DIPLOMA IN PATENT LAW

(ONE YEAR PROGRAMME)

(Effective from Academic Year 2025-26)

GENERAL RULES, SYLLABUS, COURSE OF STUDY AND EXAMINATION

PREPARED BY:
BOARD OF STUDIES (LAW)

Faculty of Legal Studies

Mahatma Jyotiba Phule Rohilkhand University,
Bareilly U.P. India

DIPLOMA IN PATENT LAW

COURSE OF STUDY AND EXAMINATION

WHEREAS, it is necessary to adopt and implement the revised curriculum and rules formulated by the University Grants Commission (Guideline of Model Curriculum and Action Plan for Academic and Administrative Reforms DO No. F-1-2/2009 (XI Plan Dated 30 March 2009), M.J.P. Rohilkhand University, Bareilly hereby adopts Diploma in Patent law one Year (Two Semester) Degree Course of Study and frames the following general rules and regulations to be applicable from the academic year 2025-26 onwards.

1. DIPLOMA IN PATENT LAW

The M.J.P. Rohilkhand University may confer the Diploma in Patent law on such candidates who, being eligible for admission to the Diploma in Patent law, have received regular instruction in the prescribed courses of study, passed relevant examinations and being otherwise suitable by virtue of their character, have fulfilled such other conditions as may be laid down from time to time by the appropriate authorities.

2. THE CURRICULUM AND DURATION OF STUDIES

A. (i) The Curriculum of study for the diploma in patent law shall comprise of the courses set out in Schedule

(ii) The Board of Studies in Law shall prescribe the content of various courses of study from time to time and report the matter to the Faculty Board for approval. All the matters related to course of study, examination regulation and any amendment shall be sent to the Academic Council through the Faculty Board as per the regulation of 7.06 of the first statute of the M. J. P. Rohilkhand University

B. The Curriculum of study for the diploma in patent law shall be spread over Two Semesters.

Explanations:

(i) The Two Semesters over which the Curriculum is spread shall, respectively, be called the First, Second Semester.

(ii) The Curriculum of study for each Semester shall ordinarily be spread over one Year.

(iii) There shall be two Terms in each Academic Year.

(iv) The First Term shall extend from the day of reopening of the University after Summer vacation to appointed day in December of the same year, and the Second term shall extend from an appointed day in December to the last working day of the concerned Academic Year.

3. REQUIREMENT FOR ADMISSION

A. Minimum Qualification for Admission:

(i) Admission to the diploma in Patent law study shall be open to those candidates who have passed the Intermediate, 10+2 or equivalent examination with 45% marks (Gen. and OBC Category and for SC/ST candidates, pass with 40% (a relaxation of 5% to SC/ST category) from any school recognized by the central or state boards of education or any Institution under 10+2pattern.

(ii) Admission to diploma in Patent law Course may be granted in order of merit to be formed by the University for this purpose.

B. Reservation and weightage:

(i) Reservation and weightage shall be as per University Rules

4. REGULAR COURSE OF STUDY

A. Course of Study:

A candidate for the diploma in patent law shall be required to:

(i) Study Six Compulsory courses in First semester.

(ii) Study seven papers in second semester.

(iii) Write a Dissertation in the Second Semester (one academic year) on a subject approved by the Departmental committee in consultation with the Supervisor.

(iv) The Departmental committee referred in Para (iii) shall consist of the following:

(a) Chairman (Head of the Department)

(b) Four other Full-time members of the department by rotation for one year.

5. ASSESSMENT OF STUDENTS' PERFORMANCE AND SCHEME OF EXAMINATION PASS PERCENTAGE & PROMOTIONAL CRITERIA:

- Assessment of student's "performance shall consist of 70 marks (End Semester Written Examination) and 30 marks (Internal Assessment).
- The duration of the End Semester Written Examination shall be three hours for70 marks.
- For internal assessment of 30 marks, one internal Test+ Assignment+ Presentation+ Viva+ seminar shall be in the class in each course in each term.
- Internal assessment of each paper shall be evaluated by a panel of three teachers of the department. For each paper panel is to be formed by HOD/Principal accordingly.
- Dissertation will carry 100 marks.
- Viva-voce exam will carry 100 marks Viva-voce shall be held soon after the fourth semester.

- In each paper 30 marks shall be reserved for award on the bases of continuous internal assessment of the student in the classroom. The HOD will notify information regarding each internal assessment at least one week prior of the presentation with consultation of the teacher concerned. All awards of marks will be verified by the HOD and will be send to exam controller accordingly.
- The criteria for Internal assessment for each paper will be as follows

  Internal Test- 10 marks.

  Assignment with presentation– 10 marks

  Classroom seminar and viva– 10 marks

6. ATTENDANCE

The student whose attendance Is less than 75% will not be allowed to appear in the end semester examination. Head of the Department may permit a student to appear in examination by relaxation of 25% attendance in special conditions such as:

- Participation in NCC/NSS camps duly supported by a certificate from competent authority.
- Participation in University or College Team(S) Games or Interstate Tournament(S) duly supported a certificate from competent authority r Inter University
- Participation in any of the co-curricular activity organized by University/Department duly. Certified by competent authority.
- Prolonged illness duly certified by superintendent/CMO of government hospital or registered medical practitioners/hospitals.

Note: The Vice Chancellor shall have power to condone any deficiency of attendance for cogent reasons.

7. ENROLLMENT

Admitted candidates shall be required to get him/her enrolled with the University if he/she is not already enrolled as a student of this University. They will be required to submit their migration certificate along with the enrolment form and prescribed fee.

