Induction Program

Preamble:

The goal of engineering education is to train engineering graduates well in branch of admission, have a holistic personality and must have desire to serve society and nation. It is expected that an engineering graduate work for solving the problems of society using the modern technologies and practices. That needs the broad understanding of the society and relationships. It is needed to cultivate the human values in engineering graduates to fulfil his responsibilities as an engineer, a citizen and a human being.

Considering the various social backgrounds and whether a student comes from the urban or rural areas they differ in many of the life skills and their abilities and thinking. There branch of admission may be due to rush; their interest in subject is question. They are facing the issues like hostel and settlements, pressures from peers and many related issues. To overcome such issues, it is necessary to create an environment for students so that they feel comfortable, find their interest and explore their inner beings, create bonding with other students, establish relation with teachers, work for excellence, get a broader view of life and practice human values to build characters. The Induction Program covers the various activities which enables them to overcome all such issues and motivates them to perform well in their chosen branch of admission.

Scheme:

Sr No	Phase and Activities Heads	Weightage
1.	**Initial Phase**	**1 day (6 Hrs)**
2	**Regular Phase**	**13 Days**
a)	Physical activity	24 Hours
b)	Creative Arts	12 Hours
c)	Universal Human Values	12 Hours
d)	Literary	12 Hours
e)	Proficiency Modules	6 Hours
f)	Lectures by Eminent People	3 Hours: 3 Expert Lectures, One per Week
g)	Visits to local Areas or Industry	1 Day
h)	Innovations	3 Hours
3	**Closing Phase**	**1 Day (6 Hrs)**
	Total	**90 Hours**

Phases, Modules, Activities and Guidelines:

The activity during Induction Program would have an Initial Phase, a Regular Phase and a Closing Phase. The initial and closing phaseswould be one day each. The following is the guidelines indicating the possible activities under eachphaseof the Induction Program.

Initial Phase (First Day)

Following are the activities to be carried on the first day:

- Orientation Programme
- Know your Department/Institute
- Know your university
- Know hostel and other amenities
- Information about Student Diary and Induction Program

Regular phase (13 Days)

The Regular Phase consists of 13 days, each day is of 6 hours. It covers all the 8 different activity modules. For each module, the objectives, suggested activities and guidelines are provided herewith. Institute can use additional relevant activities in additional in suggested activities for each of the phases.

Module Name	Objectives	Suggested Activities
1. Physical Activity **(24 hours)**	1. Improve bone health 2. Improve cardio respiratory and muscular fitness 3. Understand theanatomy, basic biomechanical principles and terminology. 4. Examine the effect of nutrition, rest and other lifestyle factors that contribute tothebetter health.	1. Running/Jogging 2. Brisk Walk 3. Cycling 4. Heavy yard work 5. Swimming 6. Yoga/Pranayam 7. Aerobics 8. Outdoor Sports/Indoor Games(In addition to cricket, Volleyball, Badminton, Chess, Carom, Table Tennis, Other games like Critical Thinking, Math skill developing Games, Memory Games can be included.) 9. Calculate Body mass index of each students and explain their fitness level from it. 10. Tree Plantation 11. Gardening

Guidelines:

- Half an hour Yoga/Pranayam followed by physical activities including various games.
- Refer this link for Yoga/Pranayam https://s3-ap-southeast-1.amazonaws.com/ministry-

of-yoga/images/1528106718.pdf		
Module Name	**Objectives**	**Suggested Activities**
2. Creative Arts **(12 hours)**	1. Develop creativity and imagination through a range of complex activities. 2. Improve the student's ability to control materials, tools and techniques. 3. Develop increasing confidence in the use of visual and tactile elements and materials.	1. Make a model of any physical object related to Engineering Design 2. Crafting 3. Painting 4. Sculpture 5. Pottery 6. Music 7. Dance
Guidelines: • Use any activities leading to creative thing and practice. • Show the video demonstrating the creative ideas and thinking. • Show the video demonstrating phenomenon performance using innovation in different areas of humanity and social science. • Demonstrate the story of leaders with the context of how with their creative vision, with all odds they achieved success.		
Module Name	**Objectives**	**Suggested Activities**
3. Universal Human Values **(12 hours)**	1. Impart universal human values in students. 2. Enable students to live in harmony within themselves, with family, with society and the nature 3. Initiate the process of self exploration and self investigation within themselves about their understanding of happiness.	1. Showing Motivational Movies. 2. Social Activities like visit of orphanage, old age home, blind peoples'school etc. 3. Swachchhata Mission Activities. 4. Awareness regarding environmental issues and remedies. 5. Spread awareness about blood donation, organ donation, precaution to avoid malaria in monsoon etc. 6. Discuss autobiography of legendary persons who practiced universal human values in their life and work. 7. Conduct universal human values group discussions.

