

**The University of Jordan**

**Accreditation & Quality Assurance Center**

**Complementary and Alternative Medicine**

**1201414**

**COURSE Syllabus**

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| **1** | Course title | Complementary and Alternative Medicine |
| **2** | Course number | **1201414** |
| **3** | Credit hours (theory, practical) | 3 |
| Contact hours (theory, practical) | 3 |
| **4** | Prerequisites/corequisites | **Chemistry of Medicinal Plants (1201390)** |
| **5** | Program title | Doctor of Pharmacy (Pharm D) |
| **6** | Program code | - |
| **7** | Awarding institution | The University of Jordan |
| **8** | Faculty | Pharmacy |
| **9** | Department | Pharmaceutical Sciences |
| **10** | Level of course | Undergraduate |
| **11** | Year of study and semester (s) | Fourth year (Compulsory course) |
| **12** | Final Qualification | Pharm D BSc |
| **13** | Other department (s) involved in teaching the course | N/A |
| **14** | Language of Instruction | English |
| **15** | Date of production/revision | 31st January 2017 |

16. Course Coordinator:

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| Dr Mayadah Shehadeh  Office no.: 207 extension building  Office hours: Check Office Posting  e-mail: [m.shehadeh@ju.edu.jo](mailto:m.shehadeh@ju.edu.jo)  Website: <http://eacademic.ju.edu.jo/m.shehadeh/default.aspx> |

17. Other instructors:

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| *Office numbers, office hours, phone numbers, and email addresses should be listed.*  **N/A** |

**18. Course Description:**

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| This course is intended to introduce pharmacy students to the concept of complementary medicine and the different types of complementary therapies commonly used by patients and recognized by international health authorities with emphasis on modern herbal and integrative medicine.  Lectures will focus on the concept of homeopathy, aromatherapy, medical herbalism, ayurvedic medicine, chiropractic, reflexology and traditional Chinese medicine including acupuncture and Chinese traditional herbal medicine.  Lectures rely on factual information to impart an understanding of the theory, principle, indication, safety, major side effects, precaution, contraindications and efficacy and drug-natural products interactions. References for information on the use of CAM are discussed alongside the pharmacist role and patient counselling. |

19. Course aims and outcomes:

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| A- Aims:  Knowledge and understanding  This course is intended to introduce pharmacy students to the concept of complementary medicine and the different types of complementary therapies commonly used by patients and recognized by international health authorities with emphasis on modern herbal and integrative medicine. The course highlights the role of the pharmacist in delivering information and advice for both patients and health care providers either in community or clinical setting about the indication, safety, major side effects, precaution, contraindications and efficacy and drug-natural products interactions.  .  B- Intended Learning Outcomes (ILOs):  Upon successful completion of this course students will be able to: |
| 1. To understand the concept of holistic approach |
| 2. To know the importance and value of the pharmacist in patient education and advise on CAM and integrative medicine |
| 3. To study the definition, classification, principle and applications of CAM and integrative medicine |
| 4. To know pharmaceutical and natural products available in the Jordanian and global markets |
| 5. To know examples of commonly used complementary therapies and the impact on patient's disease and treatment status (the indication, safety, major side effects, precaution, contraindications and efficacy and drug-natural products interactions) |
| 6. To know references used to collect the necessary scientifically-based information |

