MANGALORE UNIVERSITY

Department of Biosciences
MSc Biosciences

BSP555 ENVIRONMENTAL PHYSIOLOGY LAB

Course Outcomes:
After successful completion of the course, students will be able to:

- Expand the knowledge in environmental physiology conducting experiments with application point of view.
- Know how to determine blood indices, blood pressure and thermal tress.
- Demonstrate rate of transpiration, effect of temperature on the rate of respiration.
- Know how to check the seed health and effect of salinity on seed germination.
- Gain the skill to find out the viability of seeds, inducers and inhibitors of germination.
- Realize how plant responses against salinity and metal stress.
- Know how to apply radioisotope methodology

1. Haematology -
   1.1 Determination of blood indices
   1.2 Determination of blood pressure.
2. Respiration -
   2.1 Estimation of oxygen consumption by the organism under stressed condition (thermal stress).
   2.2 Demonstration of rate of transpiration by photometry.
   2.3 Effect of temperature on the rate of respiration.
3. Seed physiology –
   3.1 Seed health testing.
   3.2 Determination of percent viability of seeds by germination method.
   3.3 Germination inducers and inhibitors
   3.4 Determination of β-amylase activity in germinating seeds.
   3.5 Effect of salinity on seed germination.
4. Stress Physiology-
   4.1 Plant responses against salinity and metal stress
   4.2 Radioisotope methodology and its principles (GM Counter and Scintillation Counter)