LIBERAL LEARNING COURSES (LLC)

First and Second Year Engineering
(Sem. I to Sem. IV)

REVISION: FRCRCE-2-25

Effective from Academic Year 2025-26
Board of Studies Approval: **28/02/2025**
Academic Council Approval: **14/02/2025 & 8/3/2025**

Dr. DEEPAK BHOIR
Dean Academics

DR. SURENDRA RATHOD
Principal

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Preamble:

Government of Maharashtra has directed Autonomous Colleges to revise their curriculum in line with National Education Policy (NEP) 2020 through Government Resolution dated 4th July 2023. As per this Government Resolution, 04 (Credit) Co-curricular Courses (CC) courses should be offered such as Health and Wellness, Yoga education, sports and fitness, Cultural Activities, NSS/NCC and Fine/ Applied/ Visual/Performing Arts etc.

NEP states that *"Education thus, must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields. Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and, of course, enjoyable. **The curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values**, in addition to science and mathematics, to develop all aspects and capabilities of learners; and make education more well-rounded, useful, and fulfilling to the learner. Education must build character, enable learners to be ethical, rational, compassionate, and caring, while at the same time prepare them for gainful, fulfilling employment."*

For effective implementation of UGC Regulations and NEP 2020 in its spirit, we have introduced several choice based Liberal Learning Courses (LLC) in the curriculum to make learning a joyful experience for students. We believe that this curriculum will raise the bar of academic standards with the active involvement and cooperation from students, academic and administrative units.

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Salient Features of Liberal Learning Courses (LLC):

➢ Student must verify the life skill art course offered by the institute in a particular semester and the timing of the course before registration

➢ These courses will be offered on first cum first serve basis to the students. Once registrations for a particular liberal learning course is full then students will have to take course from the remaining available course from the list or it may be directly allotted by Dean Academics.

➢ Every LLC is of two hours duration in a week and of one credit

➢ There is only continuous evaluation for the course having only ISE component.

➢ **Preferably ISE marks to be allotted in following manner:**
  o **Assessment by Mentor=30 Marks**
  o **Attendance=10 Marks**
  o **Active Participation in activities/Observation by Mentor=05 Marks**
  o **Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks**
  o **Total=50 Marks**

➢ Marks to be entered in the Gazette as total ISE (50 Marks) and not as individual ISE1 & ISE2

Note:

There is no extra fees or payment for these courses. However, if any course is being offered by external professionals/agencies with cost associated with it, college will offer it to students as an optional course on payment basis. Fees for such courses will be decided mutually by external professionals/agencies and college management.

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Indicative List of Cocurricular Courses (CC):
- ✓ Min 15 to Max 20 students in each course; Except Social Activities
- ✓ Course will be offered based on student choice and availability of resources to conduct a course.
- ✓ College will offer any of the following courses at the start of Sem-I to Sem-IV.
- ✓ If any other course which is not listed can be offered with approval of Dean academics
- ✓ Syllabus for each course is designed to provide a comprehensive overview, but it can be adapted and expanded based on the specific needs & interests of the students and professional experience of the instructor.
- ✓ As each course is unique in its nature and content, course instructor can adopt their own teaching methodologies and there are no hard constraints from the college as far as expected learning outcomes delivered.

25LLC01.	Culinary Arts: Foundations of Cooking
25LLC02.	Indian Aesthetics
25LLC03.	Sketching
25LLC04.	Personality Development and People Management
25LLC05.	Work Life Balance
25LLC06.	Art of Living
25LLC07.	Yoga Vidya
25LLC08.	First Aid and Self Defence
25LLC09.	Fire Safety and Electronic Security
25LLC010.	Sports Technology
25LLC011.	Athletics
25LLC012.	Aerobics and Fitness
25LLC013.	Study of Dance Forms
25LLC014.	Introduction to Dramatics: Exploring Theatre Arts
25LLC015.	Fundamentals of Photography
25LLC016.	Cinematography
25LLC017.	Music Appreciation and Composition
25LLC018.	Script writing
25LLC019.	Vehicle maintenance and traffic rules
25LLC020.	Garden Design and Maintenance
25LLC021.	Managing Social Media
25LLC022.	Server and Network Maintenance
25LLC023.	Electrical Safety
25LLC024.	Mentoring of School Children
25LLC025.	Social Club Activities
25LLC026.	Cultural Club Activities
25LLC027.	Fundamentals of Vedic Astrology and Palmistry (Marathi)
25LLC028.	Garment Construction
25LLC029.	Professional Cosmetology
25LLC030.	Practical Nursing

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC01	Culinary Arts: Foundations of Cooking	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						Total
		50						50

Cooking is the most important survival skill; therefore, it shouldn't be taken for granted. Many students are nervous about leaving their homes, yet the desire to pursue their degrees abroad keeps them on the move. Leaving behind family, friends, and especially, home-cooked meals is not an easy move. Homesickness and the absence of home-cooked meals are among the few emotions that don't go away quickly or in a day.

Cooking is a valuable life skill which is often linked with improved diet quality. By learning to cook, you are not only in control of your calorie intake, but you're also building healthier habits, and the healthier you eat, the more energy you'll have to keep cooking.

This course introduces students to the fundamentals of cooking, covering essential techniques, ingredients, and principles to develop culinary skills and creativity in the kitchen. Through hands-on cooking sessions, demonstrations, and tastings, students will gain practical experience and knowledge to create a variety of dishes.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Describe cooking process, follow the learned process of preparation, safety, hygiene and prepare a food item
	CO2	Develop recipe for a given food item and use kitchen equipment's effectively
	CO3	Prepare variety of food products and dishes

S.N.	Topics
1	**Introduction to Culinary Arts** o Overview of the culinary industry and career paths o Kitchen safety and sanitation o Knife skills: types of knives, grips, and basic cuts
2	**Cooking Methods: Dry Heat** o Sautéing, pan-frying, and stir-frying o Grilling and broiling o Roasting and baking
3	**Cooking Methods: Moist Heat** o Boiling, simmering, and poaching o Steaming and blanching o Braising and stewing
4	**Stocks, Sauces, and Soups** o Principles of stock making o Mother sauces and their derivatives o Classic soup techniques and recipes
5	**Culinary Techniques: Mise en Place and Flavor Development** o Importance of mise en place (preparation and organization) o Building flavor profiles: seasoning, layering flavors, and balancing taste o Deglazing, emulsifying, and other culinary techniques

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

6	**Culinary Staples: Grains, Legumes, and Pasta**
	o Cooking techniques for grains (rice, quinoa, couscous)
	o Preparation and cooking methods for legumes (beans, lentils)
	o Making fresh pasta and cooking dried pasta
7	**Vegetable Cookery**
	o Selection, storage, and preparation of vegetables
	o Sautéing, steaming, roasting, and grilling vegetables
	o Creative vegetable dishes and garnishes
8	**Protein Cookery: Meat, Poultry, and Seafood**
	o Selecting and handling meat, poultry, and seafood
	o Cooking methods for various cuts and types of protein
	o Temperature control and food safety considerations

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC02	**Indian Aesthetics**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course is for the students who have an interest in art. Indian Aesthetics is an ambitious, five thousand-year sweep of the field that delves deep into art history, archaeology, architecture, anthropology, literature, philosophy and visual culture to build an aesthetic and critical methodology to unpack Indian art.