8. END SEMESTER EXAMINATION

There shall be an end semester examination at the end of the I and II semesters. The semester examination will be held every year normally in December and May or on the dates declared in the academic calendar of the University. A student proceeding to appear in the end semester examination will submit through the Head of the Department his/her application on the prescribed form along with the required examination fee, etc. to the Registrar of the University.

Every student will have to appear in six respective theory papers examinations in the I and II semesters. In the II semester, every student will be allotted one dissertation work in lieu of Viva-voce Exam.

9. ALLOTMENT OF THE DISSERTATION

- Allotment of the dissertation will be done by a committee comprising of the Head of the Department, one Professor and one Associate Professor of the Department by rotation according to seniority. The Proposal for dissertation shall be submitted by candidate though head of department.
- Candidate shall be required to submit the Dissertation at least two weeks before the commencement of Second Semester Examination. Prior of submission of dissertation the students shall make a pre-Submission seminar in department of law, MJPRU. Seminar shall be opened to all faculty members, research scholar and other students of the faculty.
- The candidate shall be required to secure at least 50% marks in the Dissertation to pass the Examination.
- The maximum number of students enrolled for dissertation under one teacher will be as follows- Assistant Professor – 05
- Associate Professor–08 Professor – 10
- Full time teacher of the department is authorized for dissertation guidance. If there is non availability of full-time teachers in the department concern, rest of all student will be supervised by HOD/ principal and Dean accordingly.

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10. VIVA-VOCE EXAMINATION:

- The Viva Voce Examination shall be conducted by a Board of Examiners.
- The Board shall consist of three members; one member shall be a Professor/Associate Professor as external member of any other university or college. The head of the department (H.O.D.) shall be a member of the board and one Professor/Associate professor of the department as internal examiner. The internal examiner shall be appointed for every year by rotation.
- The Viva-Voce Examination shall carry 100 marks. The external examiner shall evaluate the candidate out of 70 maximum marks and two examiners shall evaluate out of 15 maximum marks each.
- Candidate shall be required to secure atleast 50% marks in the Viva-voce to pass the Examination.

11. GRADE POINTS:

O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Above Average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
AB (Absent)	0

12. CGPA Calculations:

Grading Pattern and illustration of Grading Pattern

Assessment as per university policy relating to implementation of choice based credit system (CBCS) to all the programs offered at M.J.P. Rohilkhand University.

Illustration:

Course	Credit	Grade	Grade Point	Credit Grade	SGPA
Semester I					
Paper I	04	B+	7	28	
Paper II	04	B+	7	28	
Paper III	04	B+	7	28	
Paper IV	04	A	8	32	
Paper V	04	B	6	24	
Value Added	04	B+	7	28	
Total	24				196/24=8.1
Semester II					
CoreI	04	B+	7	28	
Core II	04	B+	7	28	
Core III	04	B+	7	28	
Value Added	04	B	6	24	
(Dissertation)	04	B+	7	28	
Viva-voce	04	B+	7	28	164/24=6.8
Total	**24**				

Thus:

	Credits	SGPA
Semester I	24	8.1
Semester II	24	6.8

Total 48

Letter Grade	Grade Point	Description	Range of marks(%)
O	10	Outstanding	95%orabove
A+	9	Excellent	85-94%
A	8	Very Good	75-84%
B+	7	Good	65-74%
B	6	Above Average	55-64%
C	5	Average	45-54%
P	4	Pass	36-44%
F	0	Fail	Below36%
Ab	0	Absent	Absent

13. CONDITION FOR A PASS AND PROMOTION TO NEXT SEMESTER YEAR

For each course, each student has to appear in internal assessment and semester examination otherwise,

The student will be awarded an "Ab" grad. The total marks obtained in the end semester examination, and internal assessment the continuous evaluation will be considered to decide the grade in that course In addition, a student also has to get valid credits for value added Skill development modules' courses and grades as per university rules. The grading will be made on a 10-point scale as follows:

For passing the examination in each semester, a candidate must have secured a minimum of 36% marks ("P" Grade: 4 Grade Points) in the course. If the marks obtained by the student in a course are less than the minimum cut-off percentage of marks, then an "F" grade will be awarded. If a student obtains an "F" or "Ab" Grade in any course, he/she will be treated to have failed in the course.

The decision of the teacher regarding the evaluation and the grade shall be final. However, a student submits in writing for a review of his Marks/Grade to the Head/Director who will place the case before the board of comprehensive viva voce. The decision of the board will be final. The result of the review will be declared by the concerned Head/Director Review is effective only when the grade improves. The review will be allowed only if-

- The prescribed fee is paid.
- The candidate applies within 7 days of the declaration of the grade in that course.
- **In matters not covered under this ordinance, general rules of the University shall be applicable**.
- In case of any dispute/ambiguity, the decision of the Vice-Chancellor shall be final and binding.

14. RULES OF PROMOTION

A student cannot to be promoted to next semester if he/she fails in upto the maximum **three courses (papers)** in first semester. The paper/papers in which a student fail shall be considered as back paper. In **no case** a student having back in **more than three papers** can be promoted to next semester and will be treated to have **year back**. In case of year back, he/she have to take re-admission by paying approved tuition fee in same year after the recommendation of HOD/Dean. After readmission students have following options:

1. He/ She can choose to pass all the papers of the academic year.
2. He/ She can opt to pass the papers in which he/she has failed.
3. Students will have to submit their choices/options at the time of readmission.
4. No repeat attempt is allowed to pass for internal assessment only.
5. He/ She has to repeat complete course i.e., theory and internal assessment both.

