



List of Courses which focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework

Department : Information Technology

Programme Name : B.Tech. & M.Tech.

Academic Year : 2024-25

Courses which focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework:

Sr. No.	Course Code	Name of the Course
01.	ITUATH2	Human Values & Ethics
02.	NSUALS1	NSS
03.	LAUBTC1	INDIAN CONSTITUTION
04.	LAPBTX4	CONSTITUTION OF INDIA



Scheme and Syllabus

SCHOOL OF STUDIES OF ENGINEERING AND TECHNOLOGY

Scheme of Teaching and Evaluation 2022-2023 (As per NEP-2020)
Choice Based Credit System (CBCS) and Outcome Based Education (OBE)
(Effective from the Academic year 2022-2023)

I-SEMESTER B'Tech ECE/ IT/CSE										
S.N.	Course Code	Course Title	Teaching Hours/ week			Examination				Credits
			Theory lectures	Tutorial	Practical/ Drawing	Examination in Hours	CIA Marks	SEA Marks	Total Marks	
1	AMUATB4	Engineering Mathematics - B	3	1	-	03	40	60	100	4
2	PPUATB2	Engineering Physics	3	1	-	03	40	60	100	4
3	ITUATE2	Introduction to Information Technology	3	-	-	03	40	60	100	3
4	ECUATE3	Basic Electrical Engineering	3	-	-	03	40	60	100	3
5	ELUATH1	English for Communication	3	-	-	03	40	60	100	3
6	ECUATH2/ CSUATH2/ITUATH2	Human Values & Ethics	1	-	-	02	50	-	50	1
7	PPUALB2	Engineering Physics Laboratory	-	-	2	03	25	25	50	1
8	MEUALL1	Engineering Graphics	1	-	3	03	25	25	50	3
9	ECUALE3	Basic Electrical Engineering Laboratory	-	-	2	03	25	25	50	1
10	NSUALS1	NSS	-	-	2	01	25	25	50	1
Total			17	2	09	27	350	400	750	24
Note: AM:Mathematics, PP:Physics, ME: Mechanical Engineering, IP: Industrial & Production Engineering, CE: Civil Engineering, CS: Computer Sc. & Engg., IT: Information Technology, PE: Physical Education, NS: NSS, U: Undergraduate, T: Theory, L: Laboratory,										
BASIC SCIENCE (B) 1. Mathematics – A 2. Physics 3. Chemistry 4. Mathematics – B		ENGINEERING SCIENCE (E) 1. Engineering Mechanics 2. Introduction to Information Technology 3. Basic Electrical Engineering 4. Basic Electrical and Electronics Engineering 5. Computer Programming 6. Basic Communication Engineering		SKILL ENHANCEMENT COURSE (L) 1. Engineering Graphics 2. Engineering Workshop Practices		HUMANITIES SCIENCE (H) 1. English for communication 2. Human Values and Ethics		MANDATORY COURSE (C) 1. Indian Constitution 2. Environmental Science & Ecology		EXTRA-CURRICULAR ACTIVITIES (S) 1. NSS 2.Sports and Yoga
Credit Definition: ➤ 1-hour lecture (L) per week per semester = 1Credit ➤ 1-hour tutorial (T) per week per semester = 1Credit ➤ 2-hour Practical/Drawing(P) per week per semester = 1 Credit			➤ Four credit courses are to be designed for 50 hours of Teaching-Learning process. ➤ Three credit courses are to be designed for 40 hours of Teaching-Learning process. ➤ Two credit courses are to be designed for 30 hours of Teaching-Learning process. ➤ One credit courses are to be designed for 15 hours of Teaching-Learning process Note: The above is applicable only to THEORY courses							
AICTE Activity Points to be earned by students admitted to B.Tech. programme (For more details refer to Chapter 6, AICTE Activity Point Programme, Model Internship Guidelines): Over and above the academic grades, every regular student admitted to the 4 years Degree program and every student entering 4years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the years, any time during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) donot affect SGPA/CGPA and shall not be considered for vertical progression.										

