

**JAYPEE UNIVERSITY
OF
INFORMATION
TECHNOLOGY,
WAKNAGHAT, SOLAN**

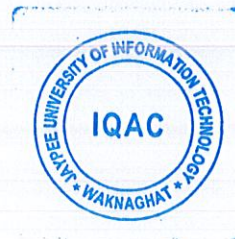
1.3.1

**(Courses which address Gender, Environment and
Sustainability, Human Values and Professional Ethics)**

Year 2018-19



Assistant Registrar (Academics)
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1.3.1 Courses which address Gender, Environment and Sustainability, Human Values and Professional Ethics

Year 2 - 2018-19

Course Code	Course Name	
17P1WGE102	Ethics, IPR related issues and Plagiarism	Ph.D for all streams
18B1WHS636	Understanding India: Literary Reflections	Elective for 8th Sem
18B1WBT732	IPR and commercialization	Elective for 4th yr
14B1WBT731	Bioenergy and Biofuels	Elective for 4th Year
17B1WHS732	Human rights for Technocrats	Elective for 4th Year



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Ethics Plagiarism & IPR Issues

COURSE CODE : 17P1WGE102

COURSE COORDINATOR : Dr HEMANT SOOD

COURSE CREDITS: 3

Pre-requisite: None

Objective:

To provide an insight to the Ph D students on different aspects of protection of inventions and research developments, academic, research and publication ethics .

Course Assessment:

Test -1	15
Test -2	25
Test -3	35
Teacher Assessment (Based on Assignments, ppt and quizzes etc .) Attendance	25
Total	100

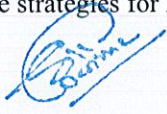
Course Outcomes:

CO1. To enable students with basic concepts of philosophy of science,ethics and intellectual property rights for protecting innovations in different sciences.

CO2. Able to learn the mechanisms of publications and IP protections and registrations under different classifications.

CO3. Able to tackle problems in research misconduct and intervene ethics and inventiveness for the benefit generation and mass utilization

CO4. To enable them for developing the strategies for handling issues related to IP, Ethics and plagiarism



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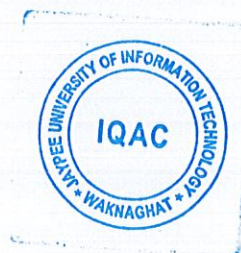


CO5. Able to learn effective research integrity and useful publication for generating future perspectives

CO6. Able to learn different modes of tackling plagiarism and developing academic integrity

Topics	Lecture hrs.
Introduction to philosophy and its nature with scopes in different branches	1
Different types of IPR (Patents, copyrights, Trademark, Trade secret, ICL, GI, TK and PBR)	2
Rationale of different IPR, their mechanism of protection and provisions in Law	1
Ethics used in science and research and tools to follow it with case studies Scientific misconduct: Falsification, Fabrication and Plagiarism	2
Plagiarism and misuse of Privileged Information Data analysis include Integrity of Data, use and Misuse of Data, Ownership of and Access to Data and Storage and Retention of Data	3
Responsibilities to Funding Agencies	2
Responsibilities of a Research Investigator	1
Ethics : Moral philosophy and nature of moral judgement w. r. t. Special Obligations in Human Subject Research and Laboratory Animals or any other technology with safety concern	3
Authorship and Other Publication Issues includes violations 1. Criteria for Authorship 2. Order of Authors 3. Self-citations 4. Conflict of interest 5. Duplicate Publication 6. Accessibility of Publications 7. Predatory publishers and journals	3


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Practice:

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher
3. Software tools by SPPU
4. Journal finder/journal suggestion tools viz JANE,Elsevier,Springer etc
5. Plagiarism software tools Turnitin and other open resources
6. Databases :citation databases (SCI,Web of science ,Scopus etc.) and Indexing databases
7. Impact factors and Metrics: h-index g index, i 10 index etc.

