

16UMBDC03	DSE-Core 1 Bioethics and IPR	4hrs/week	4Credits
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Objectives

- This part of the syllabus helps the students to understand the ethical, social, legal aspects in biology and bio containment

Unit 1: Bioethics

(8hrs)

- Bioethics - legal and socioeconomic impacts
- ethical concerns of biological research and innovation,
- Bioethics committees and guidelines for biosafety, stem cell research, RCGM

Unit 2: Intellectual Property Rights

(10hrs)

Intellectual property rights-Definition, Types

- Patent
- Copyright
- Trade mark
- Trade Related Aspects in Intellectual Property(TRIPS)
- General Agreement on Tariffs and Trades (GATT)
- Plant Breeders Rights (PBR)
- World Trade Organization (WTO)

Unit 3: Patents and Patent Laws

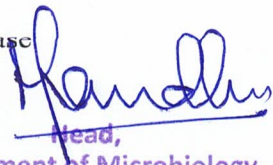
(10hrs)

- Patenting laws-Legal development
- Patentable subjects and protection in biology
- The patenting of living organisms

Unit 4: Biosafety

(10hrs)

- GLP - Containment facilities
- Biosafety levels - Genetically modified organisms and its release
- Genetically modified foods


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- Biosafety guidelines in India
- International guidelines

Unit 5: Biodiversity

(9hrs)

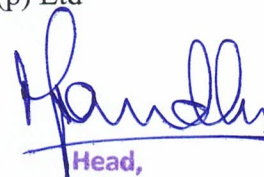
- Elements of Biodiversity
- Ecosystem Diversity
- Genetic Diversity
- Species Abundance & Diversity

Text Books:

1. Sasson Albert, Biotechnologies and Development, UNESCO Publications, 1988.
2. Sasson Albert. Biotechnologies in developing countries present and future, UNESCO publishers, 1993.

Reference book

1. Singh K, Intellectual Property rights on Biotechnology 2010, BCIL, New Delhi,
2. Shaleesha A. Stanley, Bioethics, Wisdom educational service, 2008, Wisdom Educational Service
3. Beier, F.K., Crespi, R.S. and Straus, T. 1985 Biotechnology and Patent protection-Oxford and IBH Publishing Co. New Delhi,
4. Biotechnology by U. Sathyanarayana, 2009, Books and allied (p) Ltd
5. Biotechnology by B.D.Singh, 2009 Kalyani publishers,



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