KRISHNA UNIVERSITY

6-Months /Certificate Programme related to Pharmacy

(DGR SPONSORED PRC PROGRAMME)

DETAILED SYLLABUS

DURATION OF COURSE

The study curriculum shall be of 6 months duration from the date of commencement of academic Session.

MEDIUM OF INSTRUCTION:

English shall be the medium of instruction.

ELIGIBILITY

- Eligible DGR/PRC beneficiaries and other approved learners
- All Levels

MODE:

Classroom instruction + practical/laboratory activities + supervised pharmacy exposure

ATTENDANCE:

All students are expected to have at least 75% attendance in theory and 75% attendance in practical in each Paper/Module. This is mandatory for sitting in final examinations.

PROPOSED ACADEMIC STRUCTURE: 7 Subjects

Programme Purpose

This programme is designed to provide entry-level knowledge and practical skills required to support safe and efficient pharmacy operations under the supervision and direction of a pharmacist or other legally authorised healthcare professional. The curriculum combines basic Pharmaceutical Sciences, medical terminology, human anatomy and physiology, medicines and drug classifications, prescription handling, patient communication, pharmacy operations, inventory management, first aid and infection prevention.

Important Scope Statement

The programme prepares learners for pharmacy-support functions. It does not confer authority to diagnose disease, prescribe medicines, independently alter treatment, substitute medicines, or perform duties reserved by law for a registered pharmacist, physician, nurse, or other licensed professional. All dispensing and clinical activities must comply with applicable Indian laws, regulations, institutional policies and supervision requirements.

Programme Framework

1. Programme Vision and Mission

Vision: To develop competent, ethical and safety-conscious pharmacy support personnel who can contribute effectively to community, hospital, institutional and retail pharmacy services.

Mission: To provide structured theoretical and practical education in pharmacy fundamentals, medicines, prescription processing, communication, operations, stock management and basic healthcare support.

2. Programme Learning Outcomes

- Explain basic concepts of pharmacy, medicines, dosage forms, routes of administration and pharmaceutical terminology.
- Use common medical terminology and abbreviations safely, recognising that ambiguous abbreviations must be clarified.
- Describe the major systems of the human body and relate common diseases to basic health science concepts.
- Classify commonly encountered medicines by broad therapeutic or pharmacological categories at an introductory level.
- Demonstrate principles of safe medicine storage, stock rotation and expiry monitoring.
- Read the non-clinical elements of a prescription and identify information that requires pharmacist clarification.
- Perform basic pharmacy calculations involving units, quantities, concentrations and dosage-related arithmetic under supervision.
- Communicate respectfully with patients while maintaining confidentiality and professional boundaries.
- Describe basic pharmacy billing, invoicing, records and pharmacy software workflows.
- Apply basic inventory, purchasing, receiving, storage and supply-record principles.
- Provide appropriate basic first-aid support within training limits and promptly escalate emergencies.
- Apply hand hygiene, PPE and basic infection-prevention measures.
- Demonstrate ethical conduct, accuracy, accountability and willingness to report errors or safety concerns.

3. Suggested Programme Duration

Paper/ Subject	Title	Hrs
1.	Basics of Pharmacy & Medical Terminology	55
2.	Human Anatomy & Physiology	45
3.	Medicines & Drug Classifications	55
4.	Prescription Handling & Patient Communication	60
5.	Pharmacy Operations & Software	45
6.	Inventory & Stock Management	35
7.	First Aid & Healthcare Support	35
Practical/field exposure	Integrated supervised practice	50
Total	Approximate contact/practical hours	**380**

Teaching, Learning and Assessment Framework

4. Teaching Methodology

- Interactive lectures using diagrams, medicine packs, labels and case examples.
- Demonstrations followed by supervised return-demonstration by learners.
- Prescription and label-reading exercises using anonymised or simulated documents.
- Calculation drills and competency-based practical stations.
- Role-play for patient communication, confidentiality and handling difficult situations.
- Pharmacy software demonstrations using a training or sandbox environment.
- Stock-room exercises covering receiving, batch/expiry checks and FEFO rotation.
- First-aid demonstrations and supervised practice with appropriate training equipment.
- Short quizzes, worksheets, viva voce, practical observation and case studies.

5. Assessment Pattern

Component	Suggested Weight
Continuous internal assessment / quizzes	15%
Theory examinations	35%
Practical / skill demonstrations	25%
Prescription, calculation and dispensing simulation	10%
Inventory/software practical	5%
First-aid and infection-control competency	5%
Attendance, professionalism and participation	5%
Total	**100%**

6. Minimum Competency Expectations

- Accuracy is prioritised over speed in medicine-related activities.
- Any uncertainty about a prescription, medicine, patient instruction or legal requirement must be referred to the supervising pharmacist/professional.
- Students must demonstrate safe handling of medicines and appropriate hygiene before being permitted to undertake supervised dispensing simulations.
- Students must demonstrate correct emergency escalation procedures before completing the first-aid component.
- Use of abbreviations must follow the institution's approved list; unsafe or ambiguous abbreviations should not be guessed.