Assignments:

Each student should submit assignment in the form of hard copy on case studies linked with research of their respective areas like civil engineering, ECE, computer, biotechnology etc

Books:

1. Ethics in Research by Ian Gregory
2. IPR- A primer by R. Anita Rao and Bhanoji Rao
3. Intellectual Property Rights & Copyright By Bouchoux



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Understanding India: Literary Reflections

COURSE CODE: 18B1WHS636

COURSE CREDITS: 3

L-T-P: 3-0-0

Course Goals:

This Elective Course aims to explore the cultural diversity of India, creatively interpreting the differences between various states in India. It will throw light on the manner in which language, metaphors, tradition and culture contribute to the impact of a work. It will help promote ways of deeper understanding and acceptance between Indians for each other's apparent contradictions. The students are sensitized to the survival strategies of the marginalized people who are overlooked in society, enabling them to be more empathic to the less empowered and look for similarity and dissimilarity of themes and concerns in Dalit and mainstream literature


Course Objectives:

1. To understand migration.
2. To recognize the impact of displacement on individuals.
3. To explore social, economic, cultural and geographical contexts and its relevance for a holistic living.
4. To look for roots and connections in literature with focus on environment and peace in society.
5. To access the impact of gender on migration.
6. To define identity and what it means in the modern context.

Detailed Syllabi


Lecture-wise Breakup

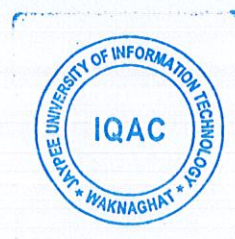
Module No.	Subtitle of the Module	Topics	No. of Lectures
1.	Modern Literature	Cross-cultural reflections in Vinay Rai's "A Rainbow of Contradictions" from Think India	3


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2.	From other Margins (Regional environment/ecology, traditions, folklores)	Mamang Dai's "Sorrow of Women" and "An Obscure Place" Sanjoy Hazarika's "There are No Shangri-Las Left"	8
3.	Indian Culture, tradition and societal norms	Rajiv Malhotra's "Indian Comfort with Chaos" and "Western Joker and Indian Clown" from Being Different: An Indian Challenge to Western Universalism	8
4.	Views on Education, Indian ethos, identity and rural development	S. Radhakrishnan's "The Adaptive Culture" and "Of One Mind" from The Adaptive Indian: Identity and Ethos	4
5.	Partition Literature: Migration and Identity	Jhumpa Lahiri's "The Triangle", "The Second Exile" and "The Wall" from In Other Words Ismat Chughtai's Roots	8
6.	Dalit Literature: Human Rights in India against caste system	Introduction to Dalit Movement The Bhakti Radicals and Untouchability by Gail Omvedt from Speaking Truth to Power: Religion, Caste and the Subaltern Question in India	3
Total number of Lectures			34


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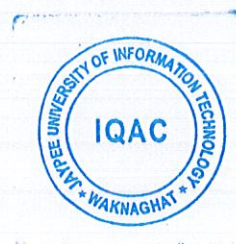


Methodology and Evaluation Scheme		
The lecture will focus the basic concepts and tutorials will focus real problems and case-studies.		
S.No.	Component	Exam marks
1.	Test – 1 (1 Hr)	15
2.	Test – 2 (1 Hr 30 mins)	25
3.	Test – 3 (2 Hrs)	35
4.	<u>Internal assessment</u>	25
	Assignments	6
	Group Discussions	6
	Presentation	8
	Class assessment	5

Recommended Reading (Books/Journals/Reports/Websites etc.: Author(s), Title, Edition, Publisher, Year of Publication etc. in IEEE format)	
1.	Malhotra, Rajiv. Being Different: An Indian Challenge to Western Universalism. Harper Collins: Noida, 2013
2.	Radhakrishnan, S. The Adaptive Indian: Identity and Ethos. Orient Paperbacks: New Delhi, 2013
3.	Lahiri, Jhumpa. In Other Words. Penguin: New Delhi, 2017
4.	Bhagavan, Manu and Anne Feldhaus. Eds. Speaking Truth to Power: Religion, Caste and the Subaltern Question in India. OUP: New Delhi, 2008
5.	Asaduddin, M. Ismat Chughtai: Lifting the Veil. Modern Classics. Penguin: New Delhi, 2009



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Intellectual Property Rights and Commercialization

COURSE CODE: 18B1WBT732

COURSE CREDITS: 3

CORE/ELECTIVE: ELECTIVE

L-T-P: 3-0-0


Pre-requisite: None

Course Objectives:

1. To provide an insight and understanding about different aspects of protection of inventions and research developments
2. Learn about procedures for filling protection through Intellectual Property Rights.
3. To provide scopes of protection of diverse intellectual properties and its commercialization for socio-economic improvement.

