UNIVERSITY OF SARGODHA

DEPARTMENT OF AGRONOMY, COLLEGE OF AGRICULTURE

COURSE OUTLINE SPRING 2020

Course Title: ORGANIC FARMING

Course Code: AGRO-402

Credit Hours: 3(3-0)

Instructor: **Dr. Ahsan Aziz**

Email: **ahsan.aziz@uos.edu.pk**

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| DESCRIPTION |

Organic farming encompasses many diverse interests and emerging problems of food safety including the need to address increasing human health concerns of inorganic farming. Produce of organic farming ensures good human health and ameliorate environmental impacts of agricultural operations and promote sustainable healthy agricultural production.

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| **LEARNING OUTCOMES** |

* Study of organic farm management and usage of natural resources for maximizing agricultural productivity.
* Techniques of crop residues and farm waste recycling.
* Use of environmentally safe and natural pesticides for pest control

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| CONTENTS |

**THEORY**

1. Concept and brief history of organic farming
2. Principles of organic agriculture
3. Soil and crop management
4. Preparation of organic matter, humus, sewage sludge, organic compost
5. Conversion of conventional to organic farming
6. Maintenance of buffer zone
7. Components of organic farming
8. Hazards of inorganic farming
9. Farm waste recycling
10. Organic mulches
11. Nature save products for control of weeds and diseases management
12. Quality of food and crop productivity under natural ecological systems.

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| READINGS |

1. Dahama, A.K. 2002. Organic Farming for Sustainable Agriculture. 2nd Enlarged Ed. Pub. Agrobios, Jodhpur, India.
2. Fossel, P.V. 2007. Organic Farming: Everything you need to know. MBI Publishing Co., USA.
3. Francis, C.A., C.B Flora, and L.D King. 1990. Sustainable Agriculture and Temperate Zones. Wiley, New York, USA
4. Hatfield, J.L. and D.L Karlen. 1994. Sustainable Agriculture Systems. Lewis Pub. Boca Rapon, FL, USA
5. Palaniappan and K. Annadurani. 2006. Organic Farming Theory and Practice. Scientific Publishers. Jodhpur, India.
6. Sharma, A.K. 2012. A Handbook of Organic FarmingPub. Agrobios, Jodhpur, India.
7. Geholt, D. 2010. Organic farming Components and Management Pub. Agrobios, Jodhpur, India

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| COURSE |

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| **Week** | **Topics and Readings** | **Book with Page No.** |
| 1 | Introduction of the course. | From scheme of study |
| Dictation & discussion about theory course contents. | From scheme of study |
| Concept of organic farming | Organic farming Components and Management, Ch. # 1, page 1-9 |
| 2 | Brief history of organic farming | Organic farming Components and Management, Ch. # 1, page 1-9 |
| Brief history of organic farming | Organic farming Components and Management, Ch. # 1, page 1-9 |
| Brief history of organic farming | Organic farming Components and Management, Ch. # 1, page 1-9 |
| 3 | Principles of organic agriculture | A Handbook of Organic Farming, Ch. Chapter 1 page, 1-25 |
| Principles of organic agriculture | A Handbook of Organic Farming, Ch. Chapter 1 page, 1-25 |
| Principles of organic agriculture | A Handbook of Organic Farming, Ch. Chapter 1 page, 1-25 |
| 4 | Soil and crop management | Organic farming Components and Management, Ch. 03 Page 30-76 |
| Soil and crop management | Organic farming Components and Management, Ch. 03 Page 30-76 |
| Soil and crop management | Organic farming Components and Management, Ch. 03 Page 30-76 |
| 5 | Preparation of organic matter and humus | Organic farming Components and Management, Ch. 06 Page. 102-132 |
| Preparation of organic matter and humus | Organic farming Components and Management, Ch. 06 Page. 102-132 |
| Preparation of organic matter and humus | Organic farming Components and Management, Ch. 06 Page. 102-132 |
| 6 | Preparation of sewage sludge and organic compost | Organic farming Components and Management, Ch. 07 Page 133-155 |
| Preparation of sewage sludge and organic compost | Organic farming Components and Management, Ch. 07 Page 133-155 |
| Preparation of sewage sludge and organic compost | Organic farming Components and Management, Ch. 07 Page 133-155 |
| 7 | Conversion of conventional to organic farming | Organic farming Components and Management, Ch. 12 Page, 248-272 |
| Conversion of conventional to organic farming | Organic farming Components and Management, Ch. 12 Page, 248-272 |
| Conversion of conventional to organic farming | Organic farming Components and Management, Ch. 12 Page, 248-272 |
| 8 | Maintenance of buffer zone | Organic farming Components and Management, Ch. 3 Page, 51-52 |
| Maintenance of buffer zone | Organic farming Components and Management, Ch. 3 Page, 51-52 |
| Maintenance of buffer zone | Organic farming Components and Management, Ch. 3 Page, 51-52 |
|  9 |  **MID TERM EXAM** |  |
| 10 | Components of organic farming |  A Handbook of Organic Farming,Ch. 2 Page 41-60 |
| Components of organic farming | A Handbook of Organic Farming,Ch. 2 Page 41-60 |
| Components of organic farming | A Handbook of Organic Farming,Ch. 2 Page 41-60 |
| 11 | Hazards of inorganic farming | Internet Source |
| Hazards of inorganic farming | Internet Source |
| Hazards of inorganic farming | Internet Source |
| 12 | Hazards of inorganic farming | Internet Source |
| Hazards of inorganic farming | Internet Source |
| Hazards of inorganic farming | Internet Source |
| 13 | Farm waste recycling | Organic farming Components and Management, Ch. 4 Page, 77-89 |
| Farm waste recycling | Organic farming Components and Management, Ch. 4 Page, 77-89 |
| Farm waste recycling | Organic farming Components and Management, Ch. 4 Page, 77-89 |
| 14 | Organic mulches | Organic farming Components and Management, Ch. 10 Page 216-222  |
| Organic mulches | Organic farming Components and Management, Ch. 10 Page 216-222 |
| Organic mulches | Organic farming Components and Management, Ch. 10 Page 216-222 |
| 15 | Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| 16 | Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| Nature save products for control of weeds and diseases management | Organic farming Components and Management Ch. 14,15& 16 Page. 286-335 |
| 17 | Quality of food and crop productivity under natural ecological systems | Organic farming Components and Management Ch. 17 Page, 337-345 |
| Quality of food and crop productivity under natural ecological systems | Organic farming Components and Management Ch. 17 Page, 337-345 |
| Quality of food and crop productivity under natural ecological systems | Organic farming Components and Management Ch. 17 Page, 337-345 |
|  18 | **Final Exam** |  |

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| ASSIGNMENT CRITERIA |

* Mid-term Exam: 18 (30%)
* Assignments: 06 (10%)
* Final Exam: 36 (60%)