7. Suggested Practical Record

Each learner should maintain a practical record containing exercises, prescription simulations, calculation sheets, terminology work, inventory forms, software practice logs, first-aid competency records and reflective notes on supervised pharmacy exposure.



1 – Basics of Pharmacy & Medical Terminology

Overview

This module introduces the learner to pharmacy as a healthcare profession and establishes the vocabulary required for subsequent modules. Emphasis is placed on medicine-related language, dosage forms, routes of administration, basic pharmaceutical concepts, professional roles and safe use of medical abbreviations.

Unit 1.1 – Introduction to Pharmacy

- Meaning, scope and objectives of pharmacy.
- Development of pharmacy from traditional medicine preparation to modern pharmaceutical practice.
- Relationship between pharmacy, medicine, nursing and allied healthcare.
- Community, hospital, institutional, industrial, regulatory, distribution and research settings.
- Basic pharmacy workflow from prescription receipt to dispensing, counselling and record maintenance.
- Concept of patient safety and the role of support staff in preventing avoidable errors.

Unit 1.2 – Basic Pharmaceutical Concepts

- Drug, medicine, medicinal product, active pharmaceutical ingredient and excipient.
- Brand name, generic name and strength.
- Prescription medicines and OTC medicines.
- Dosage form and route of administration.
- Indication, contraindication, precaution, side effect and adverse drug reaction.
- Drug interaction and allergy – basic awareness and referral.
- Expiry date, batch/lot number, storage conditions and product integrity.

Unit 1.3 – Common Dosage Forms

- Tablets and capsules
- Oral liquids, syrups and suspensions
- Powders and granules
- Creams, ointments and gels
- Eye, ear and nasal preparations
- Inhalers
- Suppositories
- Injectable products – recognition and safe-handling awareness only

Unit 1.4 – Building Medical Terms

Learners will understand how medical terms are constructed from prefixes, roots, combining vowels/forms and suffixes. Exercises should require learners to break unfamiliar terms into components and infer their general meaning without assuming that every word can be interpreted solely from its parts.

- Common prefixes: hyper-, hypo-, tachy-, brady-, peri-, intra-, inter-, sub-, trans-, anti-, pre-, post-.Common suffixes: -itis, -algia, -emia, -ectomy, -ology, -pathy, -scopy, -plasty, -megaly, -uria.
- Common roots/combining forms: cardio, neuro, gastro, hepato, nephro, dermato, osteo, arthro, hemo/hemato, pneumo/pulmo, oto, ophthalmo.
- Singular/plural patterns encountered in basic medical vocabulary.
- Directional and positional terms: anterior, posterior, medial, lateral, proximal, distal, superior, inferior, superficial, deep.

Unit 1.5 – Body-System Vocabulary

- Cardiovascular: artery, vein, pulse, circulation, hypertension.
- Respiratory: airway, respiration, dyspnea, cough, inhalation.
- Digestive: stomach, intestine, nausea, emesis, diarrhea, constipation.
- Urinary: kidney, bladder, urine, urinary tract infection.
- Nervous: brain, nerve, seizure, headache, neuropathy.
- Musculoskeletal: bone, joint, fracture, arthritis, muscle.
- Endocrine: hormone, insulin, thyroid, glucose.
- Integumentary: skin, wound, rash, edema.

Practical Activities

1. Word-building worksheet using prefixes, roots and suffixes.
2. Body-system terminology matching exercise.
3. Interpretation of medicine labels and patient-information leaflets.
4. Abbreviation recognition and unsafe-abbreviation identification.

Unit 1.6 – Pharmacy Ethics and Professional Conduct

- Respect for patient dignity, privacy and autonomy.
- Confidentiality in verbal, paper and electronic communication.
- Honesty, integrity, accountability and accurate record keeping.
- Working within defined role and scope of practice.
- Professional appearance, punctuality, reliability and teamwork.
- Non-discrimination and respectful treatment of patients.
- Conflict of interest and inappropriate commercial influence.
- Reporting dispensing errors, near misses, damaged products and safety concerns.
- Appropriate referral of clinical questions to the pharmacist or authorised professional.



Unit 1.7 – Common Medical and Prescription Abbreviations

Abbreviation	Common meaning	Safety note
PO	By mouth/oral	Verify context
IM	Intramuscular	Route must be clear
IV	Intravenous	Clinical administration is by authorised staff
SC/SQ	Subcutaneous	Verify local convention
SL	Sublingual	Check medicine and instructions
BID	Twice daily	Use institution-approved terminology
TID	Three times daily	Use institution-approved terminology
QID	Four times daily	Use institution-approved terminology
PRN	As needed	Indication/maximum dose may need clarification
STAT	Immediately	Escalate if unclear
AC	Before meals	Context-dependent
PC	After meals	Context-dependent
HS	At bedtime	Avoid ambiguous use where policy prohibits
OD	Once daily / other meanings	Never guess; clarify context

Assessment

Terminology test, abbreviation safety exercise, ethics case study, oral viva and practical identification of dosage forms.

