester of B. Pharmacy Programme

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP801T. BIOSTATISITCS AND RESEARCH METHODOLOGY (Theory)

45 Hours

Scope: To understand the applications of Biostatics in Pharmacy. This subject deals with descriptive statistics, Graphics, Correlation, Regression, logistic regression Probability theory, Sampling technique, Parametric tests, Non Parametric tests, ANOVA, Introduction to Design of Experiments, Phases of Clinical trials and Observational and Experimental studies, SPSS, R and MINITAB statistical software's, analyzing the statistical data using Excel.

Objectives: Upon completion of the course the student shall be able to

- Know the operation of M.S. Excel, SPSS, R and MINITAB®, DoE (Design of Experiment)
- Know the various statistical techniques to solve statistical problems
- Appreciate statistical techniques in solving the problems.

Course content:

Unit-I **10 Hours**

Introduction: Statistics, Biostatistics, Frequency distribution

Measures of central tendency: Mean, Median, Mode- Pharmaceutical examples

Measures of dispersion: Dispersion, Range, standard deviation, Pharmaceutical problems

Correlation: Definition, Karl Pearson's coefficient of correlation, Multiple correlation - Pharmaceuticals examples

Unit-II **10 Hours**

Regression: Curve fitting by the method of least squares, fitting the lines y= a + bx and x = a + by, Multiple regression, standard error of regression– Pharmaceutical Examples

Probability: Definition of probability, Binomial distribution, Normal distribution, Poisson's distribution, properties - problems

Sample, Population, large sample, small sample, Null hypothesis, alternative hypothesis, sampling, essence of sampling, types of sampling, Error-I type, Error-II type, Standard error of mean (SEM) - Pharmaceutical examples

Parametric test: t-test(Sample, Pooled or Unpaired and Paired) , ANOVA, (One way and Two way), Least Significance difference

Unit-III **10 Hours**

Non Parametric tests: Wilcoxon Rank Sum Test, Mann-Whitney U test, Kruskal-Wallis test, Friedman Test

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Introduction to Research: Need for research, Need for design of Experiments, Experiential Design Technique, plagiarism

Graphs: Histogram, Pie Chart, Cubic Graph, response surface plot, Counter Plot graph

Designing the methodology: Sample size determination and Power of a study, Report writing and presentation of data, Protocol, Cohorts studies, Observational studies, Experimental studies, Designing clinical trial, various phases.

Unit-IV **8 Hours**

Blocking and confounding system for Two-level factorials

Regression modeling: Hypothesis testing in Simple and Multiple regressionmodels

Introduction to Practical components of Industrial and Clinical Trials Problems: Statistical Analysis Using Excel, SPSS, MINITAB®, DESIGN OF EXPERIMENTS, R - Online Statistical Software's to Industrial and Clinical trial approach

Unit-V **7Hours**

Design and Analysis of experiments:

Factorial Design: Definition, 2^2, 2^3design. Advantage of factorial design

Response Surface methodology: Central composite design, Historical design, Optimization Techniques

Recommended Books (Latest edition):

1. Pharmaceutical statistics- Practical and clinical applications, Sanford Bolton, publisher Marcel Dekker Inc. NewYork.
2. Fundamental of Statistics – Himalaya Publishing House- S.C.Guptha
3. Design and Analysis of Experiments –PHI Learning Private Limited, R. Pannerselvam,
4. Design and Analysis of Experiments – Wiley Students Edition, Douglas and C. Montgomery

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 802T SOCIAL AND PREVENTIVE PHARMACY

Hours: 45

Scope:
The purpose of this course is to introduce to students a number of health issues and their challenges. This course also introduced a number of national health programmes. The roles of the pharmacist in these contexts are also discussed.

Objectives:
After the successful completion of this course, the student shall be able to:

- Acquire high consciousness/realization of current issuesrelated to health and pharmaceutical problems within the country and worldwide.
- Have a critical way of thinking based on current healthcare development.
- Evaluate alternative ways of solving problems related tohealth and pharmaceutical issues

Course content:

Unit I: **10 Hours**

Concept of health and disease: Definition, concepts and evaluation of public health. Understanding the concept of prevention and control of disease, social causes of diseases and social problems of the sick.

Social and health education: Food in relation to nutrition and health, Balanced diet, Nutritional deficiencies, Vitamin deficiencies, Malnutrition and its prevention.

Sociology and health: Socio cultural factors related to health and disease, Impact of urbanization on health and disease, Poverty and health

Hygiene and health: personal hygiene and health care; avoidable habits

Unit II: **10 Hours**

Preventive medicine: General principles of prevention and control of diseases such as cholera, SARS, Ebola virus, influenza, acute respiratory infections, malaria, chicken guinea, dengue, lymphatic filariasis, pneumonia, hypertension, diabetes mellitus, cancer, drug addiction-drug substance abuse

Unit III: **10 Hours**

National health programs, its objectives, functioning and outcome of the following: HIV AND AIDS control programme, TB, Integrated disease surveillance program (IDSP), National leprosy control programme, National mental health program, National

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

programme for prevention and control of deafness, Universal immunization programme, National programme for control of blindness, Pulse polio programme.

Unit IV: **08 Hours**

National health intervention programme for mother and child, National family welfare programme, National tobacco control programme, National Malaria Prevention Program, National programme for the health care for the elderly, Social health programme; role of WHO in Indian national program

Unit V: **07 Hours**

Community services in rural, urban and school health: Functions of PHC, Improvement in rural sanitation, national urban health mission, Health promotion and education in school.

Recommended Books (Latest edition):

1. Short Textbook of Preventive and Social Medicine, Prabhakara GN, 2nd Edition, 2010, ISBN: 9789380704104, JAYPEE Publications
2. Textbook of Preventive and Social Medicine (Mahajan and Gupta), Edited by Roy Rabindra Nath, Saha Indranil, 4th Edition, 2013, ISBN: 9789350901878, JAYPEE Publications
3. Review of Preventive and Social Medicine (Including Biostatistics), Jain Vivek, 6th Edition, 2014, ISBN: 9789351522331, JAYPEE Publications
4. Essentials of Community Medicine—A Practical Approach, Hiremath Lalita D, Hiremath Dhananjaya A, 2nd Edition, 2012, ISBN: 9789350250440, JAYPEE Publications
5. Park Textbook of Preventive and Social Medicine, K Park, 21st Edition, 2011, ISBN-14: 9788190128285, BANARSIDAS BHANOT PUBLISHERS.
6. Community Pharmacy Practice, Ramesh Adepu, BSP publishers, Hyderabad

Recommended Journals:

1. Research in Social and Administrative Pharmacy, Elsevier, Ireland

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP803ET. PHARMA MARKETING MANAGEMENT (Theory)

45 Hours

Scope:

The pharmaceutical industry not only needs highly qualified researchers, chemists and, technical people, but also requires skilled managers who can take the industry forward by managing and taking the complex decisions which are imperative for the growth of the industry. The Knowledge and Know-how of marketing management groom the people for taking a challenging role in Sales and Product management.

Course Objective: The course aims to provide an understanding of marketing concepts and techniques and their applications in the pharmaceutical industry.

Unit I **10 Hours**

Marketing:

Definition, general concepts and scope of marketing; Distinction between marketing & selling; Marketing environment; Industry and competitive analysis; Analyzing consumer buying behavior; industrial buying behavior.

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; Motivation and prescribing habits of the physician; patients' choice of physician and retail pharmacist.Analyzing the Market;Role of market research.

Unit II **10 Hours**

Product decision:

Classification, product line and product mix decisions, product life cycle,product portfolio analysis; product positioning; New product decisions; Product branding, packaging and labeling decisions, Product management in pharmaceutical industry.

Unit III **10 Hours**

Promotion:

Methods, determinants of promotional mix, promotional budget; An overview of personal selling, advertising, direct mail, journals, sampling, retailing, medical exhibition, public relations, online promotional techniques for OTC Products.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Unit IV **10 Hours**

Pharmaceutical marketing channels:

Designing channel, channel members, selecting the appropriate channel, conflict in channels, physical distribution management: Strategic importance, tasks in physical distribution management.

Professional sales representative (PSR):

Duties of PSR, purpose of detailing, selection and training, supervising, norms for customer calls, motivating, evaluating, compensation and future prospects of the PSR.

Unit V **10 Hours**

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).

Emerging concepts in marketing:

Vertical & Horizontal Marketing; RuralMarketing; Consumerism; Industrial Marketing; Global Marketing.

Recommended Books: (Latest Editions)

1. Philip Kotler and Kevin Lane Keller: Marketing Management, Prentice Hall of India, New Delhi
2. Walker, Boyd and Larreche : Marketing Strategy- Planning and Implementation, Tata MC GrawHill, New Delhi.
3. Dhruv Grewal and Michael Levy: Marketing, Tata MC Graw Hill
4. Arun Kumar and N Menakshi: Marketing Management, Vikas Publishing, India
5. Rajan Saxena: Marketing Management; Tata MC Graw-Hill (India Edition)
6. Ramaswamy, U.S & Nanakamari, S: Marketing Managemnt:Global Perspective, IndianContext,Macmilan India, New Delhi.
7. Shanker, Ravi: Service Marketing, Excell Books, New Delhi
8. Subba Rao Changanti, Pharmaceutical Marketing in India (GIFT – Excel series) Excel Publications.

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP804 ET: PHARMACEUTICAL REGULATORY SCIENCE (Theory)

45Hours

Scope: This course is designed to impart the fundamental knowledge on the regulatory requirements for approval of new drugs, and drug products in regulated markets of India & other countries like US, EU, Japan, Australia,UK etc. It prepares the students to learn in detail on the regulatory requirements, documentation requirements, and registration procedures for marketing the drug products.

Objectives: Upon completion of the subject student shall be able to;

1. Know about the process of drug discovery and development
2. Know the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals
3. Know the regulatory approval process and their registration in Indian and international markets

Course content:

Unit I **10Hours**

New Drug Discovery and development

Stages of drug discovery, Drug development process, pre-clinical studies, non-clinical activities, clinical studies, Innovator and generics, Concept of generics, Generic drug product development.

Unit II **10Hours**

Regulatory Approval Process

Approval processes and timelines involved in Investigational New Drug (IND), New Drug Application (NDA), Abbreviated New Drug Application (ANDA). Changes to an approved NDA / ANDA.

Regulatory authorities and agencies

Overview of regulatory authorities of India, United States, European Union, Australia, Japan, Canada (Organization structure and types of applications)

Unit III **10Hours**

Registration of Indian drug product in overseas market

Procedure for export of pharmaceutical products, Technical documentation, Drug Master Files (DMF), Common Technical Document (CTD), electronic Common Technical

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Document (eCTD), ASEAN Common Technical Document (ACTD)research.

Unit IV **08Hours**

Clinical trials

Developing clinical trial protocols, Institutional Review Board / Independent Ethics committee - formation and working procedures, Informed consent process and procedures, GCP obligations of Investigators, sponsors & Monitors, Managing and Monitoring clinical trials, Pharmacovigilance - safety monitoring in clinical trials

Unit V **07Hours**

Regulatory Concepts

Basic terminology, guidance, guidelines, regulations, Laws and Acts, Orange book, Federal Register, Code of Federal Regulatory, Purple book

Recommended books (Latest edition):

1. Drug Regulatory Affairs by Sachin Itkar, Dr. N.S. Vyawahare, Nirali Prakashan.
2. The Pharmaceutical Regulatory Process, Second Edition Edited by Ira R. Berry and Robert P. Martin, Drugs and the Pharmaceutical Sciences,Vol.185. Informa Health care Publishers.
3. New Drug Approval Process: Accelerating Global Registrations By Richard A Guarino, MD, 5th edition, Drugs and the Pharmaceutical Sciences,Vol.190.
4. Guidebook for drug regulatory submissions / Sandy Weinberg. By John Wiley & Sons. Inc.
5. FDA Regulatory Affairs: a guide for prescription drugs, medical devices, and biologics /edited by Douglas J. Pisano, David Mantus.
6. Generic Drug Product Development, Solid Oral Dosage forms, Leon Shargel and Isader Kaufer, Marcel Dekker series, Vol.143
7. Clinical Trials and Human Research: A Practical Guide to Regulatory Compliance By Fay A. Rozovsky and Rodney K. Adams
8. Principles and Practices of Clinical Research, Second Edition Edited by John I. Gallin and Frederick P. Ognibene
9. Drugs: From Discovery to Approval, Second Edition By Rick Ng

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 805T: PHARMACOVIGILANCE (Theory)

45 hours

Scope: This paper will provide an opportunity for the student to learn about development of pharmacovigilance as a science, basic terminologies used in pharmacovigilance, global scenario of Pharmacovigilance, train students on establishing pharmacovigilance programme in an organization, various methods that can be used to generate safety data and signal detection. This paper also develops the skills of classifying drugs, diseases and adverse drug reactions.

Objectives:

At completion of this paper it is expected that students will be able to (know, do, and appreciate):

1. Why drug safety monitoring is important?
2. History and development of pharmacovigilance
3. National and international scenario of pharmacovigilance
4. Dictionaries, coding and terminologies used in pharmacovigilance
5. Detection of new adverse drug reactions and their assessment
6. International standards for classification of diseases and drugs
7. Adverse drug reaction reporting systems and communication in pharmacovigilance
8. Methods to generate safety data during pre clinical, clinical and post approval phases of drugs' life cycle
9. Drug safety evaluation in paediatrics, geriatrics, pregnancy and lactation
10. Pharmacovigilance Program of India (PvPI) requirement for ADR reporting in India
11. ICH guidelines for ICSR, PSUR, expedited reporting, pharmacovigilance planning
12. CIOMS requirements for ADR reporting
13. Writing case narratives of adverse events and their quality.

Course Content

Unit I **10 Hours**

Introduction to Pharmacovigilance

- History and development of Pharmacovigilance
- Importance of safety monitoring of Medicine
- WHO international drug monitoring programme
- Pharmacovigilance Program of India(PvPI)

Introduction to adverse drug reactions

- Definitions and classification of ADRs
- Detection and reporting
- Methods in Causality assessment
- Severity and seriousness assessment
- Predictability and preventability assessment
- Management of adverse drug reactions

Basic terminologies used in pharmacovigilance

M.S.

Dean

SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

- Terminologies of adverse medication related events
- Regulatory terminologies

Unit II **10 hours**

Drug and disease classification

- Anatomical, therapeutic and chemical classification of drugs
- International classification of diseases
- Daily defined doses
- International Non proprietary Names for drugs

Drug dictionaries and coding in pharmacovigilance

- WHO adverse reaction terminologies
- MedDRA and Standardised MedDRA queries
- WHO drug dictionary
- Eudravigilance medicinal product dictionary

Information resources in pharmacovigilance

- Basic drug information resources
- Specialised resources for ADRs

Establishing pharmacovigilance programme

- Establishing in a hospital
- Establishment & operation of drug safety department in industry
- Contract Research Organisations (CROs)
- Establishing a national programme

Unit III **10 Hours**

Vaccine safety surveillance

- Vaccine Pharmacovigilance
- Vaccination failure
- Adverse events following immunization

Pharmacovigilance methods

- Passive surveillance – Spontaneous reports and case series
- Stimulated reporting
- Active surveillance – Sentinel sites, drug event monitoring and registries
- Comparative observational studies – Cross sectional study, case control study and cohort study
- Targeted clinical investigations

Communication in pharmacovigilance

- Effective communication in Pharmacovigilance
- Communication in Drug Safety Crisis management
- Communicating with Regulatory Agencies, Business Partners, Healthcare facilities & Media

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Unit IV **8 Hours**

Safety data generation

- Pre clinical phase
- Clinical phase
- Post approval phase (PMS)

ICH Guidelines for Pharmacovigilance

- Organization and objectives of ICH
- Expedited reporting
- Individual case safety reports
- Periodic safety update reports
- Post approval expedited reporting
- Pharmacovigilance planning
- Good clinical practice in pharmacovigilance studies

Unit V **7 hours**

Pharmacogenomics of adverse drug reactions

- Genetics related ADR with example focusing PK parameters.

Drug safety evaluation in special population

- Paediatrics
- Pregnancy and lactation
- Geriatrics

CIOMS

- CIOMS Working Groups
- CIOMS Form

CDSCO (India) and Pharmacovigilance

- D&C Act and Schedule Y
- Differences in Indian and global pharmacovigilance requirements

Recommended Books (Latest edition):

1. Textbook of Pharmacovigilance: S K Gupta, Jaypee Brothers, Medical Publishers.
2. Practical Drug Safety from A to Z By Barton Cobert, Pierre Biron, Jones and Bartlett Publishers.
3. Mann's Pharmacovigilance:Elizabeth B. Andrews, Nicholas, Wiley Publishers.
4. Stephens' Detection of New Adverse Drug Reactions: John Talbot, Patrick Walle, Wiley Publishers.
5. An Introduction to Pharmacovigilance: Patrick Waller,Wiley Publishers.
6. Cobert's Manual of Drug Safety and Pharmacovigilance: Barton Cobert,Jones& Bartlett Publishers.
7. Textbook of Pharmacoepidemiolog edited by Brian L. Strom, Stephen E Kimmel, Sean Hennessy,Wiley Publishers.
8. A Textbook of Clinical Pharmacy Practice -Essential Concepts and Skills:G. Parthasarathi, Karin NyfortHansen,Milap C. Nahata
9. National Formulary of India
10. Text Book of Medicine by Yashpal Munjal

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

12. http://www.whoumc.org/DynPage.aspx?id=105825&mn1=7347&mn2=7259&mn3=7297
13. http://www.ich.org/
14. http://www.cioms.ch/
15. http://cdsco.nic.in/
16. http://www.who.int/vaccine_safety/en/
17. http://www.ipc.gov.in/PvPI/pv_home.html

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 806 ET. QUALITY CONTROL AND STANDARDIZATION OF HERBALS (Theory)

Scope: In this subject the student learns about the various methods and guidelines for evaluation and standardization of herbs and herbal drugs. The subject also provides an opportunity for the student to learn cGMP, GAP and GLP in traditional system of medicines.

Objectives: Upon completion of the subject student shall be able to;

1. know WHO guidelines for quality control of herbal drugs
2. know Quality assurance in herbal drug industry
3. know the regulatory approval process and their registration in Indian and international markets
4. appreciate EU and ICH guidelines for quality control of herbal drugs

Unit I **10 hours**

Basic tests for drugs – Pharmaceutical substances, Medicinal plants materials and dosage forms

WHO guidelines for quality control of herbal drugs.

Evaluation of commercial crude drugs intended for use

Unit II **10 hours**

Quality assurance in herbal drug industry of cGMP, GAP, GMP and GLP in traditional system of medicine.

WHO Guidelines on current good manufacturing Practices (cGMP) for Herbal Medicines

WHO Guidelines on GACP for Medicinal Plants.

Unit III **10 hours**

EU and ICH guidelines for quality control of herbal drugs.

Research Guidelines for Evaluating the Safety and Efficacy of Herbal Medicines

Unit IV **08 hours**

Stability testing of herbal medicines.Application of various chromatographic techniques in standardization of herbal products.

Preparation of documents for new drug application and export registration

GMP requirements and Drugs & Cosmetics Act provisions.

Dean
SMVEC School of Pharma
Madagadipet, Puducherry - 60

Unit V **07 hours**

Regulatory requirements for herbal medicines.

WHO guidelines on safety monitoring of herbal medicines in pharmacovigilance systems

Comparison of various Herbal Pharmacopoeias.

Role of chemical and biological markers in standardization of herbal products

Recommended Books: (Latest Editions

1. Pharmacognosy by Trease and Evans
2. Pharmacognosy by Kokate, Purohit and Gokhale
3. Rangari, V.D., Text book of Pharmacognosy and Phytochemistry Vol. I , Carrier Pub., 2006.
4. Aggrawal, S.S., Herbal Drug Technology. Universities Press, 2002.
5. EMEA. Guidelines on Quality of Herbal Medicinal Products/Traditional Medicinal Products,
6. Mukherjee, P.W. Quality Control of Herbal Drugs: An Approach to Evaluation of Botanicals. Business Horizons Publishers, New Delhi, India, 2002.
7. Shinde M.V., Dhalwal K., Potdar K., Mahadik K. Application of quality control principles to herbal drugs. International Journal of Phytomedicine 1(2009); p. 4-8.
8. WHO. Quality Control Methods for Medicinal Plant Materials, World Health Organization, Geneva, 1998. WHO. Guidelines for the Appropriate Use of Herbal Medicines. WHO Regional Publications, Western Pacific Series No 3, WHO Regional office for the Western Pacific, Manila, 1998.
9. WHO. The International Pharmacopeia, Vol. 2: Quality Specifications, 3rd edn. World Health Organization, Geneva, 1981.
10. WHO. Quality Control Methods for Medicinal Plant Materials. World Health Organization, Geneva, 1999.
11. WHO. WHO Global Atlas of Traditional, Complementary and Alternative Medicine. 2 vol. set. Vol. 1 contains text and Vol. 2, maps. World Health Organization, Geneva, 2005.
12. WHO. Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants. World Health Organization, Geneva, 2004.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 807 ET. COMPUTER AIDED DRUG DESIGN (Theory)

45 Hours

Scope: This subject is designed to provide detailed knowledge of rational drug design process and various techniques used in rational drug design process.

