PHD COURSE STRUCTURE

Nanotechnology in Agriculture

COURSE CODE: 24P1WPH131 COURSE CREDITS: 3 PHD

COURSE: L-T-P: 3-0-0

Pre-requisite: Basics of Physics and Chemistry

Course Description:

Nanotechnology in Agriculture has emerged as a powerful set of tools that allows enhanced productivity, disease/pest resistance, nutrient absorption, and food safety. The course will cover use of Nanotechnology in agriculture enables efficient disease detection and management, precision farming through nano-sensors, enhanced productivity through nano-fertilizers and pesticides, and improved food quality and safety through innovative packaging materials.

Course Objectives:

- To learn modern agriculture starting from fertilizer, pesticide to food preservation.
- To learn ,modern nanotechnology tools used judiciously in future, have the ability to offer sustainable development along with the optimal, precision and more effective use of chemicals.
- In this course, we will be sharing journey from basic agriculture to modern day nanoparticle based agriculture practices

Course Outcomes:

S.No.	Course Outcomes	Level of
		Attainment
CO-1	Basic concepts in nanotechnology and preparation of nanomaterials	Familiarity
CO-2	Characterization of nanomaterials	Familiarity
CO-3	Nanomaterials based agro products	Analytical skills
CO-4	Nanomaterials toxicology	Innovative Skills
CO-5	Applications in fields	Innovative Skills

Course Contents:

Unit	Contents	Lectures
		required
1	Basic concepts in Nano Science & Technology encompassing nano- physics, chemistry of nano-materials and synthesis of nano-materials	8
2	Characterization of nano-materials and products for their size, shape, morphology, functional groups, crystallinity, using advanced equipments	10
3	Design and fabrication of agri-inputs (seeds, fertilizers, fungicides, herbicides, pesticides, bioinoculants) with improved use efficiency	12
4	Development of bio-sensors for early detection of pests, diseases and nutrient deficiencies, encapsulated nano-food products and energy conserving devices	7
5	Nanotoxicity, environmental nanotechnology and nano-biotechnology to test and evaluate nano-products as per the DBT stipulated guidelines	5
Total le	ectures	42

Suggested Book(s):

- Nanotechnology for Agriculture: Advances for Sustainable Agriculture, Editors Deepak G Panpatte, Yogeshvari K Jhala, Springer Singapore ISBN 978-981-32-9369-4 (2019).
- Nanoparticles Applications in Agriculture, Pushpa Singh, Anam, TK Srivastava & RR
 Verma, Imprint Scientific Publishers ISBN9789391418229 (2022).
- Nanotechnology in Agriculture, B. L. Jana, ISBN-10: 8171328563, ISBN-13: 978-8171328567, Pioneer (2016).
- Nanomaterials for Agriculture and Forestry Applications, Azamal Husen, Mohammad Jawaid Elsevier, ISBN 9780128178522 (2020).

Other useful resource(s):

- 1. https://onlinecourses.nptel.ac.in/noc22 bt25/preview
- 2. https://archive.nptel.ac.in/courses/102/104/102104069/
- 3. Research Articles

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 (2) - 10 Quizzes(2) -10 Attendance - 5

Electronic Structure Theory

Course Code: 24P1WPH133 Course credits: 3 (3-0-0)

PHD COURSE:

L-T-P: 3-0-0

Pre-requisite: M.Sc. Physics

Course Objectives:

- (1) This course will introduce the methods and approaches used in parameter-free descriptions of the electronic structure of materials, which aim to solve the quantum mechanical many-electron problem.
- (2) We will discuss underlying ground state theories, such as wave-function based correlation methods and density functional theory, and their implementations in high-performance computing environments.
- (3) To familiarize students with quantum theory of materials
- (4) To enhance student's ability to think about problems in quantum theory of material to take future broader challenges in the area of science

Course Outcome:

S.No.	Course Outcomes	Level of Attachment
CO-1	To learn fundamentals and science about materials	Assessment and usage
CO-2	Learning theories behind different physical properties of materials	Assessment and usage
CO-3	Learning concepts and theories for solving science of materials	Assessment and usage
CO-4	Learning various mathematical problems related to materials that may open a broader career opportunity	Assessment and usage
CO-5	To develop ideas about problems in real materials	Familiarity

Unit	Contents	Lecture required
1	The many-electron problem, Born-Oppenheimer approximation.	6
	Hellmann-Feynman theorem, stress tensor, geometry	

	optimisations, electronic band structures, Fermi surfaces	
2	Wave-function based approaches: Hartree, Hartree-Fock, self-consistent field method, correlation corrections.	12
3	Density based approaches: Slater Xa method, Kato's cusp theorem, Hohenberg-Kohn theorems, Kohn-Sham equations, exchange-correlation functionals.	10
4	Numerical implementations : basis sets, atomic pseudo potentials, Brillouin zone sampling, iterative diagonalization methods, software packages.	8
5	Ground state properties of materials: Density Functional theory basics, Molecular Dynamics, Monte-Carlo	6
	TOTAL LECTURES	42

Text Books:

- 1. Electronic Structure Basic Theory and Practical Methods, Richard M. Martin, Cambridge University Press
- 2. Atomic and Electronic Structure of Solids: Kaxiras, Efthimios, Cambridge University Press.
- 3. Introduction to Solid State Physics: VIII Edn., C. Kittel" John-Wiley and Sons.
- 4. Solid State Physics: Aschroft and Mermin, Holt, Rinehart and Winston. Methods of Metallurgical experiment: B. Linchevsky, Mir Publishers, Moscow.

Additional Books and online resources:

- 1. Berry Phases in Electronic Structure Theory, By David Vanderbilt, Cambridge University Press.
- 2. Density Functional Theory: A Practical Introduction, by David S. Sholl, Wiley.

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 (3) -15 Quizzes(2) -5 Attendance - 5

Advanced Solid State Physics

Course Code: 24P1WPH132 Course credits: 3 (3-0-0)

PHD COURSE:

L-T-P: 3-0-0

Pre-requisite: M.Sc. Physics

Course Objectives:

- (1) To introduce students with advanced knowledge with science and technology involved with solid state materials
- (2) To enable the students in gaining problem solving capability
- (3) To familiarize students with quantum theory of materials
- (4) To enhance student's ability to think about problems in solid state physics to take future broader challenges in the area of science

Course Outcome:

S.No.	Course Outcomes	Level of Attachment
CO-1	To learn fundamentals and science about materials	Assessment and usage
CO-2	Learning theories behind different physical properties of materials	Assessment and usage
CO-3	Learning concepts and theories for solving science of materials	Assessment and usage
CO-4	Learning various mathematical problems related to materials that may open a broader career opportunities	Assessment and usage
CO-5	To develop ideas about problems in real materials	Familiarity

Unit	Contents	Lecture required
1	Quantum theory and the origin of electronic structure, electronic ground state: bonding and characteristic structures, Basic equations for interacting electrons and nuclei, Coulomb interaction in condensed matter, independent - electron approximations.	6
2	Periodic solids and electron bands: Structures of crystals, The reciprocal lattice and Brillouin zone, Excitations and the Bloch theorem, Point symmetries, Integration over the Brillouin zone and special points, Density of states.	8

3	Phonons and displacive transitions, lattice dynamics from	4
	electronic structure theory. Frozen phonons, magnons, Electron-	
	phonon interaction and superconductivity.	
4	Electrical Properties: Conductivity—Quantum Mechanical	10
	Considerations, Experimental Results and Their Interpretation- Pure	
	Metals, Alloys, Ordering. Thermoelectric Phenomena, Dielectric	
	Properties, Ferroelectricity, Piezoelectricity. Magnetic Properties:	
	Diamagnetism, Paramagnetism, Ferromagnetism, Antiferromagnetism,	
	Ferrimagnetism, Langevin Theory of Diamagnetism, Langevin Theory	
	of (Electron Orbit) Paramagnetism, Molecular Field Theory, Magnetic	
	Recording and Magnetic Memories.	
5	Thermal Properties: Thermal Conductivity, Heat Capacity: Quantum	14
	Mechanical Considerations— The Phonon, Electronic Contribution to	
	the Heat Capacity, Thermal Conduction in Metals and Alloys—	
	Classical Approach, Thermal Conduction in Metals and Alloys—	
	Quantum Mechanical Considerations, Thermal Conduction	
	inDielectric Materials. Thermal Expansion.	_
Total le	ectures	42

