Brookes College

Pharmacy Assistant Diploma

Course:
Institutional Pharmacy & Sterile Practice Program
Course Curriculum

Brookes College – Pharmacy Assistant Diploma Program
Institutional Pharmacy & Sterile Practice Program
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Course Syllabus: Institutional Pharmacy & Sterile Practice Program

Course Description:

Students will gain an in-depth understanding of the operational function of an institution-based pharmacy. This course will enable students to understand the pharmacy team members' roles and scopes of practice. Students will also identify various types of automation and the use of drug distribution systems.

Course Duration:

- 60 hours
- 4 weeks
- 15 hours per week
- 7.5 hours online synchronous instruction per week
- 7.5 hours online self-directed learning per week

Course Goals:

- To provide students with a historical perspective on medicine and pharmacy.
- To impart knowledge of pharmacy laws, ethics, and regulatory agencies.
- To educate students about the competencies and associations for pharmacy technicians.
- To develop effective communication and patient interaction skills.
- To familiarize students with dosage forms, administration routes, and pharmaceutical calculations.
- To introduce students to various pharmacy practice settings, including community and institutional pharmacies.
- To emphasize the importance of medication safety, error prevention, and inventory management.
- To differentiate therapeutic agents for various body systems.
- To analyze the impact of over the counter and alternative medications in pharmacy practice.

Course Format:

- Lectures, readings, multimedia materials, and case studies.
- Interactive discussions and group activities to encourage engagement.
- Guest speakers from the healthcare field to provide real-world insights.
- Weekly assignments to apply theoretical knowledge to practical scenarios.

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Course Outcomes: By the end of this course, students will be able to:

- Understand the historical and legal foundations of pharmacy practice.
- Describe the roles and responsibilities of pharmacy technicians in various healthcare settings.
- Identify different dosage forms, administration routes, and perform pharmaceutical calculations.
- Demonstrate proficiency in non-sterile compounding and aseptic techniques.
- Explain the principles of medication safety, error prevention, and inventory management.
- Differentiate therapeutic agents for various body systems.
- Recognize the importance of communication with patients and healthcare professionals.
- Analyze the impact of alternative and complementary medicines in pharmacy practice.

Textbooks: e-texts have Power Point slides, Instructor manual, tests, and test banks to support instructional delivery:

- Mosby's Pharmacy Technician, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- eText: Workbook and Lab Manual for Mosby's Pharmacy Technician - Elsevier eBook on VitalSource, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- ISBN: 9780323765190 Copyright: 2022 Publication Date: 05-20-2021
- ISBN: 9780323734073 Copyright: 2022 Publication Date: 06-18-2021

Course Outline:

Week 1: Introduction to Pharmacy Practice

- Historical development of medicine and pharmacy.
- Important figures and contributions.
- Overview of regulatory agencies and their roles.
- Pharmacy laws, regulations, and ethical considerations.
- Scope of practice for pharmacy technicians.
- Collaborative roles within the pharmacy team.

Week 2: Pharmacy Technicians in Healthcare

- Core competencies for pharmacy technicians.

- Role of professional organizations in career development.
- Principles of effective communication.
- Patient counseling and education.
- Handling sensitive situations and inquiries.

Week 3: Fundamentals of Medications

- Types of dosage forms (solid, liquid, semisolid, etc.).
- Routes of administration (oral, topical, injection, etc.).
- Conversions between different units of measurement.
- Dosage calculations for oral and parenteral medications.
- Introduction to drug information resources.

Week 4: Diverse Pharmacy Practice Settings

- Prescription processing and dispensing.
- Over-the-counter medication recommendations.
- Medication therapy management (MTM) services.
- Role of pharmacy technicians in hospitals and long-term care facilities.
- Automated drug distribution systems in institutions.
- Specialized roles such as medication reconciliation and compounding.