15. GENERAL RULES

These will be the same as applicable for the other law courses of the University.

16. DEFINITION:

I. Course (paper)- A segment of the Diploma program i.e., a paper.

II. Value added courses-An optional course to be selected offered by other university teaching department

17. CONVERSION OF MARKS INTO GRADES:

- Grade Points: Grade point table as per university examination rule.
- SGPA (Semester Grade Point Average): Calculation as per University Examination rule.
- YGPA (Year Grade Point Average): Calculation as per University Examination rule.
- CGPA (Cumulative Grade Point Average): Calculation as per University Examination rule.
- Grade Point conversion into Marks: Calculation as per university rule.

18. UPGRADATION AND MODIFICATION OF SYLLABUS

Up-gradation and Modification of the syllabus shall be proposed by the BOS and shall approved by the Academic Council through Faculty Board time-to-time, as and when required.

DETAILS OF SYLLABUS

Semester I		
Sr. No.	**Paper no.**	**Name of the Paper**
1	Paper 1	Fundamentals of IPRs and Patents
2	Paper 2	Patent Drafting and specification writing
3	Paper 3	Patent Filing & prosecution in India
4	Paper 4	Patent Search and Prior Art Analysis
5	Paper 5	Patent laws & International Treaties
6	Paper 6	Value added course (Patent valuation and commercialization)

Semester II		
Sr. No.	**Paper no.**	**Name of the Paper**
1	Paper 1	Patent litigation and Enforcement
2	Paper 2	Biotechnology and Pharmaceutical Patents
3	Paper 3	Software and AI patents
4	Paper 4	Patent Practice in India (Value Added Course)
5	Paper 5	Dissertation
6	Paper 6	Viva-voce

Duration: 1 Year (2 Semesters)

Eligibility:10+2, Law Graduates / Science & Engineering Graduates / Professionals

Program Objective:

This diploma is designed to provide a practical and industry-oriented understanding of patent law in India, ensuring that students—whether from legal, scientific, or technical backgrounds—gain hands-on skills in patent drafting, filing, prosecution, litigation, and commercialization.

Teaching Methodology:

- **Case-Based Learning**
- **Hands-on Workshops**
- **Guest Lectures**
- **Mock Trials & Negotiation Exercises**
- **Industry Internship & Live Projects**

Who Should Enroll?

- 10+2 Pass outs trying to build career in the field of IPR.
- Law graduates interested in IP practice
- Engineers, Scientists, Pharma Professionals
- Corporate Legal & R&D Teams
- Start-up Founders & Innovators

This syllabus ensures a **balanced approach** where **legal principles meet technical expertise**, making it suitable for **both lawyers and technical professionals**.

Semester I

Paper-1

Fundamentals of Intellectual Property Rights (IPR) & Patents

Basic Objective of the Paper

Intellectual Property is the intangible property created and owned by th e human as the result of innumerable days of dedication, Perseverance and hard work and in order to understand and learn about the rights that are associated with them, it is very crucial to have the crisp and clear understanding of the various kinds of fundamental rights that exist the peculiarity one's creation must have to vest these right upon it. This paper would thoroughly and exhaustively deal with all the Intellectual properties with special reference to patent.

Expected Learning Outcome

A student would develop a better understanding about the various kinds of IPR and various rights associated with them, this subject would build the foundation of understanding of patent upon which the further development along with the progress of the curriculum would take place.

Unit 1: Overview of IPR

a) Types of IP: Patents, Copyrights, Trademarks, Designs, GIs.

b) Importance of IP in innovation-driven economies.

c) Differences between various forms of IP protection.

d) Role of IP in business strategy and competitiveness.

Unit 2: Introduction to Patents

a) Definition and historical evolution of patent systems.

b) Key differences between patents and trade secrets.

c) Importance of patents in R&D-intensive industries.

d) Global vs. Indian patent systems: A comparative overview.

Unit 3: Patentable Subject Matter in India

a) Criteria for patentability: Novelty, inventive step, industrial applicability.

b) Examples of patentable inventions in engineering, pharma, and IT.

c) Role of prior art in determining patentability.

d) Case studies of rejected patents due to lack of inventive step.

Unit 4: Non-Patentable Inventions

a) Section 3 of Indian Patents Act: List of exclusions (e.g., algorithms, traditional knowledge).

b) Ethical and moral exclusions (e.g., human cloning).

c) Case study: Why software patents are restricted in India.

d) Practical exercise: Identifying non-patentable inventions in real-world submissions.

Unit 5: Case Studies

a) Novartis vs. Union of India (Section 3(d) interpretation).

b) Bayer vs. Natco (Compulsory licensing).

c) Diamond vs. Chakrabarty (Biotech patents).

d) Discussion: How these cases shaped Indian patent law.

Resources

1. "Intellectual Property Rights" – P. Narayana
2. "Intellectual Property Law in India" – Dr. V.K. Ahuja
3. "Patent Law and Practice in India" – Dr. Feroz Ali Khader
4. "Intellectual Property: Cases and Materials" – Cornish, Llewelyn & Apli
5. "The TRIPS Agreement: Drafting History and Analysis" – Daniel Gervais

6. "Intellectual Property Rights: Infringement and Remedies" – Dr. S.R. Myneni
7. "IPR & Patent Laws" – Dr. M. Ashok Kumar & Dr. M. Arul
8. "The Indian Patent Act & Rules" – Bare Act (Universal/LexisNexis

Paper-2

Patent Drafting & Specification Writing

Basic Objective of the Paper

The primary objective of this paper is to provide students with comprehensive knowledge and practical skills in patent drafting and specification writing, aligning with Indian and international patent laws. The course aims to develop expertise in preparing technically sound and legally robust patent applications while fostering an understanding of claim drafting, prior art analysis, and patent prosecution processes. Students will gain hands-on experience in structuring patent documents, formulating precise claims, and drafting detailed specifications that meet statutory requirements. Upon successful completion of this course, students will be able to demonstrate proficiency in drafting complete patent applications, including claims, descriptions, and drawings, in compliance with legal standards.