Guidelines:

- Use the materials and activities covered in the FDP on Induction Program held at GTU organized by AICTE.
- The faculties trained from institute will take leadership role to rollout it at institute level.

Module Name	Objectives	Suggested Activities
4. Literary **(12 hours)**	1. Inculcate the habit of active (or interactive) consumption of the best content available in literature. 2. Develop thinking skills. 3. Improve reading abilities and attitude.	1. Digital literacy and use of Internet 2. Basic Mathematics for Solving Real World Problems 3. Use of Scientific Calculator in Engineering 4. General Knowledge Quiz Competition 5. Vedic Mathematics 6. Reading/writing/speaking/listening 7. Debating/Elocution 8. Enacting a play 9. Book review

Guidelines:

- Use the video lectures to literate students in different skills needed for day-to-day life and need.
- Motivate students to create the nature of inquiry and reading habits.
- Arrange the various competitions like Elocution, Essay writing, Storytelling, Book reviews etc.
- Writingthe review ofthe well known books, movies etc and sharing.

Module Name	Objectives	Suggested Activities
5. Proficiency modules **(6 hours)**	1. Determining English proficiency level of students and mentoring accordingly. 2. Learn the mining vocabulary, idioms, and expressions and understand their meanings in context. 3. Develop ability to write a paragraph about general topics by using the English language correctly.	1. English general diagnostic test to determine student's English proficiency level. 2. Mentoring students to improve in English proficiency according to his/her proficiency level based on test.

	4. Realize the importance of English language as a global business language.	

Guidelines:

- An MCQ test of **45 minutes** should be conducted covering basic grammar and vocabulary.
- Group the students in three groups based on test result in three proficiency levels:
  - Unsatisfactory
  - Satisfactory
  - Good
- Following activities are to be used to uplift proficiency levels of students.
  - Motivational movies, documentary
  - Language games
  - Essay/story writing
  - Ice breaking games.
- Separate set of activities from suggested list should be used for different groups.

Module Name	Objectives	Suggested Activities
6. Lectures by Eminent people **(3 hours)**	1. Motivation through knowing experience of successful person. 2. Meet and interact with eminent personalities of different fields.	1. To conduct lecture by eminent people. 2. Interaction with leaders, experts, entrepreneurs, contributorsandsuccessful personalities

Guidelines:

- 3 expert lectures each of 1 hour per week.
- Multiple divisions can be combined in an expert lecture.
- External expert should be invited.
- Expert can be from academic, industry, research organization, social organization etc.
- An individual successful person in any of the field can be invited.
- The aspect to be addressed may be social / economical / engineering / entrepreneurship/ spiritual/ humanity science.

Module Name	Objectives	Suggested Activities
7. Visit to Local Area and Industry **(1 Full day)**	1. To familiarize students with the local area. 2. Sensitise with the different aspects of the life including social services and heritage	1. A full day visit covering at least 2 or 3 places. 2. List of possible places A. Centre of excellence B. Elite Academic Institutes C. Research institute

		D. Hospitals E. Industry visit F. Heritage places

Guideline and References:

- Institute can arrange visit to public, social or specifies places to give insight of the activities and overall socio-economic contribution of such places.
- The uniqueness or impact of such visits should be highlighted.

Module Name	Objectives	Suggested Activities
8. Innovation **(3 hours)**	1. Introduce the student about innovation in different fields 2. Make students aware about innovative and modern practices and products in their own branch 3. Create awareness about support available for start-up and innovation	1. Lectures by senior faculties. 2. Showing videos demonstrating innovation. 3. Introducing innovative technology/products. 4. Awareness regarding SSIP Scheme of Government of Gujarat 5. Awareness about Government initiatives in areas of innovations and supports for start-up, Incubation, Entrepreneurship etc.

Guideline:

- Video lectures from leaders and innovators.
- TeDx Talks.
- Government Policy documents for different schemes.

Closing Phase (Last Day)

The closing phase is the last day of the Induction Program and covering conclusion and summary of the Induction Program.

Conclusion and summary:

- Guiding students for preparation of student report about Induction Program.
- Instruct students regarding submission and examination of the Induction Program.
- Address by HODs/Senior faculties regarding branch/discipline and career option in respective branch.
- Introduce about the engineering and its importance in life and their responsibilities towards the society.