Eligibility for UG Certificate:

- Undergraduate Certificate course will be offered by all departments of SoS(E&T), GGV.
- For applicability of UG Certificate, the candidate who wants to exit after completing 1st year (02 semesters) BTech degree with 10 credits of skill-based courses lasting two months, including atleast 06 credits job specific internship/apprenticeship with NHEQF level 5/UCF level 4.5.
- A student shall report to the concerned Head on or before the date notified by the Department/School/University, if he/she is interested to exit with UG Certificate

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II-SEMESTER BTech ECE/ IT/CSE										
S. N.	Course Code	Course Title	Teaching Hours/week			Examination				Credits
			Theory lectures	Tutorial	Practical/ Drawing	Examination in Hours	CIA Marks	SEA Marks	Total Marks	
			L	T	P					
1	AMUBTB1	Engineering Mathematics - A	3	1	-	03	40	60	100	4
2	CYUBTB3	Engineering Chemistry	3	-	-	03	40	60	100	3
3	CSUBTE5	Computer Programming	3	-	-	03	40	60	100	3
4	ECUBTE6	Basic Communication Engineering	3	-	-	03	40	60	100	3
5	LAUBTC1	Indian Constitution	1	-	-	01	50	-	50	1
6	FOUBTC2	Environmental Science and Ecology	2	-	-	03	40	60	100	2
7	CYUBLB3	Engineering Chemistry Laboratory	-	-	2	03	25	25	50	1
8	IPUBLL2	Engineering Workshop Practices	-	-	2	03	25	25	50	1
9	CSUBLE5	Computer Programming Laboratory	-	-	2	03	25	25	50	1
10	PEUBLS2	Sports and Yoga	-	-	2		25	25	50	1
Total			15	1	08	25	350	400	750	20
Note: AM:Mathematics, PP:Physics, ME: Mechanical Engineering, IP: Industrial & Production Engineering, CE: Civil Engineering, CS: Computer Sc. & Engg., IT: Information Technology, PE: Physical Education, FO: Forestry, LA: Law, NS: NSS, U: Undergraduate, T: Theory, L: Laboratory,										
BASIC SCIENCE (B)		ENGINEERING SCIENCE (E)		SKILL ENHANCEMENT COURSE (L)		HUMANITIES SCIENCE (H)		MANDATORY COURSE (C)		EXTRA-CURRICULAR ACTIVITIES (S)
1. Mathematics – A 2. Physics 3. Chemistry 4. Mathematics - B		1. Engineering Mechanics 2. Introduction to Information Technology 3. Basic Electrical Engineering 4. Basic Electrical and Electronics Engineering 5. Computer Programming 6. Basic Communication Engineering		1. Engineering Graphics 2. Engineering Workshop Practices		1. English for communication 2. Human Values and Ethics		1. Indian Constitution 2. Environmental Science & Ecology		1. NSS 2.Sports and Yoga
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M.Tech. II-Semester

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Sl.	Course Type/ Code	Subjects	Periods/Week			Evaluation			Credits
			L	T	P	IA	ESE	Total	
1.	ITPBTT1	Advanced Algorithms	3	0	0	40	60	100	3
2.	ITPBTT2	Advanced Computer Architecture	3	0	0	40	60	100	3
3.	ITPBTP1 ITPBTP2 ITPBTP3 ITPBTP4	Elective - III 1. Web and Database Security 2. Internet of Things 3. Data Science 4. High Performance Computing	3	0	0	40	60	100	3
4.	ITPBTP5 ITPBTP6 ITPBTP7 ITPBTP8	Elective - IV 1. Information Warfare & Security 2. Cyber Security 3. Advanced Computer Networks 4. Big Data Analytics	3	0	0	40	60	100	3
5	MSPBTO1 IPPBTO2 IPPBTO3 CEPBTO4 MEPBTO5 CHPBTO6 ECPBTO7 MCPBTO8	Open Elective-I 1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Waste to Energy 7. IoT (Not for IT) 8. MOOCs	3	0	0	40	60	100	3
6.	ITPBLT1	Advanced Algorithms Lab	0	0	4	30	20	50	2
7.	ITPBLT2	Data Science Lab	0	0	4	30	20	50	2
8.	ELPBTX1 PEPBTX2 CEPBTX3 LAPBTX4	Audit Course/Value Added Course English for Research Paper Writing Stress Management by Yoga Disaster Management Constitution of India	2	0	0	40	60	100	2
Total			17	0	08	300	400	700	21