Expected Learning Outcome

Student will acquire the ability to analyze prior art, assess patentability criteria, and respond to office actions effectively. Additionally, students will develop critical thinking skills to navigate complex patent scenarios, ensuring clarity, enforceability, and broad protection for inventions. The course will also emphasize ethical considerations and best practices in patent drafting, preparing students for careers in IP law firms, corporate IP divisions, research organizations, and patent offices. Through case studies and practical exercises, learners will be equipped to handle real-world patent drafting challenges with confidence.

- **Unit 1: Structure of a Patent Application**
  a) Components: Title, abstract, claims, description, drawings.
  b) Importance of clear and concise language.
  c) Legal vs. technical terminology in drafting.
  d) Common formatting standards (e.g., font, margins, numbering).
- **Unit 2: Writing Effective Patent Claims**
  a) Types of claims: Independent, dependent, Jepson, Markush.

b) Strategies for broad vs. narrow claim drafting

c) Avoiding ambiguity in claim language.

d) Case study: How poorly drafted claims led to patent invalidation.

- **Unit 3: Technical & Legal Language in Patents**

a) Balancing technical accuracy with legal enforceability.

b) Avoiding vague terms (e.g., "about," "substantially").

c) Best practices for defining technical terms.

d) Exercise: Rewriting ambiguous claims for clarity.

- **Unit 4: Hands-on Exercises**

a) Drafting a mechanical patent (e.g., a simple machine part).

b) Drafting a pharmaceutical patent (e.g., a new drug formulation).

c) Drafting a software-related invention (within Indian legal limits).

d) Peer review and feedback session.

- **Unit 5: Common Mistakes & How to Avoid Them**

a) Overly broad claims leading to rejections.

b) Insufficient disclosure of the invention.

c) Inconsistencies between claims and description.

d) Case study: A rejected patent application and its flaws

Resources

1. "Patent Drafting and Prosecution" - Dr. Feroz Ali Khader
2. "Drafting Patent Claims: A Practical Guide" - John F. Duffy & R. Polk Wagner
3. "Patent Law and Practice in India" - Dr. Feroz Ali Khader

4. "Patent Drafting: A Practical Guide" - R. Saha & S. B. Agrawal
5. "Manual of Patent Office Practice and Procedure" - Indian Patent Office
6. "Patent Claim Drafting and Interpretation" - Lucas & Lucas
7. "Fundamentals of Patent Drafting" - R. K. Gupta
8. "Patent Strategy for Researchers and Research Managers" - H. Jackson Knight
9. "Patent Application Drafting: A Guide for Inventors and Attorneys" - Gene Quinn
10. "Writing Patents: A Practical Guide for Scientists and Engineers" - L. Tepper & A. Haggard

Paper-3

Patent Filing & Prosecution in India

Basic Learning Outcome of the Paper

The primary objective of this paper is to equip students with comprehensive knowledge and practical skills related to the complete patent filing and prosecution process under the Indian Patents Act, 1970. The course aims to provide a thorough understanding of the procedural aspects, legal requirements, and strategic considerations involved in securing patent protection in India. Students will gain hands-on experience with the various stages of patent prosecution, from initial filing to grant, including responding to examination reports and handling oppositions. The curriculum also covers post-grant procedures and maintenance requirements, ensuring students develop a holistic understanding of the patent lifecycle in the Indian context.

Expected Learning Outcome

Students will develop skills to handle pre-grant and post-grant opposition proceedings, as well as understand the appeal process before the Intellectual Property Appellate Board. The course will also enable students to advise on patent maintenance, including renewal fee payments and portfolio management strategies. Through case studies and practical exercises, learners will be prepared to address real-world challenges in patent prosecution and contribute effectively in roles within law firms, corporate IP departments, or the patent office.

- **Unit 1: Step-by-Step Patent Filing Process**

a) Different types ofForms required for patent filing:

b) Fees: Individual vs. corporate applicants.

c) Timeline from filing to grant

d) Practical demo: Filling out Form 1 online.

- **Unit 2: Examination Process (FER & Response)**

a) Understanding the First Examination Report (FER).

b) Common objections such as lack of novelty, clarity issues.

c) Strategies for responding to objections.

d) Case study: A successfully amended patent application.

- **Unit 3: Opposition Proceedings**

a) Pre-grant opposition: Who can file and grounds.

b) Post-grant opposition: Process and timelines.

c) Case study: Natco's pre-grant opposition against Bayer.

- **Unit 4: Patent Grant & Renewal**

a) Steps after grant: Publication, sealing of patent.

b) Renewal fees: Schedule and consequences of non-payment.

c) Restoration of lapsed patents.

