

BIJU PATNAIK UNIVERSITY OF TECHNOLOGY, ODISHA

CURRICULLUM FOR B.TECH AS PER GUIDELINES OF AICTE

2018-19



Principal
Radhakrishna Institute of Technology
and Engineering, Bhubaneswar

Course Structure for First Year Engineering

First Semester						
Theory						
Category	Course Code	Course Title	L-T-P	Credit	University Marks	Internal Evaluation
BS	RMA1A001	Mathematics –I	3-0-0	3	100	50
BS	RPH1A001/ RCH1A002	Physics/Chemistry	3-0-0	3	100	50
ES	RBE1B001/ RBL1B002	Basic Electrical Engineering /Basic Electronics Engineering	2-0-0	2	100	50
ES	RBM1B001/ RBC1B002	Basic Mechanical Engineering / Basic Civil Engineering	2-0-0	2	100	50
HS	RCE1E001	Communicative English	2-0-0	2	100	50
MC	RIT1F301	Induction Training (21 Days)		0		
Total Credit (Theory)				12		
Total Marks					500	250
Practical						
BS	RPH1A201/ RCH1A202	Physics Lab/Chemistry Lab	0-0-3	1	-	100
ES	RBE1B201/ RBL1B202	Basic Electrical Engineering / Basic Electronics Engineering Lab	0-0-3	1	-	100
ES	RBM1B201/ RBC1B202	Basic Mechanical Engineering / Basic Civil Engineering Lab	0-0-3	1	-	100
ES	REG1B201/ RWO1B202	Engineering Graphics & Design Lab/Workshop	0-0-3	2	-	100
HS	RCE1E201	English Language Lab	0-0-3	1	-	100
Total Credit (Practical)				6		
Total Semester Credit				18		
Total Marks						500
Grand Total (Theory & Practical)=						1250

Second Semester						
Theory						
Category	Course Code	Course Title	L-T-P	Credit	University Marks	Internal Evaluation
BS	RMA2A001	Mathematics-II	3-0-0	3	100	50
ES	REM2B001	Engineering Mechanics	3-0-0	3	100	50
BS	RPH2A001/ RCH2A002	Physics / Chemistry	3-0-0	3	100	50
ES	RBE2B001/ RBL2B002	Basic Electrical Engineering / Basic Electronics Engineering	2-0-0	2	100	50
ES	RBM2B001 / RBC2B002	Basic Mechanical Engineering / Basic Civil Engineering	2-0-0	2	100	50
ES	RPL2B001	Programming for Problem Solving using C	3-0-0	3	100	50
MC	RNC2F301	NCC/NSS/Yoga		0		
Total Credit (Theory)				16		
Total Marks					600	300
Practical						
BS	RPH2A201/ RCH2A202	Physics Lab/Chemistry Lab	0-0-3	1		100
ES	RBE2B201/ RBL2B202	Basic Electrical Engineering / Basic Electronics Engineering Lab	0-0-3	1		100
ES	RBM2B201/ RBC2B202	Basic Mechanical Engineering / Basic Civil Engineering Lab		1		100
ES	REG2B201/ RWO2B202	Engineering Graphics & Design Lab/Workshop	0-0-3	2		100
ES	RPL2B201	Programming for Problem Solving using C Lab	0-0-3	2		100
Total Credit (Practical)				7		
Total Marks (Practical)						500
Grand Total (Theory & Practical) = 1400						
Total Semester Credit				23		
Total First Year Credit				41		

RCE1E001 Communicative English 2-0-0

Course Objectives:

- To enhance the Listening, Speaking, Reading and Writing skills of the students.
- To make the students Industry-ready.

Module 1

Introduction to communication (6 hours)

The importance of communication through English at the present time; the process of communication and factors that influence communication : sender, receiver, channel, code, topic, message, context, feedback, 'noise', filters and barriers; the importance of audience and purpose

Verbal and non-verbal communication

Listening Skills: Importance and types of Listening

Identifying and rectifying common errors: Subject-verb agreement,

Noun/ Pronoun/ Articles/ Prepositions Usage, Word choice

Vocabulary Building

Module 2

The sounds of English (6 hours)

The International Phonetic Alphabet (IPA); Vowels, diphthongs, consonants, consonant clusters; phonemic transcription;

Syllable division and word stress; sentence rhythm and weak forms, contrastive stress

Intonation: falling, rising and falling-rising tunes

Problem sounds in cultural contexts (Indian context)

Module 3

Workplace Communication (6 hours)

Communication challenges in culturally diverse workforce; Ethics in Communication

Bias-free communication

3.2 Effective Business Presentations: Importance in workplace communication; Planning,

Preparing, Organizing, Rehearsing, and Delivering Oral presentations, Handling

Questions; Power Point Presentation

Module 4

Writing at Work (6 hours)

Business letters

Writing notices, circulars, emails.