Objectives: Upon completion of the course, the student shall be able to understand

- Design and discovery of lead molecules
- The role of drug design in drug discovery process
- The concept of QSAR and docking
- Various strategies to develop new drug like molecules.
- The design of new drug molecules using molecular modeling software

Course Content:

UNIT-I **10 Hours**

Introduction to Drug Discovery and Development

Stages of drug discovery and development

Lead discovery and Analog Based Drug Design

Rational approaches to lead discovery based on traditional medicine, Random screening, Non-random screening, serendipitous drug discovery, lead discovery based on drug metabolism, lead discovery based on clinical observation.

Analog Based Drug Design: Bioisosterism, Classification, Bioisosteric replacement. Any three case studies

UNIT-II **10 Hours**

Quantitative Structure Activity Relationship (QSAR)

SAR versus QSAR, History and development of QSAR, Types of physicochemical parameters, experimental and theoretical approaches for the determination of physicochemical parameters such as Partition coefficient, Hammet's substituent constant and Tafts steric constant. Hansch analysis, Free Wilson analysis, 3D-QSAR approaches like COMFA and COMSIA.

UNIT-III **10 Hours**

Molecular Modeling and virtual screening techniques

Virtual Screening techniques: Drug likeness screening, Concept of pharmacophore mapping and pharmacophore based Screening,

Molecular docking: Rigid docking, flexible docking, manual docking, Docking based screening. *De novo* drug design.

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

UNIT-IV **08 Hours**

Informatics & Methods in drug design

Introduction to Bioinformatics, chemoinformatics. ADME databases, chemical, biochemical and pharmaceutical databases.

UNIT-V **07 Hours**

Molecular Modeling: Introduction to molecular mechanics and quantum mechanics.Energy Minimization methods and Conformational Analysis, global conformational minima determination.

Recommended Books (Latest Editions)

1. Robert GCK, ed., "Drug Action at the Molecular Level" University Prak Press Baltimore.
2. Martin YC. "Quantitative Drug Design" Dekker, New York.
3. Delgado JN, Remers WA eds "Wilson & Gisvolds's Text Book of Organic Medicinal & Pharmaceutical Chemistry" Lippincott, New York.
4. Foye WO "Principles of Medicinal chemistry 'Lea & Febiger.
5. Koro lkovas A, Burckhalter JH. "Essentials of Medicinal Chemistry" Wiley Interscience.
6. Wolf ME, ed "The Basis of Medicinal Chemistry, Burger's Medicinal Chemistry" John Wiley & Sons, New York.
7. Patrick Graham, L., An Introduction to Medicinal Chemistry, Oxford University Press.
8. Smith HJ, Williams H, eds, "Introduction to the principles of Drug Design" Wright Boston.
9. Silverman R.B. "The organic Chemistry of Drug Design and Drug Action" Academic Press New York.

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP808ET: CELL AND MOLECULAR BIOLOGY (Elective subject)

45 Hours

Scope:

- Cell biology is a branch of biology that studies cells – their physiological properties, their structure, the organelles they contain, interactions with their environment, their life cycle, division, death and cell function.
- This is done both on a microscopic and molecular level.
- Cell biology research encompasses both the great diversity of single-celled organisms like bacteria and protozoa, as well as the many specialized cells in multi-cellular organismssuch as humans, plants, and sponges.

Objectives: Upon completion of the subject student shall be able to;

- Summarize cell and molecular biology history.
- Summarize cellular functioning and composition.
- Describe the chemical foundations of cell biology.
- Summarize the DNA properties of cell biology.
- Describe protein structure and function.
- Describe cellular membrane structure and function.
- Describe basic molecular genetic mechanisms.
- Summarize the Cell Cycle

Course content:

Unit I **10Hours**

a) Cell and Molecular Biology: Definitions theory and basics and Applications.
b) Cell and Molecular Biology: History and Summation.
c) Properties of cells and cell membrane.
d) Prokaryotic versus Eukaryotic
e) Cellular Reproduction
f) Chemical Foundations – an Introduction and Reactions (Types)

Unit II **10 Hours**

a) DNA and the Flow of Molecular Information
b) DNA Functioning
c) DNA and RNA
d) Types of RNA
e) Transcription and Translation

Unit III **10 Hours**

a) Proteins: Defined **and** Amino Acids
b) Protein Structure

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

c) Regularities in Protein Pathways
d) Cellular Processes
e) Positive Control and significance of Protein Synthesis

Unit IV **08 Hours**

a) Science of Genetics
b) Transgenics and Genomic Analysis
c) Cell Cycle analysis
d) Mitosis and Meiosis
e) Cellular Activities and Checkpoints

Unit V **07 Hours**

a) Cell Signals: Introduction
b) Receptors for Cell Signals
c) Signaling Pathways: Overview
d) Misregulation of Signaling Pathways
e) Protein-Kinases: Functioning

Recommended Books (latest edition):

1. W.B. Hugo and A.D. Russel: Pharmaceutical Microbiology, Blackwell Scientific publications, Oxford London.
2. Prescott and Dunn., Industrial Microbiology, 4th edition, CBS Publishers & Distributors, Delhi.
3. Pelczar, Chan Kreig, Microbiology, Tata McGraw Hill edn.
4. Malcolm Harris, Balliere Tindall and Cox: Pharmaceutical Microbiology.
5. Rose: Industrial Microbiology.
6. Probisher, Hinsdill et al: Fundamentals of Microbiology, 9th ed. Japan
7. Cooper and Gunn's: Tutorial Pharmacy, CBS Publisher and Distribution.
8. Peppler: Microbial Technology.
9. Edward: Fundamentals of Microbiology.
10. N.K.Jain: Pharmaceutical Microbiology, Vallabh Prakashan, Delhi
11. Bergeys manual of systematic bacteriology, Williams and Wilkins- A Waverly company
12. B.R. Glick and J.J. Pasternak: Molecular Biotechnology: Principles and Applications of RecombinantDNA: ASM Press Washington D.C.
13. RA Goldshy et. al., : Kuby Immunology.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP809ET. COSMETIC SCIENCE(Theory)

45Hours

UNIT I **10Hours**

Classification of cosmetic and cosmeceutical products

Definition of cosmetics as per Indian and EU regulations, Evolution of cosmeceuticals from cosmetics, cosmetics as quasi and OTC drugs

Cosmetic excipients: Surfactants, rheology modifiers, humectants, emollients, preservatives. Classification and application

Skin: Basic structure and function of skin.

Hair: Basic structure of hair. Hair growth cycle.

Oral Cavity: Common problem associated with teeth and gums.

UNIT II **10 Hours**

Principles of formulation and building blocks of skin care products:

Face wash,

Moisturizing cream, Cold Cream, Vanishing cream and their advantages and disadvantages.Application of these products in formulation of cosmecuticals.

Antiperspants & deodorants- Actives & mechanism of action.

Principles of formulation and building blocks of Hair care products:

Conditioning shampoo, Hair conditioner,anti-dandruff shampoo.

Hair oils.

Chemistry and formulation of Para-phylene diamine based hair dye.

Principles of formulation and building blocks of oral care products:

Toothpaste for bleeding gums, sensitive teeth. Teeth whitening, Mouthwash.

UNIT III **10 Hours**

Sun protection, Classification of Sunscreens and SPF.

Role of herbs in cosmetics:

Skin Care: Aloe and turmeric

Hair care: Henna and amla.

Oral care: Neem and clove

Analytical cosmetics: BIS specification and analytical methods for shampoo, skin-cream and toothpaste.

UNIT IV **08 Hours.**

Principles of Cosmetic Evaluation:Principles of sebumeter, corneometer. Measurement of TEWL, Skin Color, Hair tensile strength, Hair combing properties

Soaps,and syndet bars. Evolution and skin benfits.

M. Q.

Dean

SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

UNIT V **07 Hours**

Oily and dry skin, causes leading to dry skin, skin moisturisation. Basic understanding of the terms Comedogenic, dermatitis.

Cosmetic problems associated with Hair and scalp: Dandruff, Hair fall causes

Cosmetic problems associated with skin: blemishes, wrinkles, acne, prickly heat and body odor.

Antiperspirants and Deodorants- Actives and mechanism of action

References

1) Harry's Cosmeticology, Wilkinson, Moore, Seventh Edition, George Godwin.
2) Cosmetics – Formulations, Manufacturing and Quality Control, P.P. Sharma, 4th Edition, Vandana Publications Pvt. Ltd., Delhi.
3) Text book of cosmelicology by Sanju Nanda & Roop K. Khar, Tata Publishers.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP810 ET. PHARMACOLOGICAL SCREENING METHODS

45 Hours

Scope: This subject is designed to impart the basic knowledge of preclinical studies in experimental animals including design, conduct and interpretations of results.

Objectives

Upon completion of the course the student shall be able to,

- Appreciate the applications of various commonly used laboratory animals.
- Appreciate and demonstrate the various screening methods used in preclinical research
- Appreciate and demonstrate the importance of biostatistics and researchmethodology
- Design and execute a research hypothesis independently

Unit –I	**08 Hours**
Laboratory Animals: Study of CPCSEA and OECD guidelines for maintenance, breeding and conduct of experiments on laboratory animals, Common lab animals: Description and applications of different species and strains of animals. Popular transgenic and mutant animals. Techniques for collection of blood and common routes of drug administration in laboratory animals, Techniques of blood collection and euthanasia.	
Unit –II	**10 Hours**
Preclinical screening models a. Introduction: Dose selection, calculation and conversions, preparation of drug solution/suspensions, grouping of animals and importance of sham negative and positive control groups. Rationale for selection of animal species and sex for the study. b. **Study of screening animal models for** Diuretics, nootropics, anti-Parkinson's,antiasthmatics, **Preclinical screening models:** for CNS activity- analgesic, antipyretic,anti-inflammatory, general anaesthetics, sedative and hypnotics, antipsychotic, antidepressant, antiepileptic, antiparkinsonism, alzheimer's disease	

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Unit –III **Preclinical screening models:** for ANS activity, sympathomimetics, sympatholytics, parasympathomimetics, parasympatholytics, skeletal muscle relaxants, drugs acting on eye, local anaethetics	
Unit –IV **Preclinical screening models:** for CVS activity- antihypertensives, diuretics, antiarrhythmic, antidyslepidemic, anti aggregatory, coagulants, and anticoagulants Preclinical screening models for other important drugs like antiulcer, antidiabetic, anticancer and antiasthmatics.	
Research methodology and Bio-statistics Selection of research topic, review of literature, research hypothesis and study design Pre-clinical data analysis and interpretation using Students 't' test and One-way ANOVA. Graphical representation of data	**05 Hours**

Recommended Books (latest edition):

1. Fundamentals of experimental Pharmacology-by M.N.Ghosh
2. Hand book of Experimental Pharmacology-S.K.Kulakarni
3. CPCSEA guidelines for laboratory animal facility.
4. Drug discovery and Evaluation by Vogel H.G.
5. Drug Screening Methods by Suresh Kumar Gupta and S. K. Gupta
6. Introduction to biostatistics and research methods by PSS Sundar Rao and J Richard

M.Q'

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 811 ET. ADVANCED INSTRUMENTATION TECHNIQUES

45 Hours

Scope: This subject deals with the application of instrumental methods in qualitative and quantitative analysis of drugs. This subject is designed to impart advanced knowledge on the principles and instrumentation of spectroscopic and chromatographic hyphenated techniques. This also emphasizes on theoretical and practical knowledge on modern analytical instruments that are used for drug testing.

Objectives: Upon completion of the course the student shall be able to

- understand the advanced instruments used and its applications in drug analysis
- understand the chromatographic separation and analysis of drugs.
- understand the calibration of various analytical instruments
- know analysis of drugs using various analytical instruments.

Course Content:

UNIT-I **10 Hours**

Nuclear Magnetic Resonance spectroscopy

Principles of H-NMR and C-NMR, chemical shift, factors affecting chemical shift, coupling constant, Spin - spin coupling, relaxation, instrumentation and applications

Mass Spectrometry- Principles, Fragmentation, Ionization techniques – Electron impact, chemical ionization, MALDI, FAB, Analyzers-Time of flight and Quadrupole, instrumentation, applications

UNIT-II **10 Hours**

Thermal Methods of Analysis: Principles, instrumentation and applications of ThermogravimetricAnalysis (TGA), Differential Thermal Analysis (DTA), Differential Scanning Calorimetry (DSC)

X-Ray Diffraction Methods: Origin of X-rays, basic aspects of crystals, X-ray

Crystallography, rotating crystal technique, single crystal diffraction,powder diffraction, structural elucidation and applications.

UNIT-III **10 Hours**

Calibration and validation-as per ICH and USFDA guidelines

Calibration of following Instruments

Electronic balance, UV-Visible spectrophotometer, IR spectrophotometer,

M. Q.

Dean

SMVEC School of Pharmacy

Madagadipet, Puducherry - 605 107.

Fluorimeter, Flame Photometer, HPLC and GC

UNIT-IV **08 Hours**

Radio immune assay: Importance, various components, Principle, different methods, Limitation and Applications of Radio immuno assay

Extraction techniques:General principle and procedure involved in the solid phase extraction and liquid-liquid extraction

UNIT-V **07 Hours**

Hyphenated techniques-LC-MS/MS, GC-MS/MS, HPTLC-MS.

Recommended Books (Latest Editions)

1. Instrumental Methods of Chemical Analysis by B.K Sharma
2. Organic spectroscopy by Y.R Sharma
3. Text book of Pharmaceutical Analysis by Kenneth A. Connors
4. Vogel's Text book of Quantitative Chemical Analysis by A.I. Vogel
5. Practical Pharmaceutical Chemistry by A.H. Beckett and J.B. Stenlake
6. Organic Chemistry by I. L. Finar
7. Organic spectroscopy by William Kemp
8. Quantitative Analysis of Drugs by D. C. Garrett
9. Quantitative Analysis of Drugs in Pharmaceutical Formulations by P. D. Sethi
10. Spectrophotometric identification of Organic Compounds by Silverstein

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

BP 812 ET. DIETARY SUPPLEMENTS AND NUTRACEUTICALS

No. of hours :3 **Tutorial:1** **Credit point:4**

Scope :

This subject covers foundational topic that are important for understanding the need and requirements of dietary supplements among different groups in the population.

Objective:

This module aims to provide an understanding of the concepts behind the theoretical applications of dietary supplements. By the end of the course, students should be able to :

1. Understand the need of supplements by the different group of people to maintain healthy life.
2. Understand the outcome of deficiencies in dietary supplements.
3. Appreciate the components in dietary supplements and the application.
4. Appreciate the regulatory and commercial aspects of dietary supplements including health claims.

UNIT I **07 hours**

a. Definitions of Functional foods, Nutraceuticals and Dietary supplements. Classification of Nutraceuticals, Health problems and diseases that can be prevented or cured by Nutraceuticals i.e. weight control, diabetes, cancer, heart disease, stress, osteoarthritis, hypertension etc.
b. Public health nutrition, maternal and child nutrition, nutrition and ageing, nutrition education in community.
c. Source, Name of marker compounds and their chemical nature, Medicinal uses and health benefits of following used as nutraceuticals/functional foods: Spirulina, Soyabean, Ginseng, Garlic, Broccoli, Gingko, Flaxseeds

UNIT II **15 hours**

Phytochemicals as nutraceuticals: Occurrence and characteristic features(chemical nature medicinal benefits) of following

a) Carotenoids- α and β-Carotene, Lycopene, Xanthophylls, leutin
b) Sulfides: Diallyl sulfides, Allyl trisulfide.
c) Polyphenolics: Reservetrol
d) Flavonoids- Rutin , Naringin, Quercitin, Anthocyanidins, catechins, Flavones
e) Prebiotics / Probiotics.: Fructo oligosaccharides, Lacto bacillum
f) Phyto estrogens : Isoflavones, daidzein, Geebustin, lignans
g) Tocopherols
h) Proteins, vitamins, minerals, cereal, vegetables and beverages as functional foods: oats, wheat bran, rice bran, sea foods, coffee, tea and the like.

UNIT III **07 hours**

a) Introduction to free radicals: Free radicals, reactive oxygen species, production of free radicals in cells, damaging reactions of free radicals on lipids, proteins, Carbohydrates, nucleic acids.

b) Dietary fibres and complex carbohydrates as functional food ingredients..

UNIT IV **10 hours**

a) Free radicals in Diabetes mellitus, Inflammation, Ischemic reperfusion injury, Cancer, Atherosclerosis, Free radicals in brain metabolism and pathology, kidney damage, muscle damage. Free radicals involvement in other disorders. Free radicals theory of ageing.

b) Antioxidants: Endogenous antioxidants – enzymatic and nonenzymatic antioxidant defence, Superoxide dismutase, catalase, Glutathione peroxidase, Glutathione Vitamin C, Vitamin E, α- Lipoic acid, melatonin
Synthetic antioxidants: Butylated hydroxy Toluene, Butylated hydroxy Anisole.

c) Functional foods for chronic disease prevention

UNIT V **06 hours**

a) Effect of processing, storage and interactions of various environmental factors on the potential of nutraceuticals.

b) Regulatory Aspects; FSSAI, FDA, FPO, MPO, AGMARK. HACCP and GMPs on Food Safety. Adulteration of foods.

c) Pharmacopoeial Specifications for dietary supplements and nutraceuticals.

References:

1. Dietetics by Sri Lakshmi
2. Role of dietary fibres and neutraceuticals in preventing diseases by K.T Agusti and P.Faizal: BSPunblication.
3. Advanced Nutritional Therapies by Cooper. K.A., (1996).
4. The Food Pharmacy by Jean Carper, Simon & Schuster, UK Ltd., (1988).
5. Prescription for Nutritional Healing by James F.Balch and Phyllis A.Balch 2nd Edn., Avery Publishing Group, NY (1997).
6. G. Gibson and C.williams Editors *2000 Functional foods* Woodhead Publ.Co.London.
7. Goldberg, I. *Functional Foods*. 1994. Chapman and Hall, New York.
8. Labuza, T.P. 2000 Functional Foods and Dietary Supplements: Safety, Good Manufacturing Practice (GMPs) and Shelf Life Testing in *Essentials of Functional Foods* M.K. Sachmidl and T.P. Labuza eds. Aspen Press.
9. Handbook of Nutraceuticals and Functional Foods, Third Edition (Modern Nutrition)
10. Shils, ME, Olson, JA, Shike, M. 1994 *Modern Nutrition in Health and Disease*. Eighth edition. Lea and Febiger

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester VIII – Elective course on Pharmaceutical Product Development

No of Hours: 3 Tutorial:1 Credit points:4

Unit-I **10 Hours**

Introduction to pharmaceutical product development, objectives, regulations related to preformulation, formulation development, stability assessment, manufacturing and quality control testing of different types of dosage forms

Unit-II **10 Hours**

An advanced study of Pharmaceutical Excipients in pharmaceutical product development with a special reference to the following categories

i. Solvents and solubilizers
ii. Cyclodextrins and their applications
iii. Non - ionic surfactants and their applications
iv. Polyethylene glycols and sorbitols
v. Suspending and emulsifying agents
vi. Semi solid excipients

Unit-III **10 Hours**

An advanced study of Pharmaceutical Excipients in pharmaceutical product development with a special reference to the following categories

i. Tablet and capsule excipients
ii. Directly compressible vehicles
iii. Coat materials
iv. Excipients in parenteral and aerosols products
v. Excipients for formulation of NDDS

Selection and application of excipients in pharmaceutical formulations with specific industrial applications

Unit-IV **08 Hours**

Optimization techniques in pharmaceutical product development.A study of various optimization techniques for pharmaceutical product development with specific examples.Optimization by factorial designs and their applications.A study of QbD and its application in pharmaceutical product development.