Resources

1. "Patent Law and Practice in India" - *Dr. Feroz Ali Khader* (Oxford University Press)
2. "The Law of Patents in India" - *Dr. B.L. Wadehra* (Universal Law Publishing)
3. "Indian Patent Law and Practice" - *Dr. V.K. Ahuja* (LexisNexis)
4. "Manual of Patent Office Practice and Procedure" - *Indian Patent Office* (Official Publication)
5. "Patent Filing, Prosecution and Litigation" - *Dr. S.R. Myneni* (Asia Law House)
6. "Patent Prosecution in India: A Practical Guide" - *Dr. Gopakumar G. Nair* (Wolters Kluwer)
7. "Intellectual Property Rights in India" - *P. Narayanan* (Eastern Law House)
8. "TRIPS Agreement & Indian Patent Law" - *Dr. N.S. Gopalakrishnan* (Eastern Book Company)
9. "Patent Rules with Short Notes" - *LexisNexis* (Bare Act with Commentary)
10. "Patent Drafting and Prosecution Handbook" - *Indian IP Office* (Latest Edition)

Paper-4

Patent Search & Prior Art Analysis

Basic Objective of the Paper

The objective of this course is to develop professional competency in conducting systematic patent searches and prior art analysis to support innovation protection and patent-related decision making. Students will acquire hands-on skills in using patent databases and non-patent literature sources to identify relevant prior art, while learning to apply critical analysis techniques to assess novelty and inventive step. The course emphasizes practical training in search methodologies, including keyword formulation, classification code utilization, and advanced search strategies across global patent offices and scientific databases.

Expected Learning Outcome

Upon completion, students will demonstrate proficiency in utilizing specialized search tools including commercial platforms and free patent databases. They will develop the ability to construct effective search strategies using appropriate keywords, classification codes, and Boolean operators tailored to different technical fields. Students will acquire skills to critically evaluate search results, distinguishing relevant prior art and assessing its impact on novelty and inventive step. The course will enable learners to prepare structured search reports with proper documentation and analysis

- **Unit 1: Importance of Patent Search**

  a) Avoiding infringement risks.

  b) Assessing novelty and inventive step.

  c) Cost-saving by identifying existing patents.

  d) Case study: A startup’s patent rejected due to prior art.

- **Unit 2: Patent Databases**

  a) Free databases: INPASS (India), Espacenet (EU), USPTO (US).

b) Paid tools: PatSeer, Derwent Innovation.

c) How to use IPC/CPC classification codes.

d) Exercise: Searching a patent using keywords vs. classifications.

- **Unit 3: Search Strategies**

a) Boolean operators (AND, OR, NOT) for precise searches.

b) Citation analysis: Forward and backward citations.

c) Chemical structure searches (for pharma patents).

- **Unit 4: Freedom-to-Operate (FTO) Search**

a) Difference between FTO and novelty search.

b) Identifying active patents in a specific jurisdiction.

c) Mitigating risks: Licensing vs. redesigning.

d) Case study: A company sued for FTO violation.

Resources

1. *Patent Searching Made Easy* - David Hunt (Nolo Press)
2. *Patent Information for Technical Innovation* - R. Saha (Allied Publishers)
3. *Patent Analytics* - Dinesh K. Agarwal (Springer)\
4. *Patent Search and Analysis in Indian Context* - Dr. Gopakumar G. Nair (Wolters Kluwer)
5. *Manual of Patent Office Practice* - Indian Patent Office (Latest Edition)

6. *Patent Law and Practice in India* - Dr. Feroz Ali Khader (Oxford)

7. *Prior Art Searching* - Stephen Adams (Wiley)

8. *Patent Searching Tools & Techniques* - David Brown (WIPO Publications)

9. *Chemical Patent Searching* - David Newton (RSC Publishing)

Paper-5

Patent Laws & International Treaties

Basic Objective of the Paper

The course on *Patent Law and International Treaties* aims to provide students with a thorough understanding of patent systems, their legal foundations, and the role of international agreements in shaping global intellectual property protection. It explores key treaties such as the Paris Convention, the Patent Cooperation Treaty (PCT), the TRIPS Agreement, and regional frameworks like the European Patent Convention (EPC), analyzing their influence on innovation, technology transfer, and enforcement across different jurisdictions.

Expected Learning Outcome

By the end of the course, students will be able to assess patentability criteria, compare different patent regimes, evaluate the impact of patents on public health and access to knowledge, and analyze contemporary challenges such as patent trolls and biotech-related disputes. The course also emphasizes practical aspects, including patent filing procedures, cross-border litigation, and compliance with international obligations, equipping students with the skills to navigate complex patent issues in both domestic and global contexts.

- **Unit 1: Indian Patents Act, 1970**

a) Key amendments (2005, 2020).

b) Section 3: Non-patentable inventions.

c) Section 84: Compulsory licensing provisions.

d) Case study: Impact of the 2005 amendment on pharma patents.

- **Unit 2: TRIPS Agreement**

a) Minimum standards for patent protection.

b) Transition periods for developing countries.

c) Doha Declaration: Public health flexibilities.

d) Debate: TRIPS vs. Indian patent law conflicts.

- **Unit 3: PCT (Patent Cooperation Treaty)**

a) Benefits of PCT filing.

b) Timeline: International phase vs. national phase.

c) Cost comparison: PCT vs. direct national filings.

d) Exercise: Calculating PCT filing costs for an Indian applicant.

- **Unit 4: National Phase Entry in India**

a) Deadline for entry (31 months from priority date).

b) Required documents and fees.

c) Examination process post-entry.

d) Case study: A PCT application rejected in India.

- **Unit 5: Case Study – Compulsory Licensing**

a) Bayer vs. Natco: Grounds for granting compulsory license.

b) Pricing and public interest considerations.

c) Global examples of compulsory licensing.

d) Role of the Controller of Patents in such cases.

