



SHARDA
UNIVERSITY
Beyond Boundaries



**SHARDA SCHOOL OF
BASIC SCIENCES
& RESEARCH**

Department of Chemistry and Biochemistry



COURSE

**Intellectual
Property Rights and
Entrepreneurship**
(VAS307)

**VALUE ADDED
COURSE BROCHURE
2024-25**

SHARDA UNIVERSITY

Sharda University envisions to serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship. It has 13,000+ students from 95+ countries, 29 states, and Union Territories, providing cultural diversity and global exposure to students. It has 26000+ alumni who are today leaders in their realms. Sharda University is NAAC A+ University with Overall NIRF Rank of 87. Teaching Learning Center at Sharda University is to equip the faculty members with the expertise, skills and knowledge they need for capacity building of students. Teaching as a profession requires highly specialized skills and knowledge to impact significantly on student learning and therefore teachers must refine their conceptual and pedagogical skills.

ABOUT THE SCHOOL

Sharda School of Basic Sciences and Research (SSBSR) boasts of providing an interdisciplinary approach, exposure to different disciplines in science including Chemistry, Bio-Chemistry, Physics, Mathematics, Life Sciences, and Environmental Sciences. The Sharda School of Basic Sciences and Research is unique from other institutions of higher learning as it is committed to imparting knowledge in pure and applied sciences, which not only forms the foundation for further academic pursuits in science and technology but also acts as the foundation for students to pursue a career in multi facet directions. The academic programs are designed to meet the requirement of the latest technological developments and envisages to become a state-of-the-art department that cater the students at Graduate, Post- Graduate and Research level along with providing high- quality education and cutting-edge interdisciplinary research in sciences. SSBSR has well-equipped laboratories for Physics, MATLAB, Microbiology, Molecular Biology, Cell Culture, Virology, Biochemistry, Physical, Organic and Inorganic chemistry for Graduate and Post-Graduate Programs. In addition, there are Central Instrumentation Facility (CIF) and other advance research labs to promote research culture.

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY

The Department of Chemistry & Biochemistry endeavors to be nationally recognized model for nurturing students who can contribute to the ever changing technology of 21st century. The Department is committed to provide an excellent teaching & learning atmosphere for Undergraduate as well as post graduate students.

RESOURCE PERSON

Prof. Avinash Kant Prof. Avinash Kumar is currently holding the position of Professor & Head, IPR Cell in Sharda University, Greater Noida. Prof. Avinash Kumar superannuated from the position of Associate Director (IPR), Sc 'G', Directorate of ER&IPR, Defence Research & Development Organisation, New Delhi on 31 December, 2019 after putting in almost 21 years of service at DRDO HQ in different capacities and playing major role in evolution of IPR culture in DRDO. At DRDO HQ, he was involved in handling entire range of IPR related issues of DRDO having 50 laboratories with almost 7000 scientists engaged in R&D work pertaining to frontiers of technologies. He has earlier worked as Examiner of Patents & Designs at Patent Office Delhi, as Asstt. Engineer at HAL, Korwa Division and as Scientist in a DRDO lab at IRDE, Dehradun.

He is M.Sc in Physics from BHU, Varanasi & M.Tech in Applied Optics from IIT, Delhi. He has a vast experience of about 25 years in the area of IPR having solid understanding of national/international innovation systems as well as legal and practical intricacies of intellectual property rights and technology transfer. He is a frequent speaker at different IPR seminar/workshops organised by various Universities and R&D Organisations. He is a well-travelled person across various countries and having expertise in the area of patent laws, IPR issues in collaborative R&D, crafting patent specifications etc. He has served as Member of CII National Committee on IP as well as an Expert for Technology Development Fund Scheme of DRDO. Currently, he is Member PFC-TIFAC Committee on IP Filing and Member, Advisory Committee on IPR for DST-Centre for Policy Research, Chandigarh, Member, Aerospace Resources Panel (ARP) of Aero R&D Board of DRDO.

