



Training Manual
Forensic and Poison Chemistry Rotation
Master of Pharmacy in Applied Toxicology
College of Pharmacy, Department of Pharmacology & Toxicology,
Jazan University



Course Title:	Forensic and Poison Chemistry Rotation
Course Code:	PHL - 729
Program:	Master of Pharmacy in Applied Toxicology
Department:	Pharmacology & Toxicology
College:	College of Pharmacy
Institution:	Jazan University



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Department of Pharmacology & Toxicology Master of Pharmaceutical Sciences – Applied Toxicology

Section - 1

1. Trainee.

A trainee is a registered candidate who has successfully completed and passed the qualifying examinations in all topics indicated in the course of study up to the fifth semester of the Jazan University's Master of Pharmacy in Applied Toxicology program.

Interns must work full-time (from 9:00 a.m. to 3:00 p.m.) throughout the duration of their Internship program. They must follow all procedures that have been allocated to them (see Appendix) and fulfill any other duties relating to their training that may be assigned by the training center's authorities. Interns are expected to follow all of the rules and regulations outlined in this guidebook.

2. PRECEPTOR

A preceptor is a certified professional who observes and evaluates all areas of a student's academic performance, such as demonstrated knowledge, technical and interpersonal skills, attitudes and professional character, and capacity to use the required curriculum. The Dean of the College of Pharmacy at Jazan University chooses preceptors.

Duties and responsibilities

- 2.1. All preceptors must carry their identification card while at experiential sites and should produce before the authorities when and where asked to do so.
- 2.2. All interns are bound to abide by the general rules and regulation of the training center, the Jazan University and the Ministry of Health.
- 2.3. Preceptors will promote and practice principles of professionalism and ethical behavior.

- 2.4. Preceptors will discuss in detail what is expected of a student in the way of appearance, attitude and method of practice and ensure that both he/she (the faculty preceptor) and co-workers adhere to these requirements.
- 2.5. Preceptors will afford the student with mutual respect and patience needed for an optimal learning experience.
- 2.6. Preceptors will work with the student to ensure that optimal learning experiences are provided, will strive to stimulate the student's interest in all aspects of professional practice and that the student's goals and objectives are met at the site.
- 2.7. Preceptors will submit all evaluation forms and reports required by the program in a timely manner.
- 2.8. Preceptors will decide the best assignment to be used as the make-up for missed experiential time.
- 2.9. At the beginning of the rotation, communicate with students about expectations of internship and standards of evaluation.
- 2.10. Orient the students about the laws and regulations of the training site and discipline and ethics of the professional practice.
- 2.11. Delegate to students, his/her defined duties, with appropriate supervision and direction, but never use students as substitution for regular staff.
- 2.12. Maintain proper attendance of students to make it sure that students observe punctuality of time (daily attendance, medical team rounds and any other clinical activities).
- 2.13. Determine student's competency based on his/her daily performances and through frequent discussions with students and help their concerns.
- 2.14. Respect confidentiality of student's internship information.
- 2.15. Available at reasonable times for teaching and evaluation of the students.
- 2.16. Communicate with the internship supervisor directly or through the coordinators for the progress of the student's internship or any circumstances.

3. DURATION AND CONTINUITY OF TRAINING

- 3.1. The internship is for three days per week.
- 3.2. The interns should attend a specified number of theory classes in the college, after their day's training session, preferably in the evening.
- 3.3. The internship program is for ten weeks. The specified period of training shall be on a continuous and uninterrupted basis. An assessment will be conducted on the eleventh week.
- 3.4. A maximum of ten (10) days of official leave of absence (Emergency leave, Sick leave, educational leave, Maternity Leave, and other types of leave) are allowed during the training period.
- 3.5. Only a maximum of (02) days Emergency or Educational Leave days can be filed in a month.
- 3.6. Only a maximum of (02) days compassionate leave can be filed in case of the death of an immediate family member. A copy of the Death certificate must be provided within (5) days of filing.