Unit-V **07 Hours**

Selection and quality control testing of packaging materials for pharmaceutical product development- regulatory considerations.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Recommended Books (Latest editions)

1. Pharmaceutical Statistics Practical and Clinical Applications by Stanford Bolton, CharlesBon; Marcel Dekker Inc.
2. Encyclopedia of Pharmaceutical Technology, edited by James swarbrick, Third Edition,Informa Healthcare publishers.
3. Pharmaceutical Dosage Forms, Tablets, Volume II, edited by Herbert A. Lieberman andLeon Lachman; Marcel Dekker, Inc.
4. The Theory and Practice of Industrial Pharmacy, Fourth Edition, edited by Roop kKhar, S P Vyas, Farhan J Ahmad, Gaurav K Jain; CBS Publishers and Distributors Pvt.Ltd. 2013.
5. Martin's Physical Pharmacy and Pharmaceutical Sciences, Fifth Edition, edited by Patrick J. Sinko, BI Publications Pvt. Ltd.
6. Targeted and Controlled Drug Delivery, Novel Carrier Systems by S. P. Vyas and R. K.Khar, CBS Publishers and Distributors Pvt. Ltd, First Edition 2012.
7. Pharmaceutical Dosage Forms and Drug Delivery Systems, Loyd V. Allen Jr., Nicholas B.Popovich, Howard C. Ansel, 9th Ed. 40
8. Aulton's Pharmaceutics – The Design and Manufacture of Medicines, Michael E. Aulton,3rd Ed.
9. Remington – The Science and Practice of Pharmacy, 20th Ed.
10. Pharmaceutical Dosage Forms – Tablets Vol 1 to 3, A. Liberman, Leon Lachman andJoseph B. Schwartz
11. Pharmaceutical Dosage Forms – Disperse Systems Vol 1 to 3, H.A. Liberman, Martin, M.R and Gilbert S. Banker.
12. Pharmaceutical Dosage Forms – Parenteral Medication Vol 1 & 2, Kenneth E. Avis andH.A. Libermann.
13. Advanced Review Articles related to the topics.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Annexure II

The new curriculum and syllabi for the I Semester of the B. Pharmacy Programme at SMVEC School of Pharmacy, as per the Revised NEP 2020 B.Pharmacy Syllabus

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

SMVEC SCHOOL OF PHARMACY

Revised Regulations R-2026
for
Bachelor of Pharmacy
Degree Programme

(With effect from academic year 2026-27)

25 years of ACADEMIC EXCELLENCE

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

TABLE OF CONTENTS

Sl. No	Content	Page No.
1	Short Title and Commencement	3
2	Minimum qualification for admission	3
3	Duration of the program	3
4	Medium of instruction and examinations	3
5	Working days in each semester	3
6	Attendance and progress	4
7	Program/Course credit structure	4
8	Academic work	5
9	Course of study	5-12
10	Program Committee	13
11	Examinations/Assessments	15
12	Award of grades	29
13	Carry forward of marks	30
14	Improvement of internal assessment	30
15	End semester examinations	30
16	Academic Progression	30
17	Grading of performances	30
18	Semester Grade point average (SGPA)	31
19	Cumulative Grade point average (CGPA)	31
20	Declaration of Class	32
21	Project Work	32
22	Internship	33
23	Industrial/ Field Visit	33
24	Award of Ranks	33
25	Award of degree	34
26	Duration for completion of the program of study	34
27	Re-admission after break of study	34
28	Various Committees and its Functions	34-40
29	Revision of regulations and curriculum	40

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
SMVEC SCHOOL OF PHARMACY

BACHELOR OF PHARMACY PROGRAMME
(Eight Semesters)

REGULATIONS 2026

1. Short title and commencement:

This regulation shall be called as "The Regulation for the B. Pharm. Degree Programme Choice Based Credit System (CBCS) as per National Education Policy 2020 of the Pharmacy Council of India, New Delhi". It shall come into effect immediately upon notification by the Pharmacy Council of India. The regulations framed are subject to modification from time to time by Pharmacy Council of India.

2. Minimum qualification for admission:

2.1 First year B. Pharm:

i. A candidate shall have passed the 10+2 examination conducted by the respective State or Central Government authorities, or any equivalent examination recognized by bodies such as the Association of Indian Universities (AIU) or the Council of Boards of School Education in India (COBSE), including wings such as IGNOU and NIOS, with English as one of the subjects and with Physics and Chemistry as compulsory subjects, along with either Mathematics or Biology.

ii. Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

2.2. B. Pharm lateral entry (to third semester):

A pass in D. Pharm. Course from an institution approved by the Pharmacy Council of India, New Delhi.

3.Duration of the Programme:

The course of study for B. Pharm shall extend over a period of eight semesters (four academic years) and six semesters (three academic years) for lateral entry students. The curricula and syllabi for the Programme shall be prescribed from time to time by Pharmacy Council of India.

4. Medium of instruction and examinations:

Medium of instruction and examination shall be in English.

5. Working days in each semester:

Each semester shall consist of not less than 90 working days. The odd semesters shall be conducted from the month of June/July to November/December and the even semesters shall be conducted from December/January to May/June in every calendar year. A break of not less than 7 days shall be provided between the semesters.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

6. Attendance and progress:

A candidate must maintain a minimum of 75% attendance in each individual course. Attendance for theory and practical components shall be considered separately. Only candidates who satisfactorily complete the prescribed course requirements shall be eligible to appear for the respective examinations.

7. Programme/Course credit structure:

As per the Choice Based Credit System (CBCS), certain quantum of academic work viz. theory classes, practical classes etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly, the credit associated with any of the other academic, co/extra- curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week.

7.1 Credit assignment:

7.1.1 Theory and Practical courses:

Courses are broadly classified as Theory, Practical, Project and Internship. Theory (T) courses consist of lecture (L) hours, while Practical (P) courses consist of hours spent in the laboratory. The Credits (C) assigned to a course dependent on the number of instructional hours per week and are calculated using a multiplier of one (1) for lecture hours, and a multiplier of one-half (1/2) for practical (laboratory) hours. For example, a theory course having three lectures per week throughout the semester carries 3credits. Similarly, a practical course with four laboratory hours per week throughout semester carries 2 credits. If the calculated credit value results in a fraction of 0.5 or below, the lower integer value will be assigned as the credit. Every 30 hours spent on internship (I) and projects shall be considered equivalent to 1 credit.

7.1.2 Minimum credit requirements:

The minimum credit points required for award of a B. Pharm. degree is 193. These credits are distributed across Theory courses, Practical courses, Internship and Project over the duration of eight semesters. The semester-wise distribution of credits is presented in Table IX. Courses generally progress in sequences, building competencies and their positioning indicate certain levels of academic maturity on the part of the learners. Learners are expected to follow the semester-wise schedule of courses given in the syllabus.

The lateral entry students shall take additional courses, namely Healthcare Psychology and Communication Skills (Theory and Practical) and Basics of Python Programming for Pharmaceutical Sciences (Theory) during Semester III, and Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory) during Semester IV of the programme. The lateral entry student shall be awarded 47 credit points, equivalent to the cumulative credits earned as per the scheme of their Diploma in Pharmacy (D. Pharm.) programme, upon successful completion of the above-mentioned courses. Out of the total 47 credits, 41 credits shall be accounted for the Diploma programme, and the remaining 6 credits shall be awarded for the above-mentioned additional courses. The 41 credits accounted for the lateral entry students shall be recorded in the Semester III marks sheet.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 10.

8. **Academic work:**

A regular record of attendance in Theory, Practical, Internship and Research Projects shall be maintained by the teaching staff of respective courses.

9. **Course of study:**

The course of study for B. Pharm shall include Semester wise Theory & Practical as given in Tables – I to VIII. The number of hours allotted to each theory and practical course in any semester shall not be less than that shown in Tables – I to VIII.

Table-I: Course of study for semester I

Course Code	Name of the course	No. of hours per week (L/P)	Credit points
BP101T	Basics of Python Programming for Pharmaceutical Sciences (Theory)	2	2
BP102T	General Pharmacy (Theory)	3	3
BP103T	Healthcare Psychology and Communication Skills (Theory)	1	1
BP104T	Human Anatomy, Physiology and Pathophysiology I (Theory)	4	4
BP105T	Introduction to Pharmacognosy (Theory)	3	3
BP106T	Pharmaceutical Inorganic and Analytical Chemistry (Theory)	3	3
BP107P	General Pharmacy (Practical)	3	1
BP108P	Healthcare Psychology and Communication Skills (Practical)	2	1
BP109P	Human Anatomy, Physiology and Pathophysiology I (Practical)	3	1
BP110P	Introduction to Pharmacognosy (Practical)	3	1
BP111P	Pharmaceutical Inorganic and Analytical Chemistry (Practical)	3	1
Total		**30**	**21**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107

Table-II: Course of study for semester II

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BP201T	Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory)		2	2
BP202T	Biochemistry (Theory)		3	3
BP203T	Human Anatomy, Physiology and Pathophysiology II (Theory)		4	4
BP204T	Pharmaceutical Organic Chemistry (Theory)		4	4
BP205T	Pharmacognosy and Phytochemistry (Theory)		4	4
BP206T	Physical Pharmaceutics (Theory)		3	3
BP207P	Biochemistry (Practical)		3	1
BP208P	Human Anatomy, Physiology and Pathophysiology II (Practical)		3	1
BP209P	Pharmaceutical Organic Chemistry (Practical)		3	1
BP210P	Pharmacognosy and Phytochemistry (Practical)		3	1
BP211P	Physical Pharmaceutics (Practical)		3	1
BP212P SEC*	BP212P SEC1	Communication Skills	2	1
	BP212P SEC2	Mental Well-Being, Stress & Conflict Management		
	BP212P SEC3	Fundamentals of Computer Operations		
Total			**37**	**26**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table-III: Course of study for semester III

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BP301T	Introduction to Machine Learning in Pharmaceutical Sciences (Theory)		2	2
BP302T	Environmental Sciences (Theory)		1	1
BP303T	Ethics and Universal Human Values (Theory)		1	1
BP304T	General Pharmacology (Theory)		3	3
BP305T	Heterocyclic Compounds and Stereochemistry (Theory)		3	3
BP306T	Pharmaceutical Dosage Forms I (Theory)		3	3
BP307T	Pharmaceutical Engineering (Theory)		3	3
BP308T	Pharmaceutical Microbiology (Theory)		3	3
BP309P	General Pharmacology (Practical)		4	2
BP310P	Heterocyclic Compounds and Stereochemistry (Practical)		4	2
BP311P	Pharmaceutical Dosage Forms I (Practical)		3	1
BP312 P AEC*	BP312 P AEC1	Nutraceuticals and Functional Foods	2	1
	BP312 P AEC2	Food Analysis		
	BP312 P AEC3	Yoga and Life Sciences		
Total			**32**	**25**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107

Table-IV: Course of study for semester IV

Course Code	Name of the course	No. of hours per week (L/P)	Credit points
BP401T	Herbal Drug Technology (Theory)	3	3
BP402T	Medicinal Chemistry (Theory)	3	3
BP403T	Pharmaceutical Biotechnology (Theory)	3	3
BP404T	Social Pharmacy and Public Health (Theory)	2	2
BP405T	Systemic Pharmacology I (Theory)	3	3
BP406P	Herbal Drug Technology (Practical)	3	1
BP407P	Medicinal Chemistry (Practical)	3	1
BP408P	Pharmaceutical Biotechnology (Practical)	3	1
BP409P	Social Pharmacy and Public Health (Practical)	2	1
BP410P	Systemic Pharmacology I (Practical)	3	1
BP411I	Internship (Mandatory)	8	4
Total		**28**	**23**

Dean
SMVEC School of Pha
Madagadipet, Puducherry - 605 10

Table-V: Course of study for semester V

Course Code	Name of the course	No. of hours per week (L/P)	Credit points
BP501T	Biomedicinal Chemistry (Theory)	3	3
BP502T	Industrial Pharmacognosy (Theory)	3	3
BP503T	Innovation and Startup Ecosystem (Theory)	2	2
BP504T	Pharmaceutical Dosage Form II (Theory)	2	2
BP505T	Pharmaceutical Quality Assurance (Theory)	3	3
BP506T	Systemic Pharmacology II (Theory)	3	3
BP507P	Biomedicinal Chemistry (Practical)	4	2
BP508P	Industrial Pharmacognosy (Practical)	3	1
BP509P	Pharmaceutical Dosage Form II (Practical)	3	1
BP510P	Systemic Pharmacology II(Practical)	4	2
Total		**30**	**22**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table-VI: Course of study for semester VI

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BP601T	Advanced Pharmacognosy (Theory)		3	3
BP602T	Biopharmaceutics and Pharmacokinetics (Theory)		3	3
BP603T	Intellectual Property Rights (Theory)		2	2
BP604T	AI applications in Pharmaceutical Sciences (Theory)		2	2
BP605T	Pharmaceutical Analysis (Theory)		3	3
BP606T	Pharmaceutical Jurisprudence (Theory)		3	3
BP607T AEC*	BP607T AEC1	Green Chemistry	1	1
	BP607T AEC2	Materiovigilance and Hemovigilance		
	BP607T AEC3	Scientific Writing		
	BP607T AEC4	Drug Store and Business Management		
	BP607T AEC5	Career Building in Cultivation of Medicinal Plants		
	BP607T AEC6	Active Pharmaceutical Ingredients and Excipient Sciences		
BP608P	Biopharmaceutics and Pharmacokinetics (Practical)		3	1
BP609P	Pharmaceutical Analysis (Practical)		4	2
BP610P SEC*	BP610P SEC1	Computer-Aided Drug Design	2	1
	BP610P SEC2	Analytical Method Development and Validation		
	BP610P SEC3	Principles of Preclinical Studies		
BP611P VAC*	BP611P VAC1	Professional Skills	2	1
	BP611P VAC2	Process Analytical Technology (PAT) and QbD in Formulation Science		
BP612I		Internship (Mandatory)	8	4
Total			**28**	**26**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table-VII: Course of study for semester VII

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BP701T	Biostatistics Research methodology (Theory)		3	3
BP702T	Cosmetics and Cosmeceuticals (Theory)		2	2
BP703T	AI in Clinical applications (Theory)		2	2
BP704T	Modern Analytical Techniques (Theory)		3	3
BP705T	Pharmacovigilance (Theory)		3	3
BP706T	Pharmacy Practice (Theory)		3	3
BP707T	Regulatory Affairs (Theory)		2	2
BP708T AEC	BP708T AEC1	Current Good Manufacturing Practices (cGMP)	1	1
	BP708T AEC2	Pharmaceutical Automation		
	BP708T AEC3	Modern Techniques in Cellular Biology		
	BP708T AEC4	Medical Devices		
	BP708T AEC5	Transformation of Food Waste into Medicinal Products		
	BP708T AEC6	Biosimilars, Vaccines & Macromolecules		
BP709P	Modern Analytical Techniques (Practical)		3	1
BP710RP	Research Project		-	6
Total			**22**	**26**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table-VIII: Course of study for semester VIII

Course Code	Name of the course		No. of hours per week (L/P)	Credit points
BP801T	Ethical Considerations and Translational Applications of AI in Pharmacy (Theory)		2	2
BP802T	Clinical Pharmacotherapeutics (Theory)		2	2
BP803T	Industrial Pharmacy and Facility Design (Theory)		3	3
BP804T	Pharmaceutical Management (Theory)		2	2
BP805T	Sterile Dosage Forms and Novel Drug Delivery System (Theory)		3	3
BP806T AEC*	BP806T AEC1	Pharmaceutical Packaging	2	2
	BP806T AEC2	Supply Chain Management		
	BP806T AEC3	Industrial Safety and Waste Management		
	BP806T AEC4	Traditional Healing Practices of India		
	BP806T AEC5	Futuristic Pharma through AR/VR: Pharma 4.0		
	BP806T AEC6	Herbal Cosmetics for Industry Perspective		
BP807P	Pharmaceutical Marketing Skills (Practical)		2	1
BP808P	Sterile Dosage Forms and Novel Drug Delivery System (Practical)		4	2
BP809P VAC*	BP809P VAC1	Cleaning Validation	2	1
	BP809P VAC2	Basic Training in Aseptic Handling Techniques		
	BP809P VAC3	Impurity Profiling		
BP810RP	Research Project		-	6
Total			**22**	**24**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table-IX: Semester wise credits distribution

Semester	Total Credits
I	21
II	26
III	25
IV	23
V	22
VI	26
VII	26
VIII	24
Grand Total	193

Note: Earning total credits [193] as mentioned above are mandatory for award of the degree. However, Institute/University has the liberty to offer additional courses as per their mandates or may also offer additional credits through various MOOCs upon approval of their respective academic council.

10. Program Committee and Internal Examination Committee:

10.1Program Committee

1.The B. Pharm. Programme shall have a Programme Committee constituted by the Head of the Institution/Principal in consultation with all the Heads of the Departments and reconstituted annually.

2. The composition of the Programme Committee shall be as follows:

- The Principal/HoI shall serve as the Chairperson
- One senior teacher from any department shall act as the B. Pharm Coordinator
- One teacher from each department offering B. Pharm courses and
- Four student representatives of the programme (one from each academic year), nominated by the Head of the Institution.

3.The Programme Committee shall meet at least twice in every semester to perform the following duties.

4.Duties of the Programme Committee (not limited to):

i. Periodically reviewing the progress of classes and attendance.
ii. Discussing problems concerning the curriculum, syllabus, and conduct of classes.
iii. Communicating its recommendations on academic matters to the Head of the Institution, with such communications being duly recorded.
iv. Periodically reviewing and monitoring the attainment of Programme Outcomes and Course Outcomes along with Bloom's Taxonomy Levels and/or Miller's Pyramid.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

v. Encouraging the use of ICT tools and providing e-learning resources for higher- order learning.
vi. Ensuring effective implementation of participative, problem-based, experiential learning, and innovative pedagogical approaches for effective outcomes.

10.2 Internal Examination Committee:

1. The B. Pharm. Programme shall have an Internal Examination Committee constituted by the Principal / HoI in consultation with all the Heads of the Departments and may be reconstituted as and when necessary.
2. The composition of the Internal Examination Committee shall be as follows:
    - Principal / HoI – Chairperson
    - B. Pharm Programme Coordinator – Member Secretary
    - One senior faculty member from each department involved in B. Pharm teaching Members
    - Examination Cell In-charge – Member

3. The Committee shall meet periodically, before each Sessional Examination (Internal Assessment) and before the end-semester examination.
4. Duties of the Internal Examination Committee (not limited to):
    i. Plan and approve the internal assessment calendar for all semesters.
    ii. Ensure uniformity, transparency, and fairness in continuous assessment, sessional, and practical examinations.
    iii. Moderation of sessional question papers and assessment tools in alignment with programme and course outcomes, incorporating Bloom's Taxonomy Levels and/or Miller's Pyramid.
    iv. Monitor the conduct and evaluation of theory, practical, internship, and project assessments.
    v. Ensure compliance with PCI regulations, university ordinances, and NEP-2020 assessment reforms.
    vi. Promote outcome-based, skill-oriented, and innovative assessment methods.
    vii. Review, moderate, and finalize internal assessment marks prior to submission to the university.
    viii. Address student grievances related to internal assessments in a timely and structured manner.
    ix. Maintain proper records, reports, and minutes related to internal examinations and assessments.
    x. Recommend remedial measures and academic support as and when required.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

10.3 Scheme for credit based marks distribution:

The general scheme for credit wise marks distribution is as given below. The detailed scheme for internal assessment and end semester examinations is given in Table – X (a-h).

Credits	Maximum Marks	Internal Assessment	External Assessment
4	100	40	60
3	75	30	45
2 or 1	50	20	30

11. Examinations/Assessments:

The scheme for internal assessment and end semester examinations is given in Table – X.

a. End semester examinations

The End Semester Examinations for each theory and practical course through semesters I to VIII shall be conducted by the university. (Table-X).

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Tables-X: Schemes for internal assessments and end semester examinations semester wise

Semester I:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	End Sem Exam Duration	Total Marks
BP101T	Basics of Python Programming for Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP102T	General Pharmacy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP103T	Healthcare Psychology and Communication Skills (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP104T	Human Anatomy, Physiology and Pathophysiology I(Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP105T	Introduction to Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP106T	Pharmaceutical Inorganic and Analytical Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP107P	General Pharmacy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP108P	Healthcare Psychology and Communication Skills (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP109P	Human Anatomy, Physiology and Pathophysiology I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP110P	Introduction to Pharmacognosy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP111P	Pharmaceutical Inorganic and Analytical Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester II:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP201T	Applied Biostatistics and Data Analytics for Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP202T	Biochemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP203T	Human Anatomy, Physiology and Pathophysiology II (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP204T	Pharmaceutical Organic Chemistry (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP205T	Pharmacognosy and Phytochemistry (Theory)	4	20	20	1 Hr	40	60	3 Hr	100
BP206T	Physical Pharmaceutics (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP207P	Biochemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP208P	Human Anatomy, Physiology and Pathophysiology II (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP209P	Pharmaceutical Organic Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP210P	Pharmacognosy and Phytochemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP211P	Physical Pharmaceutics (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP212P	SEC – Elective 1 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester III:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP301T	Introduction to Machine Learning in Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP302T	Environmental Science (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP303T	Ethics and Universal Human Values (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP304T	General Pharmacology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP305T	Heterocyclic Compounds and Stereochemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP306T	Pharmaceutical Dosage Forms I (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP307T	Pharmaceutical Engineering (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP308T	Pharmaceutical Microbiology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP309P	General Pharmacology (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP310P	Heterocyclic Compounds and Stereochemistry (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP311P	Pharmaceutical Dosage Forms I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP312P	AEC – Elective 2 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50

Dean
SMVEC School of Pharmacy

Semester IV:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP401T	Herbal Drug Technology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP402T	Medicinal Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP403T	Pharmaceutical Biotechnology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP404T	Social Pharmacy and Public Health (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP405T	Systemic Pharmacology I (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP406P	Herbal Drug Technology (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP407P	Medicinal Chemistry (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP408P	Pharmaceutical Biotechnology (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP409P	Social Pharmacy and Public Health (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP410P	Systemic Pharmacology I (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP411I	Internship (Mandatory)	4	Refer Section 22	–	–	–	100	4 Hr	100

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester V:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP501T	Biomedicinal Chemistry (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP502T	Industrial Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP503T	Innovation and Startup Ecosystem (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP504T	Pharmaceutical Dosage Forms II (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP505T	Pharmaceutical Quality Assurance (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP506T	Systemic Pharmacology II (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP507P	Biomedicinal Chemistry (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP508P	Industrial Pharmacognosy (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP509P	Pharmaceutical Dosage Forms II (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP510P	Systemic Pharmacology II (Practical)	2	10	10	4 Hr	20	30	4 Hr	50

M. Q

SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester VI:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP601T	Advanced Pharmacognosy (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP602T	Biopharmaceutics and Pharmacokinetics (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP603T	Intellectual Property Rights (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP604T	AI Applications in Pharmaceutical Sciences (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP605T	Pharmaceutical Analysis (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP606T	Pharmaceutical Jurisprudence (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP607T	AEC – Elective 3 (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP608P	Biopharmaceutics and Pharmacokinetics (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP609P	Pharmaceutical Analysis (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP610P	SEC – Elective 4 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP611P	VAC – Elective 5 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP612I	Internship (Mandatory)	4	Refer Section 22	–	–	–	100	4 Hr	100

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester VII:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP701T	Biostatistics and Research Methodology (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP702T	Cosmetics and Cosmeceuticals (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP703T	AI in Clinical Applications (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP704T	Modern Analytical Techniques (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP705T	Pharmacovigilance (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP706T	Pharmacy Practice (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP707T	Regulatory Affairs (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP708T	AEC – Elective 6 (Theory)	1	10	10	1 Hr	20	30	1.5 Hr	50
BP709P	Modern Analytical Techniques (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP710RP	Research Project	6	Refer Section 21	–	–	–	150	4 Hr	150

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester VIII:

Course Code	Name of the Course	Credit	Continuous Mode (Marks)	Sessional Exam (Marks)	Sessional Duration	Internal Total	End Semester Marks	Exam Duration	Total Marks
BP801T	Ethical Considerations and Translational Applications of AI in Pharmacy (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP802T	Clinical Pharmacotherapeutics (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP803T	Industrial Pharmacy and Facility Design (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP804T	Pharmaceutical Management (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP805T	Sterile Dosage Forms and Novel Drug Delivery System (Theory)	3	15	15	1 Hr	30	45	2 Hr	75
BP806T	AEC – Elective 7 (Theory)	2	10	10	1 Hr	20	30	1.5 Hr	50
BP807P	Pharmaceutical Marketing Skills (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP808P	Sterile Dosage Forms and Novel Drug Delivery System (Practical)	2	10	10	4 Hr	20	30	4 Hr	50
BP809P	VAC – Elective 8 (Practical)	1	10	10	3 Hr	20	30	3 Hr	50
BP810RP	Research Project	6	Refer Section 21	–	–	–	150	4 Hr	150

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

11.2. Internal assessment: Continuous internal assessment and sessional examination

The marks allocated for Continuous mode of Internal assessment and Sessional examination shall be awarded as per the scheme given below.