General Regulations:

a) Every student has to maintain a daily diary. Format of the diary is already given.

b) After completion of the Induction program student has to prepare a report based on activities performed during the Induction program. Diary will be attached as Appendix in Report.

c) 75% Attendance is require during Induction Program.

d) This program will be noncredit subject but it will reflect in 1st Semester Marksheet as PASS or FAIL.
e) Institute should appoint a mentor for a group of 20 to 30 students. Mentor can take help of senior students.
f) If student gets admission transfer in other college during Induction Program the diary will be continued from previous college to new college.
g) If student gets admission in middle of the Induction Program or student gets admission after Induction Program, it is responsibility of the institute to fulfill the criteria of the Induction Program.
h) If student fails in the Induction program the student has to clear the same during subsequent Semester

Evaluation Pattern:

1. Induction Program is Mandatory course for each branch of Engineering.
2. It is mandatory for each student to clear Induction Program with PASS grade.
3. Grades for Induction Program are either PASS or FAIL and have no credits. Evaluation for Induction Program is based on the Induction Program Report prepared by a student from Student diary and student will be declared PASS or FAIL.
4. Student has to submit the Induction Program Report at the end of first semester dully approved by Mentor and HOD.
5. Evaluation of Induction Program will be done along with first Semester Term-Work Submission.
6. The evaluation is carried out by Internal Examiner from institute itself. The entry on the GTU portal will be PASS or FAIL, not marks.
7. The students who will FAIL have to reappear again after every 6 months as remedial exam.

Guidelines for Program Report:

1) Report should have minimum 20 pages.
2) Report must have One Photograph per Activity.
3) Report consists of Certificate, Index and Diary as Appendix.
4) Report should be dully signed by Mentor and HOD.
5) Index will have following sequence:

1.	**Initial Phase**
2	**Regular Phase**
a)	Physical activity
b)	Creative Arts
c)	Universal Human Values
d)	Literary
e)	Proficiency Modules
f)	Lectures by Eminent People
g)	Visits to local Areas or Industry
h)	Innovations
3	**Closing Phase**

Format of Diary

Enrolment/Roll No:

Name of Student:

Day ……		**Date:**
Hour	**Activities Done**	**Learning Outcomes**
1		
2		
3		
4		
5		
6		
Signature of the Student		**Signature of Mentor**

SHROFF S. R. ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY

STUDENT INDUCTION PROGRAM TIME -TABLE (2019 Batch)

Time	18-07-2019 (Initial Phase) (Thr)	Time	DAY/ PRD	19-07-2019 (FR)	20-07-2019(SAT)	22-07-2019 (MON)	23-07-2019 (TUE)	24-07-2019 (WED)	25-07-2019 (THUR)	26-07-2019 (FR)
9:30 to 10:00	Welcome of First year students (SH 1/SH 5)	**9:30 a.m. to 10:30 a.m.**	1	Physical Activity (OP+PM+DC+ PL) SH 7/SH 5/SH 4	Physical Activity (OP+DC+MP) SH 7/SH 5/SH 4	Introduction to Microsoft office and its short cut keys (MP)	Orientation Program	Creative arts (DC+VV)	Physical Activity (VV+PS)	PA (DC+PM+PL)
10: 00 to 11:00	Principal Sir Talks	**10:30 a.m. to 11:30 a.m.**	2	Physical Activity (DC+PM+PL)	Physical Activity (OP+DC+MP) SH 7	Proficiency Modules(VV)		**Lecture on How to make effective PPT (MP)**	UHV/Innovation (DP)	UHV (PM)
		11:30 a.m. to 12:15 p.m.	3	Physical Activity (OP+NP) SH 7/SH 5/SH 4	Proficiency Modules (VV)	Universal Human Values (MG)		Universal Human Values(PM)	NBA Awareness (HKB)	Creative arts (DC+OP+PL)
11:00 to 12:30	College Visit (DC+OP+PP+KC+PL+ UV)	**12:15 p.m. to 1:00 p.m.**		**RECESS**						
12:30 to 01:30	Lunch Break	**1:00 p.m. to 2:00 p.m.**	4	Introduction to Exam Pattern (KJS) SH 1/SH 5	Innovations (HM)	Creative arts (PL +OP)	UHV/Innovation (DP)	Physical Activity (DC+OP)	Industrial Visit	Industrial Visit
01:30 to 02:30	It's the right Choice	**2:00 p.m. to 3:00 p.m.**	5	Creative arts (DC+OP+PL)	Introduction to VLNC (RD)	Creative arts (PL +OP)	Physical Activity (PM+OP)	Waste Management (PG)		
02:30 to 04:00	Physical Activity (OP+DC) (SH 7)	**3:00 p.m. to 4:00 p.m.**	6	Literary (DC+PM)	Proficiency Modules(VV)	Literary (VV)	Literary (VV)	Literary (PS)		
04:00 to 05:00	UHV (GK)	**4:00 p.m. to 5:00 p.m.**	7	UHV (SVD)	Innovations (HM)	Physical Activity(OP+NP)	UHV (SVD)	Proficiency Modules (PS)		