4. LEAVE GUIDELINES

- 4.1. Emergency leave needs to be filed at least 24 hours before duty.
- 4.2. Sick leave must be filed at least 3 hours before the duty, and the medical certificate/report should be provided within two days of the last leave.
- 4.3. Female interns' maternity leaves are to be filed within the time frame of their duty, and the medical certificate/report should be provided within two days from the last day of leave.
- 4.4. Educational leave is to be filed at least 24 hours before duty, and the Certificate of Attendance should be provided within two days from the last day of leave.
- 4.5. All leave, including those in outside rotation, must be filed after accomplishing the Leave Request Form Online and be approved to be considered official.

- 4.6. Early leave (permit to leave premises during working hours) needs to be filed at least 24 hours before duty. Interns with only half a session (3 hours of duty) in a day cannot file for an early leave request.
- 4.7. Maximum of 18 hours in the entire training period with a maximum of (3) hours per applied leave.

5. SYMPOSIA AND SCIENTIFIC MEETINGS

- 5.1. Each intern may apply to attend a national symposium once or twice during the internship training period. The time spent in such symposiums need not be replaced at the end of the program, provided that the candidate can present a certificate of attendance.
- 5.2. All applications must be filed officially following the approval process outlined in the request form.
- 5.3. A maximum of one week may be given to those who wish to attend an international meeting, while the local meetings will be based on the number of days applied.
- 5.4. The candidate interested in presenting an accepted scientific paper will be able to attend more than two meetings.

6. OTHER VITAL COMPONENTS

6.1. Attendance

Punctuality in all training centers is mandatory, and daily attendance will be monitored closely. Interns should abide by the official working hours and the rules and regulations required by each training institution they attend.

6.2. Dress code

Interns are requested to take the recommendation regarding the prescribed dress code at working hours seriously in each training institution. Interns are

- 6.3. obliged to use the proper identification badge. Blue jeans and casual dress are not allowed on training premises.

6.4. Professional Ethics

Interns are expected to maintain the respect and confidence of authorities of the training center through sincere and honest relationships.

Duty to Colleagues and Professionals in Poison Centers: Uphold and maintain the respect and dignity of our profession and work to uphold a reputation for honesty, integrity, and dependability. By expanding the body of knowledge, incorporating medical discoveries that help people, upholding high standards for practice and education, and promoting equitable socio-economic working circumstances for professional members, they support the development of the field. With the main goal of providing a high standard of care for the people they serve, poison center staff members actively endeavor to develop cooperative and courteous working relationships with other experts.

- 6.4.1. Duty to Society - As practitioners of an autonomous profession, poison center professionals are responsible for contributing from their professional competence to the community's general well-being. Comply with relevant laws and regulations about the practice of applied toxicology and actively seek, within the dictates of their consciences, to change those which do not meet the high standards of care and practice to which the profession is committed.
- 6.4.2. Discipline In case of unapproved absence, negligence, misconduct, incompetence, insubordination, or any other act that the interns superior deems unacceptable, an Intern shall be duly reported to the Interns' Training Program Committee (ITPC) for disciplinary action. Depending on the seriousness of the offense and upon the recommendation of the Interns' Training Committee, disciplinary action may be one of the following:
 - A. Probation, verbal and written warnings.
 - B. Repeating a rotation.
 - C. Suspension of the Intern for some time as directed by ITPC.

SECTION- 2

7. INTERNSHIP EVALUATION GUIDELINES

To monitor the interns' performance, it becomes essential that some forms of quantification and possible evaluation of the work carried out by the interns should be documented. Each procedure performed by the intern will be recorded and compiled in a weekly report. While in other institutions, training supervisors send their evaluation of the intern's performance at the end of each rotation (Appendix I-VI). By the end of the program, the intern's performance should be evaluated and assessed by the Interns' Training Program Committee for 80 marks at the training center itself, and for the remaining 20 marks, an examination will be conducted at the college. The data for evaluation will be compiled from the summary of procedures recorded, and the decision of whether the intern has fulfilled his requirements or requires an extension of the program will be recommended.

