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| Philadelphia University |  PHILADELPHIA UNIVERSITY THE WAY TO THE FUTURE | Approved Date: 13/10/2021 |
| Faculty: Pharmacy | | Issue: 1 |
| Department: | | Credit Hours: 1 |
| Academic Year: 2022/2023 | | Course Syllabus |

Course Information

| Course No. | Course Title | Prerequisite |
|---|--------------------------------------|--------------|
| 0510205 | Pharmaceutical Organic Chemistry (1) | |
| Course Type | | Room No. |
| <input type="checkbox"/> University Requirement <input type="checkbox"/> Faculty Requirement <input type="checkbox"/> Major Requirement <input type="checkbox"/> Elective <input checked="" type="checkbox"/> Compulsory | | |
| Class Time | | |

Instructor Information

| Name | Office No. | Phone No. | Office Hours | E-mail |
|------|------------|-----------|--------------|--------|
| | | | | |

Course Delivery Method

| <input type="checkbox"/> Blended | <input type="checkbox"/> Online | <input checked="" type="checkbox"/> Physical |
|----------------------------------|---------------------------------|--|
| Learning Model | | |
| Percentage | Synchronous | Asynchronous |
| | | 100% |

Course Description

This course is complementary part to the theoretical lectures provided by the co-requisite course (0511121). The laboratory is divided into two parts; 1st part provides an adequate coverage of safety precautions and lab rules that students should strictly follow so that safety can be achieved in the lab and the experiments are designed to familiarize students with techniques commonly used in the organic laboratory. For identification, purification and separation of organic compounds. 2nd part includes chemical tests applied for identification of the main classes of organic compounds.

| Number | Outcome | Corresponding Program Outcomes | Corresponding Copetencies |
|------------------|--|---------------------------------------|----------------------------------|
| Knowledge | | | |
| K1 | Learn the students Physical and chemical characteristics of organic compounds including determination of the solubility characteristics. | KP1,KP6 | C1 |
| K2 | Learn the students The mechanism of organic reaction and functional groups | KP1,KP6 | C1 |
| K3 | Learn the students various identification techniques including melting point determination. | KP1,KP6 | C1 |
| K4 | Learn the students various separation techniques including Recrystallization, Extraction | KP1,KP6 | C1 |
| Skills | | | |
| S1 | Adapt group discussion technique | SP6 | C12 |
| S2 | learn handling of glassware in the lab. | SP2,SP3,SP9 | C8,C9,C12 |
| S3 | learn the student the principle of team-work | SP2,SP3,SP9 | C8,C9,C12 |
| S4 | Learn different lab techniques as filtration, Decolorization, Drying and Reflux. | SP2,SP3,SP9 | C8,C9,C12 |
| S5 | Learn how to follow general policies and safety precautions in the lab. | SP2,SP3,SP9 | C8,C9,C12 |

Course Learning Outcomes

Learning Resources

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|------------------------------|--|
| Course Textbook | . Organic chemistry 7 th by John McMurry, edition 2008. |
| Supporting References | Introduction to organic Chemistry (Study guide and Solutions Manual). By Andrew Streitwieser, Clayton H. Heathercock, Edward M. Cosower. Publisher: Prentice Hall College Div; (December 1998) ISBN: 0130129909. Organic Chemistry. By T.W.Graham Solomons, 8 th edition 2003. British Pharmacopoeia, U.S. Pharmacopoeia National formulary. The Mark Index, the Martindale 3. Remington: The Science and Practice of Pharmacy. By Alfonso R. Gennaro (Editor) 20 th edition (December 15, 2000) Lippincott, Williams and Wilkins: ISBN: 0683306472. Organic chemistry 7 th by John McMurry, edition 2008. |
| Supporting Websites | www.Philadelphia.edu.jo/pharmacy/resurces.Html |
| Teaching Environment | <input type="checkbox"/> Classroom <input checked="" type="checkbox"/> laboratory <input type="checkbox"/> Learning Platform <input type="checkbox"/> Other |