Table–XI: Scheme for awarding internal assessment: Continuous mode and Sessional

a. Theory – Internal assessment pattern of marks distribution

Theory		Internal assessment pattern of marks distribution			
Credit Type	**Max. Marks**	**Total**	**Attendance** (Refer Table–XII) and Student–Teacher Interaction	**Academic Activities** (Average of any three: quiz, assignment, open book test, field work, group discussion, seminar, etc.)	**Sessional** (Average of two tests) Duration 1 Hour
4	100	40	10	10	20
3	75	30	7.5	7.5	15
2 or 1	50	20	05	05	10

b.Practical – Internal assessment pattern of marks distribution

Theory		Internal assessment pattern of marks distribution			
Credit Type	**Max. Marks**	**Total**	**Attendance** (Refer Table–XII) and Student–Teacher Interaction	**Based on Practical Records, Regular viva voce, etc.**	**Sessional** (Average of two tests) Duration – As per allotted hours#)
2 or 1	50	20	05	05	10

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

For practical courses (core as well as elective), those having four hours per week shall have a four-hour duration for the sessional and end-semester examinations.
Practical courses with less than four hours per week shall have a three-hour duration for the sessional and end-semester examinations.

Table–XII: Guidelines for the allotment of marks for attendance

Percentage of Attendance	Theory			Practical
	4 Credit	3 Credit	2 or 1 Credit	
90 – 100	4	3.5	2	2
85 – 89	3	2.5	1.5	1.5
75 – 84	2	1.5	1	1
Less than 75	0	0	0	0

11.2.1Sessional Exams:

Two Sessional exams shall be conducted for each theory / practical course as per the schedule fixed by the college(s)/University. The scheme of question paper for theory and practical Sessional examinations is given in Table XIII– XIV below.

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Table–XIII: Internal Assessment Question Paper Pattern (Theory)

Type of questions	4 Credit Course	3 Credit Course	2 or 1 Credit Course
I. Multiple Choice Questions (MCQs) Or Objective Type Questions	4×1 Mark each or 2×2 Marks each (Compulsory)	2×1 Mark each (Compulsory)	2×1 Mark each (Compulsory)
II. Short Answers	2×3 Marks each (2 out of 3)	2×3 Marks each (2 out of 3)	1×3 Marks each (1 out of 2)
III. Long Answers	1×10 Marks each (1 out of 2)	1×7 Marks each (1 out of 2)	1×5 Marks each (1out of 2)
Max. Marks	20	15	10
Duration	1 Hour	1 Hour	1 Hour

Table–XIV: Internal Assessment Question Paper Pattern (Practical)

Type of questions	2 or 1 Credit Course
Synopsis	2
Major Experiment	4
Minor Experiment	2
Viva voce	2
Max. Marks	10
Duration	As per the allotted hours in scheme

The average marks of two Sessional exams shall be computed for internal assessment as per the requirements given in Table-XI.

Sessional Examinations Portions and Marks

S.No	Sessional Exams	Portions	Conducted	Computed	Continuous mode	Total Marks
1	Sessional Exam-I	2 ½ Unit	30	15		
2	Sessional Exam-I	2 ½ Unit	30	15		
Theory Marks			30	15	10	25
Practical Marks			40	10	5	15

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

a. Grievance Redressal mechanism in Evaluation

Grievances related to the entire process of Continuous Assessment shall be addressed to Academic Appeal Board as given in Regulations under Clause 28.4. Grievances related to End Semester Examination of Theory Courses for regular and arrear examinations can be redressed as follows:

Photocopy of the Answer Script:

After declaration of results, photocopy of valued answer scripts with the marks awarded to individual answers shall be made available to the students on submission of an application along with the prescribed fees to the Controller of Examinations.

Revaluation:

Students can apply for revaluation by submitting an application along with the prescribed fees to the Controller of Examinations. The revaluation is extended to the students those who have maximum of two arrears in theory papers.

b. Provision for Withdrawal from Examination

Complete Withdrawal (applicable only for nil arrear students):

A student, who is eligible to appear for the semester examinations, will be permitted to withdraw from appearing for the entire End Semester Examinations as one unit (*Complete Withdrawal*) for valid reasons and on the recommendation of the Head of the Department and with the approval of the Dean Academics, COE and Head of the Institution. Complete Withdrawal application shall be made before the commencement of the first examination pertaining to the semester. Such withdrawal shall be permitted ***only once*** during the entire Programme.

A student who has completely withdrawn from appearing for End Semester Examinations in a particular semester should appear for the examinations of all the withdrawn subjects in the next semester itself.

If all other conditions are satisfactory, the candidate who withdraws is also eligible to be awarded DISTINCTION whereas he/she is not eligible to be awarded a rank.

c. Scribe for End Semester Examination

If any student is not in a position to write end semester examinations on account of temporary physical disability or injury due to accident and applies for a scribe (writer) with a medical certificate obtained from a medical officer not below the rank of Assistant Director level, then ascribe shall be allowed / assigned by COE to such student. Normally, such scribe shall neither be a student nor a degree holder of any technical programme having similar competency. The student shall, however, apply in a prescribed proforma to COE and requesting permission for using the scribe well in advance, not on the day of examination, to make necessary arrangements (Scriber, Separate Examination Hall etc.). COE shall take the undertaking from the scribe in a prescribed proforma. Such student shall produce the permission letter from the COE for using scribe to the invigilator. He / She should pay the TA/DA and other charges to the scribe. Scribe shall be allowed extra time as per the norms specified by the Controller of Examinations.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Student admitted with differently abled category and those who can write, but at much slower speed as compared to normal student, he/she may be allowed an extra time of 30 minutes for 50 marks paper and 45 minutes for 75 marks paper to write the examination for all the courses. He / She shall seek permission from COE for the extra time on account of his/her percentage of disability by producing necessary medical certificate from medical officer not below the rank of Assistant Director.

d. Supplementary Examinations

Supplementary Examination is an additional examination which will be conducted after declaration of the End Semester Examination results/revaluation results. This examination will be conducted in fourth and eighth semesters for the students who are having a maximum of two arrears overall and he/she is permitted to write maximum of two papers in that semester alone. For supplementary examination, the continuous assessment marks of the last attempt will be considered.

e. Malpractice in Examinations

If any student caught red-handed due to malpractices in examinations, then he/she shall be punished as per the recommendations of the Complaint Redressal Committee (CRC) constituted by COE with the approval of Head of the Institution. The CRC shall inquire and decide the punishment for the unfair means as specified in the Examination

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

11.3 End semester Examination:

The End semester Theory and practical examination shall be conducted as per the scheme given in Table XV– XVI as per the credits allotted.

Table–XV: End Semester Question Paper Pattern (Theory)

Type of questions	4 Credit Course	3 Credit Course	2 or 1 Credit Course
I. Multiple Choice Questions (MCQs) Or Objective Type Questions	20×1 Mark each or 10×2 Marks each (Compulsory)	10×1 Mark each (Compulsory)	10×1 Mark each (Compulsory)
II. Short Answers	5×4 Marks each (5 out of 7)	5×4 Marks each (5 out of 7)	5×2 Marks each (5 out of 7)
III. Long Answers	2×10 Marks each (2 out of 3)	2×7.5 Marks each (2 out of 3)	2×5 Marks each (2 out of 3)
Max. Marks	60	45	30
Duration	3 Hours	2 Hours	1.5 Hours

Table–XVI: End Semester Question Paper Pattern (Practical)

Type of questions	2 or 1 Credit Course
Synopsis	7.5
Major Experiment	10
Minor Experiment	5
Viva voce	7.5
Max. Marks	30
Duration	As per the allotted hours in scheme #

For practical courses (core as well as elective), those having four hours per week shall have a four-hour duration for the sessional and end-semester examinations. Practical courses with less than four hours per week shall have a three-hour duration for the sessional and end-semester examinations.

12. Promotion and award of grades:

12.1. Promotion: A student is declared to have successfully passed a theory/practical course if he/she has secured:

A minimum of 50% marks in the internal assessment marks and a minimum of 50% marks in the End semester examinations and a minimum of 50% marks on combining both internal assessment and End Semester Examination Marks (ESM).

12.2. Grace Marks and Moderation: Grace marks shall be awarded to the students as per the norms of the University, with due emphasis on promoting learner progression.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

13.Carry forward of internal assessment marks

In case a student fails to secure the minimum 50% in any Theory or Practical course as specified in 12, then he/she shall reappear for the end semester examination of that course. However, his/her marks of the Internal Assessment shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

14.Improvement of internal assessment

A student shall have the opportunity to improve his/her performance only once in the Sessional exam component of the internal assessment. The re-conduct of the Sessional exam shall be completed within that particular semester only. The re-conduct of sessional examinations for failed candidates shall be conducted only once for the purpose of improving their sessional marks, without changing their continuous internal assessment.

15.End semester supplementary examinations

Supplementary examination should be completed within 2 months of publishing results of regular end semester examination. The proposed end semester examinations to be conducted as per the schedule below

Table–XVI: Tentative schedule of end semester examinations

Semester	For Regular Examination
I, III, V and VII	November / December
II, IV, VI and VIII	May / June

16. Academic progression:

Students are permitted to progress to the next semester even if they fail a course. However, to appear for the Semester VIII end semester examination, a student must have successfully completed all courses up to Semester VII. The final CGPA shall be awarded only after successful completion of all courses from Semester I to Semester VIII within the maximum duration prescribed by PCI. Lateral entry students shall successfully complete all courses from Semester III to Semester VII before appearing for the Semester VIII end semester examination.

17.Grading of performance:

17.1. Letter grades and grade points allocations:

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course. The letter grades and their corresponding grade points are given in Table – XVII

Table–XVII: Letter grades and grade points equivalent to percentage of marks and performance

Percentage of Marks Obtained	Letter Grade	Grade Point	Performance
90.00 – 100	O	10	Outstanding
80.00 – 89.99	A	9	Excellent
70.00 – 79.99	B	8	Good
60.00 – 69.99	C	7	Fair
50.00 – 59.99	D	6	Average
Less than 50	F	0	Fail
Absent	AB	0	Fail

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

A student who remains absent for any end semester examination shall be assigned a letter grade of AB and a corresponding grade point of zero. He/she should reappear for the said evaluation/examination in due course. Such rules are also applicable for those students who fail to register for examination(s) of any course in any semester.

18.The Semester Grade Point Average (SGPA):

The performance of a student in a semester is indicated by a number called 'Semester Grade Point Average' (SGPA). The SGPA is the weighted average of the grade points obtained in all the courses by the student during the semester.

$$SGPA = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4 + C_5G_5}{C_1 + C_2\ C_3 + C_4 + C_5}$$

The SGPA is calculated to two decimal points. It should be noted that, the SGPA for any semester shall take into consideration the F and ABS grade awarded in that semester.

19.Cumulative Grade Point Average (CGPA):

The CGPA is calculated with the SGPA of all the VIII semesters to two decimal points and is indicated in final grade report card/final transcript showing the grades of all VIII semesters and their courses.

$$CGPA = \frac{C_1S_1 + C_2S_2 + C_3S_3 + C_4S_4 + C_5S_5 + C_6S_6 + C_7S_7 + C_8S_8}{C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8}$$

CGPA To Percentage Conversion

It is mandatory for Examining Authority to mention both, marks and SGPA and/or CGPA scores, in the marksheets. The conversion factor for calculation of CGPA into percentage should be 10.0 uniformly.

Credit Record and Transfer Mechanism

The Examining Authority shall be responsible for creation and verification of Academic Bank of Credits ID, uploading and maintenance of semester wise credits/grades and award in the ABC and National Academic Depository (NAD) to facilitate the credit transfer and redemption as per guidelines of statutory bodies.

The Examining Authority shall be responsible for creation and verification of Academic Bank of Credits ID, uploading and maintenance of semester wise credits/grades and award in the ABC and National Academic Depository (NAD) to facilitate the credit transfer and redemption as per guidelines of statutory bodies.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

20. Declaration of class

The classification of the degree shall be determined based on the Cumulative Grade Point Average (CGPA) obtained by the candidate, as indicated below:

- First Class with Distinction: **CGPA of 7.50 and above**
- First Class: **CGPA of 6.00 to 7.49**
- Second Class: **CGPA of 5.00 to 5.99**

21. Project work

All students shall undertake a project under the supervision of a teacher and submit a report, preferably with the involvement of an external mentor from Industry, Hospital, NABL or CDSCO-approved labs, or an Allied/Interdisciplinary field. The project shall be carried out in groups not exceeding three members. The project report must be submitted in triplicate as a typed and bound copy of no less than 25 pages. Internal and external examiners appointed by the University shall evaluate the project during the practical examinations of the respective semester(s), and students shall be evaluated in groups. Additionally, students are permitted the option to pursue a continuous research theme initiated in the seventh semester and extending through the eighth semester. Under this provision, the specific project milestones achieved by the conclusion of the seventh semester shall undergo formal evaluation by the appointed examiners during that semester's final examination.

The projects shall be evaluated as per the criteria given in **Table XVIII** and **Table XIX** below

Table - XVIII: Evaluation of Dissertation Book

Sl. No.	Evaluation Criteria	Maximum Marks
1	Objectives of the work undertaken	10
2	Methodology adopted	20
3	Results and discussion	20
4	Conclusion and outcome	10
	Total	**60**

Table XIX. Evaluation of Dissertation Presentation

Sl. No.	Evaluation Criteria	Maximum Marks
1	Presentation of work	40
2	Communication skills	20
3	Question and answer skills	30
	Total	**90**

Explanation: The 60 marks assigned to the dissertation book shall be same for all the students in a group. However, the 90 marks assigned for presentation shall be awarded based on the performance of individual students in the given criteria.

SMVEC School of Phd.
Madagadipet, Puducherry - 605 107.

22. Internship

Every candidate shall be required to complete a minimum of 240 hours of practical training, spread over a period of two semesters, in a Pharmaceutical/ Cosmetics/ Medical Devices/ Food Industry, or in a Hospital/Community Pharmacy, or any other relevant field as per the prescribed course content. He/she has to submit two internship reports which will be evaluated separately.

Certificate and Report submission: *75 Marks*
Presentation and Discussion: *25 Marks*
Total: *100 Marks*

23.Industry/Field Visits and other Co-curricular Activities.

It shall be compulsory for pharmacy Institutions to organize industrial/field visit and other co-curricular activities to promote holistic learning through participative, problem-based, experiential and innovative pedagogical methods. Students shall submit individual reports, which shall be assessed in continuous evaluation mode as part of any core course each year, as decided by the Programme Committee.

23.1. Industry/Field Visits

It shall be compulsory for students to undertake at least one industrial/field visit during each year to facilities involved in the manufacturing of active pharmaceutical ingredients, excipients, pharmaceutical formulations, medical devices, food, cosmetics, government/ NABL approved drug and medical device testing laboratories or NABH accredited hospital. It shall be assured by the institutions that the facilities chosen for a particular year shall not be repeated.

23.2. Memorandum of Understanding (MoU):

A formal and legally valid Memorandum of Understanding (MoU) must be executed (minimum 10) between the pharmacy Institution and pharmaceutical Industry/ government/NABL approved drug and medical device testing laboratories/ NABH accredited hospital. Out of those MoUs, 5 must be with the pharmaceutical industries.

23.3. Co-curricular Activities:

It shall be compulsory for the pharmacy institution to adopt a village or a ward in the panchayath/municipal corporation and engage in community service activities. The community services shall include (but not limited to) prescription survey, awareness of rational drug use, patient counselling services or activities as per the prescribed course content.

24. Award of Ranks:

Ranks and Medals shall be awarded on the basis of final CGPA. However, candidates who fail in one or more courses during the B. Pharm Programme shall not be eligible for award of ranks. Moreover, the candidates should have completed the B. Pharm Programme in minimum prescribed number of years (i.e. four years) for the award of Ranks.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

25. Award of Degree:

Candidates who fulfil the requirements mentioned above shall be eligible for award of degree during the ensuing convocation.

26. Duration for Completion of the Programme:

The maximum period permitted for completion of the Programme shall be twice the prescribed duration of the Programme. Any student who fails to complete the Programme within this stipulated period shall be required to discontinue the course.

27. Re-admission after Break of Study:

A candidate seeking re-admission to the Programme after a break in studies must obtain approval from the university by paying the prescribed condonation fee. Condonation will not be granted if the break in study exceeds two years or if the student fails to complete the Programme within the maximum permitted duration (N×2).

28. Various Committees and its Functions

28.1. Academic Council (AC)

Composition of Academic Council:

1. The Principal (Chairman)
2. All the Heads of Departments in the Autonomous College
3. Four teachers of the Autonomous College representing different categories of teaching staff by rotation on the basis of seniority of service in the College.
4. Not less than four experts/academicians from outside the Autonomous College representing such areas as Industry, Commerce, Law, Education, Medicine, Engineering, Sciences, etc., are to be nominated by the Governing Body.
5. Three nominees of the University, not less than Professors.
6. The Controller of Examination of the Autonomous College
7. A faculty member nominated by the Principal (Member Secretary).

Term: The term of the nominated members shall be three years.

Meetings: Meetings of the Academic Council shall be held at least once every six months

Functions of the Academic Council:

a. To scrutinize and approve the proposals with or without modification of the Board of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto, etc., provided that where the Academic Council differs on any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.

b. To make regulations regarding the admission of students to different programmes of study in the Autonomous College, keeping in view the policy of the Government.

c. To make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.

d. To recommend to the Governing Body proposals for the institution of new programmes of study.

e. To recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes, and medals, and to frame regulations for the award of the same.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

f. To advise the Governing Body on suggestions(s) pertaining to academic affairs.
g. To perform such other functions as may be assigned by the Governing Body.

28.2. Board of Studies (BoS)

Composition of Board of Studies:

1. Head of the Department concerned (Chairperson).
2. All faculty members of the Department.
3. Two subject experts from outside the parent University are to be nominated by the Academic Council.
4. One expert is to be nominated by the Vice-Chancellor from a panel of six recommended by the Autonomous College Principal.
5. One representative from industry/corporate sector/allied areas to be nominated by the Principal.
6. One member of the College alumni to be nominated by the Principal.
7. Experts from outside the Autonomous College, whenever special courses of studies are to be formulated, to be nominated by the Principal.

Term: The term of the nominated members shall be three years.
Meetings: Meetings of the Board of Studies shall be held at least once every six months.

Functions:

The Board of Studies shall recommend the following to the Academic Council:

1. Courses of studies
2. Measures for the improvement of the standards of teaching and research
3. Any other academic matter.

28.3.Academic Standing Committee (ASC)

Composition of Academic Standing Committee is same as that of AC, except external members. ASC shall perform the functions under emergency situations subject to ratification by the AC.

28.4.Academic Appeal Board (AAB)

The Academic Appeal Board is constituted with Dean Academics as convener and two senior level professors as members, and the concerned Head of the Department and Class Advisor as co-opted members. The board will receive the grievances/complaints in writing from the aggrieved student regarding anomaly in award of marks. The board will examine the complaints and recommend appropriate measures to the Head of the Institution, for necessary action.

The entire process of Continuous Assessment shall be made transparent, in which students can get the explanation of marks being awarded from the course instructor, if and when required. However, if a student finds some anomaly in the award of marks in the continuous assessment, he/she can make an appeal to the Academic Appeal Board for review of marks awarded.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 014.

Before appealing for such review, a student shall first approach the concerned Course Instructor and then the concerned Head of the Department, with a request to do the needful. Only after exhausting the above options and in situations where satisfactory actions / remedial measures have not been taken, the student may appeal to the Academic Appeal Board.