Assessment and Review:

- Participation: 10%
- Weekly Assignments: 40%
- Midterm Assessment: 20%
- Final Assessment: 30%

Grading Scale:

Percentage Range	Letter Grade	Grade Points	Description
90 – 100	A+	4.0	**Excellent (4)**
85 – 89	A	4.0	
80 – 84	A-	3.7	
77 – 79	B+	3.3	**Proficient (3)**
73 – 76	B	3.0	
70 – 72	B-	2.7	
67 – 69	C+	2.3	**Competent (2)**
63 – 66	C	2	
60 – 62	C-	1.7	
55 – 59	D+	1.3	
50 – 54	**D**	**1.0**	**Developing (1)**
0 – 49	F	0.0	**Not Evident (0)**

Important Dates:

- Midterm Examination: [Date]
- Final Project Presentation: [Date]
- Final Examination: [Date]

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Module Plans: Institutional Pharmacy & Sterile Practice Program

Course Duration:

- 60 hours
- 4 weeks
- 15 hours per week
- 7.5 hours of online synchronous learning per week
- 7.5 hours of online self-directed learning per week

Course Description:

The Institutional Pharmacy & Sterile Practice program offers students a comprehensive understanding of the operational functions within institution-based pharmacies. This course emphasizes the roles and scopes of practice for pharmacy team members, automation and drug distribution systems, and sterile compounding principles. Through a blend of online instruction and self-directed learning, students will explore the fundamental concepts and practices required in institutional pharmacy settings, using the textbook "Mosby's Pharmacy Assistant, 6th Edition."

Course Format:

The course consists of a combination of synchronous online instruction and self-directed learning. Synchronous instruction includes lectures, discussions, and interactive activities. Self-directed learning involves reading assignments, quizzes, online research, and discussions.

Textbook: e-texts have Power Point slides, Instructor manual, tests, and test banks to support instructional delivery:

- Mosby's Pharmacy Assistant, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- eText: Workbook and Lab Manual for Mosby's Pharmacy Assistant - Elsevier eBook on VitalSource, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- ISBN: 9780323765190 Copyright: 2022 Publication Date: 05-20-2021
- ISBN: 9780323734073 Copyright: 2022 Publication Date: 06-18-2021

Module Outlines:

Week 1: Introduction to Pharmacy Practice

Learning Outcomes**:** By the end of this session, students will be able to:

1. Explain the historical evolution of pharmacy and its relationship to modern medicine.
2. Identify key milestones and significant events in the history of pharmacy.
3. Recognize the role of regulatory agencies in pharmacy practice.
4. Discuss the impact of historical developments on contemporary pharmacy operations.

Session 1: History and Regulatory Foundations

Synchronous Instruction: 2 hours

Topics:

- Historical evolution of medicine and pharmacy.
- Key milestones in the history of pharmacy.
- Regulatory agencies in pharmacy practice**.**

Activities:

- Lecture on the evolution of pharmacy.
- Discussion on significant historical events.
- Interactive activity on regulatory agencies.
- .

*Self-Directed Learning***:** 2 hours

Activities:

- Reading assignments on pharmacy history.
- Online research on regulatory agencies.

Assessment:

- Weekly quiz on historical milestones and regulatory agencies.

Session 2: Pharmacy Law, Ethics, and Technician Roles

Learning Outcomes**:** By the end of this session, students will be able to:

- Analyze the legal and ethical principles that govern pharmacy practice.
- Define the specific roles and responsibilities of Pharmacy Assistants within the healthcare system.
- Recognize the ethical dilemmas that pharmacy professionals may encounter and propose ethical solutions.
- Discuss the importance of adherence to pharmacy laws and regulations in ensuring patient safety.

*Synchronous Instruction***:** 2 hours

Topics:

- Legal and ethical principles in pharmacy.
- Pharmacy Assistant roles and responsibilities.
- Ethical dilemmas and solutions.
- Importance of pharmacy laws for patient safety.

Activities:

- Comprehend the legal and ethical aspects of pharmacy practice.
- Define the roles and responsibilities of Pharmacy Assistants.

Self-Directed Learning: 2 hours

Activities:

- Reading assignments on pharmacy ethics and laws.

Assessment:

- Weekly quiz on pharmacy laws, ethics, and technician roles.

Week 2: Pharmacy Assistants in Healthcare

Learning Outcomes: By the end of this session, students will be able to:

- Identify and describe the core competencies required for Pharmacy Assistants in various healthcare settings.
- Understand the significance of professional associations and their role in advancing the Pharmacy Assistant profession.
- Explore opportunities for professional development and networking within Pharmacy Assistant associations.
- Evaluate the impact of competencies and associations on the quality of patient care.

