**BIO-SAFETY AND RISK MANAGEMENT Credit Hours (3+0)**

**OBJECTIVES**

• To learn about the development of safe and healthy environment.

• To learn about risky and hazardous environment.

• To learn safe practices for handling of microbes.

**Course Detail**

• Detailed concept of Risk and Hazardous Environment, Chemicals, Biological factors and Radiations.

• Risk assessment & Management: Preventions, Surveillance and Monitoring.

• Judicial rights / Penalties.

• Concepts of Biosafety Environment: Terrestrial, Marine, Atmosphere.

• Designing of labs based on Biosafety and Biological Containment parameters.

• Details of Biological Containment: Plants, Animals, Microbes.

• Bioethical issues related to Biosafety.

• Biosafety levels.

**Recommended Books**

1. Fleming, D.O., and D.L. Hunt, D.L.2006. Biological Safety. Principles and Practices, 4th edition, ASM Press, Washington, D.C.
2. US Health Department. 2010. Biosafety in Microbiological and Biomedical Laboratories Edition 5. Books Express Publishing.US
3. Horst, K.N., 2011. Biosafety Cabinet .Dig Press.
4. Russell, J. Cohn, R., 2012. Biosafety. Bookvika Publisher.