Schedule

Week	Period	Lectures
Week 1	15 July - 21 July	2 lectures
Week 2	22 July - 28 July	2 lectures
Week 3	29 July - 04 August	2 lectures
Week 4	05 August - 11 August	2 lectures
Week 5	12 August - 18 August	2 lectures
Week 6	19 August - 25 August	2 lectures
Week 7	26 August - 01 September	2 lectures
Week 8	02 September - 08 September	2 lectures
Week 9	09 September - 15 September	2 lectures
Week 10	16 September - 22 September	2 lectures
Week 11	30 September - 06 October	2 lectures
Week 12	07 October - 13 October	2 lectures
Week 13	14 October - 20 October	2 lectures
Week 14	21 October - 27 October	2 lectures
Week 15	28 October - 03 November	2 lectures
Week 16	04 November - 10 November	2 lectures
Week 17	11 November - 17 November	2 lectures
Week 18	18 November - 24 November	2 lectures

MODULE

School: SSBSR	Batch : 2023-25	
Program: Master of Science(PG)	Current Academic Year: 2024-25	
Branch: Chemistry/Biochemistry	Term : Odd(2401), Semester : III	
1. Course Code	VAS307	
2. Course Title	Intellectual Property Rights and Entrepreneurship	
3. Credits	0	
4. LTPC	2-0-0-0	
5. Course Type	Value added course	
6. Course Objective	<p>This course will make students employable in the IPR associated Consultants and companies, and startups for jobs associated with IPR</p> <p>Student will have the knowledge of:</p> <ol style="list-style-type: none"> To introduce fundamental aspects of Intellectual property Rights to students who are going to play a major role in development and management of innovative projects in industries. To disseminate knowledge on patents, patent regime in India and abroad and registration aspects, patent drafting and searching. To disseminate knowledge on copyrights and its related rights and registration aspects. To disseminate knowledge on Design, Geographical Indication (GI), Plant Variety and Layout Design Protection and their registration aspects. To aware about current trends in IPR and Govt. steps in fostering IPR. 	
7. Course Outcomes	<p>CO1: The student will be able to understand about IPR and it's application</p> <p>CO2: The student will be able to gain adequate knowledge on patent for their innovative research works.</p> <p>CO3: The student will be able to have sound knowledge about copyright for their pioneering research works.</p> <p>CO4: The student will be able to provide useful insights on the novelty of their idea from a state-of-the-art Patent search for further developing trademarks for products/innovations.</p> <p>CO5: The student will be able pick up the basics of Entrepreneurship Development.</p> <p>CO6: The student will be able to catch up Intellectual Property(IP) as a career option such as-R&D IP Counsel, Government Jobs - Patent Examiner, Private Jobs in Pharmaceutical sector related to patent search, patent drafting and patent filing, Patent agent and Trademark agent, Entrepreneur.</p>	
8. Course Description	<p>This course will introduce basic understanding of Intellectual Properties, Patents, Trademarks, Copyrights and designs. It will demonstrate in depth understanding concepts of IPR and its importance, relevance and execution in the Pharmaceutical / Life science industries. It will also demonstrate knowledge about the use of suitable analytical tools for the high-quality, reliable, and statistically sound data from IPR.</p>	
9. Outline syllabus		CO Mapping
Unit 1	Introduction and the need for intellectual property right (IPR)	
A	Types of Intellectual Property Rights: Patent, Copyright, Trade Mark, Design, Geographical Indication, Plant Varieties and Layout Design	CO1/CO6
B	Trade Secrets IPR in India : Genesis and development IPR in abroad	CO1/CO6
C	The WIPO Convention, 1967, The Patent Co-operation Treaty, 1970, The TRIPS Agreement, 1994	CO1/CO6
Unit 2	Patents	
A	Elements of Patentability Registration Procedure, Rights and Duties of Patentee, Assignment & license	CO2/CO6
B	Patent Infringement, Remedies & Penalties - Patent Office and Appellate Board.	CO2/CO6
C	Patent/Prior art search, Patent drafting	CO2/CO6
Unit 3	Copyrights	
A	Nature of Copyright - Subject matter of copyright: original literary, dramatic, musical, artistic works; cinematograph films and sound recordings	CO3/CO6
B	Registration Procedure, Term of protection, Ownership of copyright, Assignment and license of copyright	CO3/CO6
C	Copyright Infringement, Remedies & Penalties	CO3/CO6
Unit 4	Trademarks & Design	
A	Concept of Trademarks - Different kinds of marks (brand names, logos, signatures, symbols, certification marks and service marks)	CO4/CO6
B	Non Registrable Trademarks Registration of Trademarks	CO4/CO6
C	Concept of novel and original - Procedure for registration, Geographical indication	CO4/CO6
Unit 5	Entrepreneurship	
A	Selection of a product, line design and development processes	CO5/CO6
B	Economics on material and energy requirement	CO5/CO6
C	Stock the product and release the same for making	CO5/CO6
Mode of examination	Assignments, Quizzes & Viva	