PM : Piyush Mistry
HM :Hiren Mahida
PL: Pragna Lad
RC: Richa Dubey
SVD : Sanjiv Dharwadker
DP :Divyang Patel
PP: Pintu Prasad
MP :Mital Patel
GK: Gunjan Kumar
KC: Kajal Chauhan
DC :Dhananjay Chauhan
NP: Nikhil Parekh
UV:UpasanaVananth
VV:Vinitha Vakkayil
MG: Mukesh Goel
KJS:KrunalSuthar
PS :Priyanka Sharma
OP :Omprakash Singh
PG: Pratibha Gautam

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3130007
Semester – III
Subject Name: Indian Constitution

Type of course: Mandatory course

Prerequisite: NA

Rationale: NA.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
2	0	0	0	50	0	0	0	50

Contents:

Sr. No.	Topics	Total Hours
1	Meaning of the constitution law and constitutionalism	01
2	History of Indian Constitution	02
3	Salient features and characteristics of the Constitution of India	01
4	Fundamental rights	02
5	Right to Equality under Article – 14	02
6	Right to certain Freedom under Article 19	02
7	Scope of the Right to Life and Personal Liberty under Article 21	02
8	Fundamental Duties and its legal status	02
9	The Directive Principles of State Policy – Its importance and implementation	02
10	Federal structure and distribution of legislative and financial powers between the Union and the States	03
11	Parliamentary Form of Government in India – The constitution powers and status of the President of India	02
12	Powers and Procedure for Amendments in Indian Constitution	01
13	History of amendments in Indian Constitutional	02
14	Emergency Provisions : National Emergency, President Rule, Financial Emergency	03
15	Local Self Government – Constitutional Scheme in India	03

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Enhance human values , create awareness about law enactment and importance of Consitution	10%
CO-2	To Understand the Fundamental Rights and Fundamental Duties of the Indian Citizen to instill morality, social values, honesty, dignity of life and their social Responsbilities.	30%
CO-3	Create Awareness of their Surroundings, Society, Social problems and their sutaible solutions while keeping rights and duties of the citizen keeping in mind.	20%
CO-4	Understand distribution of powers and functions of Local Self Government.	20%
CO-5	Understand the National Emergency, Financial Emergency and their impact on Economy of the country.	20%

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3130007

Reference Books :

1. Constitutional Law of India, Dr. J.N. Pandey, Central Law Agency
2. Introduction to the Consitution of India, Durga Das Basu, LexisNexis.
3. Indian Constitutional Law, M.P. Jain, LexisNexis
4. V.N.Shukla's Constitution of India, Mahndra Pal Singh, Eastern Book Company
5. Constitutional Law – I Structure, Udai Raj Rai, Eastern Book Company

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3141909
Semester – IV
Subject Name: Organizational Behavior

Type of course:

Prerequisite: Nil

Rationale:
Organizational Behavior deals with the application of management skills applied to individual as well as group of persons. It also helps in team work and understanding group dynamics and leads to leadership and motivation.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P	C	Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	0	3					

Content:

Sr. No.	Content	Total Hrs
1	**Focus and Purpose:** Definition, need and importance of organizational behavior, Nature and scope, Frame work, OB model	03
2	**Individual Behaviour:** Attitudes: Characteristics, Components, Formation, Measurement, barriers to change attitude. Perception: Meaning and concept of perception, factors influencing perception, Motivation: Importance, Types, Theories of Motivation, Effects on work behaviour. Personality and value: Types, Factors influencing personality, Theories, Learning, Types of learners, The learning process, Learning theories, Organizational behaviour modification. Misbehaviour: Types, Management Intervention. Emotions: Emotional Labour, Emotional Intelligence, Theories. Impression management, Individual decision making techniques	14
3	**Group Behaviour:** Organization structure, Formation, Groups in organizations, Influence, Group dynamics, Group decision making techniques, Team building, Communication, Control, Johari Window	08
4	**Leadership and Power:** Meaning, Importance, Leadership styles, Behavioural Theories, Fiedler model, LMX theory and Path Goal theory, Leaders vs Managers, Sources of power, Power centers, Power and Politics.	07
5	**Dynamics of Organizational Behaviour:** Organizational culture and climate, Factors affecting organizational climate, Importance, Job satisfaction, Determinants, Measurements, Influence on behaviour, Stress, Work Stressors, Prevention and Management of stress, Balancing work and Life, Kurt Lewin's–three step model, methods for implementing organizational change.	10