Meetings and Subjects Time Table

| Week | Topic | Learning Method* | Task | Learning Material |
|------|--|-------------------------------|------------------------------------|-------------------|
| 1 | 1-Vision and Mission of faculty of pharmacy 2-Safety rules | lecture | | Lab manual |
| 2 | Introduction of Laboratory rules & safety precautions | practical Flipped Learning | | Lab manual |
| 3 | Physical and chemical characteristics of organic compounds including determination of the solubility characteristics | Practical Flipped Learning | Report sheet Quiz | Lab manual |
| 4 | Determination of melting point. | practical Flipped Learning | Report sheet Quiz | Lab manual |
| 5 | Boiling point and Distillation. | Practical Flipped Learning | Report sheet Quiz | Lab manual |
| 6 | Recrystallization, a purification technique for | practical | Report | Lab manual |

| | | | | |
|----|--|-------------------------------|----------------------|------------|
| | solids | Flipped Learning | sheet | |
| 7 | Extraction, a separation and isolation technique | practical Flipped Learning | Quiz Report sheet | Lab manual |
| 8 | Chemical tests for identification of alcohols | practical Flipped Learning | Report sheet | Lab manual |
| 9 | Chemical tests for identification of aldehydes & ketones | practical Flipped Learning | Report sheet | Lab manual |
| 10 | Chemical tests for identification of alkenes | practical Flipped Learning | Report sheet | Lab manual |
| 11 | Final Exam | | | |

*Includes: lecture, flipped Class, project based learning, problem solving based learning, collaboration learning.

Course Contributing to Learner Skill Development

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|---|
| Using Technology |
| 1-Using Microsoft teams program |
| 2-Using moodle program. |
| Communication skills |
| 1-report writing |
| 2-team working skills |
| 3- group discussion technique |
| Application of Concept Learnt |
| Practical application of extraction ,distillation ,recrystallization techniques |

Assessment Methods and Grade Distribution

| Assessment Methods | Grade | Assessment Time (Week No.) | Course Outcomes to be Assessed |
|--------------------|-------------|----------------------------|--------------------------------|
| Quizzes | % 20 | Continous | K1,K2,K3,K4 S1,S2,S3 |
| Reports | % 30 | Continous | K1,K2,K3,K4 S1,S2,S3,S4 |
| Practical exam | % 10 | 11 th week | K1,K2 S1,S2,S3 |
| Final Exam | %40 | 11 th week | K1,K2,K3,K4 S1,S2,S3,S4,S5 |
| Total | %100 | | |

* Include: quizzes, in-class and out of class assignment, presentations, reports, videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

| Number | Learning Outcomes | Learning Method* | Assessment Method** | Competencies |
|------------------|--|-------------------------------|---------------------------|------------------|
| Knowledge | | | | |
| K1 | Learn the students Physical and chemical characteristics of organic compounds including determination of the solubility characteristics. | Practical Flipped learning | Subjective Quiz Report | C1 |
| K2 | Learn the students The mechanism of organic reaction and functional groups | Practical Flipped learning | Subjective Quiz Report | C1 |
| K3 | Learn the students various identification techniques including melting point determination. | Practical Flipped learning | Subjective Quiz Report | C1 |
| K4 | Learn the students various separation techniques including Recrystalization, Extraction | Practical Flipped learning | Subjective Quiz Report | C1 |
| Skills | | | | |
| S1 | Adapt group discussion technique | Practical Flipped learning | Subjective Quiz Report | C12 |
| S2 | learn handling of glassware in the lab. | Practical Flipped learning | Subjective Quiz Report | C8,C9.C12 |

| | | | | |
|-----------|--|-------------------------------|---------------------------|------------------|
| S3 | learn the student the principle of team-work | Practical Flipped learning | Subjective Quiz Report | C8,C9.C12 |
| S4 | Learn different lab techniques as filtration, Decolorization, Drying and Reflux. | Practical Flipped learning | Subjective Quiz Report | C8,C9.C12 |
| S5 | Learn how to follow general policies and safety precautions in the lab. | Practical Flipped learning | Subjective Quiz Report | C8,C9.C12 |

*Include: lecture, flipped class, project based learning, problem solving based learning, collaboration learning.

** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

| Policy | Policy Requirements |
|---------------------------|---|
| Passing Grade | The minimum pass for the course is (50%) and the minimum final mark is (35%). |
| Missing Exams | <ul style="list-style-type: none"> • Anyone absent from a declared semester exam without a sick or compulsive excuse accepted by the dean of the college that proposes the course, a zero mark shall be placed on that exam and calculated in his final mark. • Anyone absent from a declared semester exam with a sick or compulsive excuse accepted by the dean of the college that proposes the course must submit proof of his excuse within a week from the date of the excuse's disappearance, and in this case, the subject teacher must hold a compensation exam for the student. • Anyone absent from a final exam with a sick excuse or a compulsive excuse accepted by the dean of the college that proposes the material must submit proof of his excuse within three days from the date of holding that exam. |
| Attendance | The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lecture days (n t) and seven lectures (days). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it. |
| Academic Integrity | Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights. |