Session 1: Competencies and Technician Associations

Synchronous Instruction: 2 hours

Topics:

- Core competencies for Pharmacy assistants.
- Professional associations in pharmacy.
- Professional development and networking.
- Impact on patient care.

Activities:

- Group discussion on core competencies.
- Presentation on professional associations.

Self-Directed Learning: 2 hours

Activities:

- Research on Pharmacy Assistant competencies and associations.

Assessment:

- Weekly quiz on Pharmacy assistant competencies and associations.

Session 2: Effective Communication and Customer Interaction

Learning Outcomes: By the end of this session, students will be able to:

- Develop effective communication skills to facilitate patient interactions and medication counseling.
- Recognize the Pharmacy assistant's crucial role in promoting patient well-being and satisfaction.
- Apply principles of empathetic and culturally sensitive communication in healthcare interactions.
- Understand the impact of effective communication on patient adherence and safety.

Synchronous Instruction: 2 hours

Topics:

- Effective communication skills.
- Pharmacy assistant's role in patient care.
- Empathetic and culturally sensitive communication.
- Impact on patient adherence and safety.

Activities:

- Role-play exercises for communication skills.
- Case studies on patient interactions.

Self-Directed Learning: 2 hours

Activities:

- Reading materials on effective communication in healthcare.

Assessment:

- Weekly quiz on effective communication and patient interaction.

Week 3: Fundamentals of Medications

Learning Outcomes: By the end of this session, students will be able to:

- Describe various pharmaceutical dosage forms, including oral, parenteral, and topical formulations.
- Differentiate between different administration routes and their implications for drug absorption and delivery.
- Explain the factors influencing the choice of dosage forms and routes of administration in clinical practice.
- Evaluate the safety and appropriateness of specific dosage forms for various patient populations.

Session 1: Dosage Forms and Administration Routes

Synchronous Instruction: 2 hours

Topics:

- Pharmaceutical dosage forms.
- Administration routes and their implications.
- Factors influencing dosage form choices.
- Safety considerations for dosage forms.

Activities:

- Describe various dosage forms and their administration routes.
- Differentiate between oral and parenteral administration.

Self-Directed Learning: 2 hours

Activities:

- Reading materials on dosage forms and administration routes.

Assessment:

- Weekly quiz on dosage forms and administration routes.

Session 2: Conversions, Calculations, and Drug References

Learning Outcomes: By the end of this session, students will be able to:

- Perform accurate pharmaceutical calculations, including dosage calculations, dilutions, and compounding measurements.
- Utilize drug information references effectively to retrieve and evaluate drug-related information.
- Apply mathematical principles to ensure the safe and precise preparation and dispensing of medications.
- Interpret and convert units of measurement commonly used in pharmacy practice.

Synchronous Instruction: 2 hours

Topics:

- Pharmaceutical calculations.
- Drug information references.
- Mathematical principles in pharmacy.
- Unit conversions.

Activities:

- Perform accurate pharmaceutical calculations.
- Utilize drug information references effectively.

Self-Directed Learning: 2 hours

Activities:

- Self-assessment exercises on pharmaceutical calculations.
- Exploration of drug reference sources.

Assessment:

- Weekly quiz on pharmaceutical calculations and drug references.

Week 4: Diverse Pharmacy Practice Settings

Learning Outcomes: By the end of this session, students will be able to:

- Understand the roles and responsibilities of Pharmacy Assistants in community pharmacy settings.
- Describe the common services and functions provided by community pharmacies to patients and healthcare providers.

- Evaluate the importance of patient-centered care and counseling in community pharmacy practice.
- Recognize the challenges and opportunities specific to community pharmacy operations.

Session 1: Community Pharmacy Practice

Synchronous Instruction: 2 hours

Topics:

- Roles and responsibilities of Pharmacy Assistants in community pharmacy.
- Services provided by community pharmacies.
- Patient-centered care and counseling.
- Challenges and opportunities in community pharmacy.

Activities:

- Understand the role of Pharmacy Assistants in community pharmacies.
- Describe common services offered in community pharmacy settings.

Self-Directed Learning: 2 hours

Activities:

- Reading materials on community pharmacy practice.