While this course will delve into the philosophical foundations of Indian aesthetic traditions from theoretical and practical aspects, it will also be strongly related to culture, history, society, language and literature. This course is interdisciplinary to suit the development of academic life in a complex twenty first century context. Moreover, this course aims at retaining the relationship between the ancient and contemporary, which is indispensable in any sustained study of art. It aims at inculcating sensitivity to diverse art traditions from an Indian point of view. Its goal is also to create a critical mental framework which will make it possible for students to engage in art criticism.

Pre-requisite Course Codes		---	
Course Outcomes	CO1	To trace, identify and develop the Indian aesthetics to correlate human creative practices	
	CO2	Take a deep-rooted pride in Indian aesthetic knowledge and demonstrate commitment to universal human right, well-being and sustainable development.	
	CO3	Display the importance of Indian aesthetics in individual realization of the truth arises by realizing the harmony within.	

S.N.	Topics
1	The Introduction to Indian Aesthetics. The nature of aesthetics, its relation to philosophy and literature: Indian traditions.
2	Ancient Music and Music Instruments. The concept of Rasa. The Concept of Dhvani. Brief introduction to Indian musical instruments
3	Contemporary Indian Aesthetics (a) Rabrindranath Tagore (b) Sri Aurobindo (c) R. D. Ranade (d) Coomaraswami.
4	Ancient Dance & Drama: Indian traditional and folk dances
5	Ancient Art (Literature, Architecture, Sculpture, Painting) during Vedic, Buddhist, Jaina, Rajput and Islamic period.

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC03	**Sketching**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

Sketching is about generating and communicating ideas. This course is intended for student who wishes to get better at sketching and recording information graphically. This course can teach student the fundamentals to developing sketching skills. This course focuses on using traditional materials, pencil and paper. This course is also a great starting point for other areas of visual thinking, like graphic facilitation or sketch noting. Students can self-practice and learn to sketch user interfaces, user flows, UI animations and storyboards. Improving your sketching skills is going to be a great addition to your workflow as a UX, UI or product designer.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Use sketching as a means of communication
	CO2	Demonstrate skills of traditional sketching techniques
	CO3	Demonstrate creativity while sketching
	CO4	Apply knowledge of sketching for basic shapes required in product design

S.N.	Topics
1	**Understanding Sketching:** The Psychology of Sketching. Defining Sketching. Orientation. Registration. Form. Line. Exploring Forms in space and time.
2	**Basics of Sketching:** Drawing materials and skills, Perspective terminology, Perspective drawing technique, creating grids, Ellipses and rotations, working with volume, drawing environments, Drawing wheeled vehicles, Sketching styles and mediums.
3	**Sketching Techniques:** Side View Sketches, Perspective Drawing, Simplifying Shape, Elementary Geometrical Shapes
4	**Sketching for Product Design:** Special attention for Ellipses, Rounding, Cross Sections, Ideation, Explanatory drawings, Surface and Textures, Emitting Light, Context. Basics of Digital sketching

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

References:
1) Sketching: Drawing Techniques for Product Designers by Koos Eissen and Roselien Steur
2) Drawing for Product Designers (Portfolio Skills: Product Design) by Kevin Henry
3) How to Draw: Drawing and Sketching Objects and Environments by Scott Robertson
4) How to sketch: A Beginner's Guide to Sketching Techniques, Including Step By Step Exercises, Tips and Tricks by Liron Yanconsky

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC04	**Personality Development and People Management**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

Personality development is an important aspect of human development. To be a more charismatic person, one has to develop your inner self as well as your outer self. The importance of personality development is undisputed in personal and professional life, as it helps candidates to gain a competitive edge during placement and job interviews. Every individual has unique skill sets and their potential is multi-faceted. The program focuses on individual personality development which will help them to enhance their capabilities and help them convert their dreams and aspirations into a reality.

This course is used to remove public speaking as one of their biggest fears of a student. Good public speaking is more than a performance. It is the result of: Critical thinking, Well-organized narrative, Reasoning, Research and Preparation. In this course, methods that help to reduce anxiety, build confidence, and customize a process which will results in successful speaking experiences shall be taught.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Demonstrate readiness to work on the weaknesses and transform them into strengths to make the right decisions wisely.
	CO2	Develop behavioural capabilities of managing self and people resulting in better outcome in personal and professional life
	CO3	Prepare clear and impactful speech for various purposes, occasions and audiences
	CO4	Demonstrate a level of confidence and presence as a dynamic speaker
	CO5	Use tools and methods for controlling public speaking anxiety

S.N.	Topics
1	Develop Presentation Skills
2	SWOT Analysis (Strengths / Weaknesses / Opportunities / Threats)
3	Identifying and co-creating success oriented behavioural patterns
4	Learn to stay Self-Motivated
5	Develop Self Understanding
6	Assertiveness Skills
7	Positive Attitude Building
8	Leadership Skills
9	Optimism and Positive Thinking
10	Developing Agility
11	Self-Organization
12	Relationship Management
13	Presentation skills

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

14	Crisis management & Decision making
15	Develop belief system
16	Develop Self Alignment

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC05	**Work Life Balance**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						50

Establishing a balance at work and in our personal life can be challenging. Individuals who live lives out of this balance are at greater risk for burnouts, ill-health, and absenteeism. And those employees with better-balanced life live a happier, satisfied, and more productive life at work and in their families.

This course explores the concept of work-life balance and provides practical strategies for achieving harmony between professional responsibilities and personal well-being. Students will learn to identify sources of imbalance, develop time management skills, set boundaries, and cultivate habits that promote overall health and fulfilment.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Define work-life balance and explain its importance
	CO2	Create a healthy lifestyle that supports a good work-life balance
	CO3	Manage their time effectively and prioritize their tasks.
	CO4	Develop a comprehensive work-life balance plan

S.N.	Topics
1	**Understanding Work-Life Balance**
	o Defining work-life balance and its importance
	o Historical context and changing dynamics in the modern workplace
	o Exploring the impact of imbalance on health, relationships, and productivity
2	**Assessing Personal Priorities**
	o Reflecting on personal values and goals
	o Identifying priorities in various life domains (career, family, health, leisure)
	o Assessing current levels of satisfaction and alignment with priorities
3	**Time Management and Organization**
	o Principles of effective time management
	o Tools and techniques for prioritizing tasks and managing deadlines
	o Strategies for minimizing time-wasting activities and increasing productivity
4	**Setting Boundaries**
	o Establishing boundaries between work and personal life
	o Communicating boundaries effectively with colleagues, supervisors, and family members
	o Handling requests and interruptions assertively
5	**Stress Management and Self-Care**
	o Understanding the relationship between stress and work-life balance
	o Stress management techniques (e.g., mindfulness, relaxation exercises)
	o Prioritizing self-care practices to maintain physical and emotional well-being
6	**Flexible Work Arrangements**
	o Exploring options for flexible work arrangements (e.g., telecommuting, flextime)

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

		o Benefits and challenges of flexible work arrangements for employees and employers
		o Strategies for negotiating flexible work arrangements with employers
7	**Nurturing Relationships**	
		o Balancing professional and personal relationships
		o Strategies for maintaining quality time with family and friends
		o Enhancing communication and connection in relationships
8	**Creating a Sustainable Work-Life Balance Plan**	
		o Integrating course concepts into a personalized work-life balance plan
		o Setting SMART goals for achieving balance in various life domains
		o Implementing strategies for ongoing self-assessment and adjustment

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC06	**Art of Living**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						50