Text Books:

- 1. Electronic Structure Basic Theory and Practical Methods, Richard M. Martin, Cambridge University Press.
- 2. Introduction to Solid State Physics: VIII Edn., C. Kittel" John-Wiley and Sons.
- 3. Solid State Physics: Aschroft and Mermin, Holt, Rinehart and Winston. Methods of Metallurgical experiment: B. Linchevsky, Mir Publishers, Moscow.
- 4. X-ray Diffraction: S.K. Chatterjee, Prentice-Hall of India Pvt. Ltd.
- 5. Elements of X-ray diffraction: B. D. Cullity, Addison Wesley Publication.
- 6. Fundamentals of Solid-State Engineering: Second Edn., Manijeh Razeghi, Springer (India) Private Ltd.

Additional Books and online resources:

- 1. Semiconductor Devices: Sima Dimitrijev, Oxford University Press.
- 2. Introduction to Semiconductor Materials and Devices: M. S. Tyagi, Wiley publications.

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	Assignment (3) -15
			Semester	Quizzes(2) -5
				Attendance - 5

Disaster Risk Reduction

COURSE CODE: 23P1WHS101

COURSE CREDITS: 3
CORE/ELECTIVE: CORE

L-T-P: 3-0-0

Pre-requisite: None

Course Objectives:

- 1. To equip students with a deep understanding of the nature and dynamics of disasters, including their causes, impact, and the factors that contribute to vulnerability.
- 2. To empower the knowledge and skills required for effective disaster mitigation planning and policy development at various levels, including local, state, and central levels.
- 3. To enable participants to plan and execute emergency response strategies efficiently.
- 4. To instill a comprehensive perspective on disaster recovery, rebuilding, and rehabilitation.
- 5. To learn strategies for integrating Disaster Risk Reduction (DRR) into various aspects, understand resilience, and explore historical framework.

Course Outcomes:

S.No	Course Outcomes	Level of Attainment
CO-1	Understand the basic concept of disaster planning, vulnerability reduction, and mitigation policies	Familiarity
CO-2	Assessment of various disaster management strategies, policies, and frameworks	Assessment
CO-3	Assessment of post-disaster recovery and rehabilitation planning	Assessment
CO-4	Knowledge to develop strategies for resilience, emergency response, and recovery.	Usage

Unit	Contents	Lectures required
		requireu
	Hazard and Disasters: Disaster planning and vulnerability reduction, understanding Vulnerability, Nature of Vulnerability, Disaster Mitigation Policies and planning	3

Mitigation Planning and Policy Strategies:	8
Approaches to Preparedness and Planning.	
Hazard and Risk Reduction Strategies:	6
Management (Policies & Planning), Disaster Response: Planning for	8
local, communities, NCC, NDRF, Armed Forces, Government	
Departments, NGOs- case studies.	
Disaster Recovery, Rebuilding & Rehabilitation:	6
Total Hours	42
	Mitigation Planning and Policy Strategies: Local, State and Central level, Disaster Management Act 2005, Institutions of governance NDMA, SDMA, NIDM, National and state Disaster Management Plans, Mapping Vulnerability, (Social, Economic and Political vulnerabilities) Approaches to Preparedness and Planning. Hazard and Risk Reduction Strategies: Mainstreaming DRR, Objectives of Disaster Risk Reduction, Understanding Resilience, Hyogo and Sendai framework for action and its History (Yokohama Strategy), Resilience linking vulnerability, Disaster Risk Reduction and Disaster Recovery Community and National Level. Planning for Emergency Management, Communication and risk Management (Policies & Planning), Disaster Response: Planning for Response- Emergency Planning, supporting Emergency Response, Operations using Geo-Spatial Technologies, collaboration & coordination in Emergency Response Planning & Management with various institutions-local, communities, NCC, NDRF, Armed Forces, Government Departments, NGOs- case studies. Disaster Recovery, Rebuilding & Rehabilitation: Recovery Time- frames and differential recovery rates, long-term Recovery, Post disaster Recovery Planning & Reconstruction, Post Disaster Housing & Habitat Planning, and Rights- based approach to disaster rehabilitation.