20. Topic Outline and Schedule:

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Topic** | **Week** | **Instructor** | **Achieved ILOs** | **Evaluation Methods** | **Reference** | | **1. Introduction to complementary and alternative medicine**  (Concept of healing  Classification, Practice and delivery of CAM and regulatory affairs, Clinical studies and recent advances in CAM, CAM in the pharmacy environment) | 1 | Dr Mayadah Shehadeh | B1-2 | Exams, Quizzes & Assignments | [Complementary and alternative medicine / edited by Steven B. Kayne.](http://hip.jopuls.org.jo/c/portal/layout?p_l_id=PUB.1010.1&p_p_id=search_WAR_fusion&p_p_action=1&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_pos=0&p_p_col_count=2&_search_WAR_fusion_action=navigate&_search_WAR_fusion_navigationData=search%7E%3D1%7E%21TL%7E%211%7E%21Complementary+and+alternative+medicine+%2F+edited+by+Steven+B.+Kayne.)(2009) Pharmaceutical Press.  ISBN:  978 0 85369763 3 | | **2. Manual Therapies**  (Chiropractic & Osteopathy, definition, concept, evidence of efficacy, indications and safety, reflexology concept, evidence, indications and safety) | 2 | Dr Mayadah Shehadeh | B 1-2, B 6 | Exams, Quizzes & Assignments | Complementary and alternative medicine | | **3. Traditional Chinese Medicine (TCM)**  (Definition, theory, evidence of efficacy and practice, concept of meridians, yin and yang)  **Acupuncture**  (concept, evidence of efficacy, indications and safety)  **Chinese Herbal Medicine** definition, (concept, evidence of efficacy, indications and safety) | 3 | Dr Mayadah Shehadeh | B 1-2, B 6 | Exams, Quizzes & Assignments | Complementary and alternative medicine | | **4. Aromatherapy**  ( Definition, concept, evidence of efficacy, indications and safety, aromatherapy in practice, common oils and their uses) | 4 | Dr Mayadah Shehadeh | B 1-2, B 6 | Exams, **Quizzes** & Assignments | Complementary and alternative medicine | | **5. Homeopathy**  (Definition, concept, evidence of efficacy, indications and safety, Materia medica and other references,  Examples of homeopathic preparations and indications) | 4 | Dr Mayadah Shehadeh | B 1-2, B 6 | Exams, **Quizzes** & Assignments | Complementary and alternative medicine 3 | | **6. Traditional Indian Medicine Ayurveda**  **(**Definition, theory, evidence of efficacy, practice and safety) | 4 | Dr Mayadah Shehadeh | B 1-2, B 6 | Exams, **Quizzes** & Assignments | Complementary and alternative medicine | | **7. Rational Phytotherapy**  7.1 Pharmaceutical preparation of phytomedicines (extraction, standardization, quality of herbal material, production methods and analytical quality control) | 5 | Dr Mayadah Shehadeh | B4-6 | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition (2004) Volker Schulz • Rudolf Hansel  Mark Blumenthal • Varro E. Tyler | | 7.2 **Herbal Medicine and Medicinal Teas**  (medicinal and non medicinal teas, actions, forms, soluble, guidelines for preparations and use in infants and children) | 6 | Dr Mayadah Shehadeh | B4-6 | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | 8. Phytomedicine for CNS diseases  (Ginkgo in the Treatment of cognitive deficiency, , St. John's Wort as an antidepressant, Kava as an anxiolytic, , sleeping and restlessness remedies Valerian and others)  **Midterm Exam** | 6-7 | Dr Mayadah Shehadeh | B4-6 | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | 9. Phytomedicine for Cardiovascular diseases  diseases **(**heart failure, coronary insufficiency**,** hypotension & hypertension, atherosclerosis, chronic venous insufficiency:  herbs containing digitaloids, garlic, onion, hawthorn, red yeast rice, Caffeine-containing herbs, Horse Chestnut seed extract ) | 8\*9 | Dr Mayadah Shehadeh | **B4-6** | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **10.** Phytomedicine for Respiratory System diseases (acute upper respiratory infections, abuse of antibiotics, general phytotherapeutic measures for  cold syndrome, cough, expectorants and sinusitis) | 10 | Dr Mayadah Shehadeh | **B4-6** | Exams, **Quizzes** & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **11.** Phytomedicine for **digestive system diseases (**anorexia, dyspepsia, bloating, irritable bowel syndrome, acute diarrhoea, constipation, carminatives and liver diseases, artichoke, milk thistle, senna, rhubarb, aloe, castor oil, linseed, psyllium, agar, wheat bran, osmotic laxatives, ginger, peppermint and peppermint oil) | 11-12 | Dr Mayadah Shehadeh | **B4-6** | Exams, **Quizzes** & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **11.** Phytomedicine for **Urinary Tract Diseases** (inflammatory disease, benign prostate hyperplasia, bladder and kidney, nettle root,  pumpkin seeds, grass pollens, phytosterols ,  pygeum, cranberry, saw palmeto) | 12-13 | Dr Mayadah Shehadeh | **B4-6** | Exams, **Quizzes** & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **12.** Phytomedicine for **Gynecological Diseases** (dysmenorrhoea, menopause, Chasteberry, Phytoestrogens) | 13 | Dr Mayadah Shehadeh | **B4-6** | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **13.** Phytomedicine for Rheumatic Diseases Skin, Trauma, and Pain (dosage forms and preparation, inflammatory skin conditions, postoperative conditions, rheumatic and degenerative joint diseases, Witch Hazel, Tannin-containing herbs Willow, Nettle, Evening primrose oil, Arnica, Chamomile, BromelainDevil's Claw, Willow Bark, Ash, Aspen, Boswellin, Peppermint Oil, Capsicum, Feverfew) | 13-14 | Dr Mayadah Shehadeh | **B4-6** | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | **14.** Phytomedicine for **Enhancing Immune System (**adaptogens, Botanical Antioxidants Grape Seed, Ginseng**,** Echinacea) | 14 | Dr Mayadah Shehadeh | **B4-6** | Exams, Quizzes & Assignments | **Rational**  **Phytotherapy**  A Reference Guide for Physicians and Pharmacists  Fifth edition | | Final Exam | 15-16 |  |  |  |  | |