Reference Books

Medical Terminology: A Short Course – Davi-Ellen Chabner.

- Pharmacy Technician: Principles and Practice – Perspective Press / Elsevier, current available edition.

2 – Human Anatomy & Physiology

Overview

This module provides a functional introduction to the human body for pharmacy-support learners. The objective is not advanced clinical diagnosis but recognition of major body structures, normal functions and common health terms used in prescriptions, medicine labels and patient conversations.

Unit 2.1 – Organisation of the Human Body

- Cells, tissues, organs and organ systems.
- Anatomical position and basic directional terminology.
- Homeostasis and its importance to normal body function.
- Basic concepts of metabolism, growth, repair and communication within the body.

Unit 2.2 – Integumentary System

- Skin, hair, nails and associated structures.
- Basic functions: protection, sensation, temperature regulation and barrier function.
- Common terms: rash, dermatitis, wound, burn, edema and infection.
- Relevance to topical dosage forms and basic wound-care products.

Unit 2.3 – Skeletal and Muscular Systems

- Major bones and joints.
- Basic structure and function of skeletal muscle.
- Movement, posture and support.
- Common conditions: fracture, sprain, arthritis, muscle pain and osteoporosis – introductory awareness.
- Relevance to analgesics, anti-inflammatory medicines and topical preparations.

Unit 2.4 – Cardiovascular System

- Heart chambers, valves and major blood vessels.
- Circulation and basic pulse concepts.
- Blood components: red cells, white cells, platelets and plasma.
- Blood pressure and factors influencing it.
- Common terms: hypertension, hypotension, tachycardia, bradycardia, anemia.

Unit 2.5 – Respiratory System

- Upper and lower respiratory tract.
- Lungs and gas exchange.
- Mechanics of breathing.
- Basic oxygen and carbon dioxide exchange.
- Common terms: cough, wheeze, dyspnea, asthma, bronchitis and pneumonia.
- Relevance to inhalers, nebulised medicines and respiratory OTC products.

Unit 2.6 – Nervous System

- Brain, spinal cord and peripheral nerves.
- Basic sensory and motor functions.
- Autonomic nervous system – introductory concept.



- Common terms: headache, seizure, neuropathy, dizziness and altered consciousness.
- Safety awareness regarding medicines that may cause drowsiness or affect alertness.

Practical Activities

- Label major organs on an anatomical chart/model.
- Measure pulse and respiratory rate in a supervised educational setting.
- Identify basic body-system terminology from simulated patient profiles.

Unit 2.7 – Digestive System

- Mouth, esophagus, stomach, small intestine, large intestine, liver, gallbladder and pancreas.
- Digestion and nutrient absorption.
- Basic liver and pancreatic functions.
- Common terms: nausea, vomiting/emesis, diarrhea, constipation, gastritis and reflux.

Unit 2.8 – Urinary System

- Kidneys, ureters, bladder and urethra.
- Urine formation and fluid balance.
- Basic awareness of renal function and medicine elimination.
- Common terms: UTI, dysuria, frequency, dehydration and edema.

Unit 2.9 – Endocrine System

- Major endocrine glands and hormones.
- Pancreas and insulin.
- Thyroid gland and basic metabolic regulation.
- Adrenal glands – introductory role.
- Common terms: diabetes mellitus, hypoglycemia, hyperglycemia and thyroid disorder.

Unit 2.10 – Reproductive System

- Basic male and female reproductive anatomy.
- Pregnancy as a special medicine-safety consideration.
- Importance of referral before recommending or supplying medicines where pregnancy, breastfeeding or fertility may be relevant.

Reference Books – Module 2

- BD Chaurasia's Human Anatomy – regional anatomy text, current available edition.
- Guyton and Hall Textbook of Medical Physiology – Elsevier, current available edition.

Unit 2.11 – Introduction to Common Diseases

Disease topics are introduced to help learners understand terminology and medicine categories. Learners are not expected to diagnose disease. Recognition of warning signs and appropriate referral are emphasised.

- Hypertension and cardiovascular risk factors.
- Type 1 and type 2 diabetes – basic distinction.
- Common respiratory conditions: asthma, allergic rhinitis, common cold and COPD – awareness level.
- Common gastrointestinal problems: acidity/reflux, constipation and diarrhea.
- Common skin conditions: dermatitis, fungal infections and minor wounds.

- Musculoskeletal conditions: arthritis, sprains and minor pain.
- Common infections and antimicrobial stewardship – basic concept.
- Allergy and anaphylaxis – recognition and emergency referral.
- Dehydration and heat-related illness – basic prevention and referral.