Suggested Reference Books:

- 1. Birkland, Thomas.2006.Lessons of Disaster: Policy change after Catastrophic Events, Washington, D.C.: Georgetown University Press.
- 2. Burby, Raymond (Ed.).1998. Cooperating with Nature: Confronting natural hazards with land—use planning for sustainable communities, Joseph Henry Press.
- 3. Drabek, Thomas. 2010. The Human side of Disaster. Taylor and Francies.
- 4. Florida Department of Community Affairs.2010. Post Disaster Redevelopment Planning: Guide for Florida Communities.
- 5. Disaster Administration and Management, Text & Case studies- SL, Goel-Deep and Deep Publications
- 6. Disaster Management- G.K Ghosh-A.P.H. Publishing Corporation
- 7. Disaster management S.K.Singh, S.C. Kundu, Shobha Singh A 119, William Publications, New Delhi.
- 8. Disaster Management Vinod K Sharma- NIDM, New Delhi
- 9. Disaster Risk Reduction in South Asia- by Pradeep Sahni Prentice Hall of India
- 10. Disaster Mitigation and Management Post Tsunami Perspectives P, Jagadish Gandhi
- 11. Disaster Mitigation Experiences and reflections By Pradeep sahni Prentice Hall of India
- 12. Alexander David, Introduction in 'Confronting Catastrophe', Oxford University Press, 2000
- 13. Andharia J. Vulnerability in Disaster Discourse, JTCDM, Tata Institute of Social Sciences Working Paper no. 8, 2008
- 14. Blaikie, P, Cannon T, Davis I, Wisner B 1997. At Risk Natural Hazards, Peoples' Vulnerability and Disasters, Rutledge.

15. Coppola P Damon, 2007. Introduction to International Disaster Management, Carter, Nick 1991. Disaster Management: A Disaster Manager's Handbook. Asian Development Bank, Manila Philippines.

Web sites and Web Resources:

- 1. NIDM Publications at http://nidm.gov.in- Official Website of National Institute of Disaster Management (NIDM), Ministry of Home Affairs,
- 2. Government of India http://cwc.gov.in, http://ekdrm.net, http://www.nws.noaa.gov, http://pubs.usgs.gov, http://pubs.usgs.gov, http://pubs.usgs.gov, http://www.nws.noaa.gov, http://nidm.gov.ini, http://www.imd.gov.ini, http://ww

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 (2) - 10 Quizzes(2) -10 Attendance - 5

ESSENTIALS OF ACADEMIC WRITING

COURSE CODE: 23P1WHS102

COURSE CREDITS: 3 C ORE/ELECTIVE: CORE

L-T-P: 2-1-0

Pre-requisite: None **Course Objectives:**

- 1. The course aims to introduce students to the nuances of reading and writingskills.
- 2. The course will primarily focus on training students in the art of academic writing.
- 3. The course will also focus on making students read, write and critically evaluate various literary works.