21. Teaching Methods and Assignments:

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| Development of ILOs is promoted through the following teaching and learning methods:  1) Lectures  2) Case study  3) Products samples presentations  4) Assignments and discussions |

22. Evaluation Methods and Course Requirements:

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| Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:   1. Exams 2. Quizzes 3. Students reports on assignments |

23. Course Policies:

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| A- Attendance policies:  **University rules and regulations are applied**  ***First warning*** – with 4 absences  ***Last warning*** – with 5 absences  Failing in the subject – with 6 absences  B- Absences from exams and handing in assignments on time:  Will result in zero achievement unless health report or other significant excuse is presented.  C- Health and safety procedures: **N/A**  D- Honesty policy regarding cheating, plagiarism, misbehavior:  According to JU regulations participation, commitment of cheating will lead to applying all following penalties together  1) Failing the subject he/she cheated at  2) Failing the other subjects taken in the same course  3) Not allowed to register for the next semester. The summer semester is not considered as a semester  E- Grading policy:  Exams and Quizzes.  Mid Exam: 40 marks  Quize: 5 marks  Assignments: 5 marks  Final Exam: 50 marks  Total 100 marks  F- Available university services that support achievement in the course:  Lecture room with data show and internet connection |

24. Required equipment:

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| Computer and internet connection |

**25. References:**

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| 1. Required book (s), assigned reading and audio-visuals:   1. [Complementary And Alternative Medicine / edited by Steven B. Kayne.](http://hip.jopuls.org.jo/c/portal/layout?p_l_id=PUB.1010.1&p_p_id=search_WAR_fusion&p_p_action=1&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_pos=0&p_p_col_count=2&_search_WAR_fusion_action=navigate&_search_WAR_fusion_navigationData=search%7E%3D1%7E%21TL%7E%211%7E%21Complementary+and+alternative+medicine+%2F+edited+by+Steven+B.+Kayne.)(2009) Pharmaceutical Press, London-London-Chicago. ISBN: 978 0 85369763 3    **2. Rational phytotherapy, a physicians' guide to herbal medicine**, fifth edition 2004. V Schulz, R Hansel,  V.E. Tyler, ISBN: 978-3-642-07406-6, ISBN (**eBook**.): 978-3-662-09666-6. Springer-Verlag Berlin Heidelberg  **3.** (MEDLIN E, e-library)   1. Recommended books, materials, and media:   **-** **Herbal Medicines**, 3rd edition (2007**).**  Joanne Barnes, Linda A Anderson and J David Phillipson. Pharmaceutical Press , London-Chicago. ISBN 978 0 85369 623 0  https://www.google.jo/search?q=herbal+medicine+3rd+edition&oq=herbal+mceicine+3rd&aqs=chrome.1.69i57j0l2.11898j0j7&sourceid=chrome&ie=UTF-8  -**Dietary Supplements**, 3rd edition (2007) Pamela Mason, Pharmaceutical Press. |

26. Additional information:

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Name of Course Coordinator: Mayadah Shehadeh Signature: ------------------------- Date: 31st January 2017 Head of curriculum committee/Department: ------------------------- Signature: ---------------------------------

Head of Department: ------------------------- Signature: ---------------------------------

Head of curriculum committee/Faculty: ------------------------- Signature: ---------------------------------

Dean: ------------------------------------------- Signature: ---------------------------------

Copy to:

Head of Department

Assistant Dean for Quality Assurance

Course File