Resources

1. "Patent Law and Practice in India" – Dr. Feroz Ali Khader
2. "The Law of Patents" – P. Narayanan

3. "Intellectual Property Rights: Infringement and Remedies" – Dr. B.L. Wadehra
4. "International Intellectual Property System: Commentary and Materials" – Frederick M. Abbott, Thomas Cottier, & Francis Gurry
5. "Patent Cooperation Treaty: Law and Practice" – WIPO Official Guide
6. "TRIPS Agreement: Drafting History and Analysis" – Daniel Gervais
7. "Patent Law in Global Perspective" – Ruth L. Okediji & Margo A. Bagley

Paper-6 (Value Added)

Patent Valuation & Commercialization

- **Unit 1: Basics of Patent Valuation**
  a) Cost approach: R&D expenses, filing costs.
  b) Market approach: Comparable patent transactions.
  c) Income approach: Revenue projections from licensing.
  d) Exercise: Valuing a patent using all three methods.
- **Unit 2: Licensing & Assignment Agreements**
  a) Key clauses: Royalty rates, territory, exclusivity.
  b) Negotiation strategies for licensors and licensees.
  c) Case study: A poorly drafted license leading to disputes.
  d) Drafting exercise: Creating a licensing agreement.
- **Unit 3: Technology Transfer & Start-ups**
  a) University-industry collaboration models.
  b) Start-up patent strategies: Filing vs. trade secrets.
  c) Government schemes (e.g., SIP-EIT by TDB).
  d) Guest lecture: A start-up founder sharing IP experiences.
- **Unit 4: Patent Pooling & Collaboration Models**
  a) Benefits of patent pools (e.g., reduced litigation).
  b) Examples: MPEG-LA, HEVC Advance.
  c) Anti-trust concerns in patent pooling.
  d) Debate: Are patent pools good for innovation?
- **Unit 5: Practical Exercise**
  a) Role-play: Negotiating a patent license between two companies.

b) Drafting a term sheet for a patent sale.

c) Case study: A failed commercialization attempt.

d) Group discussion: Lessons learned.

Semester II

Paper-1

Patent Litigation & Enforcement

Basic Objective of the Paper

The objective of this paper is to provide students with an in-depth understanding of the legal frameworks, strategies, and practical aspects involved in patent litigation and enforcement across domestic and international jurisdictions. The course examines key procedural rules, remedies, dispute resolution mechanisms, and case laws to equip students with the skills necessary to handle patent disputes effectively.

Expected Learning Outcome

Students will gain insights into litigation procedures before judicial forums and specialized IP tribunals, alternative dispute resolution methods, and comparative approaches in major jurisdictions like India, the US, and Europe. The course also addresses emerging issues in enforcement, such as cross-border litigation, standard-essential patents (SEPs), and anti-competitive practices. By the end of the course, students will be equipped with the analytical skills to assess litigation strategies, interpret judicial precedents, and navigate the complexities of patent enforcement in a globalized innovation economy.

- **Unit 1: Patent Infringement**
  a) Types: Direct, indirect, contributory infringement.
  b) Defenses: Experimental use, Bolar exemption, prior use.
  c) Burden of proof in infringement cases.
  d) Case study: Roche vs. Cipla (Erlotinib patent dispute).
- **Unit 2: Litigation Process in India**
  a) Jurisdiction: High Courts vs. District Courts.
  b) Steps: Filing, injunction, trial, appeal.
  c) Role of technical experts in litigation.

d) Timeline: Average duration of patent suits.

- **Unit 3: Injunctions & Damages**

a) Types of injunctions: Temporary, permanent.

b) Calculating damages: Lost profits, royalty rates.

c) Anton Piller orders (search and seizure).

d) Case study: Ericsson vs. Lava (standard-essential patents).

- **Unit 4: Case Studies**

a) Novartis vs. Union of India (Section 3(d) interpretation).

b) Merck vs. Glenmark (Sitagliptin injunction).

c) Delhi High Court's guidelines for patent suits.

d) Comparative analysis: US vs. India litigation trends.

- **Unit 5: Mock Trial**

a) Simulated patent infringement case (e.g., pharma/tech).

b) Role-playing: Judges, plaintiffs, defendants.

c) Drafting pleadings and arguments.

d) Feedback from practicing patent attorneys.

Resources

1. "Patent Litigation in India" – by Dr. Feroz Ali Khader
2. "Intellectual Property Rights: Infringement & Remedies" – by Dr. B.L. Wadehra
3. "The Law of Patents" – by P. Narayanan (Litigation Chapters)
4. "Patent Litigation: Global Perspectives" – edited by Ruth L. Okediji & Margo A. Bagley
5. "Patent Enforcement Worldwide" – by Christopher Heath (WIPO Publications)

6. "Terrell on the Law of Patents" – by Colin Birss et al. (UK Focus, for procedural insights)

7. "Indian Patent Law & Judgments" – by LexisNexis/Wolters Kluwer (Case Commentaries)

8. "Drafting Patent Litigation Documents" – by Indian Law Institute Publication

9. "A Guide to Patent Act & Rules" – by Manupatra (Bare Act with Commentary)

10. "IPR & Competition Law" – by T. Ramappa (Overlaps in Enforcement)

Paper-2

Biotechnology & Pharmaceutical Patents

Basic Objective of the Paper

The objective of this paper is to provide students with a specialized understanding of patent law as applied to biotechnology and pharmaceuticals, covering legal, ethical, and commercial aspects. The course examines patentability criteria for biotech inventions (e.g., genes, CRISPR, biologics), regulatory frameworks (e.g., FDA, EMA, and Indian Patent Act), and challenges like compulsory licensing, evergreening, and access-to-medicine conflicts. Students will analyze global treaties (TRIPS, Doha Declaration) and case studies to evaluate how patent systems balance innovation incentives with public health needs.