Course Outcomes:

S. No	Course Outcomes	Level of Attainment
CO-1	Make students understand the concepts of effective reading and writing.	Familiarity
CO-2	Enable students to write and assess literary documents with clarity of expression and appropriate language.	Assessment and Usage
CO-3	Enable students to write effective research papers and articles.	Assessment and Usage

Unit	Contents						
1	Introduction to Academic Writing:	10					
	i) Introduction: Nomenclature, Emergence of the Field,						
	Common/Working Vocabulary						
	ii) Art of Academic Writing: Bloom's Taxonomy of Cognitive Skills						
	iii) Types of Academic Writing: Research Proposal, Research Paper,						
	Ph. D. Dissertation, Book Review						
	iv) Karen I. Spear: "Thinking and Writing: A Sequential Curriculum for Composition." <i>Journal of Advanced Composition</i> , 1983, vol. 4 (1983), pp. 47-63. https://www.jstor.org/stable/20865534						
	v) Robert Parker: "Language across the Curriculum" Movement: A Brief Overview and Bibliography." College Composition and						
	Communication, May, 1985, vol. 36, no. 2, Writing in the						
	Academic and Professional Disciplines: Bibliography Theory						
	Practice						
	Preparation of Faculty (May, 1985), pp. 173-177.						

2	Reading i) Conceptualizing Reading: Definitions, Readers, Reading ii) Reading and Meaning Generation: Reflection, Self-reflection, Evaluation, Interpretation iii) Reading Different Kinds of Passages iv) Digital Reading: Screen Reading v) Naomi S. Baron: "Redefining Reading: The Impact of Digital Communication Media." PMLA, vol. 128, no. 1 (January 2013), pp. 193-200. https://www.jstor.org/stable/23489277 vi) Norman Fairclough: Critical Discourse Analysis: The Critical	5
	Study of Language, Longman, 1995. https://www.felsemiotica.com/descargas/Fairclough-Norman-Critical-Discourse-AnalysisThe-Critical-Study-of-Language.pdf	
3	Writing: Coherence and Cohesion (Discourse Level) i) Introduction: Identifying effective and ineffective writing styles ii) Macrofeatures iii) Microfeatures iv) Exercises to test Structure, Flow and Sequencing	5
4	Research Writing i) Getting started: Writing a Paragraph/Short Critical Composition ii) Writing a Research Proposal/ Article/Funding Application: Giving Apt Title, Writing Abstract, Analysing the Text/Data, Writing a Funding Application. iii) Fundamentals of Dissertation Writing: Using the MLA Style Sheet, Citation, Quotation, Plagiarism, Revision and Editing. iv) MLA Handbook (9th Ed.) by The Modern Language Association of America. v) Rob Schnelle: "Taking the Pulse of the Essay." Writing on the Edge, vol. 19, no. 2, Spring 2009, pp. 79-84. https://www.jstor.org/stable/43157305 vi) Steven Pinker: The Sense of Style: The Thinking Person's Guide to Writing in the 21st Century. Penguin Books, 2014.	8
	Total lectures	28

Suggested Text Book(s):

Eric Hayot: *The Elements of Academic Style: Writing for the Humanities*, Columbia University Press, 2014. Diane Pecorari: *Academic Writing and Plagiarism: A Linguistic Analysis*, Continuum, 2008.

Suggested Reference Book(s):

- 1. Sylvan Barnet, et al: Literature for Composition: Essays, Fiction, Poetry and Drama, Longman, 2000.
- 2. Renu Gupta: A Course in Academic Writing, Orient Blackswan, 2017.
- 3. Diane H. Tracey & Lesley Mandel Morrow: *Lenses on Reading: An Introduction to Theories and Models,* The Guilford Press, 2006.

