Department of Agronomy
Sher-e-Bangla Agricultural University
MS in Agronomy
Semester-I (July-December 2026)
Course Title: Crop Physiology and Stress Agronomy
Course code: AGRO 506
Credit Hours: 3

Lecture Schedule

Lecture No.	Date	Topics	Course Teachers
1.		Growth stages of field crops	Prof. Dr. Md. Abdullahil Baque
2.		Agronomic management of optimum growth	Prof. Dr. Mirza Hasanuzzaman
3.		Growth curve, Limiting factors of growth	Prof. Dr. Md. Abdullahil Baque
4.		Plant abiotic stress: Concept and types	Prof. Dr. Mirza Hasanuzzaman
5.		Plant abiotic stress: Consequences	Prof. Dr. Mirza Hasanuzzaman
6.		First Quiz	Prof. Dr. Mirza Hasanuzzaman
7.		Interception of solar radiation, extinction coefficient	Prof. Dr. Md. Abdullahil Baque
8.		Salinity stress: Concept, kinds of salinity, occurrence	Prof. Dr. Mirza Hasanuzzaman
9.		Salinity stress: Nature and extent of crop damage, salinity management.	Prof. Dr. Mirza Hasanuzzaman
10.		Drought stress: Concept, nature, causes and kinds of drought	Prof. Dr. Mirza Hasanuzzaman
11.		Drought stress: Effect of drought on crops	Prof. Dr. Mirza Hasanuzzaman
12.		Drought stress: Basis of drought tolerance, available technologies to reduce crop losses from drought.	Prof. Dr. Mirza Hasanuzzaman
13.		Physiological and biochemical basis of photosynthesis in C3 and C4 plants	Prof. Dr. Md. Abdullahil Baque
14.		Light stress: Nature and causes of light stress, crop growth, development and yield mechanisms due to light intensity and photoperiod	Prof. Dr. Mirza Hasanuzzaman
15.		Physiological and biochemical basis of photosynthesis in C3 and C4 plants	Prof. Dr. Md. Abdullahil Baque
16.		Mid Term	Prof. Dr. Md. Abdullahil Baque
17.		Light stress: Nature and causes of light stress, crop growth, development and yield mechanisms due to light intensity and photoperiod	Prof. Dr. Mirza Hasanuzzaman
18.		Second Quiz	
19.		Growth analysis, stem, leaf and root growth	Prof. Dr. Md. Abdullahil Baque
20.		High temperature stress: Concept, high temperature injuries in plants, adaptation features in plants due to high temperature, agronomic manipulations to mitigate crop losses due to high temperature.	Prof. Dr. Mirza Hasanuzzaman

Lecture No.	Date	Topics	Course Teachers
21.		2nd Class test and Quiz	Prof. Dr. Md. Abdullahil Baque
22.		High temperature stress: Concept, high temperature injuries in plants, adaptation features in plants due to high temperature, agronomic manipulations to mitigate crop losses due to high temperature.	Prof. Dr. Mirza Hasanuzzaman
23.		Reproduction, growth formations, flowering, fruit and seed development	Prof. Dr. Md. Abdullahil Baque
24.		Cold stress: Concept, types of cold shocks, symptoms of cold temperature injuries in plants, management of cold stress in crops.	Prof. Dr. Mirza Hasanuzzaman
25.		Heavy metal stress: Concept, plant responses to heavy metals, plants' tolerance to heavy metals	Prof. Dr. Mirza Hasanuzzaman
26.		Histognesis	Prof. Dr. Md. Abdullahil Baque
27.		Deep water stress: Concept, crop response to deep water stress, characteristics of flood water	Prof. Dr. Mirza Hasanuzzaman
28.		Yield functions	Prof. Dr. Md. Abdullahil Baque
29.		3rd Quiz	Prof. Dr. Md. Abdullahil Baque
30.		Yield functions	Prof. Dr. Md. Abdullahil Baque
31.		Yield components and attributes	Prof. Dr. Md. Abdullahil Baque
32.		Deep water stress: Factors affecting survival and morphological change of submerged plants, management of deep water stress in crops, Soil-water-plant relationships, thermal time in relation to crop Prof. Dr. Mirza Hasanuzzaman	Prof. Dr. Mirza Hasanuzzaman
33.		Harvest index and partitioning	Prof. Dr. Md. Abdullahil Baque
34.		Oxidative stress in plants	Prof. Dr. Mirza Hasanuzzaman
35.		Plasticity of vegetative growth in respect of reproductive growth, duration of reproductive growth, population density, nutrition and other agronomic management for improving yield potential.	Prof. Dr. Md. Abdullahil Baque

Course Instructors:

1. Professor Dr. Md. Abdullahil Baque

2. Prof. Dr. Mirza Hasanuzzaman