Expected Learning Outcome

Upon completing this course, students will gain specialized expertise in the complex intersection of patent law with biotechnology and pharmaceutical innovations. They will develop the ability to critically analyze patentability standards for biological inventions including gene therapies, vaccines, and agricultural biotech under Indian and international frameworks. Learners will be able to evaluate controversial issues like Section 3(d) of the Indian Patents Act, evergreening strategies, and compulsory licensing through case studies such as the Novartis-Gleevec litigation. The course will equip students to compare regulatory approaches for biologics and small molecule drugs across major jurisdictions while understanding public health implications of patent monopolies.

- **Unit 1: Patenting Biotech Inventions**

a) Challenges: Gene sequences, CRISPR, stem cells.

b) Ethical issues: Human cloning, GMOs.

c) Case study: Myriad Genetics (BRCA gene patent).

d) Drafting claims for biotech inventions.

- **Unit 2: Section 3(d) – Evergreening**
  a) Interpretation: "Enhanced efficacy" requirement.
  b) Strategies to overcome Section 3(d) rejections.
  c) Case study: Novartis' Glivec patent rejection.
  d) Comparative analysis: US vs. India standards.
- **Unit 3: Data Exclusivity & Regulatory Patents**
  a) Linkage between patents and drug approval.
  b) Data exclusivity vs. patent protection.
  c) Case study: EU's supplementary protection certificates (SPCs).
  d) Debate: Should India adopt data exclusivity?
- **Unit 4: Case Study – Doha Declaration**
  a) TRIPS flexibilities for public health.
  b) Compulsory licensing for HIV/AIDS drugs.
  c) India's role as "pharmacy of the world."
  d) Role-play: Government vs. Pharma company negotiation.
- **Unit 5: Drafting a Biotech Patent**
  a) Structure: Sequence listings, biological deposits.
  b) Claims: Product, process, method of use.
  c) Avoiding enablement issues.
  d) Peer review session.

Resources

1. "Biotechnology and Patent Law: An Indian Perspective" - N.S. Sreenivasulu (LexisNexis)
2. "Pharmaceutical Patents in India: Law and Practice" - Dr. Gopakumar G. Nair (Snow White Publications)
3. "Intellectual Property Rights in Biotechnology" - Dr. R. Saha (APH Publishing)
4. "Patent Law and Biological Inventions" - Dr. M.K. Bhandari (Central Law Publications)
5. "TRIPS, Patents and Public Health" - Sudip Chaudhuri (Oxford University Press)
6. "The Indian Patents Act: A Comprehensive Commentary" - Dr. Feroz Ali Khader (LexisNexis)
7. "Biotech IPR in India: Policy and Practice" - Dr. N. Rajagopalan (S. Chand Publications)
8. "Patent Protection for Pharmaceuticals in India" - Dr. Shammad Basheer (Eastern Book Company)
9. "Law Relating to Patents, Trademarks & Copyright" - Dr. B.L. Wadehra (Universal Law Publishing)
10. "Intellectual Property and Biotechnology" - Dr. V.K. Ahuja (LexisNexis)

Paper-3

Software & AI Patents

Basic Objective of the Paper

This course aims to provide students with a comprehensive understanding of the legal, technical, and strategic aspects of patenting software and artificial intelligence (AI) innovations. By exploring foundational patent law principles, students will learn how to assess the eligibility of software and AI-related inventions under major jurisdictional frameworks, including the U.S. (e.g., Alice Corp. v. CLS Bank) and the European Patent Office (EPO) guidelines. The course will examine key case laws, ethical considerations, and policy debates surrounding AI-generated inventions, helping students critically evaluate challenges such as patent thickets, open-source conflicts, and bias in AI patenting.

Expected Learning Outcome

Through practical exercises, students will develop skills in drafting patent claims and formulating protection strategies for machine learning models, algorithms, and data-driven technologies. By the end of the course, students will be able to analyze patent office decisions, debate the societal impact of AI patents, and navigate the complexities of intellectual property in AI and software development, preparing them for careers in patent law, tech policy, or AI innovation management.

- **Unit 1: Patentability of Software in India**

a) Section 3(k): "Computer programs per se" exclusion.

b) Workarounds: Hardware-software combinations.

c) Case study: Ferid Allani’s patent (blockchain + hardware).

d) Comparative analysis: US (Alice Corp) vs. India.

- **Unit 2: AI & Blockchain Patents**
  a) Drafting AI patents: Focus on technical effect.
  b) Blockchain: Patenting cryptographic methods.
  c) Case study: IBM's AI patent portfolio.
  d) Exercise: Drafting claims for an AI-based invention.
- **Unit 3: Open Source vs. Proprietary Software**
  a) GPL, Apache licenses: Patent clauses.
  b) Risks of incorporating open-source code.
  c) Case study: Oracle vs. Google (API copyright).
  d) Best practices for software companies.
- **Unit 4: Case Study – Microsoft vs. Indian Patent Office**
  a) Rejection of a software patent application.
  b) Arguments for/against software patents.
  c) Impact on India's IT industry.
  d) Group debate: "Should software be patentable?"
- **Unit 5: Drafting a Software Patent**
  a) Focus: Technical problem-solution approach.
  b) Flowcharts and algorithmic descriptions.
  c) Avoiding abstract idea rejections.
  d) Mock examination by patent office (simulated).