Evaluation Scheme:

S. No	Exam	Mar ks	Duratio n	Coverage / Scope of Examination
1	T-1	15	1 Hour.	Syllabus covered up to T-1
2	T-2	25	1.5 Hours	Syllabus covered up to T-2
3.	T-3	35	2 Hours	Entire Syllabus
4.	Teaching Assessment	25	Entire Semester	Assignment

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

Cou rse outc ome s	P O- 1	P O- 2	P O- 3	P O- 4	P O- 5	P O- 6	P O- 7	P O- 8	P O- 9	P O- 10	P O- 11	P O- 12	Ave rag e
CO- 1	1	3	3	3	1	2	3	3	3	3	1	3	2.4
CO- 2	1	2	3	2	1	1	2	3	3	3	1	3	2
CO- 3	1	1	3	2	2	2	1	2	3	3	1	3	2
Aver age	1	2	3	2.3	1.3	1.6	2	2.6	3	3	1	3	2

CONTEMPORARY LITERARY THEORY

COURSE CODE: 23P1WHS103

COURSE CREDITS: 3 CORE/ELECTIVE: CORE

L-T-P: 2-1-0

Pre-requisite: None

Course Objectives:

- 1. The course aims to expose students to recent developments, key concepts and debates in literary and cultural theory.
- 2. The course will equip students with a range of critical and analytic vocabulary.
- 3. It will enable them to develop effective and informed approaches to interpreting literary texts.

Course Outcomes:

S. No	Course Outcomes	Level of Attainment
CO-1	To make students understand and learn the key concepts in literary and cultural theory	Familiarity
CO-2	To equip students with a range of critical and analytic vocabulary	Assessment and Usage
CO-3	To enable students to develop effective and informed approaches to interpreting literary texts	Assessment and Usage

Uni t	Content s	Lectures required
1	Structuralism and Post Structuralism:	4
	i) Theoretical differences between structuralism and post-	
	structuralism	
	ii) The scope of structuralism	
	iii) The scope of post structuralism	
	Michel Foucault: "What is an author?" Essential Works of	
	Foucault, 1954-1984. Volume II: Aesthetics, Method, and	
	Epistemology, edited by James D. Faubion, translated by	
	Robert Hurley and others, The New Press, 1998, pp. 205-222.	
	https://www.open.edu/openlearn/pluginfile.php/624849/mod_re	
	so	
	urce/content/1/a840_1_michel_foucault.pdf	

Post Modernism:	4
ii) 'Landmarks' in postmodernism: Habermas, Lyotard	
Fredric Jameson: "Postmodernism, or the Cultural Logic of	
	4
· ·	
ii) Landmarks in psychoanalytic criticism: Freud and Lacan	
Jacques Lacan: "The Mirror Stage as Formative of the <i>I</i>	
1	
Post Colonial Criticism:	8
i) Background of post colonial criticism	
ii) The scope of post colonial criticism	
Frantz Fanon: "The Fact of Blackness." <i>Black Skin White Masks</i> [1952]. Pluto Press, 2017, pp. 82-108.	
Gayatri C. Spivak: "Can the Subaltern Speak?" Can the Subaltern Speak? VerlagTuria, 2008.pp. 66-111	
	8
	-
/	
iii) Feminist criticism and role of theory	
Judith Butler: "Subjects of Sex/ Gender/ Desire". Gender	
Trouble: Feminism and the Subversion of Identity. Routledge, 2011, pp. 1-46.	
Gayle S. Rubin: "Thinking Sex." <i>Deviations: A Gayle Rubin Reader</i> , Duke Univ. Press, 2011, pp. 137-181.	
Total lectures	28
	ii) The meaning and scope of post modernism iii) 'Landmarks' in postmodernism: Habermas, Lyotard Fredric Jameson: "Postmodernism, or the Cultural Logic of Late Capitalism." Postmodernism, Or, The Cultural Logic of Late Capitalism [1989]. Duke UP, 1991, pp. 53-92. Psychoanalytic Criticism: i) The scope of psychoanalytic criticism iii) Landmarks in psychoanalytic criticism: Freud and Lacan Jacques Lacan: "The Mirror Stage as Formative of the I Function." Jacques Lacan Ecrits. The First Complete Edition in English, translated by Bruce Fink, W. W. Nortan and Company, 2006, pp. 75-81. Post Colonial Criticism: i) Background of post colonial criticism ii) The scope of post colonial criticism iii) The scope of post colonial criticism Frantz Fanon: "The Fact of Blackness." Black Skin White Masks [1952]. Pluto Press, 2017, pp. 82-108. Gayatri C. Spivak: "Can the Subaltern Speak?" Can the Subaltern Speak? VerlagTuria, 2008, pp. 66-111 Feminist Criticism ii) Feminism and Feminist criticism ii) Feminist criticism and role of theory Judith Butler: "Subjects of Sex/ Gender/ Desire". Gender Trouble: Feminism and the Subversion of Identity. Routledge, 2011, pp. 1-46. Gayle S. Rubin: "Thinking Sex." Deviations: A Gayle Rubin Reader, Duke Univ. Press, 2011, pp. 137-181.