Writing reports and Proposals

Writing CVs (for Technical Positions and Internships)

Module 5

5. Soft Skills/Life Skills (8 hours)

Body Language

Connected Speech (Intonation in Everyday Speaking and Conversation)

Types of interviews, Planning and Preparing for a Job Interview; Stages of an Interview; Mastering the art of giving interviews.

Team Management and Leadership Skills; Group Discussion; Public Speaking
(Reference: Martin Luther King: I have a Dream, Vivekananda: Chicago Address, Toni Morrison: Noble Prize Acceptance Speech)

Recommended Books:

1. Business Communication by Carol M Lehman, Debbie D Dufrene and Mala Sinha. Cengage Learning. 2nd Edition.
2. English Grammar in Use. Raymond Murphy. Cambridge UP. 4th Edition.
3. A Textbook of English Phonetics for Indian Students by T. Balasubramanian [MACMILLAN]
4. Soft Skills: Key to Success in Workplace and Life by Meenakshi Raman and Shalini Upadhyay. Cengage Learning. 2018 Edition.

Reference Books:

1. Technical Communication, Principle and Practice by Meenakshi Raman & Sangeeta Sharma, Oxford University Press
2. Business Communication Today by Courtland L Bovee and Thill, Pearson.
3. Communication skill by Sanjay Kumar & Puspa Lata, Oxford University Press. 2nd Edition.
4. Body Language. Allan Pease. Free on Googlebooks.
5. Business and Managerial Communication, Sengupta, PHI
6. Business Communication for Managers, P. Mehra, Pearson

Introduction, Isometric scale, Isometric projection of simple plane figures, Isometric projection of tetrahedron, hexahedron(cube), right regular prisms, pyramids, cylinders, cones, spheres, cut spheres. 2-Sheets

Text Books:

- i. Engineering Drawing - N.D. Bhatt & V.M. Panchal, Charotar Publishing House, Gujarat.
- ii. Computer Aided Engineering Drawing - S. Trymbaka Murthy, 4th Ed, University Press
- iii. Engineering Drawing by N.S. Parthasarathy and Vela Murali Oxford University Press

Reference Books

- i. Engineering Graphics - K.R. Gopalakrishna, Subash Publishers Bangalore.
- ii. Fundamentals of Engineering Drawing with an Introduction to Interactive Computer Graphics for Design and Production-Luzadder Warren J., Duff John M., Eastern Economy Edition, Prentice-Hall of India Pvt. Ltd., New Delhi.
- iii. Computer Aided Engineering drawing, Prof. M. H. Annaiah, New Age International Publisher, New Delhi

WORKSHOP PRACTICE 0-0-3

For 1st Semester Code (RWO1B202)

For 2nd Semester Code (RWO2B202)

Fitting Practice:

Use of hand tools in fitting, preparing a male and female joint of M.S. or making a paper weight of M.S.

Welding Practice (Basic Theory to be explained prior to practice):

Gas Welding & Electric Arc welding Practice.

A joint such as a Lap joint, a T-joint or a Butt joint is to be prepared or to make furniture.

Machining (Basic Theory to be explained prior to practice):

(i) Stepped cylindrical Turning of a job and Thread-cutting in lathe.

(ii) Shaping

(iii) Milling

RCE1E201 English Language Lab 0-0-3

Objective: To assist students master the listening, speaking, reading and writing skills through practice.

Module1:

Listening and Speaking(8 Hrs)

Accent in speech (1 Hr)

Longer Discourse (dialogues, songs, contextual speech etc.) (1 Hr)

Role-play (2 Hrs)

Practicing sounds of English (1 Hr)
Extempore (1 Hr)
Presentations (2 Hr)

Module 2: Reading 4 Hrs

Reading comprehension practice: Technical text (2 Hrs),
General text (2 Hrs)

Module 3 : Writing 4 Hrs

Guided composition (2 Hrs)
Free-writing (2 Hrs)

Recommended Books:

1. English for Technical Communication by N P Sudharshana & C Savitha Cambridge University Press, 1st edition, 2018.
2. Communication Skills A Workbook by Sanjay Kumar & Pushp Lata, Oxford Publication.
3. English Language Communication Skills : Lab Manual cum Workbook by Rajesh Kumar, Cengage Learning, 1st edition, 2014.