SAVITRIBAI PHULE PUNE UNIVERSITY

FACULTY OF
SCIENCE AND TECHNOLOGY

COURSE STRUCTURE AND SYLLABUS

FINAL YEAR BACHELOR OF PHARMACY (B. Pharm.) 2019PATTERN
(EFFECTIVE FROM ACADEMIC YEAR 2022 – 2023)

CHAPTER- I: REGULATIONS

1. Short Title and Commencement

These regulations shall be called as "The Revised Regulations for the B. Pharm. Degree Program (CBCS)of the Pharmacy Council of India, New Delhi". They shall come into effect from the Academic Year 2016-17. The regulations framed are subject to modifications from time to time by Pharmacy Council of India.

2. Minimum qualification for admission

2.1 First year B. Pharm:

Candidate shall have passed 10+2 examination conducted by the respective state/central government authorities recognized as equivalent to 10+2 examination by the Association of Indian Universities (AIU) with English as one of the subjects and Physics, Chemistry, Mathematics (P.C.M) and or Biology (P.C.B / P.C.M.B.) as optional subjects individually. 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 under section 12 of the Pharmacy Act.

3. Duration of the program

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 program shall be prescribed from time to time by Pharmacy Council of India, New Delhi.

4. Medium of instruction and examinations

Medium of instruction and examination shall be in English.

5. Working days in each semester:

Each semestershall 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.

6. Attendance and progress

A candidate is required to put in at least 80% attendance in individual courses considering theory and practical separately. The candidate shall complete the prescribed course satisfactorily to be eligible to appear for the respective examinations.

7. Program/Course credit structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, tutorial hours, 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 Laboratory courses

Courses are broadly classified as Theory and Practical. Theory courses consist of lecture (L) and /or tutorial (T) hours, and Practical (P) courses consist of hours spent in the laboratory. Credits (C) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of one (1) for lecture and tutorial hours, and a multiplier of half (1/2) for practical (laboratory) hours. Thus, for example, a theory course having three lectures and one tutorial per week throughout the semester carries a credit of 4. Similarly, a practical having four laboratory hours per week throughout semester carries a credit of 2.

7.2. Minimum credit requirements

The minimum credit points required for award of a B. Pharm. degree **is 211**. These credits are divided into Theory courses, Tutorials, Practical, Practice School and Projectover the duration of eight semesters. The credits are distributed semester-wise as shown in Table IX. Courses generally progress in sequences, building competencies and their positioning indicates certain 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 get 52 credit points transferred from their D. Pharm program. Such students shall take up additional remedial courses of 'Communication Skills' (Theory and Practical) and 'Computer Applications in Pharmacy' (Theory and Practical) equivalent to 3 and 4 credit points respectively, a total of 7 credit points to attain 59 credit points, the maximum of I and II semesters.

8. Academic work

A regular record of attendance both in Theory and Practical 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 Table – I to VIII. The number of hours to be devoted to each theory, tutorial and practical course in any semester shall not be less than that shown in Table – I to VIII.

Table-VI: Course of study for semester VI

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP601T	Medicinal Chemistry III – Theory	3/45	1	4
BP602T	Pharmacology III – Theory	3/45	1	4
BP603T	Herbal Drug Technology – Theory	3/45	1	4
BP604T	Biopharmaceutics and Pharmacokinetics – Theory	3/45	1	4
BP605T	Pharmaceutical Biotechnology – Theory	3/45	1	4
BP606T	Quality Assurance –Theory	3/45	1	4
BP607P	Medicinal chemistry III – Practical	4/60	-	2
BP608P	Pharmacology III – Practical	4/60	-	2
BP609P	Herbal Drug Technology – Practical	4/60	-	2
Total		**30/450**	**6**	**30**

Table – VII: Course of study for semester VII

Course code	Name of the course	No. of Hours per week/Total no of hours	Tutorial	Credit points
BP701T	Instrumental Methods of Analysis – Theory	3/45	1	4
BP702T	Industrial Pharmacy-II – Theory	3/45	1	4
BP703T	Pharmacy Practice – Theory	3/45	1	4
BP704T	Novel Drug Delivery System – Theory	3/45	1	4
BP705P	Instrumental Methods of Analysis – Practical	4/60	-	2
BP706PS	Practice School*	12/180	-	6
Total		**28/420**	**5**	**24**

* Non University Examination (NUE)