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3141909

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	20	25	25	10	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Stephen P. Robins, Organizational Behavior, / Pearson Education
2. Udai Pareek, Understanding Organizational Behaviour, Oxford Higher Education
3. Margi Parikh and Rajan Gupta, Organizational Behaviour, McGraw Hill Education
4. Fred Luthans, Organizational Behavior, McGraw Hill
5. Schermerhorn, Hunt and Osborn, Organizational behavior, John Wiley
6. Mc Shane & Von Glinov, Organizational Behaviour, McGraw Hill
7. Hellrigal, Slocum and Woodman, Organizational Behavior, Cengage Learning
8. Ivancevich, Konopaske & Maheson, Organizational Behaviour & Management, McGraw Hill

Course Outcomes:
After learning the course

Sr. No.	CO statement	Marks % weightage
CO-1	Students will be able to understand various methods and terms used different organizational behaviour model	15
CO-2	Students will be able to understand Individual Behaviour like attitude, perception, motivation, personality, misbehaviour and emotions.	30
CO-3	Students will be able to understand group behaviour, leadership and power	35
CO-4	Students will be able to understand dynamics of organizational behaviour and managing change.	20

List of Open Source Software/learning website:
Industry visit, Management games to understand Individual behaviour and group behaviour, also games for leadership development.

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering
Subject Code: 3110007

ENVIRONMENTAL SCIENCE
1st Year

Type of course: Mandatory Course

Prerequisite: Interest in natural systems sustaining the life on the earth.

Rationale: To inculcate the environmental values translating into pro-conservation actions. Honorable Supreme Court of India has made it 'mandatory' to introduce a basic course on environment at the undergraduate level.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P	C	Theory Marks		Practical Marks		
				ESE(E)	PA (M)	ESE (V)	PA(I)	
2	2	0	0	70	30	0	0	100

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	**INTRODUCTION TO ENVIRONMENT** Definition, principles and scope of Environmental Science. Impacts of technology on Environment, Environmental Degradation, Importance for different engineering disciplines	02	8
2	**ENVIRONMENTAL POLLUTION** a) Water Pollution: Introduction – Water Quality Standards, Sources of Water Pollution, Classification of water pollutants, Effects of water pollutants b) Air Pollution: Composition of air, Structure of atmosphere, Ambient Air Quality Standards, Classification of air pollutants, Sources of common air pollutants like PM, SO_2, NO_X, Auto exhaust, Effects of common air pollutants c) Noise Pollution: Introduction, Sound and Noise, Noise measurements, Causes and Effects d) Solid Waste: Generation and management e) Bio-medical Waste: Generation and management f) E-waste: Generation and management	14	44
3	**GLOBAL ENVIRONMENTAL ISSUES** Sustainable Development, Climate Change, Global Warming and Green House Effect, Acid Rain, Depletion of Ozone layer, Carbon Footprint, Cleaner Development Mechanism (CDM), International Steps for Mitigating Global Change	06	24

4	**BASIC CONCEPT OF GREEN BUILDING AND SMART CITIES** Green Building: Introduction, Objectives, Fundamental Principles, Benefits of Green Building, Examples of Green Building Smart Cities: Concept	04	16
5	**CONCEPT OF 4R's** Principles, Application of 4R's	02	8

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
40	**40**	**20**	**0**	**0**	**0**

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Textbook of Environmental Studies for Undergraduate Courses by Erach Bharucha Second edition,2013 Publisher: Universities Press (India) Private Ltd, Hyderabad.
2. Basics of Environmental Studies by Prof Dr N S Varandani ,2013 Publisher: LAP -Lambert Academic Publishing , Germany
3. Environmental Studies by Anindita Basak ,2009 Publisher: Drling Kindersley(India)Pvt. Ltd Pearson
4. Textbook of Environmental Studies by Deeksha Dave & S S Kateva , Cengage Publishers.
5. Environmental Sciences by Daniel B Botkin & Edward A Keller Publisher: John Wiley & Sons.
6. Environmental Studies by R. Rajagopalan, Oxford University Press
7. Environmental Studies by Benny Joseph, TMH publishers
8. Environmental Studies by Dr. Suresh K Dhameja, 2007 Published by : S K Kataria & Sons New Delhi
9. Basics of Environmental Studies by U K Khare, 2011 Published by Tata McGraw Hill

