

## Jordan University of Science and Technology Faculty of Pharmacy Doctor Of Pharmacy (Pharm D.) Department

PHMD644 Clinical Training: Pediatrics (For Pharm D Students) - JNQF Level: 7

First Semester 2024-2025

## Course Catalog

4 Credit Hours. Four experiential training weeks in a pediatrics department. This includes various activities such as attending moming rounds, other clinical rounds, and discussing clinical cases based on daily follow-up and monitoring, and detailed evaluation of the pharmacotherapeutics of their assigned patients in the department. The goal is to improve students practical clinical skills that would enhance the positive contribution of clinical pharmacists in medical care at the hospital.

Teaching Method: On Campus

|                   | Text Book                                      |  |  |  |  |  |
|-------------------|--|--|--|--|--|--|
| Title             | Pharmacotherapy: A Pathophysiological Approach |  |  |  |  |  |
| Author(s)         | Dipiro et al                                   |  |  |  |  |  |
| Edition           | 11th Edition                                   |  |  |  |  |  |
| Short Name        | Ref # 1  |  |  |  |  |  |
| Other Information |  |  |  |  |  |  |

## **Course References**

| Short<br>name | Book name  | Author(s)                     | Edition         | Other<br>Information |
|---------------|--|-------------------------------|-----------------|----------------------|
| Ref#2         | Current Diagnosis & Treatment Pediatrics   | William Hay et al             | 25th<br>Edition |                      |
| Ref # 3       | Nelson essentials of pediatrics  | Karen et al                   | 9th Edition     |                      |
| Ref # 4       | Basic and clinical pharmacology  | Katzung et al                 | 14th<br>Edition |                      |
| Ref#5         | www.uptodate.com   | None                          | 1st Edition     |                      |
| Ref#6         | Neonatology: Management, Procedures, On-call problems, Diseases, and Drugs by . 2020.    | Tricia Lacy Gomella et al.    | 8th Edition     |                      |
| Ref # 7       | The Harriet Lane Handbook. 2021.   | Johns Hopkins Hospital et al. | 22nd<br>Edition |                      |
| Ref#8         | Nelsons Pediatric Antimicrobial Therapy. 2021.   | Nelson et al.                 | 27th<br>Edition |                      |
| Ref # 9       | www.Lexicomp.com   | None.                         | 1st Edition     |                      |
| Ref # 10      | American College of Clinical Pharmacy.<br>https://www.accp.com/education/pediatrics.aspx | None.                         | 1st Edition     |                      |

|                 | Instructor       |
|-----------------|------------------|
| Name            | Miss Abeer Ayoub |
| Office Location | -                |

| Email        | amayoub@just.edu.jo  |
|--------------|--|
|              | Tue: 12:00 - 13:00<br>Wed: 12:00 - 13:00<br>Thu: 12:00 - 13:00 |
|              | Mon: 12:00 - 13:00   |
|              | Mon: 08:00 - 08:30   |
|              | Sun: 12:00 - 13:00   |
| Office Hours | Sun: 08:00 - 08:30   |

## Class Schedule & Room

Section 1:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 08:30 - 10:30

Room: HOSPITAL

Section 2:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 08:30 - 10:30

Room: HOSPITAL

Lecture Time: Sun, Mon, Tue, Wed, Thu: 08:30 - 10:30

Room: HOSPITAL

Section 4:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 10:30 - 12:30

Room: HOSPITAL

Section 5:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 10:30 - 12:30

Room: HOSPITAL

Section 6:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 10:30 - 12:30

Room: HOSPITAL

Lecture Time: Sun, Mon, Tue, Wed, Thu: 12:30 - 14:30

Room: HOSPITAL

Lecture Time: Sun, Mon, Tue, Wed, Thu: 12:30 - 14:30

Room: HOSPITAL

Lecture Time: Sun, Mon, Tue, Wed, Thu: 12:30 - 14:30

Room: HOSPITAL

Section 10:

Lecture Time: Sun, Mon, Tue, Wed, Thu: 14:30 - 16:30

Room: HOSPITAL

Section 11:

Lecture Time: Sun, Mon, Tue, Wed, Thu : 14:30 - 16:30

Room: HOSPITAL

Lecture Time: Sun, Mon, Tue, Wed, Thu: 14:30 - 16:30

Room: HOSPITAL

| Tentative List of Topics Covered                            |                                    |   |  |  |  |
|---|------------------------------------|---|--|--|--|
| Weeks   | Topic                              | References                                  |  |  |  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Upper Respiratory Tract Infections | From <b>Ref # 1</b> ,<br>From <b>Ref #5</b> |  |  |  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Lower respiratory Tract Infections | From <b>Ref # 1</b> ,<br>From <b>Ref #5</b> |  |  |  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Urinary Tract Infections           | From <b>Ref # 3</b> ,<br>From <b>Ref #5</b> |  |  |  |

| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Sepsis  | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b> ,<br>From <b>Ref # 6</b>  |
|---|---|---|
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | CNS infection                                 | From <b>Ref # 1</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Gastrointestinal infections                   | From Ref # 2, From Ref # 3, From Ref #5, From Ref #10                 |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Cystic fibrosis                               | From <b>Ref # 1</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Chemotherapeutic drugs                        | chapters 43-51 From Ref # 4   |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Vaccines                                      | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Croup   | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Febrile seizure                               | From <b>Ref # 2</b> ,<br>From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Diabetes mellitus-Diabetic ketoacidosis (DKA) | From <b>Ref # 2</b> ,<br>From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Rheumatic fever                               | From <b>Ref # 2</b> ,<br>From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Idiopathic thrombocytopenia purpura (ITP)     | From <b>Ref # 2</b> ,<br>From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Thalassemia & Sickle cell disease             | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Poisonings in children                        | From Ref # 3,<br>From Ref #5,<br>From Ref # 10                        |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Asthma in children                            | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Anemia  | From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Nephrotic syndrome.                           | From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Kawasaki Disease.                             | From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | G6PD deficiency.                              | From Ref #5   |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Celiac disease.                               | From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Whooping Cough.                               | From <b>Ref # 2</b> ,<br>From <b>Ref # 3</b> ,<br>From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | FMF.  | From <b>Ref #5</b>  |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16     | Constipation.                                 | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b>                           |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Autism and ADHD.                              | From <b>Ref # 2</b> ,<br>From <b>Ref #5</b> ,<br>From <b>Ref # 10</b> |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Seizure disorder.                             | From Ref # 10   |
| Weeks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | MISC-19                                       | From Ref # 10   |
|   |   |   |

| Mapping of Course Outcomes to Program Outcomes and NQF Outcomes   | Course<br>Outcome<br>Weight (Out of<br>100%) | Assessment method  |
|---|--|--|
| Utilize tools to independently gather medication histories, physical findings, laboratory tests, and pharmacokinetic data to select and recommend optimal drug therapy for individual patients as necessary. [1PLO1.1] [1L7S1, 1L7C2] | 25%  | Written quizzes, Formal case presentations, Final exam                               |
| Identify potential drug-related problems through the monitoring of basic pharmacokinetic and pharmacodynamic parameters and assessing past and current patients histories. [1PLO2.1] [1L7S2, 1L7C4]                                   | 25%  | Daily evaluation and attitude,<br>Formal case presentations                          |
| Apply current drug therapy information from the literature in formulating recommendations and comprehensive pharmaceutical care plan. [1PLO3.1] [1L7S3, 1L7C3]  | 30%  | Final exam   |
| Explain to patients and/or caregivers the appropriate use of medications utilizing medication therapy management principles when possible. [1PLO4.4] [1L7C1, 1L7C4]   | 20%  | Daily evaluation and attitude, Active learning/Oral Exam, Active learning/In-service |

|        | Relationship to Program Student Outcomes (Out of 100%) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PLO1.1 | PLO2.1   | PLO2.2 | PLO2.3 | PLO2.4 | PLO3.1 | PLO3.2 | PLO3.3 | PLO3.4 | PLO3.5 | PLO3.6 | PLO4.1 | PLO4.2 | PLO4.3 | PLO4.4 | PLO5.1 |
| 25     | 25   |        |        |        | 30     |        |        |        |        |        |        |        |        | 20     |        |

| Relationship to NQF Outcomes (Out of 100%) |      |    |    |      |    |      |
|--|------|----|----|------|----|------|
| L7S1 L7S2 L7S3 L7C1 L7C2 L7C3 L7C4         |      |    |    |      |    | L7C4 |
| 12.5                                       | 12.5 | 15 | 10 | 12.5 | 15 | 22.5 |

| Evaluation                    |        |
|-------------------------------|--------|
| Assessment Tool               | Weight |
| Daily evaluation and attitude | 20%    |
| Written quizzes               | 15%    |
| Active learning/Oral Exam     | 5%     |
| Active learning/ln-service    | 5%     |
| Formal case presentations     | 15%    |
| Final exam                    | 40%    |

|            | Policy  |
|------------|---|
| Exams      | All exams are closed book and notes. The final exam is comprehensive (covers all the material). The format for the exams is generally in the form of essay questions and multiple choice questions. Makeup exam should not be given unless there is a valid excuse approved by the dean Grades will not be given out via e-mail.  |
| Cheating   | The commitment of the acts of cheating and deceit such as copying during examinations, altering examinations for re-grade, plagiarism of homework assignments, and in any way representing the work of others as your own is dishonest and will not be tolerated. Standard JUST policy will be applied المقت عليه العقوبة عليه العقوبة التالية مجتمعة المنافق التالية مجتمعة المنافق المتحان أو الاختبار وراسباً في ذلك الامتحان أو الاختبار وراسباً في ذلك الامتحان أو الاختبار وراسباً في ذلك الامتحان أو الاختبار وراسباً في ذلك الفصل التالي للفصل التالي للفصل التالي للفصل التالي للفصل التالي للفصل التالي للفصل التالي الفصل التالي الفصل التالي عندياً فيه المسافلة المسافلة التالية عندياً فيه المسافلة المسافلة التالية عندياً فيه المسافلة المسافلة التالي الفصل الذي ضبط فيه المسافلة المسافلة المسافلة المسافلة التالية و الفصل التالي التالي الفصل التالي |
| Attendance | Excellent attendance is expected.  JUST policy requires the faculty member to assign ZERO grade (35) if a student misses 15% of the classes.  If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.  |

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