Note: Under MOOCs the students have to opt any subject other than Information Technology from NPTEL/UGC SWAYAM

(Signatures)

SYLLABUS	(SEMESTER-I)	Periods/ Week			Internal Assessment (IA)				ESE	Grand Total	Credits
Subject Code:	ECUATH2 (for ECE) CSUATH2 (for CSE) ITUATH2 (for IT)	L	T	P	CT-I	CT-II	Attendance & Assignments	TOTAL	-	50	1
Subject:	HUMAN VALUES & ETHICS	1	0	-	20	20	10	50			

COURSE OBJECTIVE:

1. To create an awareness on Engineering Ethics and Human Values.
2. To understand social responsibility of an engineer.
3. To appreciate ethical dilemma while discharging duties in professional life.

COURSE OUTCOME:

On completion of this course, the students will be able to

1. Understand the significance of value inputs in a classroom and start applying them in their life and profession
2. Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual, etc.
3. Understand the role of a human being in ensuring harmony in society and nature.
4. Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious environment wherever they work.

COURSE CONTENT:

UNIT I: Introduction to Value Education

1. Value Education, Definition, Concept and Need for Value Education.
2. The Content and Process of Value Education.
3. Basic Guidelines for Value Education.
4. Self exploration as a means of Value Education.
5. Happiness and Prosperity as parts of Value Education.

UNIT II: Harmony in the Human Being

1. Human Being is more than just the Body.
2. Harmony of the Self ('I') with the Body.
3. Understanding Myself as Co-existence of the Self and the Body.
4. Understanding Needs of the Self and the needs of the Body.
5. Understanding the activities in the Self and the activities in the Body.

UNIT III: Harmony in the Family and Society and Harmony in the Nature

1. Family as a basic unit of Human Interaction and Values in Relationships.
2. The Basics for Respect and today's Crisis: Affection, e, Guidance, Reverence, Glory, Gratitude and Love.
3. Comprehensive Human Goal: The Five Dimensions of Human Endeavour.
4. Harmony in Nature: The Four Orders in Nature.
5. The Holistic Perception of Harmony in Existence.

UNIT IV: Social Ethics

1. The Basics for Ethical Human Conduct.
2. Defects in Ethical Human Conduct.
3. Holistic Alternative and Universal Order.
4. Universal Human Order and Ethical Conduct.
5. Human Rights violation and Social Disparities.

UNIT V: Professional Ethics

1. Value based Life and Profession.
2. Professional Ethics and Right Understanding.
3. Competence in Professional Ethics.
4. Issues in Professional Ethics – The Current Scenario.
5. Vision for Holistic Technologies, Production System and Management Models.

TEXT BOOKS

- 1.A.NTripathy, New Age International Publishers, 2003.
- 2.Bajpai. B. L , , New Royal Book Co, Lucknow, Reprinted, 2004
- 3.Bertrand Russell Human Society in Ethics & Politics

REFERENCE BOOKS

- 1.Corliss Lamont, Philosophy of Humanism
- 2.Gaur. R.R. ,Sangal. R, Bagaria. G.P, A Foundation Course in Value Education, Excel Books, 2009.
- 3.Gaur. R.R. ,Sangal. R ,Bagaria. G.P, Teachers Manual Excel Books, 2009.
- 4.I.C. Sharma . Ethical Philosophy of India Nagin & co Julundhar
- 5.Mortimer. J. Adler, – Whatman has made of man
- 6.William Lilly Introduction to Ethic Allied Publisher

Course Outcomes and their mapping with Programme Outcomes: HUMAN VALUES AND ETHICS {ECUATH2 (for ECE), CSUATH2 (for CSE) and ITUATH2 (for IT)}