Course Outcome:

Sr. No.	CO statement	Marks % weightage
CO-1	Identify the types of pollution in society along with their sources	45
CO-2	Realize the global environmental issues	25
CO-3	Conceptualize the principles of Green Buildings and Smart cities	15
CO-4	Implement the concept of recycle and reuse in all fields of engineering	15

List of Tutorials: Based on

1. Introduction to Environment
2. Water Pollution
3. Air Pollution
4. Noise Pollution
5. Solid Waste
6. Bio-medical Waste
7. E-waste
8. Global Environmental Issues
9. Concept of Green Building
10. Concept of Smart Cities
11. Concept of 4R's

List of Open Source Software/learning website: MOEF, NPTEL

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering
Subject Code: 3110002

ENGLISH
B.E. 1ST YEAR

Type of course: Language and Communication

Prerequisite: Zeal to learn the subject

Rationale: The rationale of the curriculum is to help students refresh their knowledge of English language. It also targets the understanding of grammar, focusing on comprehension, and reading, speaking and writing skills. This would be developed through balanced and integrated tasks.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
2	0	2	3	70	30	30	20	150

Content:

Sr. No.	Topics	Teaching Hours	Module Weightage
1	Vocabulary building: Introduction to Word Formation Types of word formation processes: compounding, clipping, blending, derivation, creative respelling, coining and borrowing Acquaintance with prefixes and suffixes Synonyms, antonyms, and standard abbreviations.	06	20%
2	Phonetics: IPA Transcription Introduction to different accents	04	10%
3	Identifying Common Errors in Writing: Tenses Subject-verb agreement Noun-pronoun agreement Misplaced modifiers Articles Prepositions Modal Auxiliaries Redundancies	06	20%
4	Basic Writing Skills: Sentence Structures Use of phrases and clauses in sentences Importance of proper punctuation Creating coherence Organizing principles of paragraphs in documents	04	10%

5	Nature and Style of Writing: Describing Defining Classifying Writing introduction and conclusion	06	20%
6	Writing Practices: Comprehension Précis Writing Letter Writing Email etiquettes Abstract Memo writing	06	20%

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	**10**	**20**	**20**	**20**	**20**

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

(i) Technical English, Dr. M. Hemamalini, Wiley. 2014
(ii) Practical English Usage, Michael Swan, OUP. 1995
(iii) Remedial English Grammar, F.T. Wood, Macmillan. 2007
(iv) Oxford Language Reference, (Indian Edition) OUP
(v) On Writing Well, William Zinsser, Harper Resource Book. 2001
(vi) Study Writing, Liz Hamp-Lyons and Ben Heasly, Cambridge University Press. 2006
(vii) Communication Skills, Sanjay Kumar and Pushp Lata, Oxford University Press. 2011
(viii) Exercises in Spoken English, Parts. I-III. CIEFL, Hyderabad. Oxford University Press
(ix) The Study of Language, George Yule, CUP, 4th Edition. 2010
(x) A Course in English Phonetics, T R Kansakar, Orient Longman. 1998
(xi) Spoken English, R K Bansal and J B Harrison, Orient Longman. 2013

Course Outcome: At the end of the course students will be able to –

Sr. No	Course Outcomes	Weightage
CO1	Use various forms of vocabulary in varied situations in oral and written communication.	10%
CO2	Understand the phonetics and the transcription pattern to learn correct pronunciation.	10%
CO3	Comprehend the dynamics of various rules of grammar and check its validation while they speak and write language correctly.	20%

CO4	Use grammar effectively to make themselves competent Listener, Speaker, Reader and Writer by exposing to various set of situations.	20%
CO5	Write various formal and informal documents of day to day life and professional set up.	20%
CO6	Demonstrate the qualities of writing in diverse situation by using the nuances such as conciseness, clarity, accuracy, organization, and coherence.	20%

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List of Experiments:

Sr.No.	Activity type	Duration in hrs	Preferably to be conducted in:
1	Word Formation-1	2	Lab/classroom
2	Word Formation-2	2	Lab/classroom
3	Listening Comprehension	2	Lab/classroom
4	Transcription and dictionary usage	2	Lab/classroom
5	Common Everyday Situations: Conversations and Dialogues	4	Classroom/Hall
6	Communication at Workplace	4	Classroom/Hall
7	Common errors in writing	4	Classroom/Hall
8	Reading Comprehension	2	Classroom/Hall
9	Letter Writing, Precis Writing	4	Classroom/Hall
10	Email Writing: Formal and Informal	2	Lab/classroom
11	Practical assessment	4	Lab/classroom