Course Outcomes:

S.No.	Course Outcomes	Level of Attainment
CO-1	To enable students with basic concepts and knowledge of intellectual property rights.	Awareness
CO-2	To apply and execute different types of IP protection in research and academics.	Assessment and technical skills
CO-3	Able to understand about the mechanisms of different IP protections, registrations and applications	Technical
CO-4	To be capable of tackling issues related to IP and its commercialization	Assessment
CO-5	Able to learn the strategies for effective IP management and commercialization	Analytical skills


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CO-6	To apply the knowledge of IPR for the benefit generation and for mass utilization	Usage
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Course Contents:

Unit	Contents	Lectures required
1	Introduction: Introduction of Intellectual properties and rights conferred . Integration of Intellectual Property, Bioethics and Biosafety for biological and applied sciences in research and academia.	4
2	Types of IP tools: Different types of IPR(Patents, copyrights and related rights, Trademark, Tradeseecret, Integrated circuit layout, Geographical indications, Traditional knowledge, Industrial designs and PBR) Drafting Patent Application and Documentation Revocation of Patent, Litigation and Infringement Rationale of different IPR ,their mechanism of protection and provisions in Law	10
3	International Agreements and Treaties: International IP treaties (Madrid Agreement, Trademark law treaty, Patent Law treaty etc.) WIPO, EPC, WTO, and TRIPS. International agreements relevant to biotechnology-associated IP	8
4	Commercialization: Methods of commercialization, Impact of commercialization. Financing	6
5	IP Management for value addition: Strategies for IP Management and commercialization. IP audit, IP insurance Bioentreprenuership management	4



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6	Licensing/Assignment :Types of licensing and modes to carry out, Assignments and its benefits, Compulsory Licensing Commercialization for social and economic prosperity with case studies	8
Total lectures		40

Methodology:

The course will be covered through lectures, presentations and vedios. Apart from discussions on topics covered through lectures and assignments, students have to carry out research paper analysis.

Suggested Text Book(s):

Intellectual Property Rights & Copyright By Bouchoux.
Intellectual Property Licensing Strategies by Thompson Reuters

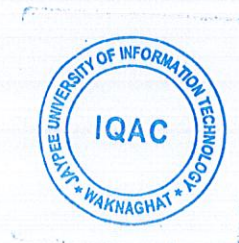
Suggested Reference Book(s):

1. Intellectual Property Rights, the WTO and Developing Countries: The TRIPS ...Book by Carlos María Correa
2. Perspectives on Commercializing Innovationby F. Scott Kieff (Editor), Troy A. Paredes (Editor)

Evaluation Scheme:

S. No	Exam	Marks	Duration	Coverage / Scope of Examination
1	T-1	15	1 Hour.	Syllabus covered upto T-1
2	T-2	25	1.5 Hours	Syllabus covered upto T-2
3.	T-3	35	2 Hours	Entire Syllabus

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4.	Teaching Assessment	25	Entire Semester	Assignment, Quizzes & Attendance
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Course Outcomes (COs) contribution to the Programme Outcomes(POs)

Course outcomes (Parallel and Distributed Algorithms)	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	Average
CO-1	2	2	2	2	2	1	1	1	1	1	2	2	15
CO-2	2	2	1	2	2	2	1	1	1	1	1	2	1.5
CO-3	2	2	2	2	3	1	1	1	2	2	1	2	1.7
CO-4	2	2	3	3	2	1	1	1	2	2	2	2	1.9
CO-5	2	2	2	2	2	1	2	1	1	2	1	2	1.6
CO-6	2	2	2	2	2	2	1	1	2	2	2	2	1.8
Average	3.4	3.4	2	2.1	2.1	1.3	1.1	1	1.5	1.6	1.5	2	



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Bioenergy and Biofuels

COURSE CODE: 14B1WBT731

COURSE CREDITS: 3

CORE/ELECTIVE: ELECTIVE

L-T-P: 3-0-0

Pre-requisite:

Microbiology, Bioprocess Engineering, Downstream Processing, Bioresource Technology


Course Objectives:

The shortage of fossil fuels and its environmental consequences, Bioenergy and Biofuel technology seems to be an alternative for generation of energy and fuels. This sector is facing various technical, process and social problems for implementation. Based on these aspects the objectives of the course are framed as