28.5.Department Advisory Committee (DAC)

DAC is another basic constituent of the academic system of an autonomous college. The composition and functions of the DAC are given below:

1. Chairperson: Head of the concerned Department
2. Internal Members: Two senior faculty members of the department
3. Industry Representative: One representative from industry/corporate sector / is related to the placement
4. One academician from other Institution
5. One meritorious alumnus
6. One parent
7. One student
8. Member secretary: Programme Academic Coordinator

Term: The term of the nominated members shall be three years.

Meetings: The meeting may be scheduled as and when necessary, but at least twice a year.

Functions of DAC

The DAC of a department in the college shall

(a) Formulate a process to review post implementation effects of curriculum.

(b) Suggest measures to ensure academic standard and excellence of the course offered by the department.

(c) Suggest the methodologies for innovative teaching and evaluation techniques; enhancement of industry institute interaction.

(d) Identify and recommend the record of new programme.

(e) Review target set for attainment of course outcomes and programme outcomes.

(f) Guide and provide support to department for enhancing interaction with outside world.

(g) Plan strategically to enhance the academic quality of department.

(h) Resolve the address issues expressed by the stakeholders through feedback.

(i). Defining and redefining the Programme Educational Objectives (PEOs) and Programme Outcomes (POs) based on the recommendations by department academic committee.

(j) Study the achievement of PEOs and POs reported by department evaluation committee and suggest measures for improvement.

28.6.Board of Examinations (BOE):

Composition

1. Head of the Institution (Chairperson)
2. Dean Academics
3. Controller of Examination (CoE): Member Secretary

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

4. One expert possessing ten years of industrial/ field experience nominated by the Chairman
5. Coordinators (Examinations, Assessment, Results and Tabulation.

Functions of BoE:

(a). The BoE shall

i. Ensure proper performance of the various duties in conducting examinations viz. papersetting, time table preparation, assessment and declaration of results.

ii. Recommend examination reforms and shall implement after the approval of academic council.

iii. Prepare the detailed time table of examinations as per the schedule approved by academic council.

iv. Arrange for strict vigilance during the conduct of examination so as to avoid use of unfair means by the students, faculty and invigilators.

(b). Chairman, BoE shall constitute Complaint Redressal Committee (CRC) consisting of three members as and when required to deal with the complaints related to the conduct of examinations.

(c). The recommendations of the CRC shall be approved by Chairman for the BoE to take appropriate disciplinary actions in the concerned matter. The disciplinary actions shall be endorsed by the BoE.

(d). The BoE shall perform duties and responsibilities that are assigned by Academic Council of the institute from time to time.

28.7. Department Consultative Committee (DCC)

Composition

1. Head of Department (Chairperson)
2. Five faculty members (at least one from each specialization) nominated by HOD
3. Member Secretary: Programme Academic Coordinator / Programme Evaluation Coordinator

Functions of DCC

(a). Review, revise and prepare curriculum structure based on institutional policy, suggest improvements in syllabus of a course/s prepared by course teacher/s and forward the curriculum to BoS for further recommendations.

(b). Check appropriateness of course objectives, course outcomes, and mapping of COs with POs and suggest necessary improvements/modifications.

(c). Monitor the academic progress throughout the semester, conduct of classes and take appropriate corrective measures to improve the quality of curriculum delivery.

(d). Review academic performance of students.

(e). Counsel the concerned course teachers for improvement based on student feedback, academic and question paper audit reports.

(f). Verify the attainment level of course outcomes and programme outcomes.

(g). Formulate strategy to collect feedback from stake holders, analyze the collected feedback and forward the analysis to DAC.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 10

(h). Contribute to maintain academic standard as well as improving the quality of the courses offered by the department and enhance industry–institute interaction.

(i). Suggest open and professional electives considering societal needs.

(j). Recommend methodologies for innovative teaching and evaluation techniques to BoS.

(k). Coordinate research, teaching, extension and other academic activities in the department/college.

(l). Carry out preparatory work for defining /redefining the Programme Educational Objectives (PEOs) and Programme Outcomes (POs) periodically.

Monitor evaluation of course attainments leading to achievement of programme outcomes and report the results of assessment to BoS.

28.8. Programme Academic Coordinator (PAC)

The functions and duties of PAC are:

(a). Coordinating all academic activities of the department viz Curriculum revision, framing of syllabus, time table, member secretary for BoS meeting, re-registration of course/s, display and submission of attendance status.

(b). Conducting internal academic audit and department advisory committee meeting as a member secretary.

(c). Monitoring the academic activities and conduct of classes.

(d). Extending necessary help to department academic and evaluation committee.

(e). Recording and forwarding all academic related documents to Dean Academics.

(f). Working in association with Dean Academics.

28.9. Department Evaluation Coordinator (DEC)

The functions and duties of DEC are:

(a). Conduct course and graduate exit survey, make arrangements for feedback from stakeholders (industry/employer/alumni/student) and feedback analysis.

(b). Monitor the assessment of course outcome.

(c)Compute / assess / evaluate the achievement of PEOs and POs as per NBA/NAAC requirements.

(d). Compile the information required for the preparation of Annual Quality Assurance Report (AQAR) by the Internal Quality Assurance Cell (IQAC).

(e). Extend necessary help to department academic and evaluation committee.

28.10.Class Advisor

Head of the Department will allot one faculty member to be the class advisor for a particular batch of students throughout their period of study. The role of class advisors is as follows: (a)To motivate and closely monitor the performance of the students.

(b) To maintain all important documents of the students for reference/inspection by all committees.

(c) To work closely with the student counselors on matters related to students and update the details from time to time in student's profile for further reference.

(d) To build a strong alumni base for the institution by maintaining a possible rapport with students and parents.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

28.11. Counselor (Mentor)

By guiding and counseling students, faculty can create a greater sense of belongingness amongst the student community. To help the students in planning their courses and for general guidance on the academic programme, the Head of the Department will allot a certain number of students to a teacher of the department who shall function as student counselor throughout the period of study.

The student counselor will guide / monitor the courses chosen by the students, check attendance and progress of the students and counsel them periodically. The student counselors should ensure that each student is made aware of the various options for progress. Students are monitored and guided to become overall performers. Students can select and work for career choices of their interest. The student counselors shall update and maintain the student counselor record of each student under his guidance attached to them. The student counselors shall also help the class advisors to update the students details attached to them.

The student counselor may also discuss with the class advisor, HOD and parents about the progress of the students.

28.12. Quality Circle Meeting (QCM)

Every class will have a class committee constituted by the HoD to discuss about the various Academic activities through Quality Circle Meeting (QCM).

The members of the class committee will be as follows:

1. Chairperson (a senior faculty who is preferably not teaching any course for the class)
2. All the course handling staff of the class
3. Students (a minimum of 6 consisting of 3 boys and 3 girls on pro-rata basis)

Functions The functions of the QCM shall include the following: -

(a). Clarify the regulations of the programme and the details of rules therein.

(b). Inform the student representatives about the academic schedule including the dates of assessments and the syllabus coverage for each assessment.

(c). Inform the student representatives about the details of Regulations regarding marks assigned for each assessment. In the case of practical courses (laboratory/ drawing / project work / seminar etc.) the breakup marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students

(d). Analyze the performance of the students of the class after each assessment test and initiate steps for improvement.

(e). Identify slow learners, if any, and request the faculty concerned to provide additional help/ guidance / coaching to such students.

(f). Discuss and sort out problems experienced by students in the classroom and in the laboratories.

(g). The class committee shall be constituted within the first week of the commencement of any semester.

SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

(h). The chairperson of the class committee may invite the class advisor / student counselor and the Head of the Department to the meeting of the class committee.
(i). The Head of the Institution may participate in any class committee meeting.
(j). The chairperson is required to prepare the minutes of every meeting, submit the same through the Head of the Department to the Principal within two days of the meeting and arrange to circulate the same among the students and faculty concerned. Points requiring action by the management shall be brought to the notice of the management by the principal.

Meetings
Quality Circle Meeting (QCM) are to be conducted as scheduled below.

Meeting 1	One week before the 1st assessment test
Meeting 2	One week before the 2nd assessment test

During the first meeting of the class committee, the students are to be informed about the assessment procedure as per the framework of the Regulations. During these meetings the student representatives shall meaningfully interact and express opinions and suggestions of the students of the class to improve the effectiveness of the teaching-learning process.

29. Revision of regulations and curriculum

The college may revise, amend or change the regulations of curriculum and syllabi from time to time as and when found necessary as per the requirements of Industry.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Semester I

Course Code	Name of the course	No. of hours per week (L/P)	Credit points
BP101T	Basics of Python Programming for Pharmaceutical Sciences (Theory)	2	2
BP102T	General Pharmacy (Theory)	3	3
BP103T	Healthcare Psychology and Communication Skills (Theory)	1	1
BP104T	Human Anatomy, Physiology and Pathophysiology I (Theory)	4	4
BP105T	Introduction to Pharmacognosy (Theory)	3	3
BP106T	Pharmaceutical Inorganic and Analytical Chemistry (Theory)	3	3
BP107P	General Pharmacy (Practical)	3	1
BP108P	Healthcare Psychology and Communication Skills (Practical)	2	1
BP109P	Human Anatomy, Physiology and Pathophysiology I (Practical)	3	1
BP110P	Introduction to Pharmacognosy (Practical)	3	1
BP111P	Pharmaceutical Inorganic and Analytical Chemistry (Practical)	3	1
Total		**30**	**21**

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP101T	**Basics of Python Programming for Pharmaceutical Sciences (Theory)**			Core
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
2	2	--	--	30
Maximum Marks	SE			ESE
50	20			30

Course Objectives:

The objectives of this course are to:

1. Introduce the fundamentals of Python programming for pharmaceutical sciences.
2. Develop basic programming skills using control structures, functions, and data structures.
3. Provide knowledge of data handling techniques for structured dataset management.
4. Familiarize students with data analysis tools such as NumPy and Pandas for healthcare datasets.
5. Enable students to visualize and interpret pharmaceutical data.

Course Outcomes (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Explain the fundamentals of Python programming, including variables, data types, operators, and libraries.
2	Analyze program logic using control structures and functions.
3	Organize, manipulate, and retrieve data using data structures and file handling techniques.
4	Analyze pharmaceutical datasets using Python libraries.
5	Visualize and interpret pharmaceutical data using graphical tools.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Introduction to Python programming** • Installing Python and an Integrated Development Environment (IDE) [Jupyter Notebook, PyCharm, VS Code etc.], Advantages of IDEs over text editors. • Python variables and data types (integers, floats, strings, booleans), Type casting and basic operators (arithmetic, comparison, logical), Input and output operations.	6 Hours

Dean
SMVEC School of Pharmacy

	• Basic string operations and manipulation techniques. Introduction to standard libraries and third-party libraries, installing and uninstalling libraries.	
II	**Control Structures & Functions** • Conditional statements (if, if-else, if-elif-else), nested conditions • Loops (for loop, while loop). • Break and continue statements. • Defining and calling functions, passing arguments and returning values. • Writing modular programs for simple pharmaceutical applications- dosage calculation and BMI calculation.	6 hours
III	**Data Structures & File Handling** • Lists, tuples, and dictionaries. • Indexing and slicing lists, basic operations on lists and dictionaries, string manipulation techniques. • Introduction to NumPy arrays, basic operations using NumPy (array creation, arithmetic operations). • Reading and writing CSV files. • Understanding structured healthcare datasets. • Importing small pharmaceutical datasets and performing basic data access and manipulation tasks.	6 hours
IV	**Data Handling with Pandas** • Introduction to Pandas library. • Pandas Series and DataFrame structures. • Reading CSV and Excel files-PK study datasets and ADR reports • Inspecting datasets using functions such as head(), tail(), info(), and describe(). • Data cleaning techniques and handling missing values. • Filtering and selecting data based on conditions. • Grouping data and performing aggregation functions.	6 Hours
V	**Data Visualization with Matplotlib** • Introduction to Matplotlib. • Creating line plots, histograms, scatter plots, and box plots. • Labeling axes, titles, and legends. • Create plots and visualize pharmaceutical datasets - concentration-time curves for oral and IV administration, ADR reporting rates across drugs, dissolution profiles. • Scientific interpretation of plots.	6 Hours

Dean

SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Recommended References *(Preferably Latest Editions)*:

1. Weiss, C.J., 2017. *Scientific Computing for Chemists with Python*. Available at: https://weisscharlesj.github.io/SciCompforChemists/notebooks/introduction/intro.html
2. Perkovic, L., 2015. *Introduction to Computing Using Python: An Application Development Focus*. 2nd ed. Hoboken: Wiley.
3. Sweigart, A., 2025. *Automate the Boring Stuff with Python*. 3rd ed. Available at: https://automatetheboringstuff.com/
4. W3Schools, n.d. *Python Tutorial*. Available at: https://www.w3schools.com/python/
5. Datasets for Education and Research:
   Mentors and students can access healthcare datasets from sources such as Kaggle (healthcare records), government agencies (healthdata.gov, WHO, https://www.data.gov.in/), and clinical trial registries (https://ctri.nic.in/, https://clinicaltrials.gov/). *Always use data responsibly*.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP102T	**General Pharmacy (Theory)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
3	3	--	--	45
Maximum Marks	SE			ESE
75	30			45

COURSE OBJECTIVES

The objectives of this course are to:

1. Provide knowledge about evolution and development of Pharmacy profession in India and the growth of the Pharmaceutical Industries over the years.
2. Provide understanding of different types of pharmacopoeias and other official books in maintaining the standards of medicines.
3. Provide knowledge about the basic pharmaceutical calculations used in dispensing and compounding.
4. Understand the role of active pharmaceutical ingredients and pharmaceutical excipients in drug formulations
5. Impart basic knowledge about formulation and preparation of Various solid, liquid and semisolid dosage forms

Course Outcomes (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Describe the history and evolution of the pharmacy profession, including pharmacopeial practices and prescription handling.
2	Perform accurate pharmaceutical calculations required in the formulation and preparation of various types of dosage forms.
3	Explain the properties and functions of active pharmaceutical ingredients (APIs) and excipients and demonstrate the methods of preparation of solid dosage forms.
4	Illustrate the formulation principles of liquid dosage forms by analyzing the role of APIs and excipients involved.
5	Compare and evaluate the formulation of semisolid dosage forms based on the characteristics of APIs, excipients, and preparation methods.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Introduction to the Profession of Pharmacy** • History of the Profession of Pharmacy in India: In relation to pharmacy education, pharmaceutical industries and organizations – evolution, development and milestones. • Scope of the Pharmacy Profession: Role and responsibilities of pharmacists in retail/community pharmacy, hospital and clinical pharmacy, and industrial pharmacy including research and development. • Pharmacopoeias: Introduction to IP, BP, USP, BPC, International Pharmacopoeia, other pharmacopoeias and the National Formulary of India; structure and content of the Indian Pharmacopoeia; study of one model IP monograph. • Introduction to Prescription: Structure and format/parts of prescription, handling of prescriptions, Latin terminology related to prescriptions.	9 hours
II	**Introduction to Pharmaceutical Calculations and Dosage Forms** • Metric system of weights and measures; calculations based on alligation, proof spirit, isotonic solutions, dilute solutions (percentage and ratio) and geometric dilution; scientific notation of units and measures. • Posology: Definition and dose calculation based on age, body weight and body surface area. • Introduction to Dosage Forms: Routes of administration and classification of dosage forms. • Introduction to Active Pharmaceutical Ingredients and Excipients: Definition, ideal characteristics and importance.	9 hours
III	**Solid Dosage Forms** • Powders: Classification, advantages and disadvantages; dusting powders, effervescent powders, efflorescent powders, hygroscopic powders and eutectic mixtures; introduction to excipients and methods of preparation. • Tablets: Definition, types of tablets including moulded tablets and pills with examples; advantages and disadvantages; introduction to excipients and methods of preparation. • Capsules: Definition, types of capsules, advantages and disadvantages, capsule sizes; introduction to excipients and methods of preparation.	9 hours
IV	**Monophasic and Biphasic Liquids** • For internal use – aromatic waters, syrups, elixirs and linctus (definition and preparation).	9 hours

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

	• For external use and body cavities – liniments, lotions, throat paints, applications, gargles, mouthwashes, enemas, eye drops, ear drops, nasal drops and tinctures with examples. • Study of official preparations- Introduction to excipients and methods of preparation. • Suspensions- Definition and types (flocculated and deflocculated), advantages and disadvantages, formulation excipients and general methods of preparation. • Emulsions- Definition and types, emulsifying agents, tests for identification of types of emulsions, formulation excipients and general methods of preparation.	
V	**Semisolid Dosage Forms** • Definitions, classification, advantages and disadvantages, ointment bases and other excipients used in semisolid dosage forms; general methods of preparation of ointments, pastes, creams and gels. • Suppositories / Pessaries: Definition, types of suppositories, advantages and disadvantages, formulation excipients used in suppositories, properties of ideal suppository bases, types of suppository bases, displacement value and general method of preparation.	9 hours

Recommended References *(Preferably Latest Editions)*:

1. Ansel, H.C., Allen, L.V. and Popovich, N.G., *Pharmaceutical Dosage Forms and Drug Delivery Systems*. Lippincott Williams & Wilkins, New Delhi.
2. Carter, S.J., *Cooper and Gunn's Dispensing for Pharmaceutical Students*. CBS Publishers, New Delhi.
3. Indian Pharmacopoeia Commission, *Indian Pharmacopoeia*. Ghaziabad.
4. Indian Pharmacopoeia Commission, National Formulary of India. Ghaziabad, India.
5. British Pharmacopoeia Commission, *British Pharmacopoeia*. London.
6. United States Pharmacopeial Convention, *United States Pharmacopeia (USP–NF)*. Rockville, Maryland, USA.
7. Lachman, L., Lieberman, H.A. and Kanig, J.L., *The Theory and Practice of Industrial Pharmacy*. Lea & Febiger, University of Michigan.
8. Gennaro, A.R., *Remington: The Science and Practice of Pharmacy*. Lippincott Williams & Wilkins, New Delhi.
9. Rawlins, E.A., *Bentley's Textbook of Pharmaceutics*. Elsevier Health Sciences, USA.
10. Nieloud, F. and Marti-Mestres, G., *Pharmaceutical Emulsions and Suspensions*. Marcel Dekker Inc., New York.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP103T	**Healthcare Psychology and Communication Skills (Theory)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
1	1	--	--	15
Maximum Marks	SE			ESE
50	20			30

COURSE OBJECTIVES:

The objectives of this course are to:

1. Introduce the fundamental concepts and branches of psychology relevant to healthcare.
2. Help students understand human behavior, development, and psychological responses to illness.
3. Develop awareness of common psychological disorders and coping mechanisms in healthcare contexts.
4. Equip students with effective health communication skills for clinical and community settings.
5. Promote professional interaction with patients, caregivers, and healthcare teams through ethical and empathetic communication.

Course Outcomes (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Explain the fundamental concepts of psychology and their relevance in healthcare settings.
2	Describe the stages of human development, personality traits, and behavioral responses associated with illness and recovery.
3	Apply effective communication models and techniques in clinical and interdisciplinary healthcare scenarios.
4	Demonstrate professional communication skills including active listening, empathetic interaction, and accurate clinical documentation.
5	Analyze psychological and behavioral interventions that promote mental health, treatment adherence, and stigma reduction.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605107.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Introduction to Psychology in Healthcare** Definition, scope, and relevance of psychology in health sciences. Branches of psychology with healthcare relevance: clinical, health, behavioural, and developmental psychology. Sensation, perception, and attention in clinical assessment. Learning and memory: reinforcement in health behaviour change. Emotion and motivation: theories and implications in health contexts.	3 hours
II	**Developmental and Behavioural Psychology** Human developmental stages and healthcare needs. Personality theories and patient interaction styles. Psychological factors affecting illness perception and recovery. Common psychological disorders in healthcare: anxiety, depression, and somatization. Coping strategies, resilience, and stress management techniques.	3 hours
III	**Foundations of Health Communication** Elements and models of communication in healthcare. Types of communication: interpersonal, group, mass, and telehealth communication. Barriers to effective communication in clinical settings. Active listening, questioning techniques, and empathy. Culturally appropriate and inclusive communication.	3 hours
IV	**Professional Communication in Healthcare Settings** Communication with patients, caregivers, and interdisciplinary teams. Delivering difficult news and handling emotionally charged situations. Legal and ethical issues in health communication (confidentiality, consent). Writing patient records, reports, and discharge summaries. Use of technology and digital communication tools in healthcare services.	3 hours
V	**Health Psychology and Behavioural Interventions** Health belief models and illness behaviour. Psychosomatic illnesses and the mind–body connection. Behaviour change theories (e.g., CBT, TTM) in treatment adherence. Psychological first aid and crisis communication. Mental health promotion and stigma reduction through communication.	3 hours

Recommended References *(Preferably Latest Editions)*:

1. Feldman, R.S., Understanding Psychology. McGraw-Hill Education, New York.
2. Taylor, S.E., Health Psychology. McGraw-Hill Education, New York.
3. Hargie, O., The Handbook of Communication Skills. Routledge, London.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

4. Nevid, J.S., Rathus, S.A. and Greene, B., Psychology and the Challenges of Life: Adjustment and Growth. Wiley, New York.
5. Atkinson, R.L., Atkinson, R.C., Smith, E.E., Bem, D.J. and Nolen-Hoeksema, S., Introduction to Psychology. Wadsworth Publishing, Belmont.
6. Kumar, A., Communication Skills for Health Professionals. Jaypee Brothers Medical Publishers, New Delhi.
7. Park, K., Park's Textbook of Preventive and Social Medicine. Banarsidas Bhanot Publishers, Jabalpur.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP104T	**Human Anatomy, Physiology and Pathophysiology I (Theory)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
4	4	--	--	60
Maximum Marks	SE			ESE
100	40			60

COURSE OBJECTIVES:

The objectives of this course are to:

1. Understand the structural organization of the human body from cells to systems.
2. Comprehend physiological functions of various body systems and the principles of homeostasis.
3. Learn the cellular basis of disease including injury, adaptation, and inflammation.
4. Recognize common pathological conditions related to skin, bones, joints, blood, cardiovascular system, and special senses.
5. Establish the groundwork for clinical interpretation of symptoms and disease mechanisms relevant to pharmacy and therapeutics.