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3130004
Semester – III
Subject Name: Effective Technical Communication

Type of course: Communication and ethics

Prerequisite: Zeal to learn the subject

Rationale: The rationale of the curriculum is to help students learn technical communication along with necessary moral and ethical dimensions of engineering.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA (M)	ESE (V)	PA (I)	
2	0	2	3	70	30	30	20	150

Contents:

Sr. No.	Topics	Teaching Hours	Module Weightage
1	**Dynamics of Communication**: Definition and process Kinesics Proxemics Paralinguistic features Importance of Interpersonal and Intercultural Communication in today's organizations	06	20%
2	**Technical Writing**: Report writing Technical proposal Technical description Business letters(sales, order, complaint, adjustment, inquiry, recommendation, appreciation, apology, acknowledgement, cover letter) Agenda of meeting, Minutes of meeting Resume writing	08	25%
3	**Technical Communication**: Public speaking Group discussion Presentation strategies Interview skills Negotiation skills Critical and Creative thinking in communication	06	20%
4	**Ethics in Engineering**: Scope of engineering ethics Accepting and sharing responsibility Responsible professionals and ethical corporations Resolving ethical dilemmas Making moral choices	04	12%
5	**Etiquettes**: Telephone etiquettes Etiquettes for foreign business trips Visits of foreign counterparts Etiquettes for small talks	05	16%

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	Respecting privacy Learning to say NO Time management		
6	**Self-development and Assessment:** Change, Grow, Persist, Prioritize, Read, Learn, Listen, Record, Remember, Asses, Think, Communicate, Relate, Dream.	03	7%

Distribution of Theory Marks					
Remember	Understand	Analysis	Application	Evaluation	Creativity
05	**05**	**15**	**15**	**15**	**15**

Language Laboratory Activities:

Sr. No.	**Practical/ Exercise**	**Apprx. Hours required**	**Preferably to be conducted in:**
1	Role Play	02	Classroom/Hall
2	Letter writing: Formal	02	Classroom/Lab
3	Group Discussion	04	Classroom/Hall
4	Presentations	04	Classroom/Hall
5	Book Review(Preferably related to self-development)	04	Classroom/Hall
6	Mock Interview	04	Classroom/Hall
7	Report writing	02	Classroom/Lab
8	Case studies related to unit 4, 5 and 6	06	Classroom/Lab
9	Conducting meetings and minutes of meeting	02	Classroom/Hall
10	Practical assessment	02	Classroom/Lab

Suggested books for review:

1. You Can Win by Shiv Khera
2. How to Win Friends and Influence People by Dale Carnegie
3. Getting Things Done: The Art of Stress Free Productivity by David Allen
4. Quiet: The Power of Introverts in a World That Can't Stop Talking by Susan Cain
5. The Alchemist by Paulo Coelho
6. The 7 Habits of Highly Effective People by Stephen Covey
7. What to Say When You Talk to Yourself by Dr. Shad Helmstetter
8. The Big Leap by Gay Hendricks
9. Thinking Fast and Slow by Daniel Kahneman
10. The Art of Thinking Clearly by Ralf Dobelli
11. Upside Down Key by Sudha Murthy
12. Born to be Happy by Pramod Batra
13. Kiss That Frog by Brian Tracy

14. Build From Scratch by Vineet Bajpai
15. Ten Much by A G Krishnamoorthy
16. Poor Little Rich Slum by Rashmi Bansal
17. Our Ice Berg is Melting by John Paul Cotter
18. Most and More by Mahatria Ra
19. Third Curve by Mansoor Ali Khan
20. Selected Short Stories of Rabindranath Tagore edited by William Radice
21. That Thou Art by Dhruv Bhatt
22. Old Man and the Sea by Ernest Hemingway

Reference Books:

1. Raman and Sharma, *Technical Communications*, OUP, New Delhi, 2017
2. Lata and Kumar, *Communication Skills*, OUP, New Delhi, 2018
3. Mike Martin and Roland Schinzinger, *Ethics in Engineering*, McGraw Hill, New York, 2014
4. Mohapatra and Sreejesh S., *Case Studies in Business Ethics and Corporate Governance*, Pearson, UP, 2013
5. Ramesh and Ramesh, *The Ace of Soft Skills*, Pearson, UP, 2019
6. Sherfield, Montgomery and Moody, *Cornerstone: Developing Soft Skills*, UP, 2009