Assessment:

- Weekly quiz on community pharmacy practice.

Session 2: Institutional Pharmacy Practice and Advanced Roles

Learning Outcomes: By the end of this session, students will be able to:

- Explore the functions, roles, and responsibilities of Pharmacy Assistants in institutional pharmacy settings, such as hospitals and long-term care facilities.
- Identify advanced roles and specialized areas of practice available to Pharmacy Assistants within institutional settings.
- Assess the impact of automation and technology on pharmacy operations in institutional healthcare environments.
- Understand the unique challenges and quality standards associated with sterile compounding in institutional pharmacy.

Synchronous Instruction: 2 hours

Topics:

- Functions and responsibilities in institutional pharmacy.
- Advanced roles for Pharmacy Assistants.
- Automation and technology in institutional pharmacy.
- Sterile compounding challenges and standards.

Activities:

- Explore the functions and responsibilities of Pharmacy Assistants in institutional settings.
- Identify advanced roles for Pharmacy Assistants.

Self-Directed Learning: 2 hours

Activities:

- Research on automation and technology in pharmacy.

Assessment:

- Weekly quiz on institutional pharmacy practice and advanced roles.

Assessment and Review:

- Weekly quizzes and assignments (40%)
- Mid-term exam (20%)
- Final exam (30%)
- Participation in synchronous and asynchronous sessions (10%)

Sample Lesson Plan: Pharmacy Law, Ethics, and Technician Roles

Lesson Duration:

- 3.75 - 4 hours
- 2 hours online synchronized instruction
- 2 hours of online self-directed learning

Learning Outcomes**:** By the end of this lesson, students will be able to:

1. Comprehend the legal and ethical aspects of pharmacy practice.
2. Define the roles and responsibilities of pharmacy technicians.

Textbook: e-texts have Power Point slides, Instructor manual, tests, and test banks to support instructional delivery:

- Mosby's Pharmacy Assistant, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- eText: Workbook and Lab Manual for Mosby's Pharmacy Assistant - Elsevier eBook on VitalSource, 6th Edition by Elsevier, Karen Davis, AAHCA, BS, CPhT and Anthony Guerra, PharmD, RPh
- ISBN: 9780323765190 Copyright: 2022 Publication Date: 05-20-2021
- ISBN: 9780323734073 Copyright: 2022 Publication Date: 06-18-2021

Materials:

- Mosby's Pharmacy Technician, 6th Edition
- Presentation slides
- Case studies
- Online resources

Lesson Outline:

Introduction

- Welcome and overview of the lesson objectives.

Synchronous Instruction 2 hours

Topic 1: Pharmacy Laws and Regulations

- Explanation of pharmacy laws and regulations.
- Discussion of major legal frameworks in pharmacy.
- Overview of regulatory agencies and their roles.

Topic 2: Ethical Considerations

- Exploration of ethical principles in pharmacy practice.
- Case studies to illustrate ethical dilemmas.
- Discussion of ethical decision-making.

Topic 3: Roles of Pharmacy Technicians

- Define the roles and responsibilities of pharmacy technicians.
- Discuss the scope of practice for pharmacy technicians.
- Explore collaborative roles within the pharmacy team.

Activities

Title of Activity 1: Case Study Analysis

- Analyze and discuss real-world cases related to pharmacy laws and ethics.
- Group discussions and sharing of insights.

Title of Activity 2: Role Play Exercise

- Engage in role-playing scenarios to simulate pharmacy technician roles and responsibilities.
- Encourage students to apply ethical principles in practice.

Break

Self-Directed Learning 2 hours

Topic 4: Self-Study on Legal Frameworks

- Assign readings from Mosby's Pharmacy Technician, 6th Edition related to pharmacy laws.
- Encourage students to take notes and prepare questions.

Topic 5: Ethical Decision-Making Exercises

- Provide exercises on ethical decision-making.
- Students can work independently or in small groups to analyze and solve ethical dilemmas.

Topic 6: Research on Pharmacy Technician Roles

- Assign online research tasks to explore the evolving roles of pharmacy technicians.
- Prompt students to identify emerging responsibilities.

- Provide a list of potential discussion points to guide their preparation.