Course Outcomes (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Explain the fundamental concepts of Human Anatomy, Physiology and Pathophysiology.
2	Explain the gross morphology, structure and functions of various organs of the human body.
3	Understand the etiology and pathogenesis of diseases/disorders associated with integumentary system, peripheral nervous system and cardiovascular system
4	Understand the basic mechanism behind inflammation
5	Identify and differentiate the various tissues and organs of different systems of human body.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Introduction to human body** Cellular and tissue level of organization. Definition and scope of anatomy, physiology and pathophysiology. Levels of structural organization and body systems, basic life processes,	12 hours

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107

	homeostasis, basic anatomical terminologies. Structure and functions of cell, transport across cell membrane, cell division, cell junctions. General principles of cell communication, forms of intracellular signalling- a) Contact-dependent, b) Paracrine, c) Synaptic, d) Endocrine Classification of tissues, structure, location and functions of epithelial, muscular and nervous and connective tissues. **Basic principles of cell injury and adaptation** Components and types of feedback systems, causes of cellular injury, pathogenesis (cell membrane damage, mitochondrial damage, ribosome damage and nuclear damage), morphology of cell injury – adaptive changes (atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia), cell swelling, intra cellular accumulation and cell death. Definitions of commonly used relevant medical terminologies.	
II	**Integumentary system and wound healing** Structure and functions of skin. Skin disorders: Psoriasis and dermatitis and pathophysiology of Leprosy. Basic principles of wound healing. **Skeletal system and joints** Divisions of skeletal system, types of bones, salient features and functions of bones of axial and appendicular skeletal system. Organization of skeletal muscle, physiology of muscle contraction, neuromuscular junction. Structural and functional classification of joints. **Diseases of bones and joints** Pathophysiology of rheumatoid arthritis, osteoporosis and gout.	12 hours
III	**Body fluids, blood and lymphatic system** Body fluids, composition and functions of blood, hemopoiesis, formation of haemoglobin, mechanisms of coagulation, blood grouping, Rh factors and transfusion. Lymphatic organs and tissues, lymphatic vessels, lymph formation, circulation and functions of lymphatic system. **Basic mechanism of inflammation and repair** Introduction, classification and pathophysiology of inflammation, mediators of inflammation. **Haematological diseases** Pathophysiology of iron deficiency, megaloblastic anaemia (Vit B12 and folic acid), sickle cell anaemia, Thalassemia, hereditary acquired anaemia and haemophilia.	12 hours
IV	**Peripheral nervous system** Classification of peripheral nervous system: structure and functions of sympathetic and parasympathetic nervous system. Origin and functions of spinal and cranial nerves. **Special senses** Structure and functions of eye, ear, nose and tongue. Pathophysiology	12 hours

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

	of special sense disorders- glaucoma, cataract, myopia, otitis externa, otitis media, vertigo and anosmia	
V	**Cardiovascular system** Anatomy of heart, blood circulation, blood vessels, structure and functions of artery, vein and capillaries, elements of conduction system of heart and heartbeat, its regulation by autonomic nervous system, cardiac output, cardiac cycle. Regulation of blood pressure, pulse, electrocardiogram. Pathophysiology of hypertension, cardiac arrhythmias, congestive heart failure, ischemic heart disease (angina, myocardial infarction, atherosclerosis and coronary artery disease).	12 hours

Recommended References *(Preferably Latest Editions)*:

1. Sembulingam, K. and Sembulingam, P., *Essentials of Medical Physiology*. Jaypee Brothers Medical Publishers, New Delhi.
2. Guyton, A.C. and Hall, J.E., *Textbook of Medical Physiology*. Elsevier Saunders, Philadelphia, USA.
3. Tortora, G.J. and Grabowski, S.R., *Principles of Anatomy and Physiology*. Wiley, Palmetto, GA, USA.
4. Kumar, V., Cotran, R.S. and Robbins, S.L., *Basic Pathology*. W.B. Saunders Company, Philadelphia.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP105T	**Introduction to Pharmacognosy (Theory)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
3	3	--	--	45
Maximum Marks	SE			ESE
75	30			45

COURSE OBJECTIVES

The objectives of this course are to:

1. Explain the origin, history, and classification of natural drugs.
2. Understand cultivation and conservation methods for medicinal plants.
3. Study quality control and evaluation of crude drugs.
4. Study primary and secondary metabolites with their therapeutic relevance
5. Introduce traditional systems of medicine and phyto-therapeutic agents.

COURSE OUTCOMES (CO)

CO No.	Upon successful completion of this course, the students will be able to:
1	Describe the historical development, classification, and scope of Pharmacognosy.
2	Explain cultivation, processing, and conservation techniques for medicinal plants.
3	Apply quality evaluation methods to crude drugs using organoleptic, microscopic, and chemical parameters.
4	Identify primary and secondary metabolites with their therapeutic relevance.
5	Recognize traditional systems of medicine and commonly used phyto-therapeutic agents.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Fundamentals of Pharmacognosy** (a) Definition, history, present status, scope and development of pharmacognosy. (b) **Sources of drugs:** Plants, animals, microbial, marine, mineral and plant tissue culture. (c) **Historical milestones in drug discovery:** Morphine, quinine, aspirin, warfarin, penicillin, cephalosporin, taxol and artemisinin. (d) **Introduction to different herbal / traditional pharmacopoeias:** Indian Pharmacopoeia, British Herbal Pharmacopoeia, United States Pharmacopeia – Herbal Medicines and Dietary Supplements, Ayurvedic Pharmacopoeia of India, Unani	10 hours

M. S'
Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

	Pharmacopoeia of India and American Herbal Pharmacopoeia. (e) **Official and non-official; codified and non-codified drugs.** Classification of crude drugs: alphabetical, morphological, taxonomical, chemical, pharmacological and chemotaxonomic classification along with their merits and limitations.	
II	**Cultivation, Collection, Processing and Storage of Drugs of Natural Origin** Methods of plant cultivation and Good Agricultural and Collection Practices (WHO / GAP / GCP guidelines) for medicinal plants. Factors influencing cultivation, collection and storage of medicinal plants. Plant hormones and their applications in cultivation of medicinal plants. Application of polyploidy, mutation and hybridization concepts with reference to secondary metabolites. Ex-situ and in-situ conservation and strategies for value addition of medicinal plants. Role of eco-pharmacognosy in sustainable conservation of endangered medicinal plants such as kutki and chirata.	8 hours
III	**Quality Control of Drugs of Natural Origin (WHO Guidelines)** Adulteration of drugs of natural origin. Evaluation of drugs using organoleptic, microscopic (qualitative and quantitative), physical, chemical and biological methods. Physicochemical parameters: extractive values, moisture content, foreign organic matter, ash values, bitterness value, foaming index, haemolytic potential, swelling index, viscosity, optical rotation, refractive index, acid value and saponification value. DNA barcoding.	8 hours
IV	**Introduction to Metabolites of Plant Origin** Definition and general properties of plant metabolites. Primary and secondary metabolites such as carbohydrates, proteins, lipids, alkaloids, glycosides, flavonoids, tannins, terpenoids, volatile oils and resins. **Traditional Systems of Medicine** Basic principles of treatment of diseases in different systems of medicine including AYUSH and TCM. Types of dosage forms in AYUSH medicines. Role of pharmacognosy in allopathy and traditional systems of medicine such as AYUSH and TCM.	12 hours
V	**Phyto-therapeutic Agents** Biological source, major constituents and uses of the following classes of drugs: • Adaptogens and Immunomodulators: Ashwagandha, Tulsi, Amla • Hepatoprotectives: Milk thistle, Kutki • Cardiovascular drugs: Garlic, Arjuna • Antidiabetics: Gymnema, Fenugreek • Anti-inflammatory and analgesics: Turmeric, Boswellia • CNS drugs: Brahmi • Antimicrobial and antivirals: Giloy, Neem, Andrographis • Gastrointestinal drugs: Psyllium • Dermatological agents: Aloe • Drugs used in women's health: Chasteberry, Shatavari • Respiratory drugs: Vasaka	7 hours

Recommended References (*Preferably latest editions*):

1. Evans, W.C., *Trease and Evans Pharmacognosy*. 16th ed. London: W.B. Saunders & Co., 2009.
2. Tyler, V.E., Brady, L.R. and Robbers, J.E., *Pharmacognosy*. 9th ed. Philadelphia: Lea & Febiger, 1988.
3. Wallis, T.E., *Textbook of Pharmacognosy*. London: J. & A. Churchill Ltd.
4. World Health Organization (2002) *WHO traditional medicine strategy 2002–2005*. Geneva: World Health Organization

Dean
SMMEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

5. World Health Organization (1998) *Quality control methods for medicinal plant materials*. Geneva: World Health Organization.
6. World Health Organization (2003) *WHO guidelines on good agricultural and collection practices (GACP) for medicinal plants*. Geneva: World Health Organization.

Course Code	Course Title			Course Type
BP106T	**Pharmaceutical Inorganic and Analytical Chemistry (Theory)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
3	3	--	--	45
Maximum Marks	SE			ESE
75	30			45

COURSE OBJECTIVES:

The objectives of this course are to:

1. Understand the importance of errors, impurities in pharmaceuticals.
2. Comprehend the principles of buffer systems.
3. Develop skills in performing and interpreting limit tests and titrimetric analysis.
4. Emphasize the importance of inorganic compounds and radiopharmaceuticals in Pharmacy
5. Explain synthesis and analysis of inorganic compounds/products of pharmaceutical importance

COURSE OUTCOMES (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Identify sources and types of errors in pharmaceutical analysis, and impurities products
2	Apply concepts of acid-base chemistry, buffer systems with importance of electrolytes
3	Describe and differentiate various analytical techniques used in pharmaceutical analysis, including titrimetric methods, and their specific applications in quality assessment.
4	Analyze the properties, mechanisms, and therapeutic uses of gastrointestinal agents, radiopharmaceuticals, expectorants, antidotes, and other pharmaceutical compounds, illustrating their roles in therapy and safety considerations.
5	Describe the drugs used in expectorants, emetics, haemintics, poison and antidote and astringents.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Detailed Syllabus:

Unit No.	Topics	No. of Lectures
I	**Introduction to pharmaceutical analysis** Different techniques of analysis, Methods of expressing strength of solutions, Primary and secondary standards with examples. **Errors** Sources of errors, types of errors, methods of minimizing errors, accuracy, precision and significant figures. **Impurities** Definition, types, contents and regulatory importance. Sources and types of impurities in Pharmaceuticals, limit tests for chloride, sulphate, iron, arsenic, lead, heavy metals, and modified limit test for chloride and sulphate.	7 hours
II	**Acid-Base Chemistry and Buffer Systems in Pharmacy** Definition of acids, bases, buffers, pH Scale and its significance, Buffer equation, calculation of pH for Buffer solution. Isotonicity and its application in IV Fluids and Ophthalmic Solutions. **Major extra and intracellular electrolytes** Functions of major physiological ions, Electrolytes used in the replacement therapy: Sodium chloride*, Potassium chloride, Calcium chloride and Oral Rehydration Salt (ORS), Physiological acid base balance.	8 hours
III	**Acid base titrations** Theories of acid base indicators, classification of acid base titrations. Preparation and standardization of titrants viz. hydrochloric acid and sodium hydroxide. Theory involved in titrations of strong, weak, and very weak acids and bases, neutralization curves. Assay of Ammonium hydroxide. **Non-aqueous titrations** Types of solvents used, acidimetric and alkalimetric titration using non-aqueous solvents. Preparation and standardization of acidic and basic titrants. Estimation of weakly acidic and basic substances using non-aqueous titrants, estimation of Sodium benzoate. **Precipitation titrations and gravimetry** Principle and steps involved in gravimetric analysis, Mohr's method, Volhard's, Modified Volhard's, Fajans method. Estimation of barium sulphate by gravimetry. **Complexometric titrations** Classification, metal ion indicators, masking and demasking reagents, preparation and standardization of disodium EDTA. Estimation of Magnesium sulphate and Calcium gluconate*.	14 hours

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

	Redox titrations Concepts of oxidation and reduction, Types of redox titrations viz. Permanganometry, Cerimetry, Iodimetry, Iodometry and titrations with potassium iodate.	
IV	**Gastrointestinal agents** Acidifiers: Sodium acid phosphate and Dilute Hydrochloric acid. Antacids: Ideal properties of antacids, combinations of antacids, Sodium bicarbonate*, Aluminium hydroxide gel*. Agents promote bowel movements: Magnesium hydroxide, Sodium orthophosphate, Sodium Potassium tartrate and magnesium trisilicate. Antimicrobials: Mechanism, classification, Potassium permanganate, Boric acid, Hydrogen peroxide*, Chlorinated lime*, Iodine and its preparations. **Radiopharmaceuticals** Basics of radioactivity, applications of radioisotopes of Sodium Iodide I-131, Technetium-99m, Cobalt-60, Phosphorus-32 including safe handling, storage, and disposal of radiopharmaceuticals, adhering to regulatory guidelines for safety.	10 hours
V	**Miscellaneous Compounds** **Expectorants:** Potassium iodide, Ammonium chloride*. **Emetics:** Copper sulphate*, Sodium potassium tartrate. **Haematinics:** Ferrous sulphate*, Ferrous gluconate. **Poison and Antidote:** Definition, classification of antidotes, Sodium thiosulphate	06 hours

Recommended References (*Preferably latest editions*):

1. Bentley, R. and Driver, J., *Bentley and Driver's Textbook of Pharmaceutical Chemistry*. Oxford: Oxford University Press.
2. Vogel, A.I., *Vogel's Textbook of Quantitative Chemical Analysis*. Essex: Pearson Education Limited.
3. Beckett, A.H. and Stenlake, J.B., *Practical Pharmaceutical Chemistry*. Part I & II. London: The Athlone Press, University of London.
4. Schroff, M.L., *Inorganic Pharmaceutical Chemistry*. New Delhi: Oxford Book Company.
5. Indian Pharmacopoeia Commission, *Indian Pharmacopoeia*. Ghaziabad, India.

M.Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP107P	**General Pharmacy (Practical)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
1	--	--	3	45
Maximum Marks	SE			ESE
50	20			30

COURSE OBJECTIVES:

The objectives of this course are to:

1. Familiarize students with essential pharmaceutical calculations including dilution, concentration, and allegation methods required for accurate formulation of dosage forms.
2. Impart practical skills in the preparation of official and non-official dosage forms such as solutions, syrups, powders, granules, suppositories, semisolids, gargles, and mouthwashes in accordance with pharmacopeial standards.
3. Develop understanding of formulation principles related to selection of ingredients, dosage form design, stability, and patient acceptability.
4. Train students in the application of pharmacopoeial specifications (IP, BPC, WHO) during compounding, labeling, and evaluation of pharmaceutical preparations.
5. Enhance hands-on competency and professional confidence required for dispensing practice and pharmaceutical compounding in hospital and community pharmacy settings.

COURSE OUTCOMES (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Perform accurate pharmaceutical calculations using dilution and allegation principles for the preparation of various dosage forms.
2	Prepare and dispense liquid dosage forms such as solutions, syrups, gargles, and mouthwashes following official pharmacopeial procedures.
3	Formulate solid dosage forms including powders, divided powders, dusting powders, and effervescent granules as per standard guidelines.
4	Prepare semisolid and specialized dosage forms such as ointments, liniments, and suppositories using appropriate bases and techniques.
5	Compile and evaluate a compendium of marketed dosage forms, demonstrating compliance with pharmacopeial standards, labeling requirements, and patient-centric considerations

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Detailed Syllabus:

List of practical
1. Pharmaceutical Calculations Solutions based on allegation and dilution methods **2. Solutions** a) Strong solution of ammonium acetate – IP b) Cresol with soap solution – IP c) Lugol's solution – BPC **3. Syrups** a) Simple Syrup – IP **4. Powders & Granules** a) ORS powder – WHO b) Effervescent granules – IP c) Dusting powder – IP d) Divided powders – IP **5. Suppositories** a) Glycerogelatin suppository – BPC b) Cocoa butter suppository – IP c) Zinc Oxide suppository – IP **6. Semisolids** a) Sulphur ointment – IP b) Non-staining iodine ointment with methyl salicylate – BPC **7. Gargles & Mouthwashes** a) Iodine gargle – BPC b) Chlorhexidine mouthwash – IP ***Note:*** *a) Preparation of compendia of dosage forms (marketed products), is recommended.* *b) Any other practical relevant to the syllabus can be introduced.* *c) Minimum 12 experiments must be performed covering all dosage forms.*
Recommended References (*Preferably latest editions*): 1. Carter, S.J., *Cooper and Gunn's Dispensing for Pharmaceutical Students*. 12th ed. New Delhi: CBS Publishers. 2. Indian Pharmacopoeia Commission, *Indian Pharmacopoeia*, Vol. I. Ghaziabad: IPC. 3. United States Pharmacopeial Convention, *United States Pharmacopeia–National Formulary (USP–NF)*. Rockville, MD, USA. 4. British Pharmacopoeia Commission, *British Pharmacopoeia Codex*. London: The Stationery Office. 5. World Health Organization, *Oral Rehydration Salts (ORS) Formulation Guidelines*. Geneva: WHO.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP108P	**Healthcare Psychology and Communication Skills (Practical)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
1	--	--	2	30
Maximum Marks	SE			ESE
50	20			30

COURSE OBJECTIVES:

The objectives of this course are:

1. To develop effective communication skills essential for diverse clinical and community health scenarios.
2. To enhance empathetic interaction through role plays, simulations, and reflective practices.
3. To promote collaborative learning and peer feedback in communication-based tasks.
4. To encourage application of psychological principles in real-life healthcare contexts.
5. To build confidence in delivering health education and awareness activities in community settings.

COURSE OUTCOMES (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Demonstrate patient-centered communication through role plays and clinical simulations.
2	Analyze healthcare communication challenges using case study discussions.
3	Practice reflective listening, paraphrasing, and team-based communication strategies.
4	Design and deliver effective health education messages for the community.
5	Reflect on personal emotional growth and improvement in communication competencies.

Detailed Syllabus:

List of practical
1. **Role Plays and Simulations** Counselling a patient with chronic illness Breaking bad news in a clinical setting Empathetic listening in crisis response

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

2. **Case Study Discussions**
   Mental health cases in primary care
   Impact of miscommunication in healthcare errors
3. **Peer-to-Peer Practice Sessions**
   Reflective listening and paraphrasing
   Effective team communication and decision-making
4. **Community Engagement Tasks**
   Designing IEC materials for public health awareness
   Conducting mock health education sessions
5. **Journaling & Self-Reflection Logs**
   Weekly reflection on emotional responses during care simulations
   Growth in communication skill development over the semester

Recommended References (*Preferably latest editions*):

1. Morgan, C.T. and King, R.A., *Introduction to Psychology*. New York: McGraw-Hill.
2. Taylor, S.E., *Health Psychology*. New York: McGraw-Hill Education.
3. Hargie, O., *Skilled Interpersonal Communication: Research, Theory and Practice*. London: Routledge.
4. Balzer-Riley, J., *Communication in Nursing and Healthcare*. Boston: Pearson.
5. Weinman, J., Petrie, K.J. and Moss-Morris, R., *The Psychology of Health and Illness*. London: Routledge.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP110P	**Introduction to Pharmacognosy (Practical)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
1	--	--	3	45
Maximum Marks	SE			ESE
50	20			30

COURSE OBJECTIVES:

The objectives of this course are to:

1. Identify medicinal plants and crude drugs using morphological and microscopical characters.
2. Analyze powdered drugs and perform quantitative microscopy.
3. Evaluate crude drugs using physicochemical parameters.
4. Introduce standardization and quality control of herbal materials.
5. Collect medicinal plants and prepare voucher specimens.

COURSE OUTCOMES (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Identify medicinal plants and crude drugs using morphological and microscopical characters.
2	Analyze powdered drugs microscopically to identify diagnostic cell contents.
3	Perform quantitative microscopy for stomatal and vein parameters.
4	Evaluate quality and purity of crude drugs using physicochemical parameters.
5	Collect medicinal plants and prepare voucher specimens during field visits.