This course explores the principles and practices of living a fulfilling life through the lenses of mindfulness, self-awareness, emotional intelligence, and positive psychology. Students will learn practical tools and techniques to enhance their overall well-being, manage stress, and cultivate meaningful relationships. This course is introduced with a vision to nourish a balanced lifestyle for individuals and in the process contribute to create a stress-free and violence-free society.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Set her/his own goal for life with core values and start exploring concept of happiness and well-being
	CO2	Evaluate situations & problems and can act like a resilient with empathetic and equitable way
	CO3	Create empathy, broaden the conception of people, moral concern, a sense of honor and decency, and strengthen responses to unjust conditions.
	CO4	Make humanitarian qualities as the basic tools for enjoying the journey from "I" to "We" to promote effective living in this precious world.
	CO5	Achieve competency to cope with rapidly changing world considering college as a place and platform to create knowledge and skills for their meaningful survival

S.N.	Topics
1	**Introduction to the Art of Living** o Understanding the concept of the Art of Living o Historical perspectives and cultural influences o Exploring the relationship between happiness and well-being
2	**Mindfulness and Presence** o Introduction to mindfulness meditation o Cultivating present-moment awareness o Practicing mindfulness in daily life
3	**Self-awareness and Emotional Intelligence** o Understanding emotions and their impact on well-being o Techniques for enhancing self-awareness o Developing emotional intelligence skills
4	**Stress Management and Resilience** o Identifying sources of stress o Coping strategies for managing stress o Building resilience in the face of adversity
5	**Finding Meaning and Purpose** o Exploring values and beliefs o Discovering personal strengths o Creating a sense of purpose and meaning in life

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

6	**Cultivating Positive Relationships**
	o Communication skills for building healthy relationships
	o Nurturing empathy and compassion
	o Resolving conflicts and fostering connection
7	**Self-care and Well-being Practice**
	o The importance of self-care
	o Creating a personalized self-care plan
	o Integrating holistic well-being practices into daily life
8	**Reflection and Integration**
	o Reflecting on personal growth and insights gained
	o Setting intentions for continued practice
	o Integration of course concepts into daily life

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC07	**Yoga Vidya**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						50
Through this course, students will get an all-round experience of how Yoga can benefit their body, breath, emotions along with relaxation techniques to maintain a calm and balanced state of mind.								

Pre-requisite Course Codes		---
Course Outcomes	CO1	Perform various techniques of Yoga
	CO2	Follow healthy habits to improve immune system
	CO3	Describe the importance of Yoga in one's life
	CO4	Make resolution to practice techniques of Yoga

S.N.	Topics
1	What is Yoga, why Yoga? Techniques: warm up stretches for hands, legs, neck; Sukhasana, Padmasana
2	Introduction to Ashtanga Yoga Techniques: Talasana, Utkatasana, Konasana 2
3	Asana classification and importance of different types of Asanas Techniques: Sthita-prarthanasana, Ekpadasana, Garudasana
4	Yogendra rhythm- breathing pattern Techniques: Parvatasana, Yashtikasana
5	Forward bending and abdominal compression Techniques: Konasana 3, Yogamudra
6	ShuddhiKriyas- Prevention of diseases by improving immune system Techniques: Jalaneti, Kapalabhati
7	Yogic Aahar Techniques: Vajrasana, Pavanmuktasana
8	Relaxation and it's importance Techniques: Shavasana
9	Spine and it's importance in Yoga Techniques: Bhujangasana, Makarasana, Vakrasana
10	Pranayama Techniques: Basic techniques
11	Attitude training Techniques: connecting techniques to concepts.
12	Pranayama Techniques: Traditional Pranayama
13	Yogachara- The Yoga way of living Techniques: Games

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC08	**First Aid and Self Defence**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course is included with a mission to prevent loss of life and injury in the community. First Aid is the temporary help given to a sick or injured person before professional medical help can be provided. This timely assistance is most critical to victims, and in most cases, is life saving. A first-aiders immediate response in the first fifteen minutes after the incident is a determining factor of what will happen to the victim in the next one hour. A course is designed to teach students first aid procedures and lifesaving drills. This course will enable the student to recognize and avoid hazards within his/her environment; to intelligently assist in case of accident or illness; to develop skills necessary for immediate and temporary care of a victim.

This course also teach self-defence and this concept s introduced with the motto that '*you must accept responsibility for your own protection*'. In this course student will be able to learn self defence, a new skill that will save his/her life. It is expected that the techniques demonstrated in each session is easy to understand and based on a reality-based scenario. There are many means of protecting yourself like hitting certain pressure points which will be demonstrated in the course.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Demonstrate use of proper first aid techniques in case of life threatening emergencies, injuries and medical emergencies
	CO2	Demonstrate that he/she is trained to use first aid skills to help someone until medical professionals arrive
	CO3	Demonstrate that he/she is trained to provide care to both children and adults during times of crisis
	CO4	Use strategies and tactics after recognizing developing attack for self defence
	CO5	Demonstrate techniques of self defence to prevent someone from hurting him/her
	CO6	Use different ways that men and women tend to approach confrontations

S.N.	Topics
1	Responding to emergency, Where to get help, Before Giving Care, The Human Body, Checking the Person
2	Life Threatening Emergencies: Cardio Pulmonary Resuscitation (CPR), breathing emergencies, bleeding, shock
3	Injuries: Soft Tissue Injuries, Musculoskeletal Injuries, Injuries to the Extremities, Injuries to the Head, Neck and Spine, Injuries to the Chest, Abdomen and Pelvis
4	Medical Emergencies: Sudden Illnesses, Poisoning, Bites and Stings, Substance Abuse and Misuse, Heat-Related Illnesses and Cold-Related Emergencies, Heat Burns and Chemical Burns, Eye, Nose, Ear emergencies
5	Special situations: Water-Related Emergencies, Pediatric, Older Adult and Special Situations, Emergency Childbirth, Disaster, Remote and Wilderness Emergencies

Society of St. Francis Xavier, Pilar's

Fr. Conceicao Rodrigues College of Engineering

Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

6	Introduction, Purpose and Awareness.
	Mental Attitude: What is self defence? Positive thinking and spotting trouble.
7	Defense Moves for Beginners that You Must Know. Safe Distance, Verbal Parries, Pre-attack Cues, Footwork, Movement, and Blocking.
8	Chokes, Wrist/Arm Grabs, Clothing Grabs. How to Defend Against Grabs
9	Punches, Grab and Punch, Kick Defence, Hair Grabs. How to Defend Against a Punch and Grab
10	Targets, Basic Strikes, Basic Kicks. How to Dodge Against Kicks
11	How to Defend Against a Knife Attack. How to Execute Aggressive Counter Attack
12	Selected Special Situations, Sexual Assaults and Unwanted Attention

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Reference:

1)Manual from American Red Cross 'Responding to Comprehensive First Aid/CPR/AED'.