CO	PO												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1								3	3						
CO2								3	3						
CO3								3	3						
CO4								3	3						

Weightage: 1-Sightly, 2-Moderately, 3-Strongly

NSS

SYLLABUS	(SEMESTER-I)	Periods/ Week			INTERNAL ASSESSMENT (IA)			ESE Viva/ Assessment	Grand total	Credits
Subject Code:	NSUALS1	L	T	P	Attendance	Activities	TOTAL	25	50	01
Subject:	NSS	-	-	2	5	20	25			

Objectives:

1. To develop Personality
2. To do Community Service
3. To do social Awareness and Empowerment
4. To enhance Skill
5. To work for National Integration

Course:

Program Head 1: Cleaning Program **(06 Hours/ Semester)**

Program Head 2: Plantation **(06 Hours/ Semester)**

Program Head 3: Health Camp/Special Days celebration **(10 Hours/ Semester)**

Program Head 4: Awareness program/Ralley **(06 Hours/ Semester)**

Course Outcomes:

At the end of this course, students will demonstrate the ability to:

1. Observe his/her internal ability and develop own personality.
2. Apply knowledge of the importance of cleanliness and hygiene in their surroundings, and develop skills in waste management and recycling.
3. Apply knowledge towards the significance of greenery and environmental conservation, participate in tree plantation drives, and understand the process of nurturing and caring for plants.
4. Apply knowledge of health issues prevalent in the community and methods of prevention and organizing health camps and awareness programs on special days like World Health Day or World AIDS Day.
5. Express social issues and their impact on the community. Actively participate in awareness programs and rallies to create awareness about social problems like gender inequality, or environmental degradation.

Course Outcomes and their mapping with PO and PSO: NSS (NSUBLS1)

CO	PO												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1									1						
CO2			1			1	2								
CO3			1			1	2								
CO4			1			1	2								
CO5			1			1	2								

Weightage: 1-Slightly; 2-Moderately; 3-Strongly

Subject:	Constitution of India (LAPBTX4)	Credits			
Type:	Audit Course/Value Added Course	L	T	P	Total
Teaching Scheme:	Lectures: 2 hours/week	2	0	0	2

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

- 1 Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian politics.
- 2 Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
- 3 Discuss the circumstances surrounding the foundation of the Congress Socialist Party [CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution.
- 4 Discuss the passage of the Hindu Code Bill of 1956.

Syllabus Contents:

- History of Making of the Indian Constitution: History Drafting Committee, (Composition & Working).
- Philosophy of the Indian Constitution: Preamble, Salient Features
- Contours of Constitutional Rights & Duties: Fundamental Rights, Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, Right to Constitutional Remedies, Directive Principles of State Policy, Fundamental Duties.
- Organs of Governance: Parliament, Composition, Qualifications and Disqualifications, Powers and Functions, Executive, President, Governor, Council of Ministers, Judiciary, appointment and Transfer of Judges, Qualifications, Powers and Functions.
- Local Administration: District's Administration head: Role and Importance, Municipalities: Introduction, Mayor and role of Elected Representative, CEO of Municipal Corporation. Pachayati raj: Introduction, PRI: ZilaPachayat. Elected officials and their roles, CEO ZilaPachayat: Position and role. Block level: Organizational Hierarchy (Different departments), Village level: Role of Elected and Appointed officials, Importance of grass root democracy.
- Election Commission: Election Commission: Role and Functioning, Chief Election Commissioner and Election Commissioners, State Election Commission: Role and Functioning, Institute and Bodies for the welfare of SC/ST/OBC and women.

References:

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- The Constitution of India, 1950 (Bare Act), Government Publication.
 - Dr. S. N. Busi, Dr. B. R. Ambedkar framing of Indian Constitution, 1st Edition, 2015.
 - M. P. Jain, Indian Constitution Law, 7th Edn., Lexis Nexis, 2014.
 - D.D. Basu, Introduction to the Constitution of India, Lexis Nexis, 2015.