



University of Kerala

Discipline	BOTANY				
Course Code	UK3VACBOT202				
Course Title	BIOETHICS AND IPR				
Type of Course	VAC				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	03	03 Hours	-	-	03 Hours
Pre-requisites	No Pre requisites				
Course Summary	Students will be able to understand the concepts related to bioethics, biopiracy and IPR and analyse the current norms relating to bioethics in the context of patenting				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Bioethics & Biopiracy		09
	1	Nature, Concept and Relevance of Bioethics, Basic Principles of Bioethics; Necessity of Bioethics, Legal, Bioethics in Plants, Animals and Microbial Genetic Engineering, Ethical issues in Healthcare.	
	2	Biopiracy, Access to Biological Resources, Benefit Sharing and Informed Consent, Different paradigms of Bioethics – National & International. Social and ethical implications of biological weapons.	
II	Intellectual Property Right		09
	3	Introduction to Intellectual Property-Origin Development and Objectives and its different forms. Farmer's Rights, Animal and Plant breeders' rights.	
	4	Classification of Intellectual Property - Patents, Copyright, Trademark, Industrial Design, Geographical Indications, Sui generis rights, Protection of Plant Varieties and Traditional Knowledge, Development of patent system in India.	
III	International agreements and Treaties relating to Intellectual Property		09
	5	International agreements and Treaties relating to Intellectual Property: General Agreement on Trade and Tariff (GATT),	
	6	Trade Related Aspects of Intellectual Property Rights (TRIPS)	
	7	WTO agreement- Indian Position on WTO Regime; Establishment of WIPO – Mission and Activities- Budapest treaty	
IV	Essentials of Patents		09
	8	Basic requirements of patentability, Discovery and Invention	

	9	Patentable subject matters, novelty, utility and the Public Domain;	
	10	Product and process. Patent Laws in Indian Perspective.	
	11	Indian Patent Act 1970 (Patent Amendment Acts-1999, 2002 and 2005)	
V	Patent filing procedures		09
	12	Patent infringement- meaning, scope, litigation; Time frame and cost; Status of the patent applications filed; Precautions while patenting–disclosure/non-disclosure;	
	13	Financial assistance for patenting-introduction to existing schemes, Patent licensing, and agreement.	
	14	Patent Case study: Basmati Case, Neem Controversy, Turmeric Case	

Suggested Reading

1. Kankanala C. 2007. Genetic Patent Law & Strategy, 1st Edition, Manupatra Information Solution Pvt. Ltd.,
2. Ahuja, V.K., Law Relating to Intellectual Property Rights, 3 rd Ed. Lexis Nexis
3. Cornish, W. R., Intellectual Property (Latest Edition)
4. Intellectual Property Rights by K. R. G. Nair, Ashok Kumar, K. R. G. Nair
5. Kilner, John, et.al, eds., Cutting-Edge Bioethics. Eerdmans.
6. Wadera, B.L. 2002.Patents, Trademarks, Copyright, Designs and Geographical Indications
7. Ignacimuthu, S.2009.Bioethics, Alpha Science International, Limited
8. Matthew Rimmer.2008. Intellectual Property and Biotechnology: Biological Inventions

References

1. Arthur L. Caplan, Robert Arp, Contemporary Issues in Bioethics (2014)
2. Kshitij Kumar Singh, Biotechnology and Intellectual Property Rights: Legal and Social Implications Springer (India) (2014) (in press)
3. Nuffield Council on Bioethics (2002), The Ethics of Patenting DNA, A Discussion Paper, London: Nuffield Council on Bioethics

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Students will be able to understand the concepts related to bioethics, biopiracy, IPR and different subject matter of IPR like trademark, copyright, trade secret, Patent and geographical indication.	R, U	PSO-4
CO-2	Students will develop and apply a personal understanding of patent and bioethics, and their impact on day to day life.	An, Ap	PSO-4, 6

CO-3	Student will analyze the current norms relating to bioethics in the context of patenting	An	PSO-5
CO-4	Students will compare and contrast between intellectual property and bioethics	U	PSO-5

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Name of the Course: Bioethics and IPR

Credits: 3:0:0 (Lecture:Tutorial:Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	1	5	R, U	F, C	L	
CO-2	2	5, 6	An, Ap	C, P	L	
CO-3	3	5	An	C	L	
CO-4	4	5	U	F, C	L	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics :

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4	✓			✓