Open Sources:

https://www.scu.edu/ethics/focus-areas/more/engineering-ethics/engineering-ethics-cases/

Course Outcomes:

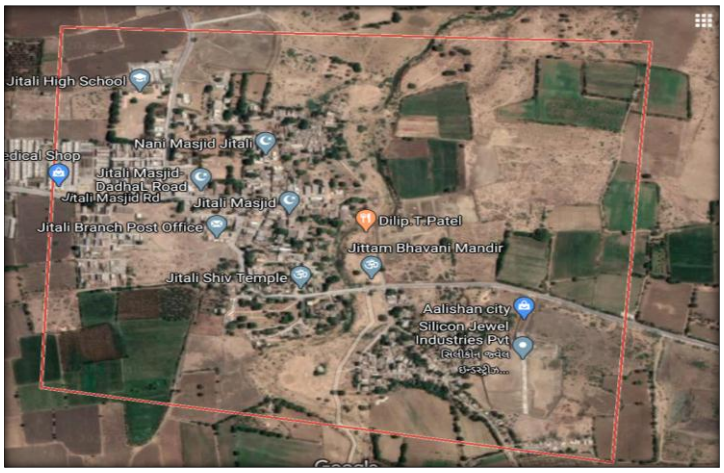
At the end of the course students will be able to:

Sr. No.	Course Outcome	Weightage
1	Define and discuss dynamics of Verbal and Non Verbal aspects of Communication	20%
2	Write various formal documents of technical and professional communication	25%
3	Communicate in diverse formal situations taking place in organizations	20%
4	Illustrate and examine the knowledge of ethical aspects of engineering	12%
5	Demonstrate and explain social and professional etiquettes	16%
6	Plan self-development and practice self-assessment	7%

Solid Waste Management at Village Jitali

Solid waste management is one of the major environmental issues these days, the condition becomes even worse when no proper system exists to take care of these wastes in villages. Rotary Club of Ankleshwar with the support of Shroff S R Rotary Institute of Technology (SRICT) and Bharuch Enviro Infrastructure ltd (BEIL) took initiative to manage the solid waste (kitchen waste specifically) at Jitali Village. The whole project is sponsored by Bharuch Enviro Infrastructure Ltd (BEIL) with major objective to manage the kitchen waste generating in the "Village Jitali" in a sustainable way and to convert it into compost through bacterial decomposition. Project is coordinated and supervised by Pratibha Gautam, Head-Environment Department, SRICT.

JITALI village is situated in Bharuch District of Gujarat state. Sarangpore (2 KM), Uchhali (3 KM) , Kararvel (3 KM), Avadar (3 KM), Motali (4 KM) are the nearby Villages to Jitali. Jitali is surrounded by Bharuch Taluka towards North , Mangrol Taluka towards South , Jhagadia Taluka towards East , Valia Taluka towards East.



Jitali Village

Major activities carried out under project are:

- Awareness Campaign: Rigorous awareness Campaigning was done about solid waste Management and source segregation among villagers.
- Various students also participated in awareness activity


Awareness campaigns

- Fabrication of tumblers: In order to avoid littering of waste during composting process and to support hygienic composting, special composting vessels named as 'tumbler' were fabricated at SRICT workshop.

Tumblers fabricated for composting

- **Develop composting site:** Composting site was develop in which pits were made for curing purpose. After keeping the waste in tumbler for 2 weeks, waste was transferred to pits for curing for 2 weeks.

Composting site

- Distribute dustbins to all houses: 2 dustbins per house were distributed in entire village to ensure source segregation of waste and. Villagers were explained the importance of waste segregation for proper waste management and were asked to store “wet” and “dry” waste separately.
- Train worker to do composting and provide bacterial culture
- Supervise composting process
- Utilization of compost for farming purpose

Compost and its utilization

Plastico Pickup Machine

68th Republic Day was celebrated at Shroff S.R Rotary Institute of Chemical Technology, Ankleshwar on 26-01-2017 with the theme Skill India and Beti Bachao, Beti Padao. The tricolor was hoisted by the chief guest, Mr. Rajju Bhai Shroff Chairman &Managing Director UPL. Inauguration of the plastic bag pick –up machine PLASTOPICK was done at the noble hands of the Chief Guest. The topper student with SPI 10/10 from Environmental Science Technology, Ms. Shreya Kundu, was felicitated with a Cash prize & UPL Gold medal. The program was coordinated by MSH dept. under the guidance of HOD Dr. Purvi Naik.