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC09	**Fire Safety and Electronic Security**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

Fire hazard prevention is an important life skill necessary for any human being. In this course students will learn causes of fire, methods to prevent fire, handling equipment's related to fire safety along with concepts of industrial safety. Course also deals with training on electronic safety equipment's.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Perform task with due consideration to safety rules
	CO2	Read and interpret technical parameters/ documents related to safety and security
	CO3	Demonstrate attitude of responsible citizen by active participation in activities related to safety and security

S.N.	Topics
1	Fire and Safety Industry
2	Chemistry of Combustion (Fire Triangle)
3	Emergency Planning and First Aid
4	Fire Prevention. Fire Extinguishers.
5	Various equipment's and fittings
6	Industrial and Construction Safety
7	Electronic Security Systems
8	Fire and Safety Standards
9	Fire Drills and Demonstrations
10	Emergency wards of hospitals
11	Visit to Disaster Management Institute

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC10	**Sports Technology**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course delves into the intersection of sports and technology, examining how advancements in technology have revolutionized various aspects of sports performance, training, analysis, and fan engagement. Students will explore cutting-edge technologies, their practical applications in sports, and the implications for athletes, coaches, teams, and fans.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Explain the key technological developments in sports industry
	CO2	Explain technologies used for monitoring health & performance of a sportsperson, training, motion capture and fan & stadium engagement
	CO3	Describe principles of sports equipment design with ethical, social and regulatory considerations
	CO4	Prepare a project exploring a specific aspect of sports technology

S.N.	Topics
1	**Introduction to Sports Technology** o Defining sports technology and its significance in modern sports o Historical overview of key technological developments in sports o Ethical considerations and challenges in the use of sports technology
2	**Wearable Technology in Sports** o Overview of wearable devices for athlete monitoring and performance analysis o Examples of wearable sensors, smart clothing, and biometric tracking devices o Applications in injury prevention, rehabilitation, and optimizing training regimes
3	**Data Analytics and Sports Performance** o Introduction to sports analytics and performance metrics o Data collection methods and analysis techniques (e.g., tracking systems, video analysis) o Using data analytics to enhance athlete performance and optimize team strategies
4	**Virtual Reality and Simulation in Sports** o Understanding virtual reality (VR) and augmented reality (AR) technologies o Applications of VR/AR in sports training, skill development, and game preparation o Immersive experiences for fans through VR/AR broadcasting and spectator engagement
5	**Sports Biomechanics and Motion Analysis** o Exploring biomechanical principles in sports performance o Motion capture technology and its role in biomechanical analysis o Case studies of motion analysis in sports training, technique refinement, and injury prevention

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

6	**Sports Engineering and Equipment Design**
	o Overview of sports equipment design and engineering principles
	o Innovations in sports equipment technology (e.g., footwear, apparel, protective gear)
	o Performance testing, materials science, and sustainability in sports equipment
7	**Fan Engagement and Stadium Technology**
	o Enhancing the spectator experience through technology
	o Stadium infrastructure and amenities (e.g., scoreboards, lighting, seating)
	o Digital engagement platforms, social media integration, and interactive fan experiences
8	**Future Trends and Implications**
	o Emerging technologies shaping the future of sports
	o Ethical, social, and regulatory considerations in sports technology
	o Opportunities and challenges for athletes, coaches, teams, and the sports industry

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Fr. Conceicao Rodrigues College of Engineering

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC11	**Athletics**	-	-	2	--	--	1	1
		Examination Scheme						
					ISE			**Total**
					50			**50**

This course is introduced to create a sense of self discipline and importance of fitness in a person's life. Appropriate Athletics attire is required for all students. Course instructor is expected to continually observe athletic skills in student, assess their skills and give positive encouragement for improvement. This course teaches the student sports skills that are essential to a variety of other activities. It also provides the students with a means for self-expression and social interaction. Long term goal is that the student will acquire basic athletics skills, appropriate social behavior and functional knowledge of the rules necessary to participate successfully in athletics competitions. Students enrolled in this course are expected to participate in Fr CRCE organized Marathon kind of events.

Pre-requisite Course Codes	---	
Course Outcomes	CO1	Demonstrate lifelong fitness skills that will help him or her lead a more productive and independent life.
	CO2	Demonstrate self-discipline in day to day life
	CO3	Display ability to make independent decisions

S.N.	Topics
1	Mental Preparation, Warm-Up, Walking, Running, Stretching, Cool-Down Upper Body, Low Back & Glutes and Lower Body
2	Basic Mechanics of Running: Sprinter and Distance Runner
3	Starts Skill Progression, Stand-up Start, Deep Start, Push-up start, Block start, Starts, Power Foot
4	Sprints Skill Progression, The Sprints, Start Phase, Accelerating Phase, Finish Phase andSprint Striding Techniques
5	Hurdles Skill Progression
6	Relays Skill Progression
7	Middle Distance Skill Progression
8	Long Distance Skill Progression
9	Marathon Skill Progression
10	Standing Long Jump Skill Progression Running Long Jump Skill Progression
11	High Jump Skill Progression
12	Race Walking Skill Progression
13	Wheelchair Racing Skills Progression
14	Softball Throw Skill Progression

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC12	**Aerobics and Fitness**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course is designed to offer the students a wide variety of cardiovascular fitness activities in order to physical wellness. Aerobics can be defined as group exercise to music, using large, continuous, rhythmic movements to elevate the heart rate and produce a training effect, enhancing cardiorespiratory endurance. This course will teach students knowledge of fundamental skills and techniques related to aerobics.

Pre-requisite Course Codes		---	
Course Outcomes	CO1	Apply knowledge of aerobic and strength routines that will enhance lifetime fitness.	
	CO2	Demonstrate an understanding of the strategies, current research, safety and etiquette associated with aerobics.	
	CO3	Describe an understanding of the mental and physical health benefits to be derived from aerobics.	
	CO4	Identify the significance of nutrition and components of Nutrient	
	CO5	Draft personal fitness plan	

S.N.	Topics
1	Introduction: 1.1 Meaning and definition of fitness and wellness and its components. 1.2 Factor affecting physical fitness and values of physical fitness. 1.3 Means of fitness development - Aerobic and anaerobic exercise. 1.4 Warming up and cooling down – Methods, Duration & components of warming up and calculate target heart rate zones for various aerobic exercise intensities.
2	Contemporary Health Issues 2.1 All-Around best balanced diet plan 2.2 Food guide pyramids and food guide labels(Nutrition facts) 2.3 Weight Management: Factors influencing obesity, winning strategies for weight-loss success, 2.4 Alcohol and other drugs of abuse.
3	Stress maintenance guidelines
4	Workout and physical activities

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Recommended Books:
1) Kravitz, Len "Anybody's Guide to Total Fitness", Kendall Hunt Publishing Co.10th Ed.
2) Kenneth H. Cooper, "The New Aerobics", M. Evans and Company

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC13	**Study of Dance Forms**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course provides study of various Indian dance forms, exploring their history, techniques, cultural significance, and contemporary practices. Through discussions, practical workshops, demonstrations, and performances, students will develop a comprehensive understanding and appreciation of Indian dance traditions.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Explore various Indian dance forms
	CO2	Explain how dance forms are deeply rooted in Indian culture
	CO3	Participate in dance performances

S.N.	Topics
1	Introduction to Indian Dance
2	Classical Dance Forms: Bharatanatyam, Kathak, Odissi etc
3	Folk Dance Traditions
4	Contemporary Indian Dance
5	**Dance as Ritual and Performance** o Ritualistic aspects of Indian dance: temple traditions, religious ceremonies, and festivals o Performance contexts and venues for Indian dance (e.g., proscenium stage, outdoor festivals, community events)
6	**Cultural Perspectives and Global Impact** o Exploring the representation of Indian dance in popular culture, cinema, and media o Cultural appropriation vs. cultural exchange in the context of Indian dance o Contemporary issues and challenges facing Indian dance practitioners and communities

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC14	**Introduction to Dramatics: Exploring Theatre Arts**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course introduces students to the fundamentals of dramatics, covering various aspects of theatre arts including acting techniques, play analysis, performance styles, and stagecraft. Through practical exercises, readings, discussions, and performances, students will develop their understanding and appreciation of dramatic literature and theatrical production.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Describe an Art of Theatre.
	CO2	Express their thoughts.
	CO3	Create and visualize new ideas.
	CO4	Perform impressively.