Resources

1. "Patent Law in India" – P. Narayanan
2. "Patent Law and Practice in India" – Feroz Ali Khader

3. "Indian Patent Law & Practice" – V.K. Ahuja
4. "Software Patents: A Legal Perspective" – Rodney D. Ryder
5. "Intellectual Property Rights in the Digital Age" – N.S. Sreenivasulu
6. "Artificial Intelligence and Intellectual Property" – Ryan Abbott
7. "The Future of Intellectual Property in the Age of AI" – Daniel J. Gervais (Ed.)
8. "Patent Law for Computer Scientists" – Daniel Closa et al.
9. "The AI Book" – Susanne Chishti et al
10. "WIPO Guide to AI and IP" – World Intellectual Property Organization
11. "Manual of Patent Office Practice and Procedure" – Indian Patent Office (Official Guidelines)
12. "Drafting Patents for Litigation and Licensing" – Morgan D. Rosenberg

Paper-4 (Value Added)

Patent Practice In India

Basic Objective of the Paper

The paper on Patent Practice in India aims to provide students with a comprehensive understanding of the Indian patent system, including its legal framework under the Patents Act, 1970, and associated rules. The course is designed to familiarize learners with the complete lifecycle of a patent in India, from filing and prosecution to grant and post-grant procedures. It examines critical aspects such as patentability criteria, examination processes, and the handling of office actions by the Indian Patent Office (IPO). Additionally, the paper explores various dispute resolution mechanisms, including pre-grant and post-grant oppositions, revocation proceedings, and infringement litigation, while also covering alternative dispute resolution methods like arbitration and mediation. Through the study of landmark judgments and case studies, students will gain insights into the practical application of patent law and evolving judicial trends in India.

Expected Learning Outcome

Upon completing this paper, students will be equipped to navigate the Indian patent system with proficiency. They will develop the ability to analyze patent applications, draft responses to office actions, and understand the nuances of patent opposition and revocation processes. Learners will also acquire skills in patent enforcement strategies and dispute resolution, enabling them to evaluate and address patent conflicts effectively. The course will further enhance their ability to interpret significant court rulings and apply legal principles to real-world scenarios, preparing them for careers in IP law, patent prosecution, and corporate IP management. By combining theoretical knowledge with practical skills, the paper ensures that students are well-prepared to handle the complexities of patent practice in the Indian context.

Unit 1: Introduction to Patents and Indian Patent System

a. Overview of Intellectual Property Rights (IPR)
b. Definition of a patent
c. Criteria for patentability
d. Non-patentable inventions
e. Indian Patent Office & Administration

Unit 2: Patent Filing and Prosecution in India

a. Patent Application Process
b. Examination & Grant Process
c. Timelines & Fees

Unit 3: Patent Drafting and Specification Writing

a. Drafting Patent Specifications
b. Claims Drafting Strategies
c. Case Studies & Practical Exercises

Unit 4: Patent Enforcement, Licensing, and Commercialization

a. Patent Infringement & Remedies
b. Patent Licensing & Assignment
c. Patent Valuation & Due Diligence

Unit 5: Patent Litigation and Recent Developments

a. Patent Litigation in India
b. Recent Trends & Amendments
c. International Patent Protection

Resources

1. *The Law of Patents in India* - P. Narayanan
2. *Patent Law and Practice in India* - Feroz Ali Khader
3. *Intellectual Property Rights in India* - V.K. Ahuja
4. *Manual of Patent Office Practice and Procedure* - Indian Patent Office
5. *Drafting Patent Specifications in India* - M.V. Kini
6. *Patent Litigation in India* - Safir Anand
7. *Intellectual Property Rights: Infringement & Remedies* - B.L. Wadehra

8. *Patent Practice in India and Europe* - Kalyan Kankanala
9. *WIPO Intellectual Property Handbook* - WIPO
10. *Landmark Judgments in IP Law* - M.K. Bhandari
11. *IPR & Competition Law* - T. Ramappa

Paper-5

Dissertation

- Allotment of the dissertation will be done by a committee comprising of the Head of the Department, one Professor and one Associate Professor of the Department by rotation according to seniority. The Proposal for dissertation shall be submitted by candidate to head of department.
- Candidate shall be required to submit the Dissertation at least two weeks before the commencement of Fourth Semester Examination. Prior of submission of dissertation the students shall make a pre submission seminar in department of law, MJPRU. Seminar shall be opened to all faculty members, research scholar and other LL.M. students of the faculty.
- The candidate shall be required to secure at least 50% marks in the Dissertation to pass the Examination.
- The maximum number of students enrolled for dissertation under one teacher will be as follows-
  Assistant Professor – 05
  Associate Professor–08
  Professor – 10
- Full time teacher of the department is authorized for dissertation guidance. If there is non-availability of full-time teachers in the department concern, rest of all student will be supervised by HOD/ principal and Dean accordingly.

Paper-6

Viva-Voce

- The Viva Voce Examination shall be conducted by a Board of Examiners.
- The Board shall consist of three members; One member shall be a Professor/Associate Professor as external member of any other university or college. The head of the department (H.O.D.) shall be a member of the board and one Professor/Associate professor of the department as internal examiner. The internal examiner shall be appointed for every year by rotation.
- The Viva-Voce Examination shall carry 100 marks. The external examiner shall evaluate the candidate out of 70 maximum marks and two examiners shall evaluate out of 15 maximum marks each.
- Candidate shall be required to secure at least 50% marks in the Viva-voce to pass the Examination.