Suggested Text Book(s):

- 1. Leela Gandhi: Postcolonial Theory: A Critical Introduction, Routledge, 2020.
- 2. Judith Lorber, , Kathy Davis, and Mary Evans: *Handbook of Gender and Women's Studies*, Sage Publications, 2006.
- 3. Robert Spencer and Ansatasia Valassopoulos: *Postcolonial Locations: New Issues and Directions in Postcolonial Studies,* Routledge, 2020.
- 4. James Williams: *Understanding Poststructuralism*, Taylor & Francis, 2014.

Suggested Reference Book(s):

- **1** Bill Ashcroft, Gareth Griffiths, and Helen Tiffin: *The Postcolonial Studies Reader*, Routledge, 1995.
- 2 Judith Butler: Bodies That Matter: On the Discursive Limits of "Sex", Routledge, 2014.
- **3.** Frantz Fanon: *The Wretched of the Earth,* Penguin Books, 1963.
- 4. Michel Foucault: *The Foucault Reader*, Penguin Books, 1991.

Evaluation Scheme:

S. No	Exa m	Marks	Duration	Coverage / Scope of Examination
1	T-1	15	1 Hour.	Syllabus covered up to T-1
2	T-2	25	1.5 Hours	Syllabus covered up to T-2
3.	T-3	35	2 Hours	Entire Syllabus
4.	Teaching Assessmen t	25	Entire Semester	Assignment

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

Cour se outc omes	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	Ave rage
CO-1	1	3	3	3	1	2	3	3	3	3	1	3	2.4
CO-2	1	2	3	2	1	1	2	3	3	3	1	3	2
CO-3	1	1	3	2	2	2	1	2	3	3	1	3	2
Aver age	1	2	3	2.3	1.3	1.6	2	2.6	3	3	1	3	2

STUDYING GENDER THROUGH LITERATURE

COURSE CODE: 23P1WHS104

COURSE CREDITS: 3 CORE/ELECTIVE : CORE L-T-P: 2-

1-0

Pre-requisite: None

Course Objectives:

- 1. The course aims to introduce students to the historical, cultural and social influences on gender identity, roles and norms.
- 2. The course will focus on how various aspects ofidentity such as race, class and sexuality intersect with gender, leading to complex unique experiences.
- 3. The course will also study gender representations in literature and media that affect societal perceptions of gender.

Course Outcomes:

S. No	Course Outcomes	Level of Attainment
CO-1	To introduce students to the historical, cultural and social influences on gender identity, roles and norms	Familiarity
CO-2	Enable students to analyze various aspects of identity such as race, class and sexuality that intersect with gender, leading to complex unique experiences	Assessment and Usage
CO-3	Enable students to understand and analyze gender representations in literature and media and their impact on societal perceptions of gender.	Assessment and Usage

Unit	Contents	Lectures required
1	Gender Theory and Key Concepts:	6
	i) Gender and Sex- Cultural vs Biological ii) Gender Roles and Performativity iii) Heteropatriarchal Normativity	
	Butler, J. (1988). Performative acts and gender constitution: An essay in phenomenology and feminist theory. Theatre journal, 40(4), 519-531. West, C., & Zimmerman, D. H. (1987). Doing Gender. Gender and Society, 1(2), 125–151.	