S.N.	Topics
1	**Introduction to Theatre** o The role of theatre in society and culture o Introduction to key concepts: playwright, director, actor, audience
2	**Acting Fundamentals** o Physical and vocal warm-up exercises o Exploring character development and motivation o Techniques for script analysis and interpretation
3	**Theatrical Genres** o Exploring different genres of dramatic literature (comedy, tragedy, drama) o Analyzing plays from various periods and cultures o Understanding conventions and characteristics of each genre
4	**Performance Styles** o Introduction to various performance styles (realism, naturalism, expressionism, etc.) o Exploring non-realistic techniques and experimental forms o Discussion of the influence of performance styles on interpretation and staging
5	**Stagecraft and Technical Theatre** o Introduction to stagecraft: set design, lighting, sound, and costumes o Understanding the roles of technical crew members o Hands-on activities and demonstrations in technical theatre
6	**Directing and Play Production** o The role of the director in shaping a theatrical production o Principles of stage blocking and movement o Collaborative process: working with actors, designers, and crew
7	**Rehearsal Process** o Overview of the rehearsal process from casting to performance o Techniques for character development and ensemble building o Rehearsal strategies and exercises

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

8	**Performance and Critique**
	o Final performances of scenes or one-act plays
	o Peer critique and feedback sessions
	o Reflection on the rehearsal and performance process

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC15	**Fundamentals of Photography**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course is for students who want to have a first approach to the world of digital photography, both indoors and outdoors, starting with the basics of photographic technique. The various photographic genres will be addressed by the portrait in studio and in a "household" - considering the use of tools and equipment available to the students - and the landscape, intended as a research of expression through special technical languages. Moreover, reportage and a specific focus on street photography, bird, nature and wildlife photography. Approach would be to build possible photographic service, through exercises "in the field" and the introduction to topics of photo editing. The course shall end with a good story social media story created through clicked and edited photographs.

Pre-requisite Course Codes	---	
Course Outcomes	CO1	Create pictures through photography for impactful visual storytelling
	CO2	Demonstrate from the basics of how camera works to the correct techniques of setting in a typical mode.
	CO3	Demonstrate what makes photos come out brighter or darker and carry out field study to improve photographic skills
	CO4	Optimize the image with photo editing tools and use these images correctly to create engaging stories across social media platforms.

S.N.	Topics
1	Introduction to Photography, Theory of Technique, The Camera, Picture Building, Lighting, Advanced Composition, Photographic Style, Photojournalism
2	Understanding how your digital camera works, Your Camera's Automatic and Assisted Settings, Your Camera's Manual Settings, Composition and Technique, Editing Images in Post
3	Reportage: shooting technique, street photography, planning and executing of the reportage, critical reading of the images, guided exercises outdoors
4	Field study through Nature and Landscape photos, Bird Photography and Wildlife Photography
5	Photo editing: introductory elements of photo editing, early approaches to the principles of image selection and construction of the photographic story, digital imaging and archiving
6	Photography for Social Media: Whether you're managing your personal or brand's online presence, using the right images is an essential part of telling your story through social media. While many of us these days carry around a camera, our phones, in our pockets every day, how many of us really know how to use it to create and share images that make an impact with social media audiences? This chapter would cover basics of digital marketing and would provide answers to following questions.

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

	What impact the images/style you use has on your brand's identity?
	How to create visual assets for social media that truly represent you/your brand?
	What you need to create engaging and impactful images: from iPhones to DSLRs?
	Lighting, focus and composition: from food to product to lifestyle images?
	How to optimise your images for social media?
	Editing software: explore available options and price points for improving the appearance of your photographs?
	How to develop a visual strategy for social media channels: explore the major social networks and how to best use them?

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Fr. Conceicao Rodrigues College of Engineering

Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC16	**Cinematography**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course explores the principles, techniques, and aesthetics of cinematography, focusing on the visual language of film and the role of the cinematographer in storytelling. Through lectures, screenings, discussions, and hands-on exercises, students will develop a comprehensive understanding of the technical and creative aspects of cinematography.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Analyse the foundations of film making
	CO2	Reflect upon camera basics, lighting fundamentals, composition & framing, color theory and cinematography styles
	CO3	Appreciate that collaboration and effective communication is essential element of cinematography

S.N.	Topics
1	**Introduction to Cinematography** o History and evolution of cinematography o Roles and responsibilities of the cinematographer o Elements of visual storytelling: composition, framing, and movement
2	**Camera Basics and Operations** o Camera anatomy and functionality o Understanding camera sensors, lenses, and focal lengths o Exposure control: aperture, shutter speed, and ISO
3	**Lighting Fundamentals** o Principles of light: quality, direction, and color temperature o Lighting equipment and accessories o Techniques for shaping and controlling light
4	**Composition and Framing** o Rule of thirds and other compositional guidelines o Framing techniques: shot sizes, angles, and perspectives o Visual storytelling through composition
5	**Movement and Cinematic Language** o Camera movement techniques: dolly, pan, tilt, zoom, and handheld o Understanding the expressive potential of camera movement o Analyzing the use of movement in classic and contemporary films
6	**Color Theory and Grading** o Fundamentals of color theory and psychology o Color temperature, white balance, and color correction o Creative color grading techniques and aesthetics
7	**Cinematography Styles and Genres** o Exploring different cinematographic styles and approaches

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

	o Case studies in genre-specific cinematography (e.g., film noir, horror, documentary) o Analyzing the visual language of influential cinematographers
8	**Collaborating with the Director and Crew** o Working relationship between the director and cinematographer o Collaboration with other departments: production design, costume, and makeup o Effective communication and leadership on set

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC17	**Music Appreciation and Composition**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**
Music appreciation and composition is a basic course aimed at the enhancement of the student's capacity to enjoy music, and to the building of listening and analytical skills as well. This course will take students through the technical nuances of journey of music composition.								

Pre-requisite Course Codes		---
Course Outcomes	CO1	Appreciate various processes of Music composition
	CO2	Appreciate the role of engineers in sound recording

S.N.	Topics
1	Introduction to audio and digital audio
2	Types of Mics and Speakers
3	Introduction to instruments
4	Introduction to Audio Console
5	Audio Production Process
6	Effects
7	Mixing aesthetics
8	Make your song

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC18	**Script writing**	-	-	2	--	--	1	1
		Examination Scheme						
				ISE				**Total**
				50				**50**

The most complex of all the arts is giving birth to an imaginary character. This course is introduced to build the foundations of script writing. This course shall provide students with a supportive environment that allows their natural story-telling talent to shine through. The course has an interactive and proactive narrative approach rather than focusing on theory. Students' own ideas and skills as a writer will be encouraged in a fun environment as part of the course.