Semester VII

Course code	Name of the course	Internal Assessment				End Semester Exams		Total Marks
		Continuous Mode	Sessional Exams		Total	Marks	Duration	
			Marks	Duration				
BP701T	Instrumental Methods of Analysis – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP702T	Industrial Pharmacy -II– Theory	10	15	1 Hr	25	75	3 Hrs	100
BP703T	Pharmacy Practice – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP704T	Novel Drug Delivery System – Theory	10	15	1 Hr	25	75	3 Hrs	100
BP705 P	Instrumental Methods of Analysis – Practical	5	10	4 Hrs	15	35	4 Hrs	50
BP706 PS	Practice School*	25	-	-	25	125	5 Hrs	150
Total		**70**	**70**	**8Hrs**	**140**	**460**	**21 Hrs**	**600**

* The subject experts at college level shall conduct examinations

FINAL YEAR B. PHARM SEMESTER – VII

BP701T	INSTRUMENTAL METHODS OF ANALYSIS (Theory)	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 a fundamental knowledge on the principles and instrumentation of spectroscopic and chromatographic technique. 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:

1. Upon completion of the course the student shall be ableto
2. Illustrate the interaction of matter with electromagnetic radiations and justify its applications in drug analysis
3. Classifythechromatographicseparationmethodsandchooseappropriatetechniquefor analysis of drugs.
4. Design methods for performing quantitative & qualitative analysis of drugs using various analytical instruments.

Course Content:

UNIT - I **UV Visible spectroscopy** Introduction to spectroscopy, Electronic transitions, chromophores, auxochromes, spectral shifts, solvent effect on absorption spectra, Beer and Lambert's law, Derivation and deviations. Instrumentation - Sources of radiation, wavelength selectors, sample cells, detectors- Photo tube, Photomultiplier tube, Photo voltaic cell, Silicon Photodiode. Applications - Spectrophotometric titrations, Single component and multi component Analysis **Fluorimetry** Theory, Concepts of singlet, doublet and triplet electronic states, internal and external conversions, factors affecting fluorescence, quenching, instrumentation and applications	**10 Hours**

UNIT –II **FTIR spectroscopy** Introduction, fundamental modes of vibrations in poly atomic molecules, sample handling, factors affecting vibrations Instrumentation - Sources of radiation, wavelength selectors, detectors - Golay cell, Bolometer, Thermocouple, Thermister, Pyroelectric detector, FTIR instrument, sample handling attachments –DRS and ATR and applications **Flame Photometry** Principle, interferences, instrumentation and applications **Atomic absorption spectroscopy** Principle, interferences, instrumentation and Applications **Nepheloturbidimetry** Introduction	**10 Hours**
UNIT –III **Introduction to chromatography -** **Adsorption and partition column chromatography:** Methodology, advantages, disadvantages and applications. **Paper chromatography:** Introduction, methodology, development techniques, advantages, disadvantages and applications **Thin layer chromatography:** Introduction, Principle, Methodology, Rf values, advantages, disadvantages and applications. **HPTLC:** Introduction, Instrumentation and applications	**10 Hours**
UNIT –IV **Theory of Chromatography** Plate theory, Rate theory, System suitability parameters **Gas chromatography** Introduction, theory, instrumentation, temperatureprogramming,advantages, disadvantages andapplications **High performance liquid chromatography (HPLC)** Introduction, theory, instrumentation, advantages and applications.	**08 Hours**

UNIT –V **Ion exchange chromatography-** Introduction, classification, ion exchange resins, properties, mechanism of ion exchange process, factors affecting ion exchange, methodology and applications **Gel chromatography-** Introduction, theory, instrumentation and applications Affinity chromatography- Introduction	**07 Hours**
Recommended Books (Latest Editions): 1. Instrumental Methods of Chemical Analysis by B.K Sharma 2. Organic spectroscopy by Y.RSharma 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 WilliamKemp 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 bySilverstein.	

BP702T	INDUSTRIAL PHARMACY -II (Theory)	45 Hours

Scope:

This course is designed to impart fundamental knowledge on pharmaceutical product development and translation from laboratory to market.

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

1. Know the process of pilot plant and scale up of pharmaceutical dosage forms
2. Understand the process of technology transfer from lab scale to commercial batch
3. Know different Laws and Acts that regulate pharmaceutical industry
4. Understand the approval process and regulatory requirements for drug products

Course Content:

UNIT-I **Pilot plant scale up techniques:** General considerations - including significance of personnel requirements, space requirements, raw materials, Pilot plant scale up considerations for solids, liquid orals, semi solids and relevant documentation, SUPAC guidelines, Introduction to platform technology.	**10 Hours**
UNIT-II **Technology development and transfer:** WHO guidelines for Technology Transfer (TT): Terminology, Technology transfer protocol, Quality risk management, Transfer from R & D to production (Process, packaging and cleaning), Granularity of TT Process (API, excipients, finished products, packaging materials) Documentation, Premises and equipments, qualification and validation, quality control, analytical method transfer, Approved regulatory bodies and agencies,Commercialization-practicalaspectsandproblems(casestudies),TTagencies in India - APCTD, NRDC, TIFAC, BCIL, TBSE / SIDBI; TT related documentation - confidentiality agreement, licensing, MoU's, legal issues	**10 Hours**