8. EVALUATION AND GRADING

8.1. Evaluation Protocols:

- 8.1.1. The total marks for each internship shall be one hundred (100).
- 8.1.2. The intern will be evaluated at the end of each rotation for fifty (80) marks by the preceptor based on his/her attendance, punctuality, professionalism, and attitude throughout the training period.
- 8.1.3. The preceptor will evaluate the intern at the end of the rotation for competency, which can be done by a written examination of the completed activities during the internship. The maximum mark for the final evaluation is fifty (20).
- 8.1.4. The preceptor should consolidate the marks of each intern and submit to the coordinator.
- 8.1.5. The coordinator shall consolidate the marks from the preceptors for each student.

9. Summary of Marks per Rotation

9.1. Internal (Continuous) Evaluation

Interns' assessment [Professionalism (20 marks), punctuality (20 marks), attitude (20 marks), and regularity (20 marks)] – 80 Marks

9.2. Final Evaluation

Final Evaluation (written examination) – 20 Marks

9.3. Grand Total:

The grand total of marks for each Advanced Pharmacy Practice Experience (each rotation) shall be the sum of continuous evaluation and final Evaluation (80+20 =100 Marks).

6. The final score will be interpreted as per the Jazan University grading system.

Grade Letter	Grade	Percentage
A+	High excellent	95-100
A	Excellent	90-< 95
B+	High very good	85-<90
B	Very good	80-<85
C+	High good	75-<80
C	Good	70-<75
D+	High Pass	65-<70
D	Pass	60-<65

10. Master Program - Internship Evaluation

Reg. No.	Name of the student	Internal evaluation (80)				Final evaluation (20)	Total (100)	Grade
		Regularity (20)	Punctuality (20)	Professionalism (20)	Attitude (20)			

10.1. Internal Evaluation (80 Marks):

It is done by the preceptor at the training center.

10.2. Final Evaluation (20 Marks):

Based on the involvement & participation of the intern during the training period, the preceptor can assess the competency of the student by a written examination and award marks.

The last date for submission of marks to the college by the preceptor: As the date announced by the college

Submission of appendix: The student must submit Appendix- A to F duly signed by the preceptor to the college.

Particular	Content
Professionalism	Sound Judgement
	Competence
	Mature responsibility
	Problem solving perseverance
	Skill
	Dedication
Attitude	Self-confidence and building an atmosphere of trust within the team
	Being cheerful and enthusiastic
	Willing to learn
	Finishing the work on time with accuracy
Punctuality	Always on time for work
Regularity	Being regular to the training

Meaning of different assessment criteria for internal evaluation for internship students

SECTION -3.

Internship Undertaking Format

UNDERTAKING

I. (Name and address).....
.....
.....

I.D.No.an Intern of the College of Pharmacy, Jazan University undertake that, I abide by all the Rules and Instructions and duties and responsibilities mentioned in this internship manual as written and framed by the Department of Pharmacology & Toxicology, College of Pharmacy, Jazan University and as amended from time to time. If I fail to do so under any circumstances, I shall be responsible for any actions from the authorities.

SIGNATURE

NAME:

DATE:

CONTACT DETAILS

Appendix - A

(ORIENTATION SHEET)

Section: DATE:

Trainee Name:	ID:
Starting Date:	

No.	Orientation Description	Date (Orientation) Completed	Remarks
1	General Orientation Check List in The Instrument Unit		
2	Departmental Orientation Check List		
3	Divisional Orientation Check List		
4	Job Description read, received and signed.		
5	Orientation related to promotion, position change.		
6	Fire and Safety training attended (Annual)		

Trainee Signature:

Approved by:

Appendix - B

Trainee name:				Estimated time (-- weeks)	
Training phase	Task	Time frame	Training by	Achievement	Date
SUMMARY OF RECEPTION UNIT	Reception Duties			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Reception Skills			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	OTARR website introduction			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Evidence and specimen receiving in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Careful Visual Examinations of Evidence and specimen (<u>MUST BE SAME AS IN OTARR</u>)			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Procedures for rejection of Evidence and specimens in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Evidence receiving (1) in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Procedures for retention and recording the transfer of Evidence and specimens			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Procedures for transfer of specimens			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
Approved by: The Head Department			Laboratory competency testing <input type="checkbox"/> Pass <input type="checkbox"/> Not pass		
Signature of the Trainee					

Appendix - C

Trainee name:				Estimated time (-- weeks)	
Training phase	Task	Time frame	Training by	Achievement	Date
COMPETENCY FOR CONFIRMATORY UNIT	Confirmatory Unit Introduction (Duties, OTARR, SLis, SOP, MSD)			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Methods of Extraction			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Solid-phase extraction (introduction, methods, troubleshooting)			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Basic Principles of Chromatography			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Understand the fundamental principles behind GC-MS (Daily and weekly maintenance procedures (Form No.:), Create new batch and samples introducing)			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Understand the fundamental principles behind LC-MS (Daily and weekly maintenance procedures (Form No.:), Preparation of mobile phase (LC-MS), Create new batch and samples introducing)			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Qualitative analysis and Quantitative analysis			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Preparation of calibration and controls sample			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Use software to create a calibration curve and determine quality control values			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Data interpretation and batch report generation.			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
Approved by: The Head Department			Laboratory competency testing <input type="checkbox"/> Pass <input type="checkbox"/> Not pass		
Signature of the Trainee					

Appendix - D

Trainee name:				Estimated time (---weeks)	
Training phase	Task	Time frame	Training by	Achievement	Date
SUMMARY OF FORENSIC CHEMISTRY UNIT MANUAL	Forensic Chemistry Introduction			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Receiving Evidence (1) in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Careful Visual Examinations Receiving Evidence (2) in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Evidence Sampling, Characterization and Weight Determination			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	General Drug Identification- Color Tests			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Select the required test in OTARR website and receiving sample in SLis Software			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Specific Drug Identification- Qualitative and Quantitative analysis			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Interpretations of Results and results entry in SLis.			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Report Writing in OTARR website			<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
Approved by: The Head Department			Laboratory competency testing <input type="checkbox"/> Pass <input type="checkbox"/> Not pass		
Signature of the Trainee					

Appendix - E

Trainee name:				Estimated time (-- weeks)	
Training phase	Task	Time frame	Training by	Achievement	Date
COMPETENCY FOR IMMUNOASSAY UNIT	Immunoassay Unit Introduction (Duties, OTARR, SLis, SOP, MSD)			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Basic Principles of Immunoassay			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Instrument component and daily maintenance (Form No.: 39)			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Preparation of Reagents, sample, control, and calibration			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Running the sample programs			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Calibration and controls check			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Interpretation of the results			<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
Approved by: Coordination of the program			Laboratory competency testing <input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not pass		
Trainee Signature					
Approved by: The manager					

Appendix - F

Trainee name:				Estimated time (-- weeks)	
Training phase	Task	Time frame	Training by	Achievement	Date
Solid Phase Extraction (SPE)	Understand the fundamental principles behind analyte retention in SPE	1-2 days		<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Not complete	
	Identify the SOP document and safety	1-2 days		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	SPE methods for DOA	1 week		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Works on semi-automated SPE manifold	1 week		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Works on fully automated SPE instrument	1 week		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
Solution Preparation	Preparation of SPE solution and buffers	1-2 days		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Calibration and controls sample	1-2 days		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
	Prepare working std solution	1 day		<input type="checkbox"/> Pass <input type="checkbox"/> Not complete	
Approved by: The Head Department				Laboratory competency testing <input type="checkbox"/> Pass <input type="checkbox"/> Not pass	
Signature of the Trainee					