This course will focus on how to brainstorm and develop your story. The students learn how to develop the story further using different tools of plotting, understanding the importance of structure, and focusing on how scenes are created and how they come together to function as one organic whole.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Use correct script formats and layouts
	CO2	Demonstrate creativity with writing exercises
	CO3	Demonstrate their story telling skill through script
	CO4	Write a script with confidence

S.N.	Topics
1	Introduction to script writing
2	Understanding and using 3 Act Structure
3	Developing Character
4	Plotting Structure, Scene and Its Functions
5	Structure, Scene and Its Functions
6	Step Outline
7	Dialogue Writing
8	The Conventional Format and Scriptwriting Software
9	Drafting a professional script

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC19	**Vehicle Maintenance and Traffic Rules**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course teaches students how to keep their vehicles running smoothly and obey traffic rules. This course includes lecture and hands-on sessions where students work on their own vehicles, learning where things are located and the basics of correcting problems.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Gain experience in conducting basic tune-ups, checking the vehicle's minor and major systems, including the electrical and cooling systems
	CO2	Become better, safer and more socially responsible road user

S.N.	Topics
1	**Fundamental of Vehicle Maintenance**: Categories of vehicles. Lights and reflectors, checking oil, air-pressure in Tyres, changing tires, and conducting other simple tasks that keep vehicle functioning.
2	**Safety and Tools**: Overview of the tools that are used in the automotive field and the safety to be observed while using them as well.
3	**Cooling System Overview**: Working principle, Components of a Cooling System, Cooling System Maintenance and Repair, difference between Air conditioning and Engine coolants.
4	**The driving test and Driving License**: Categories of driving licenses, Basic information on how apply for your driving test, learner and full driving licenses, renewing your license, basic legal documents. The driving test.
5	**Good driving practices:** Safety belts, Other safety responsibilities, Overtaking, Changing traffic lanes, Reversing, U-turns, Driving at night and Using a horn. Traffic Signs and Road Marks, Traffic lights and signals, Speed Limits, Junctions and Roundabouts, Parking, Motorways and Tunnels, Factors that affect safe driving, Correct behavior at the scene of an accident, Penalty points, fixed charges and driving bans, Rules for motorcyclists, Respecting other road users.

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

References:
1) The Maharashtra Motor Vehicles Rules, 1989
2) Motor Vehicle Department Maharashtra State, Learners License Test Question Bank
3) http://www.trafficsigns.co.in/
4) https://www.carparts.com/classroom/coolingsystem.htm

Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC20	**Garden Design and Maintenance**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course offers knowledge of the basics of gardening, how to design a garden and how to care for different types of plants. This course provides you an opportunity to design your own garden. Topics ranging from understanding soil types, selection of plants to caring for various flowers e.g. rose cultivation, are covered. Uses of fertilizers, the compositions of compounds that different types of plants require are taught in the course. The course largely benefits those in an urban setting as it also teaches indoor gardening as well as managing outdoor gardening. This course also teaches care for plants in greenhouses as well as the basics of the Nursery business, which included financial planning and production of flowers. In an age of inorganic farming where organic products are becoming costlier day by day, the course also teaches managing plants yielding vegetables, fruits and herbs. With this basic knowledge, in future, you can turn your hobby and passion into a money-making opportunity by starting your own gardening company.

Students can be taken to Nursery, Farm or Green house for demonstration purpose.

Students are expected to complete their exercises in the campus and work towards making campus greener.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Demonstrate an understanding of garden site
	CO2	Gain some proficiency in basic garden design principles
	CO3	Layout a rough site plan overview of your garden design
	CO4	Demonstrate sensitivity towards environment by his or her actions

S.N.	Topics
1	How plants work? Gardening Basics.
2	Garden Design Process, Site assessment, Designing Your Garden: Effective use of space, finalizing garden layout plan, creating a planting plan, choosing & buying plants
3	Secrets of Great Soil, Plant Selection & Care and Plant Knowledge
4	Low Maintenance Gardens/Planting, Vegetable and Herb Gardens
5	Sustainability, Garden Maintenance, Equipment, Pest Control
6	Running your own Gardening Business, Marketing and Social Media, Health and Safety, Insurance, Tax and Record Keeping
7	Put Up Garden Fencing, Turf a garden / lay a lawn and Laying artificial grass areas

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC21	**Managing Social Media**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

Social media is an effective instrument for students to study and share their thoughts. Social media platforms make it easier to connect with experts and thought leaders in various fields. This course aims to help students create and curate content for Social media for the college. It is introduced to give students real life experience of curating social media contents by volunteering for college social media team. Fr CRCE has presence on many social media platforms. Students enrolled in this course will have an opportunity to collaborate with various departments, clubs and committees to create an impactful social media content.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Curate social media contents
	CO2	Manage social media of the college

S.N.	Topics
1	Social media introduction
2	Creating graphics using various tools
3	Creating videos using various tools
4	Creating and writing blog posts
5	Social media strategies
6	Building community through social media for the college
7	Impactfully managing social media of the college

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
		-	-	2	--	--	1	1
25LLC22	**Server and Network Maintenance**	**Examination Scheme**						
				ISE				Total
				50				50

Today's businesses rely heavily on IT infrastructure to operate efficiently and deliver services to their clients. Therefore, the importance of server and network maintenance cannot be overstated. Proper server maintenance can prevent downtime, enhance security, and extend the lifespan of equipment. College has a dedicated server room and large IT infrastructure across the campus. This course is introduced to give real life experience and learning opportunity to students by managing server and network of the college.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Perform tasks related to server maintenance
	CO2	Perform tasks related to network maintenance

S.N.	Following are the activities students are expected to do in the course
1	Study of servers available in the campus
2	Study of networking infrastructure available in the campus
3	Keeping a server software updated and running smoothly so that a computer network function properly and avoid downtime or loss of data.
4	Study server maintenance steps. Perform tasks like reviewing the server's performance, ensuring that automated system monitoring utilities are properly installed and configured, identifying potential security risks and backing up data at regular intervals.
5	Assist network administrator in maintain the computer networks in the campus
6	Study network maintenance steps. Perform hardware checks, troubleshooting, compliance checks, pre-emptive repairs, configurations, upgrades and network documentation.

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC23	**Electrical Safety**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

This course is introduced to help students in building up knowledge and skill on electrical safety. Students will learn importance of earthing and guidelines for providing earthing arrangements, Protection of the electrical equipment for safe use of electricity, Important electricity rules related to safety etc. This course will also give students opportunity to interact with experts from electrical safety industry.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Recognize electrical hazards
	CO2	Follow best practices to create an electrically safe working environment

S.N.	Topics
1	Elementary Electrical - Basics of Electricity
2	Risks and electrical hazards
3	Electrical testing. Exposure to general tools and tackle.
4	Electrical protection. Earthing
5	Important electricity rules and safety standards
6	Electrical accident prevention and first aid
7	Metering devices. Safety while doing electrical work
8	Study of electrical network in the campus

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC24	**Mentoring of School Children**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

Fr CRCE students are regularly involved in mentoring school children through IIC or other social activities/clubs. This course is created to streamline school connect programs and appreciating students involved in such programs by giving them due credits. A student in a college mentors a student of school on a subject or topic which of relevance for the school student. The objective is to make peer to peer learning easy and effective. Through the mentoring of young children, college students can acquire valuable knowledge and social skills. Connecting science, technology and innovation with societal outcomes through such courses, will drive strong economic and social progress for India.