UNIT-III **Regulatory affairs:** Introduction, Historical overview of Regulatory Affairs, Regulatory authorities, Role of Regulatory affairs department, Responsibility of Regulatory Affairs Professionals **Regulatory requirements for drug approval:** Drug Development Teams, Non-Clinical Drug Development, Pharmacology, Drug MetabolismandToxicology,GeneralconsiderationsofInvestigationalNewDrug(IND) Application,Investigator'sBrochure(IB)andNewDrugApplication(NDA),Clinical research / BE studies, Clinical Research Protocols, Biostatistics in Pharmaceutical Product Development, Data Presentation for FDA Submissions, Management of Clinical Studies.	**10 Hours**
UNIT-IV **Indian Regulatory Requirements:** Central Drug Standard Control Organization (CDSCO) and State Licensing Authority: Organization, Responsibilities, Certificate of Pharmaceutical Product (COPP), Regulatory requirements and approval procedures for New Drugs.	**07 Hours**
UNIT-V **Quality management systems:** Quality management & Certifications: Concept of Quality, Total Quality Management, Quality by Design (QbD), Six Sigma concept, Out of Specifications (OOS), Change control, Introduction to ISO 9000 series of quality systems standards, ISO 14000, NABL, GLP	**08 Hours**
Recommended Books: (Latest Editions) 1. Regulatory Affairs from Wikipedia, the free encyclopedia modified on 7th April available at http,//en.wikipedia.org/wiki/Regulatory_Affairs. 2. International Regulatory Affairs Updates, 2005.available athttp://www.iraup.com/about.php 3. Douglas J Pisano and David S. Mantus. Text book of FDA Regulatory Affairsa Guide for Prescription Drugs, Medical Devices, and Biologics' Second Edition. 4. Regulatory Affairs brought by learning plus,inc. available at http.//www.cgmp.com/ra.htm.	

BP703T	PHARMACY PRACTICE (Theory)	45 Hours

Scope:

In the changing scenario of pharmacy practice in India,for successful practice of Hospital Pharmacy, the students are required to learn various skills like drug distribution, drug information, and therapeutic drug monitoring for improved patient care. In community pharmacy,students will be learning various skills such and dispensing of drugs, responding to minor ailments by providing suitable safe medication, patient counseling for improved patient care in the community setup.

Objectives:

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

1. Know various drug distribution methods in a hospital
2. Appreciate the pharmacy stores management and inventory control
3. Monitor drug therapy of patient through medication chart review and clinical review.
4. Obtain medication history interview and counsel the patients
5. Identify drug related problems
6. Detect and assess adverse drug reactions
7. Interpret selected laboratory results (as monitoring parameters in therapeutics) of specific disease states
8. Know pharmaceutical care services
9. Do patient counseling in community pharmacy;
10. Appreciate the concept of rational drug therapy.

Course Content:

UNIT-I — **10 Hours**

Hospital and it's organization

Definition, Classification of hospital- Primary, Secondary and Tertiary hospitals, Classification based on clinical and non- clinical basis, Organization Structure of a Hospital, and Medical staffs involved in the hospital and their functions.

Hospital pharmacy and its organization

Definition, functions of hospital pharmacy, Organization structure, Location, Layout and staff requirements, and Responsibilities and functions of hospital pharmacists.

Adverse drug reaction

Classifications - Excessive pharmacological effects, secondary pharmacological effects, idiosyncrasy, allergic drug reactions, genetically determined toxicity, toxicity following sudden withdrawal of drugs, Drug interaction- beneficial interactions, adverse interactions, and pharmacokinetic drug interactions, Methods for detecting drug interactions ,spontaneous case reports and record linkage

