



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## AERONAUTICAL ENGINEERING

### COURSE DESCRIPTION FORM

<b>Course Title</b>	<b>INTELLECTUAL PROPERTY RIGHTS</b>			
<b>Course Code</b>	<b>A50017</b>			
<b>Regulation</b>	<b>R15- JNTUH</b>			
<b>Course Structure</b>	Lectures	Tutorials	Practical	Credits
	4	-	-	4
<b>Course Coordinator</b>	Ms. D. Anitha, Assistant Professor, Department of Aeronautical Engineering.			
<b>Team of Instructors</b>	Ms. P. Hanuma, Assistant Professor, Department of Aeronautical Engineering. Ms. D. Anitha, Assistant Professor, Department of Aeronautical Engineering.			

#### I. COURSE OVERVIEW:

This course introduces the importance of intellectual property and the protection of creation or innovation or ideas which are to be used to make a product or service or design layout or process which is economical called patents, utilities etc. The course emphasizes on intellectual property protection and its importance of estimating the intelligence of an individual correlates with financial advantages. It also deals with fundamentals of laws to protect and encourage the inventions and creations. The main objective of this course is to examine the laws and the procedures to protect the intellectual property rights of an intellectual or expert and make it like another property which is non tangible.

#### II. PREREQUISITE(S):

Level	Credits	Periods/ Week	Prerequisites
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#### III. MARKS DISTRIBUTION:

Sessional Marks	University End Exam marks	Total marks
<b>Midterm Test</b> There shall be two midterm examinations. Each midterm examination consists of essay paper, objective paper and assignment. The essay paper is for 10 marks of 60 minutes duration and shall contain 4 questions. The student has to answer 2 questions, each carrying 5 marks. The objective paper is for 10 marks of 20 minutes duration. It consists of 10 multiple choice and 10 fill-in-the blank questions, the student has to answer all the questions and each carries half mark. First midterm examination shall be conducted for the first two and half units of syllabus and second midterm examination shall be conducted for the remaining portion. Five marks are earmarked for assignments. There shall be two assignments in	75	100

every theory course. Assignments are usually issued at the time of commencement of the semester. These are of problem solving in nature with critical thinking. Marks shall be awarded considering the average of two midterm tests in each course.		
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#### IV. EVALUATION SCHEME:

S. No	Component	Duration	Marks
1.	I Mid Examination	80 minutes	20
2.	I Assignment	-	5
3.	II Mid Examination	80 minutes	20
4.	II Assignment	-	5
5.	External Examination	3 hours	75

#### V. COURSE OBJECTIVES:

**At the end of the course, the students will be able to:**

- I. Build knowledge and also importance in fundamental of Intellectual Property (IP), International organizations, associations and different treaties.
- II. Familiarize with the rights of owners.
- III. Understand with the procedures of evaluation, registration, protection and acquisition of trademarks.
- IV. Educate student about the new developments in the law of intellectual property rights.
- V. Create awareness in audit programs and audit.

#### VI. COURSE OUTCOMES:

**After completing this course the student must demonstrate the knowledge and ability to:**

1. Understand the importance, federal registration and types of intellectual property rights.
2. Understand and explain about different international organization and their duties.
3. Analyze the function(s) of international organization and agencies.
4. Identify the purpose in category of marks under which the trademark registration is made internationally.
5. Explain the trademark evaluation and registration process.
6. Describe the fundamentals of copyright law.
7. Explain the originality of material and rights of reproduction.
8. Illustrate international copyright law with respect to ownership and registration of copyright.
9. Identify searching process and transfer of ownership in patents.
10. Understand the trade secrets determination, misappropriation, protection for submission and litigation.
11. Explain the new international developments in trademarks law, copyright law and patent law.
12. Analyze the functions of intellectual property audits.
13. Learn the significant role played by the IP audits and decision making
14. Understand the importance of the IP audits and its duties.
15. Analyze the programs conduct by audit cell.

#### VII. HOW PROGRAM OUTCOMES ARE ASSESSED:

Program		Level	Proficiency assessed by
PO1	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	--	--
PO2	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.	--	--
PO3	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	--	--
PO4	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.	H	Lectures, Assignments, Exams
PO5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.	--	--
PO6	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.	S	Lectures, Assignments,
PO7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	S	Lectures, Assignments,
PO8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	H	Lectures
PO9	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	--	--
PO10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	--	--
PO11	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	--	--
PO12	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	H	Lectures, Assignments,

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## VIII. HOW PROGRAM SPECIFIC OUTCOMES ARE ASSESSED:

Program Specific Outcomes		Level	Proficiency assessed by
PSO1	<b>Professional skills:</b> Able to utilize the knowledge of aeronautical/aerospace engineering in innovative, dynamic and challenging environment for design and development of new products	--	--
PSO2	<b>Problem-solving Skills:</b> Imparted through simulation language skills and general purpose CAE packages to solve practical, design and analysis problems of components to complete the challenge of airworthiness for flight vehicles.	--	--
PSO3	<b>Practical implementation and testing skills:</b> Providing different types of in house and training and industry practice to fabricate and test and develop the products with more innovative technologies	H	Guest Lectures
PSO 4	<b>Successful career and entrepreneurship:</b> To prepare the students with broad aerospace knowledge to design and develop systems and subsystems of aerospace and allied systems and become technocrats.	--	--

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## IX. SYLLABUS:

### UNIT-I

#### **Introduction to Intellectual Property:**

Introduction, Types of Intellectual Property (IP), International Organizations, Agencies and treaties, Importance of Intellectual Property Rights.