Unit 2.12 – Basic Health Science

- Nutrition, hydration and balanced diet.
- Sleep, exercise and healthy lifestyle principles.
- Smoking/tobacco and alcohol – health-risk awareness.
- Basic vital signs: temperature, pulse, respiration and blood pressure.
- Health screening and preventive care – introductory concept.
- Importance of adherence and follow-up with healthcare professional.

Practical and Assessment

- Anatomical chart identification.
- Body-system terminology test.
- Case-based identification of the relevant body system.
- Basic vital-sign observation exercise under appropriate supervision.
- Short-answer examination and viva.



3 – Medicines & Drug Classifications

Module Overview

This module introduces medicines from a pharmacy-support perspective. Learners study broad classifications, common dosage forms, basic pharmacology concepts and safe storage. Detailed prescribing or independent treatment decisions are outside the scope.

Unit 3.1 – Medicine Names and Classification

- Chemical, generic and brand names.
- Drug classes and therapeutic classes.
- Why medicines may have multiple brand names.
- Strength, concentration, formulation and dosage form.
- Basic medicine identification using label information.
- Importance of checking name, strength, dosage form and expiry before handling.

Unit 3.2 – Basic Pharmacology

- Pharmacology, pharmacokinetics and pharmacodynamics – introductory definitions.
- Absorption, distribution, metabolism and excretion (ADME).
- Onset, duration and route of administration.
- Therapeutic effect, side effect and adverse drug reaction.
- Drug-drug, drug-food and drug-disease interaction – awareness and referral.
- Tolerance, dependence and misuse – basic concepts.

Unit 3.3 – Common Therapeutic Categories

- Analgesics and antipyretics.
- Anti-inflammatory medicines.
- Antihistamines and allergy medicines.
- Antacids and acid-suppressing medicines.
- Antidiabetic medicines.
- Antihypertensive and cardiovascular medicines.
- Antibiotics and other anti-infective agents.
- Respiratory medicines and inhaled therapies.
- Vitamins and mineral preparations – safe-use awareness.



Unit 3.4 – Selected Medicine Classes

Category	Introductory purpose	Key support-skill emphasis
Analgesics	Pain/fever	Correct product, strength, duplicate ingredients
Antihistamines	Allergic symptoms	Drowsiness and referral when needed
Antacids/acid suppressants	Acidity/reflux	Timing and label directions
Antidiabetics	Blood-glucose management	Adherence and hypoglycemia awareness
Antihypertensives	Blood-pressure control	Do not advise dose changes
Antibiotics	Bacterial infections	Prescription use and stewardship
Bronchodilators/inhalers	Airway symptoms	Device technique referral/training
Topical antifungals	Fungal skin conditions	External-use directions and hygiene
Vitamins/minerals	Nutritional supplementation	Avoid excessive/unnecessary use

Unit 3.5 – Medicine Safety

- Five/right principles used in local pharmacy procedures.
- Look-alike/sound-alike medicines.
- High-alert medicines – awareness and pharmacist referral.
- Paediatric and geriatric medicine-safety considerations.
- Pregnancy and breastfeeding – referral considerations.
- Allergy history and documentation.
- Adverse-event reporting pathways according to institutional procedures.

Unit 3.6 – Drug Storage

- Temperature, light and humidity requirements.
- Refrigerated products and cold-chain awareness.
- Protection from moisture and contamination.
- Segregation of damaged, recalled or expired products.
- Batch and expiry monitoring.
- Security requirements for restricted or controlled medicines according to applicable law and policy.

Unit 3.7 – Storage Standards

- Read and follow product-specific storage statements.
- Maintain clean, dry and organised storage areas.
- Monitor and document refrigerator temperatures where applicable.
- Separate medicines from cleaning materials, food and personal items.
- Use FEFO (First Expiry, First Out) for stock rotation.
- Quarantine expired, damaged or recalled medicines.
- Maintain appropriate security and access control.

Unit 3.8 – Medicine Handling

- Hand hygiene before handling medicines.
- Use clean counting trays and equipment.
- Avoid contamination and unnecessary handling.
- Check packaging integrity.

- Do not repackage medicines unless authorised procedures and equipment are available.
- Follow labelling and documentation procedures.
- Escalate any mismatch between prescription, product and stock.

Practical Exercises

i. Identify 30 sample medicines by generic/brand name, dosage form and strength.
ii. Classify sample products into broad therapeutic categories.
iii. Perform FEFO stock rotation on a simulated shelf.
iv. Identify products requiring refrigeration from labels.
v. Complete a damaged/expired product quarantine form.
vi. Conduct a mock medicine-safety double-check.

Reference Books

- Essentials of Medical Pharmacology – K. D. Tripathi, current available edition.
- Pharmacology for Pharmacy Technicians – Kathy A. Helms, current available edition.



4 – Prescription Handling & Patient Communication

Overview

This module develops the ability to process prescription information accurately and safely within a support role. The emphasis is on recognising prescription components, identifying missing or unclear information, performing basic calculations and referring clinical decisions to the pharmacist.