Assessment

Assessment Activity: Quiz

- Conduct an online quiz to assess knowledge of pharmacy laws, ethics, and technician roles.
- Multiple-choice and short-answer questions.

Conclusion and Recap

- Summarize the key takeaways from the session.
- Address any questions or concerns from students.

Homework Assignment**:**

- Read assigned chapters from Mosby's Pharmacy Technician, 6th Edition.
- Write a reflection on a personal ethical dilemma encountered in a pharmacy setting.

Learning Outcomes Review:

- Review the session's learning outcomes and ensure that they have been met.

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Course Module: Week 1 - Introduction to Community Pharmacy Practice

Skills Assessment	Criteria	Excellent (4)	Proficient(3)	Competent (2)	Developing (1)	Not Evident(0)
Understanding Role	Demonstrates understanding of the role of a pharmacy assistant.	Exceptional insight	Demonstrates clear understanding	Satisfactory understanding	Basic understanding	Inadequate grasp of the role
Workflow Understanding	Describes the workflow of a community pharmacy, including third-party billing.	Exceptional understanding	Demonstrates clear understanding	Satisfactory understanding	Basic understanding	Inadequate understanding
Legal and Ethical Considerations	Identifies legal and ethical considerations in pharmacy practice.	Identifies all considerations	Identifies most considerations	Identifies some considerations	Identifies few considerations	Inadequate grasp of considerations
Prescription Interpretation	Accurately interprets prescription orders.	Consistently interprets prescriptions accurately	Mostly interprets prescriptions accurately	Occasionally misinterprets prescriptions	Frequently misinterprets prescriptions	Inadequate interpretation

Course Module: Week 2 - Medication Dispensing Procedures

Skills Assessment	Excellent (4)	Proficient(3)	Competent (2)	Developing (1)	Not Evident(0)	Excellent (4)
Drug Classification	Demonstrates understanding of drug classification and dosage forms.	Exceptional insight	Demonstrates clear understanding	Satisfactory understanding	Basic understanding	Inadequate grasp of classification
Prescription Filling	Describes prescription filling and compounding processes.	Exceptional understanding	Demonstrates clear understanding	Satisfactory understanding	Basic understanding	Inadequate understanding
Medication Storage	Demonstrates proper medication storage and inventory management.	Exceptional management	Effective management	Basic management	Poor management	Ineffective management

Identification Exercise	Accurately identifies various drug classifications.	Consistently identifies classifications accurately	Mostly identifies classifications accurately	Occasionally misidentifies classifications	Frequently misidentifies classifications	Inadequate identification

Course Module: Week 3 - Pharmacy Lab Skills

Skills Assessment	Excellent (4)	Proficient(3)	Competent (2)	Developing (1)	Not Evident(0)	Excellent (4)
Lab Orientation and Safety	Develops practical lab orientation and safety guidelines.	Exceptional safety awareness and orientation	Demonstrates good safety awareness and orientation	Basic safety awareness and orientation	Lacks safety awareness and orientation	Inadequate safety awareness and orientation
Dispensing Practice	Applies simulated dispensing practice and prescription accuracy checks.	Exceptional dispensing accuracy and checks	Effective dispensing accuracy and checks	Basic dispensing accuracy and checks	Poor dispensing accuracy and checks	Ineffective dispensing
Hands-on Experience	Gains hands-on experience in measuring, compounding, and packaging medications.	Exceptional hands-on experience	Proficient hands-on experience	Basic hands-on experience	Limited hands-on experience	Insufficient hands-on experience

Course Module: Week 4 - Advanced Topics in Community Pharmacy

Skills Assessment	Criteria	Excellent (4)	Proficient(3)	Competent (2)	Developing (1)	Not Evident(0)
Patient Counseling	Enhances patient counseling and communication skills.	Exceptional communication skills	Proficient communication skills	Satisfactory communication skills	Basic communication skills	Poor communication skills
Controlled Substances Handling	Manages controlled substances, OTC medications, recalls, and returns.	Exceptional management	Effective management	Basic management	Ineffective management	Poor management
Recordkeeping and Documentation	Understands pharmacy recordkeeping and	Exceptional understanding	Proficient understanding	Satisfactory understanding	Basic understanding	Inadequate understanding

	documentation practices.					

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