**COLLEGE OF AGRICULTURE**

**DEPATMENT OF AGRONOMY**

**AGRO-409 “ENVIRONMENT AND CROP PRODUCTION” 3(2-1)**

**Major: Agronomy, 7th Agronomy**

**Theory**

|  |  |  |
| --- | --- | --- |
| **COURSE SCHEDULE THEORY** | | |
| Lectures delivered | **Topics and Readings**: *Give Reading No from your list of readings above and its Page Nos. relevant to the topic(s) covered each week* | **Dates** |
| 1 | Environment, climate change and food security | 14-10-2020 |
| 2 | Environment, climate change and food security | 15-10-2020 |
| 3 | Types and classification of environment | 21-10-2020 |
| 4 | Types and classification of environment | 22-10-2020 |
| 5 | Dynamics of aerial and soil environment in a crop canopy at macro and micro level | 28-10-2020 |
| 6 | Dynamics of aerial and soil environment in a crop canopy at macro and micro level | 29-10-2020 |
| 7 | Dynamics of aerial and soil environment in a crop canopy at macro and micro level | 04-11-2020 |
| 8 | Influence of different environmental factors; Radiation | 05-11-2020 |
| 9 | Influence of different environmental factors; Radiation | 11-11-2020 |
| 10 | Influence of different environmental factors; Temperature | 12-11-2020 |
| 11 | Influence of different environmental factors; Temperature | 18-11-2020 |
| 12 | Influence of different environmental factors; Water | 19-11-2020 |
| 13 | Influence of different environmental factors; Water | 25-11-2020 |
| 14 | Influence of different environmental factors; Wind | 26-11-2020 |
| 15 | Influence of different environmental factors; Wind | 02-12-2020 |
| 16 | Influence of different environmental factors; CO2 | 03-12-2020 |
| 17 | Influence of different environmental factors; CO2 | 09-12-2020 |
| 18 | Influence of different environmental factors; Vapour pressure | 10-12-2020 |
| 19 | Influence of different environmental factors; Vapour pressure | 16-12-2020 |
| 20 | Influence of different environmental factors on Photosynthesis | 17-12-2020 |
|  | **MID TERM EXAMINATION** |  |
| 21 | Influence of different environmental factors on Photosynthesis | 23-12-2020 |
| 22 | Influence of different environmental factors on Respiration | 24-12-2020 |
| 23 | Influence of different environmental factors on Respiration | 30-12-2020 |
| 24 | Influence of different environmental factors on Transpiration | 31-12-2020 |
| 25 | Greenhouse effect on crop production | 06-01-2021 |
| 26 | Greenhouse effect on crop production | 07-01-2021 |
| 27 | Greenhouse effect on crop production | 13-01-2021 |
| 28 | *El Nino and La Nino* phenomenon | 14-01-2021 |
| 29 | *El Nino and La Nino* phenomenon | 20-01-2021 |
| 30 | *El Nino and La Nino* phenomenon | 21-01-2021 |
| 31 | Crop adaptation to changing climate | 27-01-2021 |
| 32 | Crop adaptation to changing climate | 28-01-2021 |
| 33 | Crop adaptation to changing climate | 03-02-2021 |
|  | **FINAL TERM EXAMINATION** |  |

**Practical**

|  |  |  |
| --- | --- | --- |
| Lectures delivered | Topics Covered | Date |
| 1 | Measurements and estimation of different environmental variables | 16-10-2020 |
| 2 | Measurements and estimation of different environmental variables | 23-10-2020 |
| 3 | Measurements and estimation of different environmental variables | 30-10-2020 |
| 4 | Measurements and estimation of different environmental variables | 06-11-2020 |
| 5 | Measurements and estimation of different environmental variables | 13-11-2020 |
| 6 | Calculations of potential evapotranspiration and different drought indices | 20-11-2020 |
| 7 | Calculations of potential evapotranspiration and different drought indices | 27-11-2020 |
| 8 | Calculations of potential evapotranspiration and different drought indices | 04-12-2020 |
| 9 | Calculations of potential evapotranspiration and different drought indices | 11-12-2020 |
| 10 | Calculations of potential evapotranspiration and different drought indices | 18-12-2020 |
| 11 | Calculations of potential evapotranspiration and different drought indices | 25-12-2020 |
| 12 | Measurement of solar radiation in crops | 01-01-2021 |
| 13 | Measurement of solar radiation in crops | 08-01-2021 |
| 14 | Measurement of solar radiation in crops | 15-01-2021 |
| 15 | Measurement of solar radiation in crops | 22-01-2021 |
| **FINAL TERM EXAMINATION** | | |

**DR. MUHAMMAD RFAI QAMAR**

Assistant Professor,

Department of Agronomy,

University College of Agriculture,

University of Sargodha.