

**B. Sc. REGULAR PROGRAMME**  
**ENVIRONMENTAL SCIENCE**  
**(2018-19)**  
**Semester I:UGENS18CR101**  
**Fundamentals of Environmental Science**

- Credit I: Understanding the Environment** **15 hours**
- 1.1 Environment: Concept, importance and historical root
  - 1.2 Nature and scope of environmental science
  - 1.3 Man-environment interrelationships
  - 1.4 Environmental perspectives
  - 1.5 Moral and ethical issues in Environmental science
- Credit II: Matter, Energy and Life** **15 hours**
- 2.1 Elements: the material basis of life
  - 2.2 origin and evolution of life on earth
  - 2.3 Evolution theories(modern) and speciation mechanism
  - 2.4 characteristics of living cells (prokaryotic and eukaryotic)
  - 2.5 Energy in biosphere - sources,energy forms and energy acquisition mechanisms in living systems.
- Credit-III: Components of Environment** **15 hours**
- 3.1 Environment: components
  - 3.2 Atmosphere: composition and stratification
  - 3.3 Hydrosphere: global water resources and distribution
  - 3.4 Lithosphere: stratification and composition
  - 3.5 Biosphere: a brief account
- Credit-IV: Human population and Environment** **15 hours**
- 4.1 Human population: Growth, Decline and migrations
  - 4.2 Consequences of high population growth on environment
  - 4.3 Concept of carrying capacity
  - 4.4 wastes from human societies
  - 4.5 Population growth and distribution in India with special reference to J&K
- Credit V and VI: Laboratory Course**
- 1. Collection and Identification of rocks
  - 2. Soil texture by feel method
  - 3. Collection and identification of aquatic plants
  - 4. Collection and identification of terrestrial plants
  - 5. Calculation of density, diversity and abundance by quadrat method
  - 6. Collection and identification of Soil macrofauna
  - 7. Collection and identification of aerial insect fauna
  - 8. Collection and identification of local fishes
  - 9. Visit to an aquatic ecosystem
  - 10. Visit to a grassland ecosystem