1. Introduction of existing and possible Bioenergy and Biofuels technologies
2. Discussion of technical, process and economic issues related to first, second and third generation biofuels along with Physico chemical techniques

Course Outcomes:

S.No.	Course Outcomes	Level of Attainment
CO-1	Advantages and disadvantages of Bioenergy and Biofuels over fossil fuels	Familiarity
CO-2	Technical barriers in Bioenergy and Biofuel Technology	Assessment
CO-3	Whole biorefinery approaches for economical implementation into the market	Usage
CO-4	Conversion technologies of waste to Biofuels, Bioproducts, and Bioenergy	Usage
CO-5	Conversion of waste and Mixed feedstock to Biofuels, Bioenergy and Bioproducts	Usage


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Course Contents:

Unit	Contents	Lectures required
1	Introduction to Biofuels and Bioenergy: Definition, Global Energy Outlook, Sustainability, Biomass Feedstocks, Processes and Technologies, Environment and Ecology	4
2	Crop Oils, Biodiesel, and Algae Fuels: Vegetable Oils, Algae Oil Extraction of Straight Vegetable Oil, Manufacture of Biodiesel	12
3	Ethanol from Corn and Lignocellulosics: Fuel Ethanol from Corn, Corn Ethanol as Oxygenated Fuel, Chemistry of Ethanol Fermentation, Corn-toEthanol Process Technology, By-Products/Coproducts of Corn Ethanol, Ethanol as Oxygenated and Renewable Fuel, Ethanol Vehicles, Lignocellulose and Its Utilization, Lignocellulose Conversion, Agricultural Lignocellulosic Feedstock, Cellulosic Ethanol Technology; Energy Balance for Ethanol Production from Biomass, Process Economics and Strategic Direction.	12
4	Fast Pyrolysis and Gasification of Biomass: Biomass and Its Utilization, Analysis and Composition of Biomass, Chemistry of Biomass Gasification, Fast Pyrolysis of Biomass, Biomass Gasification Processes, Utilization of Biomass Synthesis Gas	7
5	Conversion of Waste to Biofuels, Bioproducts, and Bioenergy & Mixed Feedstock: Types of Waste and Their Distributions, Strategies for Waste Management, Waste Preparation and Pretreatment for Conversion, Technologies for Conversion of Waste to Energy and Products, Economic and Environmental Issues Related to Waste Conversion, Future of the Waste Industry, Advantages and Disadvantages of Mixed Feedstock, Transportation, Storage, and Pretreatment, Gasification Technologies, Liquefaction Technologies, Future of Mixed Feedstock.	7
Total Lectures		42



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Suggested Text Book(s):

1. Biofuels and Bioenergy: Processes and Technologies by Sunggyu Lee and Y. T. Shah, CRC Press
2. Bioenergy and Biofuel from Biowastes and Biomass by Samir K. Khanal, Rao Y. Surampalli, Tian C. Zhang, Buddhi P. Lamsal, R. D. Tyagi and C.M. Kao, ASCE Publishers.

Suggested Reference Book(s):

1. Review and research articles from Science Direct, Springer, Wiley and PubMed Publishers.

EvaluationScheme:

S. No	Exam	Marks	Duration	Coverage / Scope of Examination
1	T-1	15	1 Hour.	Syllabus covered upto T-1
2	T-2	25	1.5 Hours	Syllabus covered upto T-2
3.	T-3	35	2 Hours	Entire Syllabus
4.	Teaching Assessment	25	Entire Semester	Assignment, Quizzes&Attendance



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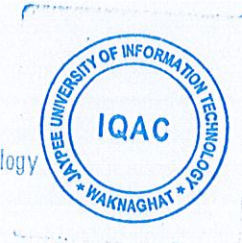


Course Outcomes (COs) contribution to the Programme Outcomes (POs)

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	Average
CO1	3	3	3	3	1	3	1	2	1	2	1	3	2.17
CO2	3	3	3	3	2	2	1	2	1	2	-	3	2.27
CO3	3	3	3	3	2	2	1	2	1	2	-	3	2.27
CO4	3	3	3	3	1	2	2	3	2	2	2	3	2.42
CO5	3	3	3	3	1	2	3	3	3	2	2	3	2.58
Average	3.00	3.00	3.00	3.00	1.40	2.20	1.60	2.40	1.60	2.00	1.00	3.00	



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Human Rights For Technocrats

COURSE CODE: 17B1WHS732

COURSE CREDITS: 3

CORE/ELECTIVE: ELECTIVE

L-T-P: 3-0-0

Pre-requisite: None

Course Objectives:

1. Develop an understanding of what human rights are and to understand the origins of modern human rights
2. Appreciate the meaning and significance of the Universal Declaration of Human Rights and other human rights instruments
3. Appreciate the relationship between rights and responsibilities
4. Understand the forms human rights can take, legally and morally
5. Analyze the relationship of human rights to daily life and apply the concepts of human rights to their own lives.