Detailed Syllabus:

List of practices
(Minimum 12 experiments must be performed) 1. Morphological study of medicinal plants (as mentioned in Unit V Theory). 2. Organoleptic evaluation and powder microscopical characters of the following drugs: Tulsi and Ashwagandha. 3. Organoleptic evaluation and powder microscopical characters of the following drugs: Amla and Arjuna. 4. Organoleptic evaluation and powder microscopical characters of the following drugs: Turmeric and Psyllium husk.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

5. Organoleptic evaluation and powder microscopical characters of the following drugs: Brahmi and Fenugreek.
6. Determination of moisture content of crude drugs.
7. Determination of swelling index and foaming index of crude drugs.
8. Determination of stomatal number and stomatal index of leaf.
9. Determination of vein islet and vein termination number of leaf.
10. Determination of ash value and extractive values of crude drugs.
11. Determination of foreign organic matter of crude drugs.
12. Determination of dimensions of calcium oxalate crystals and phloem fibers by eyepiece micrometry.
13. Determination of percentage purity of powder drug using lycopodium spore method.
14. Experiential learning-based experiments involving collection, identification of medicinal plant material, preparation of voucher specimens and excursion visits to medicinal plant garden.

Recommended References *(Preferably Latest Editions)*:

1. Evans, W.C., 2009. *Trease and Evans Pharmacognosy*. 16th ed. London: W.B. Saunders & Co.
2. Tyler, V.E., Brady, L.R. and Robbers, J.E., 1988. *Pharmacognosy*. 9th ed. Philadelphia: Lea & Febiger.
3. Wallis, T.E., *Textbook of Pharmacognosy*. London: J. & A. Churchill Ltd.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

3. **Test for Purity (Any 2 Experiments)** a. Assessment of swelling power of bentonite as per Indian Pharmacopoeia b. Evaluation of acid neutralizing capacity of aluminium hydroxide gel c. Determination of potassium iodate and iodine in potassium Iodide
4. **Assay of the following inorganic compounds including standardization of titrant (Any 5 Experiments)** a. Assay of ammonium chloride by acid base titration, b. Assay of Ferrous sulphate by Cerimetry, c. Assay of Copper sulphate by Iodometry, d. Assay of Calcium gluconate by Complexometry, e. Assay of Hydrogen peroxide by Permanganometry, f. Assay of Sodium benzoate by non-aqueous titration, g. Assay of Sodium Chloride by precipitation titration (Modified Volhard's method)

Recommended References *(Preferably Latest Editions)*:

1. Bentley, R. and Driver, J., *Bentley and Driver's Textbook of Pharmaceutical Chemistry*. Oxford: Oxford University Press.
2. Vogel, A.I., *Vogel's Textbook of Quantitative Chemical Analysis*. Essex: Pearson Education Limited.
3. Beckett, A.H. and Stenlake, J.B., *Practical Pharmaceutical Chemistry*. Part I & II. London: The Athlone Press, University of London.
4. Kennedy, J.H., *Analytical Chemistry: Principles*. New York: Saunders College Publishing.
5. Schroff, M.L., *Inorganic Pharmaceutical Chemistry*. New Delhi: Oxford Book Company.
6. Indian Pharmacopoeia Commission, *Indian Pharmacopoeia*. Ghaziabad, India.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Course Code	Course Title			Course Type
BP111P	**Pharmaceutical Inorganic and Analytical Chemistry (Practical)**			**Core**
Credit	Hours Per Week (L-T-P)			Max. Hours
	L	T	P	
1	--	--	3	45
Maximum Marks	SE			ESE
50	20			30

COURSE OBJECTIVES:

The objectives of this course are to:

1. Gain practical knowledge on various volumetric titration techniques.
2. Learn the principles of volumetric analysis.
3. Study the preparation and assessment of inorganic compounds.
4. Determine the assay of various inorganic compounds in pharmaceutical use.
5. Develop analytical skill for the qualitative and quantitative analysis of various inorganic compounds.

COURSE OUTCOMES (CO):

CO No.	Upon successful completion of this course, the students will be able to:
1	Perform limit tests to detect and identify impurities in pharmaceutical substances.
2	Prepare various pharmaceutical inorganic compounds following standard procedures.
3	Analyze the significance of quality control in pharmaceutical products and raw materials.
4	Demonstrate proficiency in titrimetric analysis using different volumetric techniques.
5	Competence in applying analytical skills to qualitative and quantitative data.

Detailed Syllabus:

List of practical
1. **Limit tests (Any 4 Experiments)** a. Limit test and modified limit test for Chloride as per Indian Pharmacopoeia b. Limit test and modified limit test for sulphate as per Indian Pharmacopoeia c. Limit test for Iron d. Limit test for Lead e. Limit test for arsenic 2. **Preparation of inorganic pharmaceuticals (Any 3 Experiments)** a. Preparation of Aluminium hydroxide b. Preparation of potash alum c. Preparation of ferrous sulphate d. Preparation of Magnesium sulphate from magnesium hydroxide or magnesium carbonate

Annexure III

The academic activities, including curriculum, co-curricular, and extra-curricular activities, conducted for the B.Pharmacy Programme from the academic year 2025–26

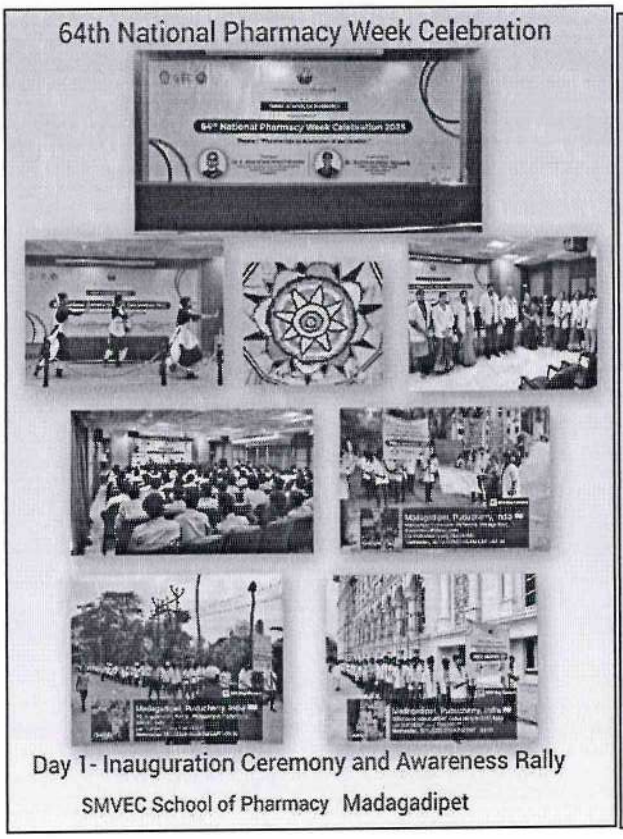
Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107

a) Curriculum Activity- Curriculum Related Guest Lectures

64th National pharmacy week celebration 2025

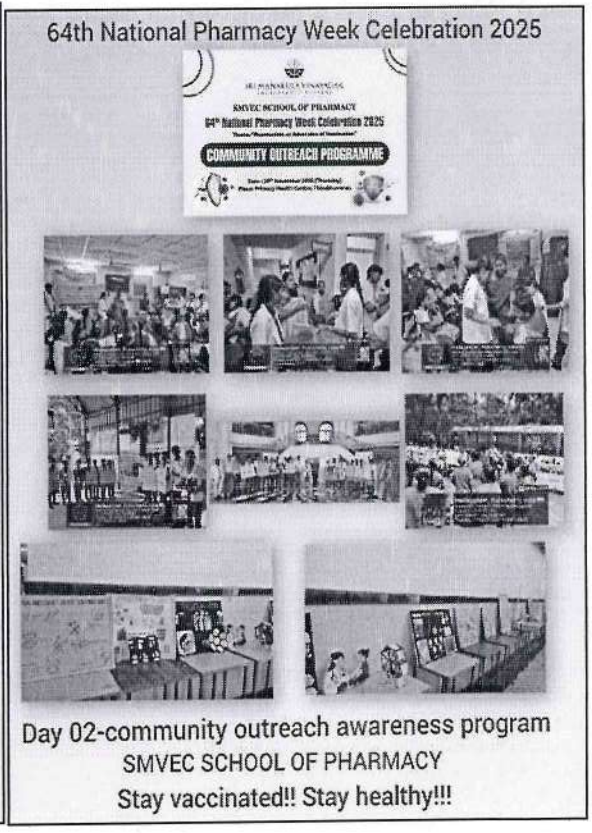
THEME: PHARMACIST AS ADVOCATES OF VACCINATION

S. No	Day And Date	Programme
1	**Day 1** – 19th November 2025 (Wednesday)	**Inauguration Ceremony:** (Formal opening of the celebration with dignitaries and faculty) **Awareness Rally:** (Conducted at Madagadipet to spread messages on importance of vaccination and public health)
2	**Day 2** – 20th November 2025 (Thursday)	**Community Outreach Program:** (Organized at Thirubuvanai Primary Health Centre) **Campus Activities:** (Health awareness initiatives for workers within SMVEC campus)
3	**Day 3** – 21st November 2025 (Friday)	**Guest Lectures:** On 21st November 2025,Guest Lecture was given by, Dr.Prema , DNB, Medicine, Primary Health center, Ariyur Puducherry in the morning session and Dr.A.Nishanthi professor department of pharmacology from SMVMCH , Madagadipet in the afternoon session on the theme of **"Pharmacists as Advocates of Vaccination",** **School Awareness Program:** (Conducted at SMVEC School to educate students on health, hygiene and importance of vaccination. Finally, vaccination schedule pamphlet distribution to the students)



Day 1- Inauguration Ceremony and Awareness Rally

SMVEC School of Pharmacy Madagadipet



Day 02-community outreach awareness program

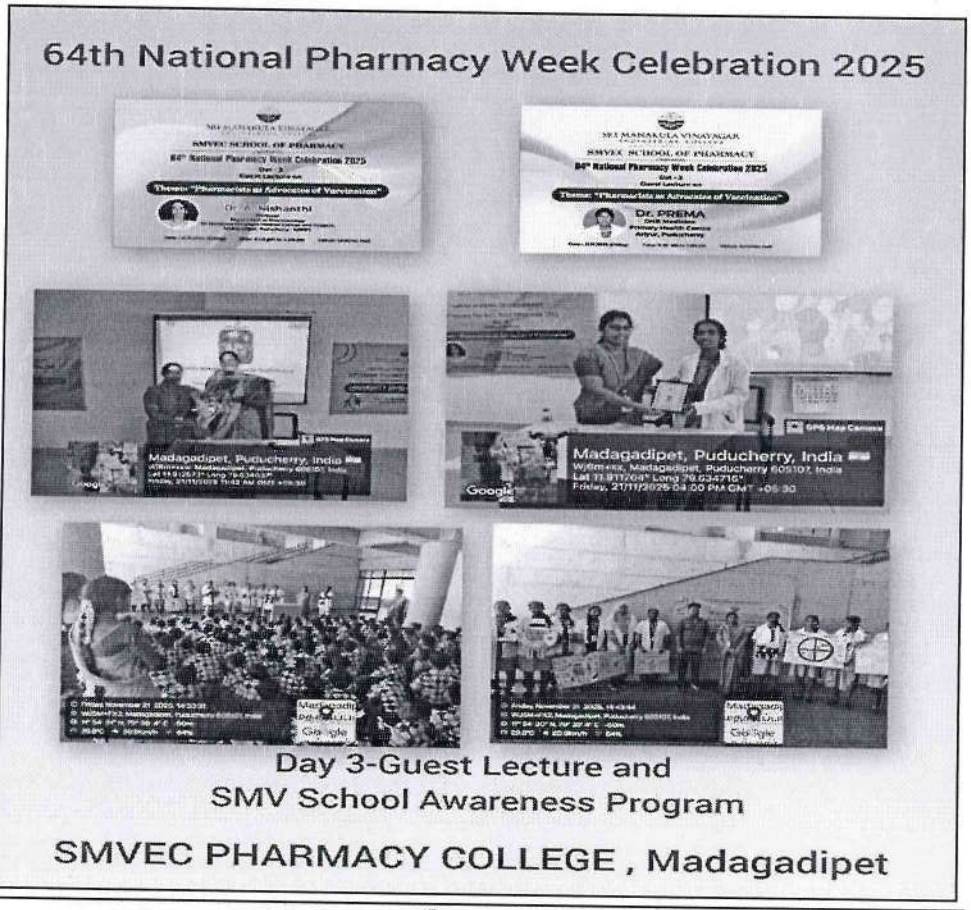
SMVEC SCHOOL OF PHARMACY

Stay vaccinated!! Stay healthy!!!

Dean

SMVEC School of Pharmacy

Madagadipet, Puducherry - 605 107.



மணக்குள விநாயகர் கல்லூரியில்

மருந்தியல் வார விழா கொண்டாட்டம்



மணக்குள விநாயகர் கல்லூரியில் மருந்தியல் வார விழா நடைபெற்றது.

புதுச்சேரி, நவ. 23- புதுவை மணக்குள விநாயகர் கல்லூரி மருந்தியல் துறை சார்பில் 64-ஆம் ஆண்டு மருந்தியல் வார விழா நடந்தது.

தக்ஷ ஷீலா பல்கலைக்கழக வேந்தரும், மணக்குள விநாயகர் கல்வி அறக்கட்டளையின் தலைவருமான இயக்குனர் தனசேகரன் தலைமை தாங்கினார். செயலாளர் நாராயணசாமி, பொருளாளர் ராஜாராஜன் மற்றும் இணை செயலாளர் வேலாயுதம் முன்னிலை வகித்தனர். மேலும் பொறியியல் கல்லூரி இயக்குனர் முனைவர் வெங்கடாஜலபதி வரவேற்றார். மேலும் டீன் அகாடமி அறிவழகர் சிறப்பு விருந்தினர்களை கௌரவித்தார். மணக்குள விநாயகர் மருந்தியல் துறை டீன் முனைவர் தனலட்சுமி நன்றி கூறினார்.

புதுச்சேரி மருந்து கட்டுப்பாடு துறை உரிமம் மற்றும் கட்டுப்பாடு அதிகாரி அனந்தகிருஷ்ணன் மற்றும் புதுச்சேரி அரசு பொது சுகாதாரத் துணை இயக்குநர் மருத்துவர் ஷமி முஸ்ஷா பேகம் ஆகியோர் இவ்விழாவினை துவக்கி வைத்து சிறப்புரையாற்றினர். தொடர்ந்து தடுப்பூசியின் முக்கியத்துவத்தை பொது மக்களுக்கு உணர்த்தும் வகையில் விழிப்புணர்வு பேரணி நடந்தது. மறுநாள் மருந்தியல் கல்லூரியின் முதலாம் மற்றும் இரண்டாம் ஆண்டு மாணவர்கள் திருபுவனை ஆரம்ப சுகாதார நிலையத்தில் பொது மக்களுக்கு தடுப்பூசி பற்றிய விழிப்புணர்வு ஏற்படுத்தினர். மூன்றாம் நாள் அரியூர் ஆரம்ப சுகாதார நிலையம் தலைமை மருத்துவ அதிகாரி பிரேமா மற்றும் மருந்தியல் துறை பேராசிரியர் நிஷாந்தி ஆகியோர் சிறப்புரையாற்றினர்.

M.S.

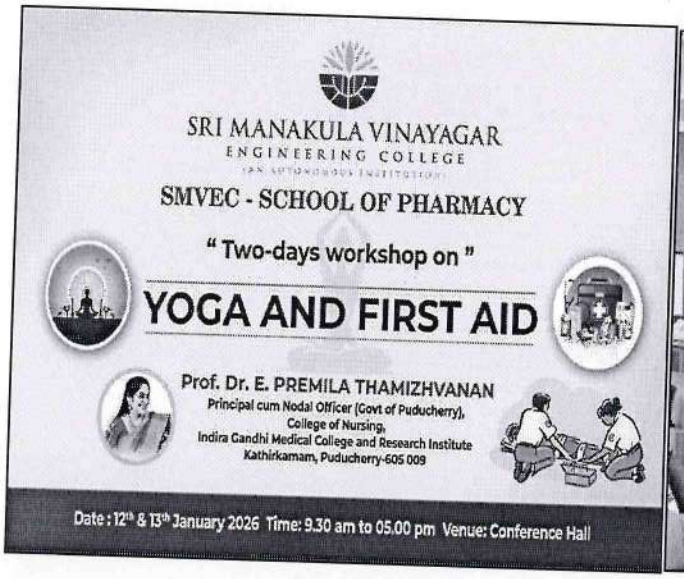
Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

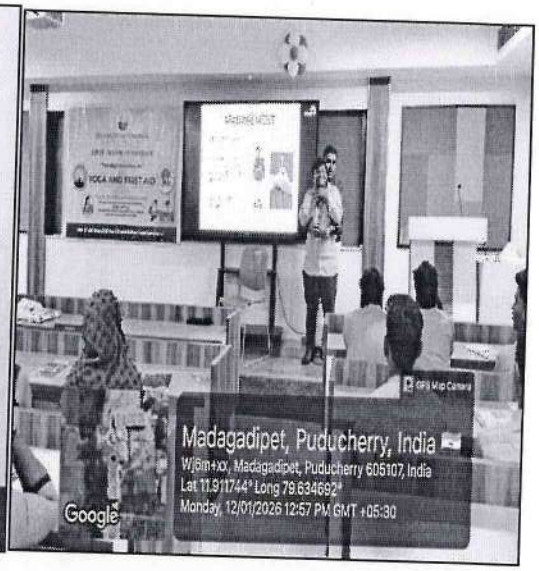
2. Curriculum Activity- **Workshop on YOGA & FIRST AID** Collaboration With College of Nursing, IGMC&RI, Puducherry

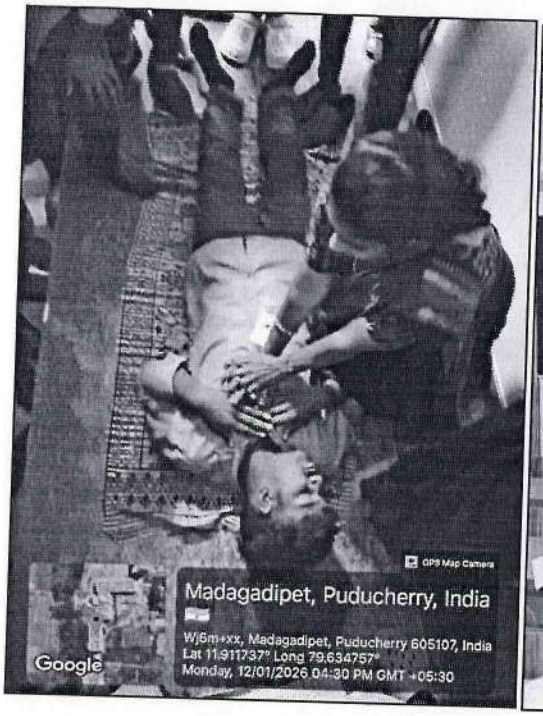
TOPIC : Workshop on Yoga and First Aid

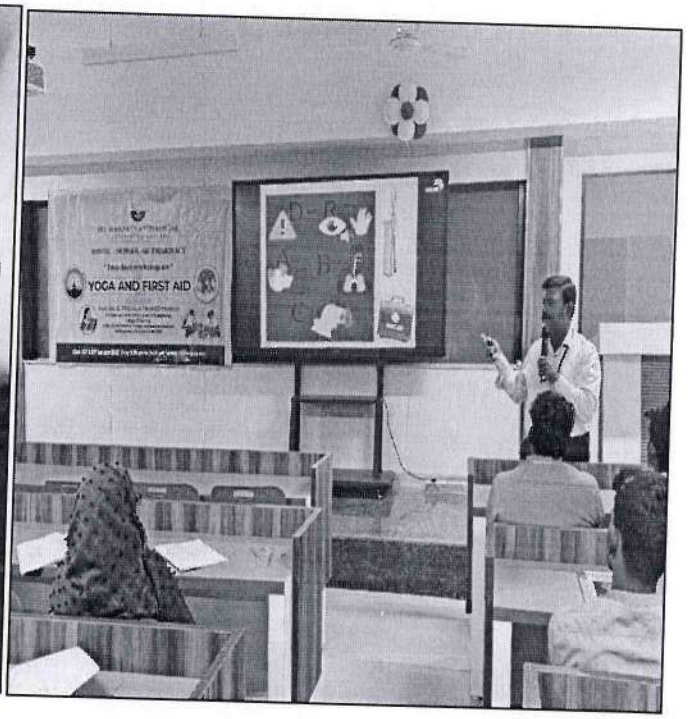
PLACE : SMVEC SEMINAR HALL

DATE : 12.01.2026









M. Q.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

3. Curriculum Activity- Webinar

TOPIC : Higher Education& Career Opportunities in USA for Pharma Professionals

Resource Person : Dr. Ravi Teja Pappala, Pharm D,

MS Regulatory Affairs

Northeastern university, Boston, MA, USA

TOPIC : Future after Pharmacy: Your Global Career Path & Next-Gene Opportunities

Resource Person : Miss.Vennala Gaddam,

Master in Computer and Information Systems,

Delaware,US

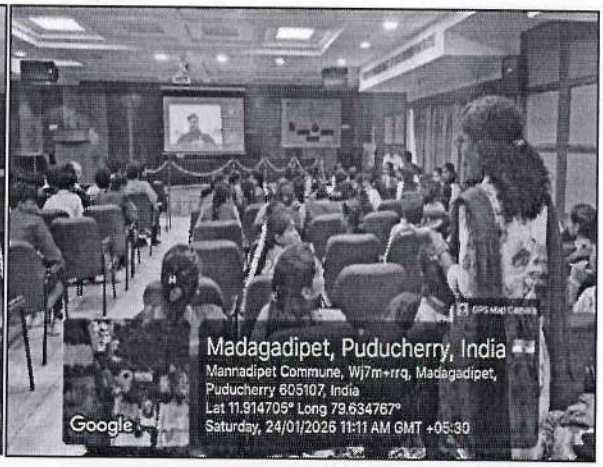
TOPIC : Integrating Quantitative and Qualitative Techniques in Research Methodology

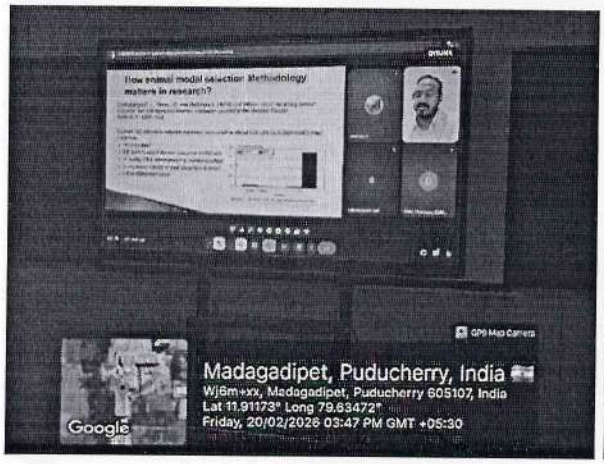
Resource Person : Dr. Hanish Singh Jayasingh ChellammalM.Pharm.,Ph.D.,FELSA.,(RPh)

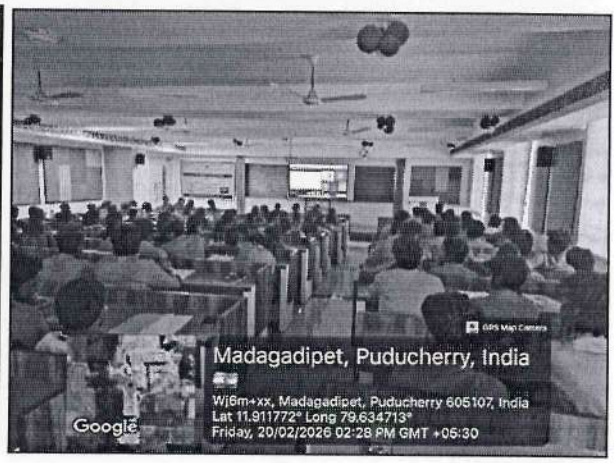
Department of pharmacology and life science.