studies,and Adverse drug reaction reporting and management.	
Community Pharmacy Organization and structure of retail and wholesale drug store, types and design, Legal requirementsforestablishmentandmaintenanceofadrugstore,Dispensingofproprietary products, maintenance of records of retail and wholesale drugstore.	
UNIT-II **Drug distribution system in a hospital** Dispensing of drugs to inpatients, types of drug distribution systems, charging policy and labelling, dispensing of drugs to ambulatory patients ,and Dispensing of controlled drugs. **Hospital formulary** Definition,contents of hospital formulary ,Differentiation of hospital formulary and Drug list, preparation and revision, and addition and deletion of drug from hospital formulary. **Therapeutic drug monitoring** Need for Therapeutic Drug Monitoring, Factors to be considered during the Therapeutic Drug Monitoring, and Indian scenario for Therapeutic Drug Monitoring. **Medication adherence** Causes of medication non-adherence, pharmacist role in the medication adherence, and monitoring of patient medication adherence. **Patient medication history interview** Need for the patient medication history interview, medication interview forms. **Community pharmacy management** Financial, materials, staff, and infrastructure requirements.	**10 Hours**
UNIT-III **Pharmacy and therapeutic committee** Organization, functions, Policies of the pharmacy and therapeutic committee in including drugs into formulary, inpatient and outpatient prescription, automatic stop order, and emergency drug list preparation. **Drug information services** Drug and Poison information centre, Sources ofdrug information, Computerized services, and storage and retrieval of information. **Patient counseling** Definition of patient counseling; steps involved in patient counseling, and Special cases that require the pharmacist **Education and training program in the hospital** Role of pharmacist in the education and training program, Internal and external training program, Services to the nursing homes/clinics, Code of ethics for community pharmacy, and Role of pharmacist in the interdepartmental communication and community health education. **Prescribed medication order and communication skills** Prescribed medication order- interpretation and legal requirements, and Communication skills- communication with prescribers and patients.	**10 Hours**

UNIT-IV **Budget preparation and implementation Budget preparation and implementation Clinical Pharmacy** Introduction to Clinical Pharmacy, Concept of clinical pharmacy, functions and responsibilities of clinical pharmacist ,Drug therapy monitoring-medication chart review, clinical review, pharmacist intervention, Ward round participation, Medication history and Pharmaceutical care. Dosing pattern and drug therapy based on Pharmacokinetic & disease pattern. **Over the counter (OTC) sales** Introduction and sale of over the counter, and Rational use of common over the counter medications.	**08 Hours**
UNIT-V **Drug store management and inventory control** Organization of drug store, types of materials stocked and storage conditions, Purchase and inventory control: principles, purchase procedure, purchase order, procurement and stocking, Economic order quantity, Reorder quantity level, and Methods used for the analysis of the drug expenditure. **Investigational use of drugs** Description,principals involved, classification, control, identification, role of hospital pharmacist, advisory committee. **Interpretation of Clinical Laboratory Tests** Blood chemistry, hematology, and urinalysis	**07 Hours**
Recommended Books (Latest Edition): 1. Merchant S.H. and Dr. J. S. Quadry. A textbook of hospital pharmacy, 4th ed. Ahmadabad: B.S. Shah Prakakshan;2001. 2. Parthasarathi G, Karin Nyfort-Hansen, Milap C Nahata. A textbook of Clinical Pharmacy Practice- essential concepts and skills, 1st ed. Chennai: Orient Longman Private Limited;2004. 3. William E. Hassan. Hospital pharmacy, 5th ed. Philadelphia: Lea &Febiger;1986. 4. Tipnis Bajaj. Hospital Pharmacy, 1st ed. Maharashtra: Career Publications;2008. 5. Scott LT. Basic skills in interpreting laboratory data, 4thed. American Society of Health System Pharmacists Inc;2009. 6. Parmar N.S. Health Education and Community Pharmacy, 18th ed. India:	

CBS Publishers & Distributers;2008.

Journals:

1. Therapeutic drug monitoring. ISSN:0163-4356
2. Journal of pharmacy practice. ISSN:0974-8326
3. American journal of health system pharmacy. ISSN: 1535-2900(online)
4. Pharmacy times (Monthly magazine)

BP704T	NOVEL DRUG DELIVERY SYSTEM (Theory)	45 Hours

Scope:

This subject is designed to impart basic knowledge on the area of novel drug delivery systems.

Objectives:

Upon completion of the course student shall be able

1. To understand various approaches for development of novel drug delivery systems.
2. To understand the criteria for selection of drugs and polymers for the development of novel drug delivery systems, their formulation and evaluation.