Unit 4.1 – Prescription Components

- Patient name and identifying information.
- Date of prescription.
- Prescriber name, registration/details where applicable.
- Medicine name, strength and dosage form.
- Dose, route, frequency and duration.
- Quantity and refill/repeat information.
- Special instructions and warnings.
- Signature/authentication and legal requirements according to applicable rules.

Unit 4.2 – Prescription Workflow

a) Receive and identify the patient/prescription appropriately.
b) Check completeness and legibility.
c) Confirm medicine name, strength, dosage form and quantity.
d) Identify potential discrepancies or unclear directions.
e) Refer clinical or legal questions to the pharmacist.
f) Prepare the product for supervised dispensing.
g) Generate/check label information.
h) Complete records and hand over according to pharmacy procedure.

Unit 4.3 – Reading and Interpreting Prescriptions

- Recognise common prescription terminology and abbreviations.
- Distinguish medicine name from strength and dosage form.
- Interpret frequency and duration statements.
- Identify duplicate medicines or apparent discrepancies for pharmacist review.
- Recognise unclear handwriting, incomplete directions and missing information.
- Never guess an ambiguous abbreviation, dose or instruction.

Unit 4.4 – Medication Error Prevention

- Common sources of dispensing error.
- Look-alike/sound-alike medicines.
- Strength and dosage-form errors.
- Quantity and duration errors.
- Patient identification errors.
- Transcription and data-entry errors.
- Label mismatch.
- Near-miss reporting and learning from incidents.

Practical Simulation

Learners process simulated prescriptions through a controlled workflow. Each station should include at least one intentional discrepancy that must be identified and referred rather than corrected independently.

Documentation Exercise

- Prescription processing checklist.
- Clarification/referral note.
- Dispensing record.
- Error/near-miss report.
- Patient communication log where institutionally required.

Unit 4.5 – Basic Pharmacy Mathematics

- Metric units: microgram, milligram, gram; millilitre and litre.
- Unit conversions.
- Fractions, decimals, ratios and percentages.
- Quantity calculations.
- Concentration expressions such as mg/mL and % w/v – introductory level.
- Number of tablets/capsules required from prescribed quantity.
- Liquid volume calculations.
- Days' supply calculations where appropriate.
- Rounding principles and avoiding inappropriate rounding.

Core Calculation Relationships

- Quantity required = dose required ÷ dose available × quantity supplied.
- Volume required = dose required ÷ concentration available.
- Percentage concentration should be interpreted according to the formulation and label convention.
- Always confirm units before calculating.

Worked Practice Areas

a) Convert mg to g and mcg to mg.
b) Calculate the volume required from a stated mg/mL concentration.
c) Calculate tablet quantity from a prescribed frequency and duration.
d) Determine the total quantity required for a defined course.
e) Identify calculation errors caused by unit mismatch.

Safety Rules

- Write units on every intermediate calculation.
- Use a calculator where permitted, but understand the formula.
- Have calculations independently checked according to local procedure.
- Escalate unusual or clinically consequential calculations to the pharmacist.

Unit 4.6 – Patient Communication

- Professional greeting and respectful interaction.
- Active listening and appropriate questioning.
- Use plain language rather than unnecessary technical terminology.
- Confirm patient identity using approved methods.
- Explain non-clinical information accurately and refer clinical questions.
- Use teach-back when instructed by the supervising professional.
- Handle language, hearing and accessibility needs respectfully.

Unit 4.7 – Confidentiality

- Protect prescription and health information.
- Avoid discussing patients in public areas.
- Secure paper records and electronic screens.
- Do not disclose information to unauthorised persons.
- Follow institutional privacy and data-protection procedures.

Unit 4.8 – Difficult Interactions

- De-escalating an upset customer.
- Handling complaints without arguing.
- Recognising urgent medical concerns and escalating.
- Refusing inappropriate requests respectfully.
- Maintaining professional boundaries.

Role-Play Scenarios

a) Patient asks to change the prescribed dose.
b) Patient requests a prescription-only medicine without appropriate authorisation.
c) Patient cannot understand a label.
d) Family member requests confidential information.
e) Patient complains about waiting time.
f) Patient reports a possible adverse reaction.

Reference Books

Pharmacy Calculations – Howard C. Ansel, current available edition.

- Pharmacy Technician: Principles and Practice – current available edition.



5 – Pharmacy Operations & Software

Module Overview

This module introduces day-to-day pharmacy operations, billing, invoicing, dispensing workflow and basic pharmacy management software. Software content should be adapted to the institution's actual system and applicable GST/tax and record-keeping requirements.

Unit 5.1 – Pharmacy Operations

- Opening and closing procedures.
- Workstation organisation and cleanliness.
- Prescription queue management.
- Dispensing workflow and checking points.
- Patient waiting-time management.
- Telephone and electronic communication etiquette.
- Handling returns, complaints and product queries.
- Coordination with pharmacists, prescribers, suppliers and patients.

