



**Jordan University of Science and Technology**  
**Faculty of Agriculture**  
**Plant Production Department**

PP321 Vegetable Crops Production

First Semester 2021-2022

**Course Catalog**

3 Credit Hours. Production, adaptation, and utilization of vegetable crops. Practical aspects of growing vegetable crops: seedbed preparation, seeding, transplanting, mulching, composting, irrigation, fertilization and other cultural practices utilized in production of vegetable crops (Prerequisite: PP 224).3 credit hours (2 lectures, 60 min each for theory), 1 credit hour practical laboratory (contact hours: 180 min per week). Average class size for lecture 40 students, and for lab session 20 students per each lab session.

**Text Book**

|                          |  |
|--------------------------|--|
| <b>Title</b>             | World Vegetables. Principles, production, and nutritive value. |
| <b>Author(s)</b>         | Rubatzky V. E. and Yamaguchi. M.                               |
| <b>Edition</b>           | 2nd Edition  |
| <b>Short Name</b>        | Ref#1  |
| <b>Other Information</b> |  |

**Course References**

| Short name | Book name  | Author(s)      | Edition     | Other Information |
|------------|--|----------------|-------------|-------------------|
| Ref#2      | Vegetable Production and Practices               | Welbaum G E    | 1st Edition |                   |
| Ref#3      | Vegetable Growing Handbook Organic & traditional | Splittstoesser | 3rd Edition |                   |

**Instructor**

|                 |  |
|-----------------|--|
| Name            | <b>Dr. Ibrahim Makhadmeh</b>   |
| Office Location | C4L2   |
| Office Hours    | Sun : 10:30 - 12:30<br>Mon : 10:30 - 13:30<br>Wed : 11:00 - 12:30<br>Thu : 14:30 - 15:30 |
| Email           | ibrahimm@just.edu.jo   |

| <b>Class Schedule &amp; Room</b>   |
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| Section 1:<br>Lecture Time: Mon : 08:30 - 09:30<br>Room: C5024<br><br>Section 2:<br>Lecture Time: Wed : 08:30 - 09:30<br>Room: C5024 |

| <b>Prerequisites</b> |                        |                      |
|----------------------|------------------------|----------------------|
| Line Number          | Course Name            | Prerequisite Type    |
| 622240               | PP224 Plant Physiology | Prerequisite / Study |

| <b>Tentative List of Topics Covered</b> |   |                   |
|---|---|-------------------|
| Weeks                                   | Topic   | References        |
| Weeks 1, 2                              | Introduction, Definition, Economic Importance, Nutritional value, Regions of production and the most common Classification of vegetable crops.  | From <b>Ref#1</b> |
| Week 3                                  | The limiting factors of growing and producing vegetable crops. Infrastructure, Soil, Temperature, Light, Water, Insects, diseases??etc.   | From <b>Ref#1</b> |
| Week 4                                  | Growing structures and specialized equipments. Greenhouses, Plastic houses, Tunnels, cold frame, hotbeds  |                   |
| Weeks 5, 6                              | Cultural practices. Purity and germination, bed preparation, soil preparation, transplant and transplanting, hardening, irrigation methods and time.  | From <b>Ref#1</b> |
| Week 7                                  | Cropping Systems. Crop rotation, Intercropping, kind of mulch and row covers, purposes, characteristics and advantage.  | From <b>Ref#1</b> |
| Week 8                                  | Propagation of Vegetable crops  | From <b>Ref#1</b> |
| Week 9                                  | Fertilizers and soil amendments. Methods, times, and rates of application.  | From <b>Ref#1</b> |
| Week 10                                 | 8. Growing the most important and economic crops in the following families: origin, taxonomy, botany, cultural requirements, propagation and planting, growth and development, harvest, storage, diseases and pests | From <b>Ref#1</b> |
| Week 10                                 | a) Cruciferae: cabbage, cauliflower, radish??? b) Leguminosae: fava bean, peas????.. c) Chenopodiaceae: beats, pinach?  | From <b>Ref#1</b> |
| Week 11                                 | d) Amaryllidaceae: onion, garlic, leek??. e) Compositae: lettuce, endive?? f) Umbelliferae:carrots, celery, parsley?..  | From <b>Ref#1</b> |
| Week 12                                 | g) Solanaceae: tomato, pepper, eggplant??.. h) Cucurbitaceae: cucumber, squash,??.. i) Malvaceae: okra, j) Graminae: sweet corn   |                   |
| Week 13                                 | k) Convolvulaceae: sweet potato l) Tiliaceae: jew mallow  | From <b>Ref#1</b> |