Course Content:

UNIT-I **Controlled drug delivery systems**: Introduction, terminology/definitions and rationale, advantages, disadvantages, selection of drug candidates. Approaches to design controlled release formulations based on diffusion, dissolution and ion exchange principles. Physicochemical and biological properties of drugs relevant to controlled release formulations **Polymers:** Introduction, classification, properties, advantages and application of polymers in formulation of controlled release drug delivery systems.	**10 Hours**
UNIT-II **Microencapsulation:** Definition, advantages and disadvantages, microspheres /microcapsules, microparticles, methods of microencapsulation, applications **Mucosal Drug Delivery system:** Introduction, Principles of bioadhesion / mucoadhesion, concepts, advantages and disadvantages, transmucosal permeability and formulation considerations of buccal delivery systems **Implantable Drug Delivery Systems:** Introduction, advantages and disadvantages, concept of implants and osmotic pump.	**10 Hours**

UNIT-III **Transdermal Drug Delivery Systems:** Introduction, Permeation through skin, factors affecting permeation, permeation enhancers, basic components of TDDS, formulation approaches. **Gastroretentive drug delivery systems:** Introduction, advantages, disadvantages, approaches for GRDDS – Floating, high density systems, inflatable and gastro adhesive systems and their applications **Nasopulmonary drug delivery system:** Introduction to Nasal and Pulmonary routes of drug delivery ,Formulation of Inhalers(dry powder and metered dose), nasal sprays,nebulizers.	**10 Hours**
UNIT-IV **Targeted drug Delivery:** Concepts and approaches advantages and disadvantages, introduction to liposomes, niosomes, nanoparticles, monoclonal antibodies and their applications.	**08 Hours**
UNIT-V **Ocular Drug Delivery Systems:** Introduction, intra ocular barriers and methods to overcome –Preliminary study, ocular formulations and ocuserts **Intrauterine Drug Delivery Systems:** Introduction, advantages and disadvantages, development of intra uterine devices (IUDs) and applications	**07 Hours**
Recommended Books: (Latest Editions) 1. Y W. Chien, Novel Drug Delivery Systems, 2nd edition, revised and expanded, Marcel Dekker, Inc., New York, 1992. 2. Robinson, J. R., Lee V. H. L, Controlled Drug Delivery Systems, Marcel Dekker,Inc., New York,1992. 3. Encyclopedia of Controlled Delivery. Edith Mathiowitz, Published by Wiley Interscience Publication, John Wiley and Sons, Inc, New York.Chichester/Weinheim 4. N.K. Jain, Controlled and Novel Drug Delivery, CBS Publishers &Distributors, New Delhi, First edition 1997 (reprint in 2001). 5. S.P. Vyas and R.K. Khar, Controlled Drug Delivery -concepts and advances,VallabhPrakashan, New Delhi, First edition2002.	

Journals

1. Indian Journal of Pharmaceutical Sciences(IPA)
2. Indian Drugs(IDMA)
3. Journal of Controlled Release (Elsevier Sciences)
4. Drug Development and Industrial Pharmacy (Marcel &Decker)

International Journal of Pharmaceutics (Elsevier Sciences)

BP705P	INSTRUMENTAL METHODS OF ANALYSIS (Practical)	04 Hours/ Week

1. Weights and measures and pharmacopoeia inanalysis
2. Determination of absorption maxima and effect of solvent on absorption maxima of organiccompounds
3. Assay of Drug product as per IP (Assay of Paracetamol tablet by UV-Spectrophotometry)
4. Assay of Drug product by Calibration curvemethod
5. Assay of any drug/drug product bycolorimetry.
6. Simultaneous estimation of multicomponent formulation by UV spectroscopy(SE/Q analysis)
7. Estimation of drug by fluorimetry
8. Study of quenching of fluorescence
9. Determination of sodium and potassium by flame photometry
10. Separation of amino acids by paper chromatography
11. Separation of sugars by thin layer chromatography
12. Separation of plant pigments by columnchromatography
13. Demonstration of HPLC instrument
14. Demonstration of FTIRinstrument
15. Interpretation of spectra of organic compounds by IR spectroscopy asper pharmacopoeia

Recommended Books (Latest Editions)

1. Instrumental Methods of Chemical Analysis by B.KSharma
2. Organic spectroscopy by Y.RSharma
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 WilliamKemp
8. Quantitative Analysis of Drugs by D. C. Garrett
9. Quantitative Analysis of Drugs in Pharmaceutical Formulations by P. D. Sethi
10. HPLC by P.D.Sethi
11. HPTLC by P.D. Sethi
12. Spectrophotometric identification of Organic Compounds bySilverstein

BP706PS	**PRACTICE SCHOOL***	**150 Hours**

In the VII semester, every candidate shall undergo practice school for a period of 150 hours evenly distributed throughout the semester. The student shall opt any one of the domains for practice school declared by the program committee from time to time.

At the end of the practice school, every student shall submit a printed report (in triplicate) on the practice school he/she attended (not more than 25 pages). Along with the exams of semester VII, the report submitted by the student, knowledge and skills acquired by the student through practice school shall be evaluated by the subject experts at college level and grade point shall be awarded.