Unit 5.2 – Billing and Invoicing

- Basic invoice components.
- Product name, quantity, unit price and total.
- Discounts and applicable taxes as configured by the approved system.
- Payment modes and receipt generation.
- Refunds and cancellation procedures.
- Credit transactions where authorised.
- Audit trail and correction of billing errors.

Unit 5.3 – Pharmacy Software

- User login and role-based access.
- Patient/customer profile creation according to privacy policy.
- Medicine master and stock search.
- Prescription entry.
- Billing and invoice generation.
- Batch and expiry tracking.
- Stock reports.
- Sales and purchase reports.
- Backup and data-security awareness.



Unit 5.4 – Standard Dispensing Workflow

a) Receive prescription and verify patient identification.
b) Check prescription completeness and refer discrepancies.
c) Locate the correct product and verify name, strength and dosage form.
d) Check batch, expiry and packaging integrity.
e) Count/measure the prescribed quantity using appropriate equipment.
f) Prepare the label and compare it against the prescription.
g) Perform required independent/double checks.
h) Present the prepared medicine to the pharmacist for final professional verification where required.
i) Complete billing and records.
j) Provide the medicine to the patient according to authorised procedure.

Unit 5.5 – Labelling

- Patient name/identifier according to policy.
- Medicine name and strength.
- Directions for use as authorised.
- Quantity and date.
- Storage instructions where relevant.
- Warnings/auxiliary labels where applicable.
- Pharmacy details and prescription reference where required.

Unit 5.6 – Quality Assurance

- Use checklists.
- Separate completed and unchecked work.
- Maintain clean equipment.
- Record corrections according to policy.
- Report near misses.
- Participate in periodic audit and stock reconciliation.

Practical

Learners complete simulated prescriptions using a training pharmacy counter, labels, counting trays and mock software. The assessor scores accuracy, hygiene, documentation, referral behaviour and final-check discipline.



Unit 5.7 – Software Practical Curriculum

Practical	Competency
Login and role access	Use assigned credentials and protect passwords
Medicine search	Find generic/brand, strength, dosage form and stock
Patient entry	Enter minimum necessary information accurately
Prescription entry	Transcribe without guessing or altering clinical directions
Billing	Generate draft and final invoice according to workflow
Stock adjustment	Record authorised corrections with reason
Purchase entry	Enter supplier invoice/batch/expiry data
Reports	Generate sales, purchase, expiry and stock reports
Data security	Lock screen, protect records, follow backup policy

Unit 5.8 – Basic Pharmacy Management

- Workflow design and queue management.
- Staff roles and segregation of duties.
- Cash and payment reconciliation – basic awareness.
- Supplier communication and purchase documentation.
- Customer service and complaint recording.
- Audit readiness and document retention.
- Business continuity during software/network failure.

Reference Books

Pharmacy Management: Essentials for All Practice Settings – current available edition.

- Pharmacy Technician: Principles and Practice – current available edition.

Note: Because pharmacy software varies substantially by institution and vendor, the practical component should use the software approved by the training centre and should not be tied to a single commercial product.



6 – Inventory & Stock Management

Overview

This module develops practical competence in medicine stock control, purchasing support, receiving, storage, expiry checking and supply records.

Unit 6.1 – Inventory Fundamentals

- Meaning and purpose of pharmacy inventory.
- Fast-moving, slow-moving and non-moving stock.
- Minimum/maximum stock levels.
- Reorder point – basic concept.
- Buffer/safety stock – introductory concept.
- Stock-outs and overstock.
- Inventory accuracy and reconciliation.

Unit 6.2 – Receiving Stock

a) Verify supplier and delivery documentation.
b) Check product name, strength, dosage form and quantity.
c) Check batch number and expiry.
d) Inspect packaging and physical condition.
e) Check temperature-sensitive products as required.
f) Record receipt in the inventory system/register.
g) Store products promptly in appropriate locations.

Unit 6.3 – Storage Layout

- Organise medicines systematically.
- Separate dosage forms and special storage categories where appropriate.
- Use clear shelf labels.
- Keep products off the floor and protected from moisture.
- Restrict access where required.
- Maintain clean aisles and safe working space.



Unit 6.4 – Expiry Checking

- Routine expiry inspection schedule.
- Use FEFO rotation.
- Identify near-expiry products.
- Quarantine expired stock.
- Record and dispose/return products through authorised procedures.
- Monitor recalls and supplier notifications.
- Never supply an expired product.

Unit 6.5 – Stock Records

- Opening balance.
- Receipts/purchases.
- Issues/sales/dispensing.
- Returns.
- Damaged and expired stock.
- Adjustments with documented reasons.
- Closing balance.
- Physical stock verification and reconciliation.