|            |   |            |
|------------|---|------------|
| Week<br>14 | m) Liliaceae: asparagus n) Agaricaceae (Mushroom) | From Ref#1 |
|------------|---|------------|

| Mapping of Course Outcomes to Program Student Outcomes   | Course Outcome Weight (Out of 100%) | Assessment method |
|--|-------------------------------------|-------------------|
| Identify the challenges and opportunities facing the vegetable production in Jordan and worldwide. [10PLO1]  | 10%                                 |                   |
| Explain physiological aspects of vegetable crops growth and development. [5PLO2, 10PLO3]   | 15%                                 |                   |
| Assess and modify cultural practices used in the production of vegetable crops, including the integration of soil science, plant physiology, plant nutrition, agrometeorology and crop protection. [5PLO3, 15PLO4] | 20%                                 |                   |
| Demonstrate proficiency in the cultural and management considerations of successful sustainable vegetable crops production. [5PLO5, 10PLO6]  | 15%                                 |                   |
| Recognize vegetable crops environmental modification and plasticulture systems. [10PLO3, 5PLO6, 5PLO7]   | 20%                                 |                   |
| Appraise successful vegetable crops harvest and marketing. [5PLO1, 5PLO6, 5PLO7]   | 15%                                 |                   |
| Appraise commercial vegetable industry. [5PLO5]  | 5%                                  |                   |

| Relationship to Program Student Outcomes (Out of 100%) |      |      |      |      |      |      |
|--|------|------|------|------|------|------|
| PLO1   | PLO2 | PLO3 | PLO4 | PLO5 | PLO6 | PLO7 |
| 15   | 5    | 25   | 15   | 10   | 20   | 10   |

| Evaluation      |        |
|-----------------|--------|
| Assessment Tool | Weight |
| Mid-Term Exam   | 50%    |
| Final Exam      | 50%    |

| Policy      |  |
|-------------|--|
| Grading:    | There will be two major class room tests, (will be held on the 6th and 12th week), each test is worth 20 points. Make up tests are more difficult than tests taken at the designated time. The comprehensive final is worth 40 points. Laboratory 20 points (reports 10p, activity 5p, and final exam 5p). Any student not doing solitary efforts in a legitimate manner will be brought to the attention of the dean?s office. (Don?t Cheat). |
| Field trip: | Field trips to North and Mid Gohr and to Ramtha Farmers. The dates will be announced during the first week of semester. (this schedule may change according to transportation facilities) we will notifies you!!!!!!   |

|                                    |  |
|------------------------------------|--|
| Attendance:                        | All students are expected to attend every class meeting, scheduled lectures, online activities, and exams on time. Attendance is taken at all lectures. Failure to attend can result in a student being dismissed from the course with a failure score (F) if the absent percentage exceeded 20% of the total number of lectures in the semester. Students who miss any lecture are personally responsible for learning any missed materials or assignments, either from their classmates or from the course eLearning site. Two tardy arrivals will count as one absence. |
| field work and class participation | Students with disabilities: if you have a disability which requires some special accommodation, please make an appointment within the first week of the semester for a visit to my office to discuss the appropriateness of the instructional methods in the class & lab., or any academic adjustments that you may need.  |

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