

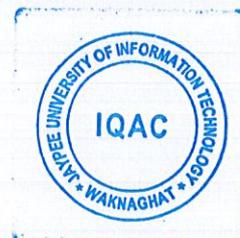
**JAYPEE UNIVERSITY  
OF  
INFORMATION  
TECHNOLOGY,  
WAKNAGHAT, SOLAN**

**1.3.1**

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

**Year 2017-18**

  
Assistant Registrar (Academics)  
Jaypee University of Information Technology  
Waknaghat, Distt. Solan (H.P.)



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

**Year 1 - 2017-18**

<b>Course Code</b>	<b>Course Name</b>	
17P1WGE102	Ethics, IPR related issues and Plagiarism	Ph.D for all streams
14B1WBT731	Bioenergy and Biofuels	Elective for 4th Year
10B11PD511	Social And legal issues	Core Course 3rd 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

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**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, coyrights, Trademark, Tradeseecret, 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 interst 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:**

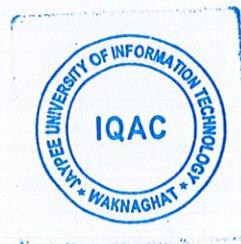
Each student should submit assignment in the form of hard copy on case studies linked with research of their respective areas like civil engineering, ECE, computer, biotechnology etc

**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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## Bioenergy and Biofuels

COURSE CODE: 14B1WBT731

COURSE CREDITS: 3

CORE/ELECTIVE: ELECTIVE

L-T-P: 3-0-0

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### 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):**

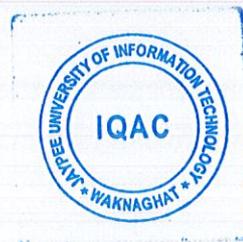
1. Review and research articles from Science Direct, Springer, Wiley and PubMed Publishers.

**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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## SOCIAL AND LEGAL ISSUES

COURSE CODE: 10B11PD511

COURSE CREDITS: 3

L-T-P: 3-0-0

### Course Goals:

To provide a perspective of various social issues and challenges faced by Indian society. To develop awareness of basic laws related to individual and organizational set up so that students are acquainted with their rights and duties in society and in working environment.

### Course Objectives:

After the completion of the course, the students will be able to:

1. Understand the basic issues and challenges that Indian society is facing today
2. Analyze the impact of technology on individuals, groups and societies.
3. Define business in ethical context and identify challenges in ethical decision making.
4. Know corporate social responsibility in Indian context and will be able to discuss the issues arising there from.
5. Understand the basics of important laws such as factory act, Consumer protection act, IT act, RTI act.
6. Use this basic knowledge in analyzing problems and issues related to individual and working environments.

### Detailed Syllabi

#### Lecture-wise Breakup

Module No.	Subtitle of the Module	Topics	No. of Lectures
1.	Three Major social concerns: 1.Challenges faced by the	Introduction to Indian social set up and problems faced by Indian society.	5+2

  
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	<p>education sector in India.</p> <p>2.Crime in India.</p> <p>3.Economic Development in India.</p>	<p>Demographic and economic trends, overview of the education system and Challenges</p> <p>What is crime? Crime report by NCRB, White collar crime: Meaning, sources, Types and examples. Crime against women: Factors-Social, Political and economical. Administrative measures to reduce crime.</p> <p>Recommendations of Justice J.S Verma committee suggesting amendments to law against crimes such as rape. Juvenile crime : Meaning, causes, preventive measures</p> <p>Features of Indian economy, Challenges faced by Indian economy</p>	
2.	Society and Technology	<p>Society and Economic Development, Social Impact of Technology, Dynamism between technology and culture, Impact of Globalization on society, Technology and Social change-Problems Created by technology; Technology and Crime</p>	4+3
3.	Ethics and Business Engineers and ethics	<p>Ethics in the world of Business, Whistle –Blowing, Gender Issues in workplace, Marketing , Advertising and Product Safety</p> <p>Business Ethics : Business ethics overview, Ethical decision Making in Business Globalization and Business Ethics, Employees and Business Ethics, Consumers and business ethics</p>	5+4

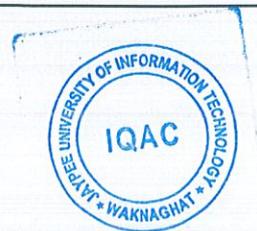


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4.	Corporate Social Responsibility(CSR)	What is CSR? Nature of CSR, CSR in an international context, Corporate social responsiveness	3+3
5.	Factory Act ,1942 – Overview	Important provisions, The Inspecting staff, Health, Safety, Provisions relating to Hazardous Processes, Welfare measurers, Working hours of adults, Special Provisions, Penalties and Procedure.	3+1
6.	Consumer Protection Act	Background and Objectives, Relief under the Consumer Protection Act, General relief of compensation Meaning and scope of consumer and C.P.A, Consumer rights , Consumer Protection	2+1
7.	RTI Act	Important provisions, The central information Commission, The state Information Commission, Powers and Functions of the Information commissions, appeal and Penalties, Remedies Available to aggrieved party	3+1
8.	1. IT Act, 2000	Essence of the Act, Exceptions, Important Provisions, Digital Signature, Electronic governance, Regulation of Certifying authorities, Penalties and Adjudications, Duties of Subscribers,	3+1
	2. Company Act,2013- overview	Regulation of certifying Authorities, Offences, The Cyber Regulation appellate tribunal History New concepts examples- one person companies, women directors, Class action suits, Serious Fraud	

  
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		Investigation Office	
Total number of Lectures			44

<b>Methodology and Evaluation Scheme</b>		
The course will be a mix of lecture, class discussion, group presentations by students. Students will have to participate actively and will have to refer books, magazines, news papers, and internet on regular basis to keep them up to date about recent developments.		
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.	Internal assessment Casee study/ assignments/ presentations	25

<b>Recommended Readings</b>	
1.	Social Problems in India: Ram Ahuja: Rawat Publications
2.	Ethics and The Conduct of business : John R. Boatright
3.	<i>Business ethics: An Indian Perspective</i> : A.C. Fernando ;Pearson
4.	Business ethics: South Asia edition: Andrew Crane & Dirk Matten
5.	Legal Aspects of Business: Ravinder Kumar; Cengage learning
6.	Social Change in India: Crisis and Resilience: <u>Yogendra Singh</u>
7.	Business ethics: Ethical decision making and cases;Ferrell;Eighth edition;Cengage Learning

  
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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

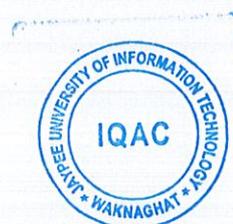
  
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**Course Contents:**

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):**

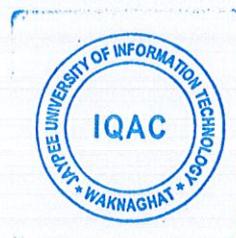
1. [https://www.google.com/search?q=Meaning+and+Significance+of+Human+Rights&rlz=1C1GCEU\\_enBIN820IN820&oq=Meaning+and+Significance+of+Human+Rights&aqs=chrome..69i57j015l1710j0j7&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=Meaning+and+Significance+of+Human+Rights&rlz=1C1GCEU_enBIN820IN820&oq=Meaning+and+Significance+of+Human+Rights&aqs=chrome..69i57j015l1710j0j7&sourceid=chrome&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

*S. Sharma*

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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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