



## Jordan University of Science and Technology

### Faculty of Pharmacy

### Pharmacy Department

HSS124PHAR Pharmaceutical Organic Chemistry

First Semester 2025-2026

#### Course Catalog

3 Credit Hours. This course is designed to provide students with a foundation in organic chemistry. Topics include an overview of organic functional groups with emphasis on the physicochemical properties of biological importance. Besides, the course covers essential subjects in organic chemistry, including resonance, aromaticity, acidity, basicity, and stereochemistry of organic compounds. Chemistry of aliphatic and aromatic heterocycles will be included throughout the course.

**Teaching Method:** On Campus

#### Text Book

|                          |   |
|--------------------------|---|
| <b>Title</b>             | Organic Chemistry                                   |
| <b>Author(s)</b>         | Harold Hart, Leslie Craine, David Hart and C. Hadad |
| <b>Edition</b>           | 14th Edition  |
| <b>Short Name</b>        | Text Book   |
| <b>Other Information</b> |   |

#### Instructor

|                        |                           |
|------------------------|---------------------------|
| <b>Name</b>            | Dr. Islam AlKhawaldeh     |
| <b>Office Location</b> | P2 L1                     |
| <b>Office Hours</b>    |                           |
| <b>Email</b>           | ihalkhawaldeh@just.edu.jo |

#### Instructor

|                        |                      |
|------------------------|----------------------|
| <b>Name</b>            | Dr. Buthina Al-Oudat |
| <b>Office Location</b> | P1 L1                |
| <b>Office Hours</b>    |                      |
| <b>Email</b>           | baoudat@just.edu.jo  |

#### Class Schedule & Room

Section 1:  
Lecture Time: Sun, Tue, Thu : 09:00 - 10:00  
Room: PH2101

Section 2:  
Lecture Time: Sun, Tue, Thu : 11:00 - 12:00  
Room: PH2106

Section 3:  
Lecture Time: Mon, Wed : 09:00 - 10:30  
Room: SF06

#### Prerequisites

| Line Number | Course Name                  | Prerequisite Type    |
|-------------|------------------------------|----------------------|
| 821036      | HSS103CHEM General Chemistry | Prerequisite / Study |

| Tentative List of Topics Covered |                                    |                       |
|----------------------------------|------------------------------------|-----------------------|
| Weeks                            | Topic                              | References            |
| Weeks 1, 2                       | Bonding and Isomerism              | From <b>Text Book</b> |
| Weeks 2, 3                       | Alkanes and Cycloalkanes           | From <b>Text Book</b> |
| Weeks 4, 5                       | Alkenes and Alkynes                | From <b>Text Book</b> |
| Week 6                           | Aromatic Compounds                 | From <b>Text Book</b> |
| Weeks 7, 8, 9                    | Organic Acids and Bases            | From <b>Text Book</b> |
| Week 10                          | Stereoisomerism                    | From <b>Text Book</b> |
| Weeks 11, 12, 13, 14             | Selected Organic Functional Groups | From <b>Text Book</b> |

| Mapping of Course Outcomes to Program Outcomes  | Course Outcome Weight (Out of 100%) | Assessment method |
|---|-------------------------------------|-------------------|
| Discuss several aspects related to organic functional groups including their nomenclature, structures, properties, and reactions. | 30%                                 |                   |
| Illustrate the concepts of chemical bonding, electron delocalization, and aromaticity.  | 25%                                 |                   |
| Illustrate the concepts of organic acids and bases.   | 25%                                 |                   |
| Analyze 3D structure of organic molecules   | 20%                                 |                   |

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

| Policy        |  |
|---------------|--|
| Course Policy | <p>Communicating with Instructors:</p> <ul style="list-style-type: none"> <li>- Students should communicate through their official JUST emails. Communication through personal email accounts (yahoo, Gmail, Hotmail, etc.) or social media will NOT be accepted, and no response will be provided.</li> <li>- Students are required to check their emails and the E-learning page of the course regularly for announcements and notifications.</li> </ul> <p>Exams</p> <ul style="list-style-type: none"> <li>- All exams are closed books and notes.</li> <li>- The final exam is comprehensive (covers all the material).</li> <li>- The first, second, and midterm incomplete exams need approval from the departments heads.</li> <li>- The final incomplete exams need approval from the dean.</li> </ul> <p>Cheating</p> <ul style="list-style-type: none"> <li>- Prohibited; 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.</li> </ul> <p>المادة 7: إذا ضبط الطالب أثناء الامتحان أو الاختبار متلبساً بالغش فتوقع عليه العقوبات التالية مجتمعة:</p> <p>أ- اعتباره راسباً في ذلك الامتحان أو الاختبار.</p> <p>ب- إلغاء تسجيله في بقية المسابقات المسجل لها في ذلك الفصل.</p> <p>ج- فصله من الجامعة لمدة فصل دراسي واحد، و هو الفصل التالي للفصل الذي ضبط فيه.</p> <p>Attendance</p> <ul style="list-style-type: none"> <li>- Attendance is mandatory and will be recorded regularly.</li> <li>- Excellent attendance is expected.</li> <li>- Students who miss more than 20% of the classes will be dropped from the course as per JUST policy.</li> <li>- If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.</li> </ul> <p>Active learning and students' participation</p> <ul style="list-style-type: none"> <li>- Students are expected to actively participate in class discussions.</li> </ul> <p>Withdraw</p> <ul style="list-style-type: none"> <li>- Last day to drop the course is before the twelve (12th) week of the current semester</li> </ul> |