Unit 6.6 – Supply Records

- Purchase order.
- Supplier invoice.
- Goods received note.
- Stock register.
- Return note.
- Expiry/damage register.
- Recall record.
- Stock audit sheet.

Practical Exercises

a) Perform a shelf-to-record stock count.
b) Identify discrepancies and prepare a reconciliation sheet.
c) Create an expiry list from simulated inventory.
d) Apply FEFO to a mixed medicine shelf.
e) Prepare a goods-received checklist.
f) Quarantine expired/damaged mock products.



Unit 6.7 – Procurement Support

- Estimate routine replenishment requirements.
- Review stock movement reports.
- Prepare a draft purchase request under supervision.
- Verify supplier documentation.
- Receive and reconcile delivered stock.
- Handle shortages, excess supply and damaged goods.

Unit 6.8 – Stock Reconciliation

- Compare physical stock with electronic/register balance.
- Investigate differences systematically.
- Check data-entry, returns, dispensing and damaged-stock records.
- Document authorised adjustments.
- Escalate unexplained or high-risk discrepancies.

Unit 6.9 – Special Inventory Considerations

- Cold-chain products.
- High-value medicines.
- Restricted/controlled medicines – according to applicable legal requirements.
- Near-expiry medicines.
- Recalled products.
- Returned medicines.
- Damaged or contaminated products.

Reference Books

Hospital and Clinical Pharmacy – R. K. Goyal and Parveen Sharma, current available edition.

- Pharmacy Management: Essentials for All Practice Settings – current available edition.

The training institution should supplement these references with current statutory requirements, regulator notifications, institutional SOPs and manufacturer storage instructions.



7 – First Aid & Healthcare Support

Overview

The first-aid component prepares learners to recognise common emergencies, protect themselves and others, provide basic immediate support within their training, and activate appropriate emergency services. It does not replace certified first-aid/CPR training.

Unit 7.1 – Principles of First Aid

- Purpose and limitations of first aid.
- Scene safety and personal protection.
- Initial assessment and emergency activation.
- Consent and respectful assistance where feasible.
- Primary survey and recognition of life-threatening conditions.
- Monitoring the person until trained help arrives.

Unit 7.2 – Common First-Aid Situations

- Minor cuts and wounds.
- Bleeding.
- Burns.
- Sprains and strains.
- Fainting.
- Choking.
- Seizure – protect from injury and seek emergency help.
- Suspected fracture.
- Heat exhaustion/heat illness.
- Allergic reaction and anaphylaxis – emergency recognition.

Unit 7.3 – Emergency Response

- Activate local emergency medical services.
- Basic CPR/AED awareness using approved training equipment.
- Recovery position where appropriate.
- Do not give food, drink or medicines to an unconscious person.
- Document and report first-aid incidents according to institutional procedure.



Unit 7.4 – Infection Prevention

- Chain of infection – basic concept.
- Hand hygiene and the five moments/appropriate opportunities according to the applicable training standard.
- Personal protective equipment.
- Respiratory hygiene and cough etiquette.
- Cleaning and disinfection of work surfaces.
- Safe handling of contaminated materials.
- Sharps safety and safe disposal.
- Biomedical waste segregation according to applicable rules and institutional policy.

Unit 7.5 – Pharmacy Hygiene

- Clean dispensing surfaces.
- Cleaning counting equipment.
- Personal hygiene and appropriate work clothing.
- Preventing cross-contamination.
- Safe storage of cleaning agents away from medicines.
- Regular cleaning schedules and documentation.

Practical Competencies

a) Demonstrate correct handwashing/hand-rub technique.
b) Don and remove basic PPE safely.
c) Clean a simulated dispensing workstation.
d) Identify correct waste container categories according to institutional policy.
e) Demonstrate safe response to a simulated minor injury.
f) Activate emergency response in a scenario-based exercise.

Reference Books – Module 7

- First Aid/CPR/AED Participant Manual – American Red Cross or equivalent current nationally recognised first-aid training manual.
- WHO Guidelines on Hand Hygiene in Health Care – World Health Organization.

Integrated Practical Training

1. Pharmacy Skills Laboratory

The programme should maintain a dedicated skills laboratory or simulated pharmacy counter containing representative medicine packs, labels, counting trays, measuring devices, PPE, mock prescriptions, storage shelves, refrigerator-temperature records and a training pharmacy software environment.

2. Minimum Practical Stations

Station	Main competencies
A – Terminology	Medical terms, abbreviations and body systems
B – Dosage forms	Identify and classify medicines
C – Prescription	Check completeness and refer discrepancies
D – Calculations	Units, quantities, concentration and days' supply
E – Dispensing	Selection, counting, labelling and checking simulation
F – Communication	Patient interaction, confidentiality and referral
G – Software	Patient/prescription entry, billing and reports
H – Inventory	Receiving, FEFO, expiry and reconciliation
I – First aid	Emergency recognition and basic response
J – Infection control	Hand hygiene, PPE and workstation cleaning

3. Suggested Competency Standard

A learner should demonstrate both knowledge and safe behaviour. A technically correct task performed unsafely should be marked incomplete and repeated after remediation.