2	Literature and Gender: Feminist Writings:	8
	i) The Madwoman in the Attic: The Woman Writer and the	
	Nineteenth-	
	Century Literary Imagination	
	ii) "Draupadi" by Mahashweta Devi	
	iii) A Room of One's Own by Virginia Woolf	
	iv) Poems of Kamala Das	
	v) Songs of Draupadi by Ira Mukhoty.	
3	Gender in Cinema and Advertisement:	4
	i) Phallacentrism	
	i) Phallocentrism	
	ii) Male Gaze iii) Advertisement and 'Role-Model' Housewives	
	iv) Female Gaze	
	Mulvey, L. (1975). Visual Pleasure and Narrative Cinema. Screen,	
	16(1), 6-18.	
	Das, M. (2011) Gender Role Portrayals in Indian Television Ads. Sex	
	Roles, 64 (3-4), 208-222.	
	Dirse, Z. (2013). Gender in cinematography: Female gaze (eye)	
	behind the camera. Journal of Research in Gender Studies, 3(1), 15-	
	29.	
	Mehta, D. (1996). Fire. Zeitgeist Films	
	Rayka Zehtabachi (2018). Period. End of Sentence.	
4	Queer Theory, Perspectives, and Writings:	6
	i) Developments in Queer Theory	
	ii) Key Concerns of Sexuality in Modern Times	
	iii) Queer writings from India	
	iv) Understanding Race and Sexuality in Literature	
	ity onderstanding reasonal solutions in Environment	
	Hames-Garcia, M. (2011). "Queer Theory Revisted". In Gay Latino	
	Studies: A Critical Reader. Duke University Press	
	John, M E, & Nair, J. (1999). "Sexuality in Modern India: Critical	
	Concerns" Voices for Change, 3(1), 4-8.	
	Vania, R, & Kidwai, S.(2008). Same Sex Love in India: A Literary	
	History. Penguin Random House.	
5	Gender, Caste, and Social Institutions:	4
	i) Caste Patriarchy	
	ii) Intersecting Marginalities and Power Structures	
	iii) Marriage, Kinship and Religious Institutions	
	Dhooin V (2005) Undoustanding Conden Warran Undinsited Day C	
	Bhasin, K. (2005). Understanding Gender. Women Unlimited Rege, S.	
	(2006). Writing Caste/Writing Gender: Narrating Dalit Women's	
	Testimonios, Zubaan Total lastures	20
	Total lectures	28

Suggested Text Book(s):

- 1. C. Gupta: *The Gender of Caste: Representing Dalits in Print*, Permanent Black, 2016.
- 2. D. Scott: Extravagant Abjection: Blackness, Power, and Sexuality in the African American Literary Imagination, New York University Press, 2010.
- 3. Judith Butler: *Gender Trouble*, Taylor and Francis, 2002.

Suggested Reference Book(s):

- 1. L. Goodman: *Literature and Gender*, Routledge, 1996.
- 2. P. Kumar: Sexuality, Abjection and Queer Existence in Contemporary India, Routledge, 2022.

Evaluation Scheme:

S. No	Exam	Mar ks	Duratio n	Coverage / Scope of Examination			
1	T-1	15	1 Hour.	Syllabus covered up to T-1			
2	T-2	25	1.5 Hours	Syllabus covered up to T-2			
3.	T-3	35	2 Hours	Entire Syllabus			
4.	Teaching Assessment	25	Entire Semester	Assignment			

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

Course outcomes	P O- 1	P O- 2	P O- 3	P O- 4	P O- 5	P O- 6	P O- 7	P O- 8	P O- 9	PO -10	PO -11	PO -12	Ave rage
CO- 1	1	3	3	3	1	2	3	3	3	3	1	3	2.4
CO- 2	1	2	3	2	1	1	2	3	3	3	1	3	2
CO- 3	1	1	3	2	2	2	1	2	3	3	1	3	2
Aver age	1	2	3	2.3	1.3	1.6	2	2.6	3	3	1	3	2