Course Outcomes:

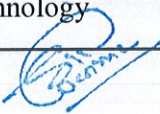
S.No.	Course Outcomes	Level of Attainment
CO-1	Develop an understanding of what human rights are and to understand the origins of modern human rights	Familiarity
CO-2	Appreciate the meaning and significance of the Universal Declaration of Human Rights and other human rights instruments	Usage
CO-3	Appreciate the relationship between rights and responsibilities	Familiarity
CO-4	Understand the forms human rights can take, legally and morally	Familiarity
CO-5	Analyze the relationship of human rights to daily life and apply the concepts of human rights to their own lives.	Usage

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Course Contents:

Unit	Contents	Lectures required
1	Conceptual background of human rights and duties: Definitions and classifications	2
2	Meaning and Significance of Human Rights : Scope of the Human Rights	2
3	Relationship between Rights and Duties: Constitutional provisions, Fundamental rights, Directive Principles of state policy, Duties of individuals and Fundamental duties	4
4	Universal Declaration of Human Rights: Technical background : Creation and drafting, Adoption, Significance of the UDHR, And its legal effect	5
5	History of human rights civilization: Brief history of human Rights, The Spread of Human Rights, Middle Ages, Modern human rights	5
6	Human rights movements : Anti-colonialism, World War II and the United Nations, Global human rights struggles, Changes in the 1970s Since the 1990s	8
7	Enforcement and protection mechanism of human rights in India: Judiciary, National Human Rights Commission and other Commissions and Committees ,Non-governmental organizations, Information Media, Education	5
8	Development, international trade and human rights: Right to development: Issues of international equity and justice, equitable access to benefits of science and technology, Freedom of international trade, most- favoured nation treatment (equality of treatment) versus special treatment of the developing countries, access to international markets, equitable pricing of raw material	5
9	Human rights, science and technology: Overview,violation of human rights by technology	3


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10	Human rights of the working class: Labour welfare legislation in India, Problems of bonded labour, exploitation of child labour, female labour and unorganized labour	
Total lectures		42

Suggested Text Book(s):

1. Internet and human rights Griffin, J. (2008) On Human Rights. Oxford: Oxford University Press.
2. Miller, D. (2007) National Responsibility and Global Justice. Oxford: Oxford University Press Suggested Reference Book(s):

Other useful resource(s):

1. https://www.google.com/search?q=Meaning+and+Significance+of+Human+Rights&rlz=1C1GCEU_enBIN820IN820&oq=Meaning+and+Significance+of+Human+Rights&aqs=chrome..69i57j0l5.1710j0j7&sourceid=c_hrome&ie=UTF-8
2. <https://www.equalityhumanrights.com/en/human-rights/what-are-human-rights>

Evaluation Scheme:

S. No	Exam	Marks	Duration	Coverage / Scope of Examination
1.	T-1	15	1 Hour.	Syllabus covered upto T-1
2.	T-2	25	1.5 Hours	Syllabus covered upto T-2
3.	T-3	35	2 Hours	Entire Syllabus
4.	Teaching Assessment	25	Entire Semester	Assignment (5) - 10 Presentation (1)- 10 Attendance - 5


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Course Outcomes (COs) contribution to the Programme Outcomes(POs)

Course outcomes (Human Rights for Technocrats)	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	Average
CO-1	0	0	3	0	0	3	3	3	3	3	0	3	1.75
CO-2	0	3	0	3	0	3	3	3	3	3	0	3	2
CO-3	0	0	0	3	0	3	3	3	3	3	0	3	1.75
CO-4	0	0	0	0	0	3	3	3	3	3	0	3	1.5
CO-5	0	3	0	0	0	3	3	3	3	3	0	3	1.75
Average	0	1.2	0.6	1.2	0	3	3	3	3	3	0	3	


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