Pre-requisite Course Codes	---	
Course Outcomes	CO1	Collaborate with schools and engage school children by conducting various activities for them
	CO2	Build a bond with a community of children, work with them to drive them to their potential, provide incessant guidance and motivation and nurture their creativity and innovative spirit.
	CO3	Develop a vision to give back to the country, and play a significant role in building a new India

S.N.	*Students are expected to get involved in the following indicative activities with schools on regular basis; however they can work with schools on their specific needs*
1	Get involved in Institution's Innovation Council (IIC) school connect programs and ATAL labs set-up across various schools. Collaborate regularly with Fr. Agnel School or any other school and plan for activities with the school. Students will have to dedicate time on a regular basis. These students are expected to spend 1 - 2 hours per week during / after school hours (based on mutual availability).
2	Help in regular teaching learning to the school or conducting activities or setting-up laboratories or practice future skills such as design thinking at school
3	Be instrumental in engaging students by joining in experimenting, innovating, and bringing their knowledge to practice.
4	Creating models, animations, films, storyboards and creative games for children
5	Identify various competitions and motivate/prepare/teach/guide school child to participate in competitions and showcase their innovations at prestigious platforms
6	Provide support, review specific student-projects and give constructive feedback to school management or individual student to allow further improvement.
7	Support the school in reaching out to communities in neighbouring areas.

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC25	**Social Club Activities**	-	-	2	--	--	1	1
		Examination Scheme						
				ISE				**Total**
				50				**50**

Fr CRCE students take part actively in various social activities through clubs like NSS and Rotaract. Through this course students actively engaged in social activities through NSS/Rotaract will be awarded with due credits.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Uphold the value system of Indian society and develop right attitude
	CO2	Identify major social, cultural and environmental challenges
	CO3	Develop empathy towards societal issues and demonstrate courage to solve them
	CO4	Collaborate and communicate effectively with identified stakeholders

S.N.	Few identified social activities to get credits through this course are:
1	Actively participate in National Service Scheme (NSS) camp
2	Actively participate in survey activities carried out for benefit of society like Safety during festivals, Implementation of Govt. schemes
3	Active participation as a volunteer in organising Mount Merry Fair, Independence Day celebrations and/or Republic day celebrations.
4	Celebrate national level events in the college by organising talks, workshops etc.
5	Participation in club specific events (except fun events)
6	Actively engage and sensitise other students of the college in social activities
7	Collaborate with NGOs, communities, public sector departments and govt departments like police, traffic etc.

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC26	**Cultural Club Activities**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						Total
		50						50

Fr CRCE students take part actively in various cultural activities of the college through student council. This course is introduced to recognise their participation and leadership skills in organising various cultural events in the college. Cultural club is a unique platform for the students to come together and to express their cultural talents. It is expected that students actively engaged in cultural activities will work towards spreading awareness of rich Indian culture among students.

Participation in cultural activities results in enhancement of the personal skills and experiences like confidence; self-presentation; teamwork and collaboration; time management and organizational skills; self-awareness; self-discipline; open mindedness to move beyond boundaries and experiment with different ideas; communication skills; the ability to cope with criticism and learn from them resulting in a whole new developed, changed and an improved person.

Pre-requisite Course Codes	---	
Course Outcomes	CO1	Participate in performing arts and cultural activities
	CO2	Demonstrate leadership skills by successfully organising cultural events
	CO3	Demonstrate respect towards cultural diversity

S.N.	Few identified activities to get credits through this course are:
1	Actively participate in university/state/national/international level cultural festivals
2	Assist teachers in regular courses by organising events/workshops/contest etc.
3	Actively participate in cultural events organised by the college

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC027	**Fundamentals of Vedic Astrology and Palmistry (Marathi)**	-	-	2	--	--	1	1

	Examination Scheme	
	ISE	Total
	50	50

Vedic Astrology, also known as Jyotish, is an ancient astrological tradition that started thousands of years ago in India. The term 'Vedic' is derived from the word 'Vedas,' which serves as the ultimate foundation of the astrology system. The term 'Jyotish' is taken from Sanskrit and refers to the 'science of light,' emphasizing the importance of celestial bodies in human life.

Vedic Astrology is used for a variety of purposes, including predicting the future, identifying personality traits, and making decisions. Several crucial elements, including nakshatras, birth charts, planetary positions, yogas, and the dasha system, assist these features.

According to Vedic astrology there are 27 constellations made up of 12 zodiac signs, 9 planets and 12 houses with each house and planet symbolizing some part of human existence. Twelve signs are assigned to each of the twelve houses, and nine planets are assigned to different houses based on the time of a person's birth. This visual representation of the snapshot of the signs and planets is called a horoscope chart. Simply said, Vedic astrology is the practice of deducing the significance of such configurations for living beings.

Palmistry is the art of studying the physical aspects of the hands to interpret personality characteristics and forecast future happenings. Within palm reading, hands are considered portals that provide priceless insight. Also known as palm reading, chiromancy, or chirology, the practice is widespread all across the world, with different cultural variants. Those who perform palmistry are often termed palmists, hand readers or hand analysts

Pre-requisite Course Codes		---
Course Outcomes	CO1	Demonstrate the Panchanga system on everyday life
	CO2	Develop a horoscope using K.P. method
	CO3	Possess the ability to evaluate a horoscope in order to make predictions
	CO4	Interpret a person's character by observing the features of the palm

S.N.	Topics
1	**Introduction to Vedic Astrology** ○ What is Vedic Astrology ○ Planets, nakshatras, titthi, Zodiac and their relationship with planets and nakshatras ○ How to read Panchanga
2	**Astrology and Astronomy** ○ Study of Universe and Galaxies related to astrology. ○ Characteristics of planets in space, planet movements ○ Relationship between planets and human life
3	**Mathematical Astrology - I** ○ Time measurement–GMT, IST, LMT; Latitude and Longitude ○ Equinox and Equator ○ Concept of Ayanamsha

Society of St. Francis Xavier, Pilar's

Fr. Conceicao Rodrigues College of Engineering

Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

4	**Mathematical Astrology - II**	
	o Casting Horoscope using Panchanga (K.P. method)	
	o Casting of Horoscope using online tools	
5	**Horoscope Reading**	
	o Rashi Swami, sub-lord, sub-sub lord	
	o Karyesh planets, PAC (Position, Aspects & Conjunction) of Planets	
	o Characteristics of 12 Bhav's in Horoscope	
	o Concept of Dasha, Antardasha and Vidasha	
6	**Predictions using Horoscope (K.P. method)**	
	o Case Study – I	
	o Case Study – II	
	o Case Study - III	
7	**Introduction to Prashna Kundali (K.P. method)**	
	o Concept of 1 to 249 Horary numbers	
	o Construction of Prashna Kundli	
	o Predictions using Prashna Kundali	
8	**Fundamentals of Palmistry**	
	o Introduction to Palmistry	
	o The Palm print	
	o Classification and analysis of hand	
8	**Detailed Palmistry**	
	o Interpretation of different lines on the palm	
	o Interpretation of different mountains on the palm	
	o Important Signs and their meaning	
	o Case Study of Palms (3 Nos.)	

