

**DISCIPLINE SPECIFIC ELECTIVE COURSE -( BIOMED-DSE-1) INTELLECTUAL PROPERTY RIGHTS FOR BIOLOGISTS**

**CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE**

Course title & Code	Credit s	Credit distribution of the course			Eligibility criter ia	Pre-requisite of the course
		Lect ure	Tutori al	Practi cal / Practi ce		
Intellectual Property Rights for Biologists	4	3	-	1	XII Pass with Physics, Chemistry & biology	Basic knowledge of biology

**Learning objectives:**

Upon successful completion, the certificate level course on Intellectual Property Rights (IPR) aims to achieve the following objectives:

- Familiarize students with national and international IP protection systems.
- Provide a foundation for further career development and specialization in the field of Intellectual Property Rights.
- Enhance students' understanding of Intellectual Property Rights and their significance in various fields.
- Prepare students for future career opportunities in diverse fields such as patent office/law firm clerks, patent agents, trademark agents, patent attorneys, business strategists, enforcement officers, and banks.

**Learning outcomes:**

The syllabus on Intellectual Property Rights (IPR) for biologists aims to equip students with a comprehensive understanding of the subject. The course outcomes include:

- Knowledge of various forms of Intellectual Property Rights, including patents, copyrights, trademarks, and trade secrets, legal frameworks and regulations governing these rights.
- Understanding of Biological Innovations and how Intellectual Property Rights apply specifically to biological innovations, such as genetically modified organisms, biotechnological inventions, pharmaceuticals, and plant varieties.
- Importance of IPR in Biotechnology and Biomedical Research. innovation, safeguards investments, and promotes the commercialization of research outcomes.
- Understanding of IP Protection Strategies in the field of biology, drafting patent applications, conducting patent searches, and navigating the patent filing process, would learn alternative forms of protection such as copyrights and trademarks, applicable to biological inventions.
- Patents of Trade mark, copyright & Design: The students will understand the legal issues related to the trade marks, logo design and the works related to arts.
- Ethical and Legal Considerations: Students will develop an understanding of the ethical and legal implications associated with Intellectual Property Rights in biology and explore issues of patent infringement, licensing, technology transfer, and access to genetic resources.

## SYLLABUS

### **Unit 1: Indian Patent Act and National Policy (12 hrs)**

- Understanding Intellectual Property Rights: Introduction to Intellectual Property Rights. Significance of IP and its Role in society and business, Indian Patent Act and International treaties on IP Rights (Birds eye view)
- Patent Laws and Policies : History of Patent Protection & Rational, Introduction to Indian Patent Act and its sections, National IPR Policy

### **Unit II: Patent Protection Procedure (10 hrs)**

Function of a patent and Patentability criteria, Elements of a Patent and Application forms (Form 1 and Form 2). Types of Patent Applications. Signification of Provisional patent Filing. PCT system, IP infringement and IP enforcement. Plant variety protection and farmers rights Acts and authority in India

**Unit III: Patent Prosecution and IP issues in the current scenario (10 hrs)**

First Examination Report (FER) and Responding to FER and hearing notice. Exercises and Ecommerce. Interaction Between IP Law and Competition Law regulating anti-competitive conduct of companies. IP Rights in digital environment and open source & open Access, Plagiarism. Importance of IP policy for an organization

**Unit IV: Geographical indications & Trademarks (08 hrs)**

Brief introduction to Legal framework for GIs in India and Impact of GI registration in India. Importance of Trademarks , Salient features of Trademark law of India and Trademark filing and prosecution in India. Madrid System

**Unit V: Registration of Copyright, Designs and Lay out of Integrated circuits****(05hrs)**

Salient elements of Indian Copyright Act, Law relating to Layout designs of Integrated Circuits and Design Act. Registration of Copyrights, Designs, The Industrial Property System

**Practical (30 hrs)**

1. Drafting of specifications, claims and Patent Filing:
  - a) Drafting a patent specification
  - b) Claims Drafting
  - c) Patent filing – examples (05)
  - d) Exercises ( 05)
2. Industrial Designs and Layout design of Integrated circuits in India.
3. **Case studies :** (a) Patents as assets; (b) Drug pricing as a result of patent filing. (c) Recent cases related to the provisions of Section 3(d) of The Patents Act (Novartis vs Generic Manufacturers, Roche vs Cipla, Astra Zeneca Vs Natco Pharma). (d) Traditional knowledge and IP system;  
(e) Patenting of genetically-engineered micro-organism (Diamond Vs Chakravarthy); (f) Infringement cases; (g) Biopiracy cases (*Hoodia case, the Quinoa case, the Enola bean case, The neem patents*); (h) Trade secrets;

## **Essential Reading**

- Intellectual property: A power tool for Economic Growth: Kamal Idris, Published by World Intellectual Property Organization, 2003. ISBN: 9280511149, 9789280511147
- Intellectual property and Human Development : Current trends and future Scenarios: T. Wong and G. Dutfield, Publisher Cambridge University Press, 2010. ISBN-13 : 978-0521190930
- Intellectual Property laws, Publisher: Universal Law Pub Co. P. Ltd., Delhi, 2015. ISBN-13 : 978-9350355855
- Intellectual property Law in India, Third Edition. Tamali Sen Gupta, Dhruv Shekhar, Publisher: Kluwer Law International, 2022. ISBN-13 : 9789403548111
- IIMA Business and Intellectual Property: Protect Your Ideas: Anurag K. Agarwal, Random House Publishers India Pvt. Limited, 2016. ISBN-13, 978-8184001402
- Technology Licensing and Development Agreements By Cynthia Cannady, Oxford University Press, 2013. ISBN-13: 978-0195385137
- Deborah Bouchoux : The Law of Trademarks, Copyright, Patents and Design, 2012. ISBN-13 , 978-1111648572.

## **Suggested Reading**

- Office of the Controller General of Patents, Designs & Trade (CGPDTM): Manual of Geographical Indications Practice and Procedure; Manual of Patent Office Practice and Procedure; Manual of Designs Practice and Procedure; Revised Draft Manual of Trademarks Practice and Procedure.
- WIPO: WIPO Guide To Using Patent Information; WIPO Intellectual Property (IP) Audit, : WIPO Patent Drafting Manual, WIPO: The Value of Intellectual Property, Intangible Assets and Goodwill.
- Journal of Intellectual Property Rights 2007 and 2009.
- OECD Report on Patents and Economic Performance, IP guidelines from Patent office.
- Patentability of Software in India - (Lex Orbis).
- Acts : Indian Patent Act (amended), Indian Trademark Act (amended), Indian Copyright Act (amended), Indian Design Act (amended), Indian Plant variety and Farmers Right Act (Amended), Indian Biodiversity Act ,Indian GI Act