Faculty of Pharmacy, University Technology Mara (UiTM),
Puncak Alam, Selangor, Malaysia









Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

TOPIC : Building a Career in Pharmaceutical Research and Innovation

Resource Person : ***Mr. Akash Dharman,*** Research Officer,

Drug Delivery Disposition Dynamics

Monash University, Melbourne Australia



Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

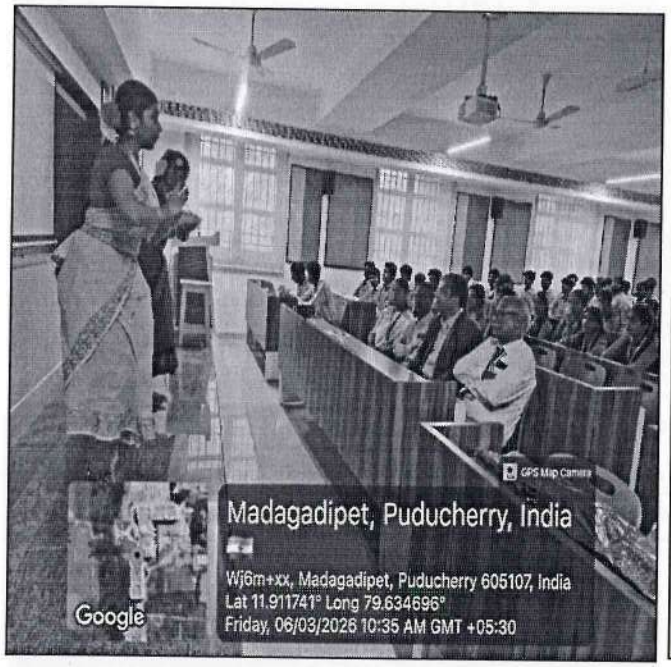
4. Curriculum Activity- Pharma Anveshan 2026

TOPIC : Future Pharma Ecosystem: Fostering Synergy among Academia, Industry, Research, Regulatory and Practice."

Keynote Address : Dr. Prakash Muthudoss,

Director & Chief Scientific Officer

A2Z4.0 Research and Analytics Private Limited





ஸ்ரீமணக்குள விநாயகர் மருந்தாக்கவியல் கல்லூரி சார்பில்

தேசிய மருந்தியல் கல்வி தின கொண்டாட்டம்

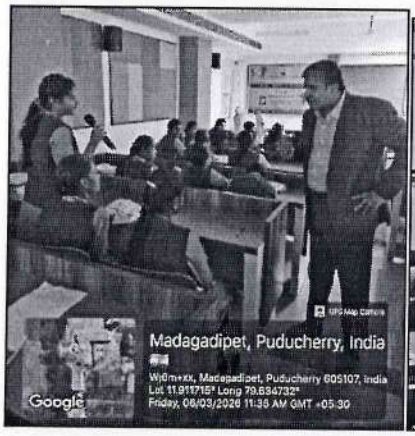
மதகடிப்பட்டு ஸ்ரீ மணக்குள விநாயகர் மருந்தாக்கவியல் கல்லூரியில் தேசிய மருந்தியல் கல்வி தினம் கொண்டாடப்பட்டது.

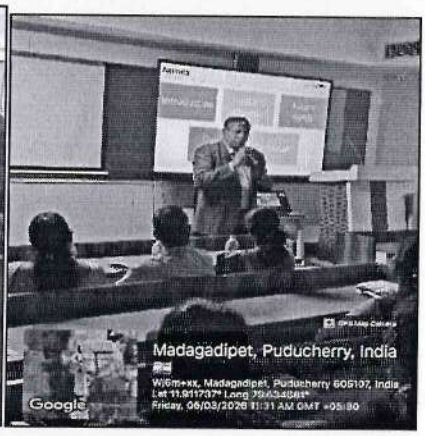
புதுச்சேரி, மார்ச் 8- மதகடிப்பட்டு ஸ்ரீமணக்குள விநாயகர் மருந்தாக்கவியல் கல்லூரி சார்பாக தேசிய மருந்தியல் கல்வி தினம் கொண்டாடப்பட்டது. ஸ்ரீமணக்குள விநாயகர் பொறியியல் கல்லூரி கல்வி குழும தலைவர் மற்றும் மேலாண் இயக்குனர் தனசேகரன், செயலாளர் நாராயணசாமி, பொருளாளர் ராஜராஜன், துணை செயலாளர் வேலாயுதம், கல்லூரி இயக்குநர் மற்றும் முதல்வர் வெங்கடாஜல பதி அதியோர் விழாவை சிறப்பித்தனர். ஸ்ரீமணக்குள விநாயகர் பார்மசி கல்லூரி மன் தலைட்சுமி வரவேற்றார். அகாடமிக் மன் அறிவழகர் நோக்க உரையாற்றினார். A2Z4.0 நிறுவன இயக்குனர் மற்றும் தலைமை அறிவியல் அதிகாரி பிரகாஷ் முத்துதாஸ் தலைமை விருந்தினராக கலந்து கொண்டு தேசிய மருந்தியல் கல்வி தினத்தை கொண்டாட காரணமாக இருக்கும் பேராசிரியர் எம்.எல்.ஷ்ராஃப் குறித்த பல அரிய தகவல்களை மாணவர்களுக்கு எடுத்து ரைத்தார்.

பார்மசி கல்லூரி பேராசிரியர் ரம் பிரசாத் நன்றி கூறினார்.









M. Q

Dean

SMVEC School of Pharmacy

CO - CURRICULUM ACTIVITIES

Attended 74th International Pharmaceutical Congress (IPC)

Theme : "AI & TECHNOLOGY IN PHARMA: EDUCATE, INNOVATE, EMPOWER,"

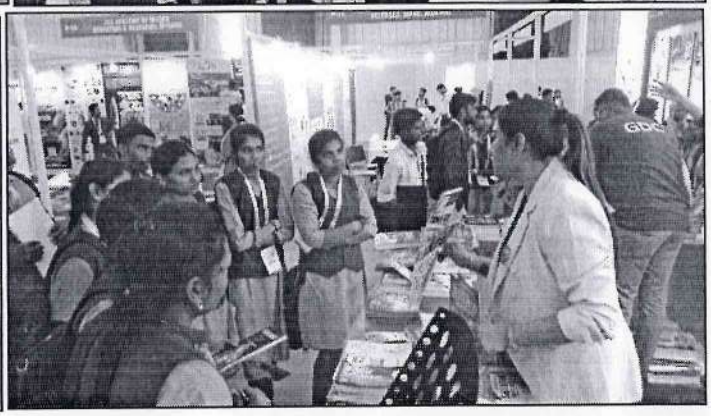
PLACE : Bangalore International Exhibition Centre

DATE : 19 – 21 December 2025









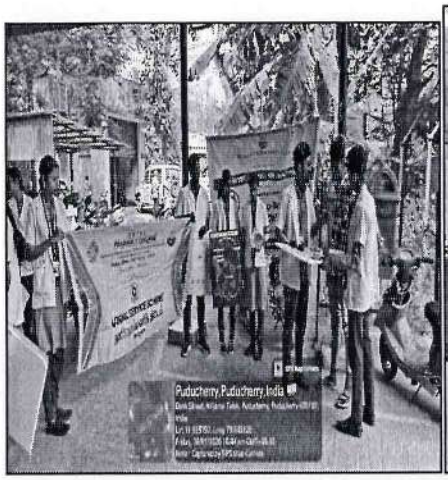


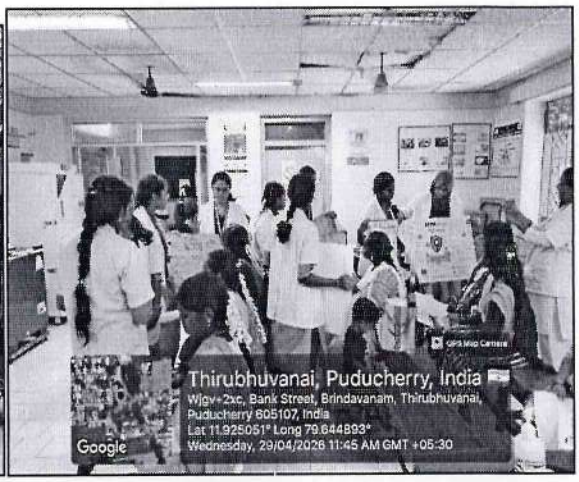
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

EXTRA - CURRICULUM ACTIVITIES

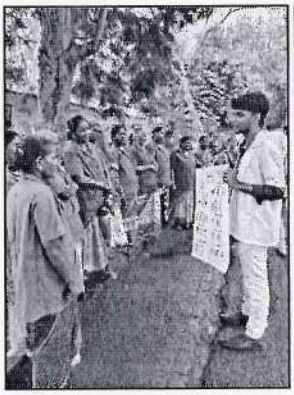
AWARENESS PROGRAMME

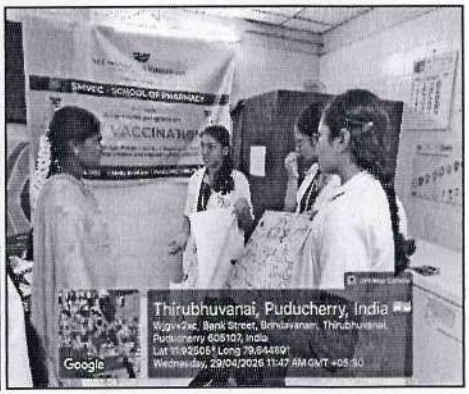
S.No	Topic	Place	Date
1	Mosquito Borne Viral Disease Chikungunya	PHC, Thirubhuvanai, Puducherry	30.01.2026
2	Hpv Vaccination	PHC, Thirubhuvanai, Puducherry	29.04.2026
3	Climate Change And Environmental Sustainability	SMVEC CAMPUS	09.05.2026















Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Annexure IV

The Panel of examiners for B. Pharm Programme to the Academic Council

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

DETAILS OF EXAMINERS

S.No	Name of the Examiner	Specialization	Year of Experience	Designation & Institution Name	Mobile No	Mail ID
01	Dr. Ganesan	Pharmacology	16	Principal, KG College of Pharmacy & RI ,Villupuram	8056986804	sganesh770@gamil.com
02	Dr.P. Dhinesh Kumar	Pharmaceutics	18	Principal cum Professor, Smt Gandhimathi College of Pharmacy, Nallan Pillai Petral village, Pallikondapat Post, Villupuram Road, Tiruvannamalai District.	9966639425	dineshclbaid@gmail.com
03	Mr.V.Sakthivel	Pharmacognosy	15	Associate Professor,Kamalakshi Pandurangan College of Pharmacy,Tiruvannamalai	9444260251	drsakthi1977@gmail.com
04	Dr.M.Sumithra	Pharmacology	17	Associate Professor, Department of Pharmacology,SRMIST	9790136139	sumithrm@srmist.edu.in
05	Dr. S. Jayaprakash	Pharmaceutics	16	Professor and HOD, Department of pharmaceutics, Arunai college of Pharmacy, Thiruvannamalai - 606603	9944744412	drjayaprakashpharma@gmail.com
06	Dr.Binoy Varghese cheriyan	Pharmaceutical Chemistry	18	Associate Professor,Department of Pharmaceutical Chemistry,Saveetha college of Pharmacy Thandalam,Chennai	9840677122	drbinoycheriyan@gmail.com

Dean
SMVEC School of Pharmacy
Puducherry - 605 107.

Annexure V

The End Semester Examination (ESE) Results and Staff Achievements

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Faculty Credentials and Publications:

BOOK PUBLICATIONS:

1. Dr.M.Dhanalakshmi (M.Pharm,Ph.D)

"Textbook of Instrumental Method of

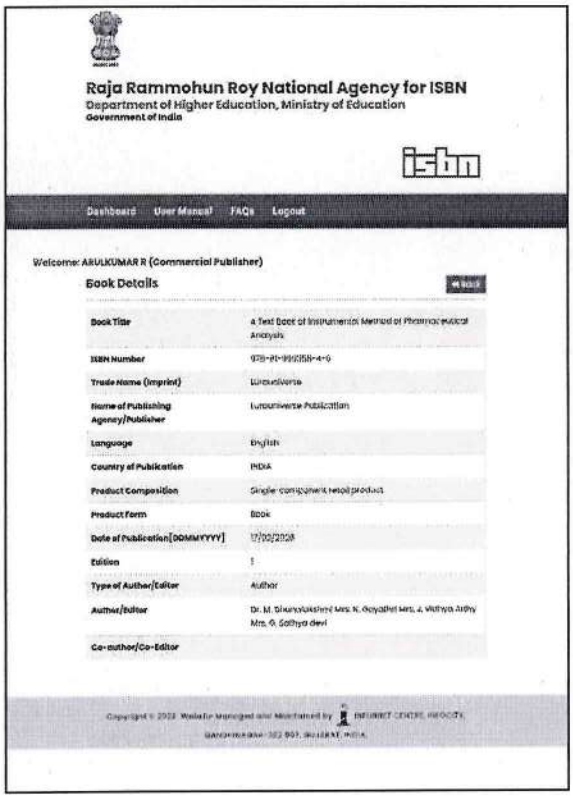
Pharmaceitical Analysis"

LAURA UNIVERSE PUBLICATIONS

2. Dr. K. Ram Prasad (Pharm.D)

"A TEXTBOOK OF ADVANCED PHARMACOLOGY"

LAURA UNIVERSE PUBLICATIONS



Raja Rammohun Roy National Agency for ISBN
Department of Higher Education, Ministry of Education
Government of India

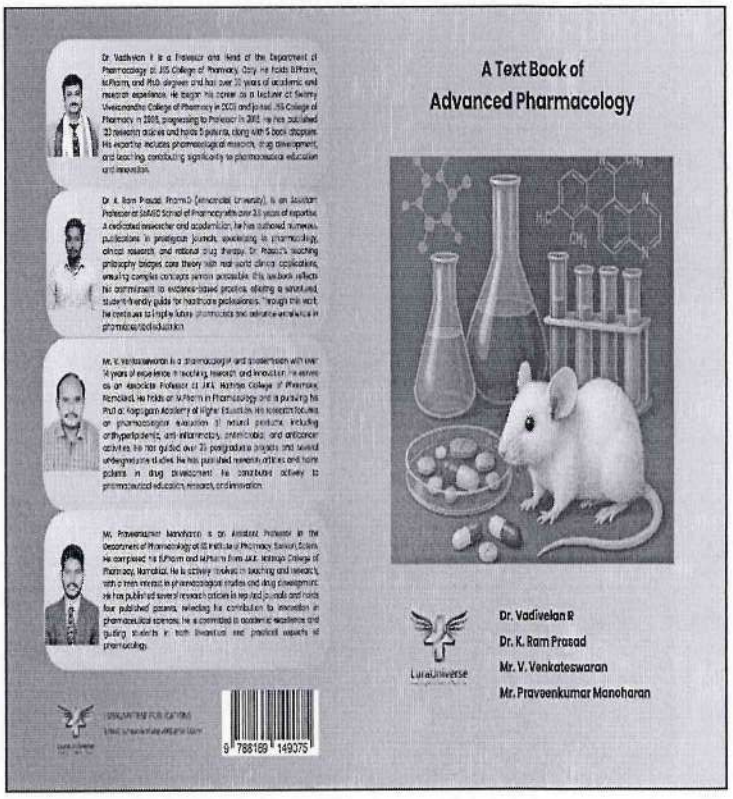
isbn

Dashboard User Manual FAQs Logout

Welcome: ARULKUMAR R (Commercial Publisher)

Book Details

Book Title	A Text Book of Instrumental Method of Pharmaceutical Analysis
ISBN Number	978-81-[illegible]-4-9
Trade Name (Imprint)	Lauraniverse
Name of Publishing Agency/Publisher	Lauraniverse Publication
Language	English
Country of Publication	INDIA
Product Composition	Single-component retail product
Product Form	Book
Date of Publication[DDMMYYYY]	17/02/2025
Edition	1
Type of Author/Editor	Author
Author/Editor	Dr. M. Dhanalakshmi, Mrs. K. Gayathri, Mrs. J. Vidhya Jothy, Mrs. G. Sathya devi
Co-author/Co-Editor	



A Text Book of
Advanced Pharmacology

Dr. Vadivelan R
Dr. K. Ram Prasad
Mr. V. Venkateswaran
Mr. Praveenkumar Manoharan

LuraUniverse

9 788189 149075

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

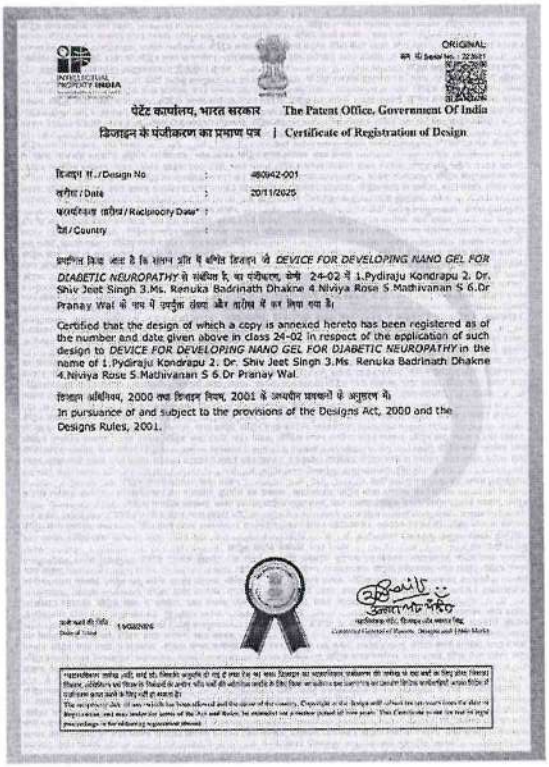
Design Registration

Mr.S.Mathivanan (M.Pharm)

"DEVICE FOR DEVELOPING NANO

GEL FOR DIABETIC NEUROPATHY"

Date of Issue: 11.02.2026



ORIGINAL

पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं./Design No : 460942-001

तारीख / Date : 20/11/2025

परस्परता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *DEVICE FOR DEVELOPING NANO GEL FOR DIABETIC NEUROPATHY* से संबंधित है, का पंजीकरण, क्लास 24-02 में 1.Pydiraju Kondrapu 2. Dr. Shiv Jeet Singh 3.Ms. Renuka Badrinath Dhakne 4.Niviya Rose S.Mathivanan S 6.Dr Pranay Wal के नाम से उपर्युक्त संख्या और तारीख से कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-02 in respect of the application of such design to *DEVICE FOR DEVELOPING NANO GEL FOR DIABETIC NEUROPATHY* in the name of 1.Pydiraju Kondrapu 2. Dr. Shiv Jeet Singh 3.Ms. Renuka Badrinath Dhakne 4.Niviya Rose S.Mathivanan S 6.Dr Pranay Wal.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के उपबंधों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Soft Skill Programme attended by students



Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107.

Results Obtained for Even Semester

- I Sem (95 %)
- III Sem (95 %)
- V Sem (53.4%)







Dean
SMVEC School of Pharmacy
Madagadipet, Puducherry - 605 107