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

References:

1. "Date Panchang" – Vikram Samvat (2020-21) – Date publications. Also available on Android App.
2. "Sampurna Prashna Shastra" – Vasant D. Bhat
3. "KRISHNAMURTI PADHDHATI PREDICTIVE STELLAR ASTROLOGY" - Late. Prof. K.S. KRISHNAMURTI - https://astrofoxx.wordpress.com/wp-content/uploads/2018/11/03-predictive-stellar-astrology-3-kp-system-by-prof-k-s-krishnamurty-good-quality.pdf
4. K.P. Method books https://archive.org/details/kp-readers/J_KP%20reader_1_casting%20the%20horoscope/page/n7/mode/2up
5. Palmistry Book: http://www.mysticknowledge.org/Complete_Book_Palmistry_-_By_Richard_Webster_.pdf.pdf

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	**T**	**P**	**L**	**T**	**P**	**Total**
25LLC28	**Garment Construction**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

The Garment Construction course focuses on the techniques, materials, and tools required to design and create garments. It covers pattern making, fabric selection, sewing, finishing, and quality control. Engineering students can benefit from a Garment Construction multidisciplinary course by understanding the technical aspects of fabric production, material properties, and automation in apparel manufacturing. This knowledge is crucial for engineers involved in textile machinery design and automation. Additionally, computer-aided design (CAD) and pattern-making software used in garment construction align with engineering principles, allowing students to develop innovative solutions for mass production, wearable technology, and sustainable fashion materials. This interdisciplinary knowledge bridges the gap between fashion and engineering, leading to advancements in textile technology and manufacturing efficiency.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Demonstrate hands-on skills in fabric cutting, sewing, and assembling garments with precision.
	CO2	Create, modify, and adjust patterns to achieve customized clothing fits.
	CO3	Explain fabric properties and their applications in different types of garments
	CO4	Explain eco-friendly garment production techniques and ethical labour practices in the fashion industry.

S.N.	Topics
1	**Introduction to Garment Construction** • Overview of the Fashion & Textile Industry • Importance of Garment Construction in Fashion Design • Tools, Equipment, and Materials Used in Garment Construction • Safety Measures in a Sewing Workshop
2	**Textile Science and Fabric Selection** • Types of Fibers and Fabrics (Natural, Synthetic, Blended) • Fabric Properties and Their Applications • Fabric Grain, Shrinkage, and Pre-Treatment • Understanding Fabric Drape and Stretch
3	**Basic Sewing Techniques** • Hand Stitching vs. Machine Stitching • Types of Seams and Seam Finishes • Hemming Techniques • Fabric Cutting Techniques
4	**Pattern Making and Drafting** • Introduction to Pattern Drafting

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

	• Understanding Body Measurements and Size Charts • Basic Bodice, Sleeve, and Skirt Patterns • Dart Manipulation and Style Variations • Commercial vs. Custom Patterns
5	**Garment Assembly and Construction Techniques** • Construction of Basic Garments (Shirts, Skirts, Trousers) • Assembling Components: Collars, Sleeves, Pockets, Zippers • Darts, Pleats, Gathers, and Ruffles • Lining and Interfacing Applications
6	**Advanced Sewing and Garment Detailing** • Tailoring Techniques (Jackets, Blazers, and Suits) • Decorative Stitching and Embellishments • Appliqué, Embroidery, and Surface Ornamentation • Use of Special Sewing Machines (Overlock, Buttonhole, Industrial Machines)
7	**Garment Fitting and Alterations** • Common Fitting Issues and Solutions • Adjusting Patterns for Custom Fit • Clothing Repairs and Alterations • Draping Techniques for Fitted Designs
8	**Finishing and Quality Control** • Pressing and Ironing Techniques • Garment Labeling and Branding • Inspection for Defects and Quality Standards • Packaging and Presentation
9	**Sustainable and Ethical Practices in Fashion** • Sustainable Fabric Choices • Eco-Friendly Dyeing and Printing Methods • Waste Management in Garment Construction • Ethical Production and Labor Practices
10	**Industry Applications and Career Development** • Understanding Mass Production vs. Custom Tailoring • Entrepreneurship in Garment Making • Market Trends and Innovations in Garment Construction

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC29	**Professional Cosmetology**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

A Professional Cosmetology course typically covers a range of topics related to beauty, skincare, haircare, and makeup artistry. A cosmetology course can be useful for engineering students, as it provides valuable knowledge about the chemical composition of cosmetic products, formulation processes, quality control measures, and the science behind skin and hair care, which can be applied to developing innovative cosmetic products and technologies in the beauty industry. First-hand knowledge of cosmetic products and its use can open up career opportunities in cosmetic research and development, product formulation, quality control, and technical sales within the beauty industry for engineer.

Additionally, mechanical and electronics engineers involved in developing beauty devices, such as laser treatment tools, hair straighteners, or skincare diagnostic equipment, can gain insights into their practical applications and user requirements. This interdisciplinary approach helps engineers design more effective and consumer-friendly beauty technologies.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Use sketching as a means of communication
	CO2	Demonstrate skills of traditional sketching techniques
	CO3	Demonstrate creativity while sketching
	CO4	Apply knowledge of sketching for basic shapes required in product design

S.N.	Topics
1	Introduction to Cosmetology
2	Anatomy and Physiology for Cosmetologists
3	Hair Care and Styling
4	Skincare and Facial Treatments
5	Makeup Artistry
6	Nail Care and Manicure/Pedicure
7	Chemical Treatments and Hair Care Science
8	Salon Management and Client Consultation
9	Business Development and Professional Growth

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
25LLC30	**Practical Nursing**	-	-	2	--	--	1	1
		Examination Scheme						
		ISE						**Total**
		50						**50**

A Practical Nursing course prepares students to provide basic nursing care. While engineering and nursing may seem unrelated, this course offers valuable interdisciplinary knowledge for engineering students, particularly those in mechanical, or software engineering. Understanding human anatomy, patient care, and medical technology can aid in designing healthcare equipment, developing medical software, or improving hospital automation systems. Engineers working in the medical field, such as those designing prosthetics, hospital management systems, or AI-driven healthcare solutions, can greatly benefit from a foundational understanding of practical nursing. This knowledge bridges the gap between technical innovations and real-world healthcare needs, ensuring engineers create more effective, user-friendly medical solutions.

Pre-requisite Course Codes		---
Course Outcomes	CO1	Provide basic nursing care, assist in daily activities, and monitor vital signs while ensuring patient safety
	CO2	Explain anatomy, physiology, and pharmacology to support patient recovery and well-being.
	CO3	Provide appropriate response in emergency situations
	CO4	Develop strong communication skills for interacting with patients, families, and healthcare teams
	CO5	Develop empathy towards nursing profession and real-world healthcare needs

S.N.	Topics
1	**Fundamentals of Nursing** - Role of a Nurse in Public Health - Ethics and Professionalism in Nursing - Patient Rights and Confidentiality - Working with Healthcare Teams - Real-Life Emergency Situations
2	**Anatomy and Physiology** - Human Body Systems Overview - Normal vs. Abnormal Functioning - Common Diseases and Disorders - Body Mechanics and Mobility
3	**Basic Nursing Skills** - Vital Signs Monitoring (Temperature, Pulse, Respiration, BP) - Patient Hygiene and Grooming Assistance - Mobility Assistance (Positioning, Transferring, Ambulation) - Wound Care and Dressing Changes

Society of St. Francis Xavier, Pilar's
Fr. Conceicao Rodrigues College of Engineering
Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400 050
(Autonomous College affiliated to University of Mumbai)

		• Documentation and Charting
4	**Pharmacology and Medication Administration**	
		• Safe Medication Administration
		• Dosage Calculations and Conversions
		• Side Effects, Adverse Reactions, and Contraindications
		• Pain Management and Drug Dependence
5	**Medical-Surgical Nursing**	
6	**Pediatric Nursing**	
7	**Maternal and Newborn Nursing**	
8	**Geriatric and Long-Term Care Nursing**	
9	**Mental Health and Psychiatric Nursing**	
10	**Community and Home Health Nursing**	

ISE: Assessment by Mentor=30 Marks, Attendance=10 Marks, Active Participation in activities/Observation by Mentor=05 Marks, Weekly reflections on course topics and personal experiences uploaded on the blog/portal created for the course=05 Marks