### UNIT-II

#### **Trademarks:**

Purpose and Function of Trademarks, Acquisition of Trademarks Rights, Protectable Matter, Selecting and Evaluating Trademark, Trademark Registration Processes.

### UNIT-III

#### **Law of Copyrights:**

Fundamentals of Copyrights Law, Originality of Material, Rights to Reproduction, Rights to Perform the Work . Publicly, Copyright Ownership issues, Copyright Registration, Notice of Copyright, International Copyright Law.

#### **Law of Patents:**

Foundation of Patent Law, Patent searching Process, Ownership Rights and transfer.

### UNIT-IV

#### **Trade secrets:**

Trade Secrets Law, Determination of trade Secrets Status, Liability for misappropriations of Trade Secrets, Protection for submission, Trade Secrets Litigation

**Unfair competition:** Misappropriation of Right of Publicly, False Advertising.

## UNIT-V

### NEW DEVELOPMENTS OF INTELLECTUAL PROPERTY:

New Developments in Trade Law, Copyright Law, Patent Law, Intellectual Property Audits  
International overview of Intellectual Property, International-Trademark Law, Copyright Law, International Patent Law, International Development in Trade Secrets Law.

#### Text Books:

1. Deborah.E.Bouchoux, "Intellectual Property Right", Cengage Learning, 11<sup>th</sup> Edition, 2005.
2. Prabuddha Ganguli, "Intellectual Property Right", Unleashing the knowledge economy", Tata McGraw Hill Publishing Company Ltd, 5<sup>th</sup> Edition, 2006.

## X. COURSE PLAN:

At the end of the course, the students are able to achieve the following course learning outcomes:

Lecture No.	Topics to be covered	Course Learning Outcomes	Reference
1	Introduction of Intellectual Property (IP)	Analyze the different types of Intellectual Property	T1:1.1,1:1.2
2	Types of IP , International Organizations	Describe the different organizations and association.	T1:1.4
3	Agencies and Treaties, Importance of Intellectual Property Rights	List of Agencies and treaties related to Intellectual Property and its significance	T1:1.4, 1:1:5
4-8	Purpose and function of Trademarks	Understand the purpose and function of trademarks.	T1:2.2
9	Acquisition of Trademarks Rights and Protectable Matter	Enumerate the acquisition of trademark rights and protectable matter	T1:2.4, 2.9
10-19	Selecting and Evaluating Trade Mark and Trademark Registration Processes	Discuss the evaluation of trademark, selection and its registration process	T1:3.1, 1:4.5
20-21	Fundamentals of Copyright Law	Understand fundamentals of Copyright Law	T1:10.2
22-24	Originality of material and rights of Reproduction	Understand Originality of material and rights of reproduction	T1:11.2
25 - 27	Trade Secrets Law, Determination of Trade Secrets status	Describe Trade Secret Law and determine trade secret status	T1:2.1, T1:2.3, T1:22.2
28-30	Liability for misappropriations of Trade Secrets	Analyze liability for misappropriation of trade secrets	T1:22.2
31-34	Protection for submission, trade secrets Litigation	Identify trade secrets litigation	T1:22.5, 1:22.8
35-36	Unfair Competition: Misappropriation of right of publicly	Describe misappropriation right of publicity	T1:23
37-40	False advertising	Identify the False advertising.	T1:23.3
41-43	New developments in Trade Law	Describe new developments in Trade Law	T1:7
44-46	New developments in Copyright Law	Explain new developments in Copyright law	T1:8
47-49	New developments in Patent Law	Describe new developments in patent law	T1:15.7

50-54	Intellectual Property Audits and International Overview of IP	Understand IP audits and international trademark law	T1:16, 1:21.1,2
55-58	International Trademark Law, Copy right Law, patent Law and Trade Secrets Law	Discuss the International Trademark Law, copyright law, Patent Law and Trade Secrets Law	T1:21.1, 1:24.2, 1:24.2 & 1:24.2

**XI. MAPPING COURSE OBJECTIVES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:**

Course Objectives	Program Outcomes												Program Specific Outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
I	--	--	--	S	--	--	S	--	--	--	--		--	--	--	--
II	--	--	--	--	--	--	--	H	--	--	--	--	--	--	--	--
III	--	--	--	--	--	--	--	--	--	--	--	S	--	--	--	--
IV	--	--		--	--	S	--	--	--	--	--	H	--	--	S	--
V	--	--	--	--	--	--	--	S	--	--	--	--	--	--	--	--

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**XII. MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:**

Course Outcomes	Program Outcomes												Program Specific Outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
1	--	--	--	S	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	S	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	H	--	--	--	--
4	--	--	--	H	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	S	--	--	--	--	--	--	--	--	--	--	--	--
6	--	--	--	--	--	S	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	S	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	S	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	S	--	--	H	--
10	--	--	--	--	--	--	--	S	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	H	--	--	--	--
12	--	--	--	S	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	H	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	S	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	H	--	--	--	--	--	--	--	--	--	--	--	--

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