Supervised Pharmacy Exposure / Field Training

1. Objectives

- Observe real pharmacy workflow in an approved setting.
- Relate classroom knowledge to actual prescription processing.
- Observe pharmacist verification and patient counselling.
- Understand inventory movement from receiving to dispensing.
- Observe billing, records and software use.
- Practise professional communication under supervision.

2. Suggested Field-Training Activities

a) Orientation to pharmacy premises and safety procedures.
b) Observation of prescription receipt and screening.
c) Observation of medicine selection and pharmacist checking.
d) Stock receiving and storage observation.
e) Expiry and FEFO exercise.
f) Billing and invoice observation.
g) Patient communication observation.
h) First-aid and emergency procedures orientation.

5. Review of pharmacy SOPs and record systems.

3. Field Training Logbook

- Date and duration.
- Activity observed/performed.
- Supervisor initials/signature.
- Competency achieved.
- Questions/reflections.
- Corrective action or additional training required.

4. Conduct During Field Training

Students must follow the host pharmacy's confidentiality, safety, access-control and professional rules. Patient information must not be copied, photographed or disclosed for academic use unless appropriate authorisation and privacy safeguards are in place.



Examination and Competency Blueprint

1. Theory Examination Blueprint

Module	Suggested theory weight
Module 1	15%
Module 2	12%
Module 3	18%
Module 4	20%
Module 5	13%
Module 6	10%
Module 7	12%
Total	100%

2. Question Types

- Multiple-choice questions for terminology, anatomy, medicine categories and safety.
- Short-answer questions for definitions and workflows.
- Case-based questions for prescription discrepancies, communication and ethics.
- Calculation problems.
- Label and prescription interpretation.
- Structured practical assessment.

3. Practical Examination

a) Medical terminology and abbreviations.
b) Prescription screening.
c) Dosage calculation.
d) Medicine identification and storage.
e) Dispensing simulation.
f) Patient communication role-play.
g) Software/billing task.
h) Inventory and expiry task.
i) First-aid/infection-control demonstration.

4. Suggested Pass Requirements

A suggested institutional standard is an overall pass mark of 50%, with separate minimum competency requirements for prescription handling, calculations, dispensing safety, infection control and first aid. The awarding body may prescribe different thresholds.



Reference Books and Learning Resources

Recommended Core References – Two per Module

Subjects	Reference 1	Reference 2
1	Medical Terminology: A Short Course – Davi-Ellen Chabner	Pharmacy Technician: Principles and Practice – current edition
2	BD Chaurasia's Human Anatomy – current edition	Guyton and Hall Textbook of Medical Physiology – current edition
3	Essentials of Medical Pharmacology – K. D. Tripathi	Pharmacology for Pharmacy Technicians – Kathy A. Helms
4	Pharmacy Calculations – Howard C. Ansel	Pharmacy Technician: Principles and Practice – current edition
5	Pharmacy Management: Essentials for All Practice Settings – current edition	Pharmacy Technician: Principles and Practice – current edition
6	Hospital and Clinical Pharmacy – R. K. Goyal & Parveen Sharma	Pharmacy Management: Essentials for All Practice Settings – current edition
7	First Aid/CPR/AED Participant Manual – American Red Cross or equivalent	WHO Guidelines on Hand Hygiene in Health Care

Additional Learning Resources

- Current Drugs and Cosmetics Act/Rules and applicable Indian pharmacy legislation and regulatory requirements.
- Current guidance and notifications from the Pharmacy Council of India and other competent authorities, as applicable.
- WHO medicine-safety, hand-hygiene and patient-safety resources.
- Manufacturer-approved product information and storage instructions.
- Institutional SOPs for dispensing, inventory, emergency response, privacy and infection control.

Reference editions should be updated by the academic committee before each programme cycle. Statutory and regulatory documents should always be used in their current applicable version.



Programme Governance, Quality Assurance and Certification

1. Certificate Award

On successful completion of the prescribed attendance, theory examinations, practical competencies, field exposure and institutional requirements, the learner may be awarded the designated DGR-sponsored PRC Diploma/Certificate in Pharmacy, subject to the approval and certification rules of the sponsoring/awarding authority.

2. Final Competency Statement

A successful learner should be able to function as a safe, ethical and dependable pharmacy-support worker under appropriate professional supervision; communicate respectfully with patients; handle routine records and stock; recognise situations requiring pharmacist or emergency referral; and contribute to medication-safety and infection-control practices.

3. Important Regulatory Note

This curriculum is an educational proposal and should be mapped by the sponsoring/awarding institution against the latest applicable Indian laws, Pharmacy Council requirements, DGR/PRC administrative conditions, state-specific rules, institutional SOPs and any qualification-framework requirements before formal adoption.

— End of Detailed Syllabus —

