## St. Xavier's Catholic College of Engineering
## Chunkankadai, Nagercoil 629003
## Best Practices

## Best Practice-I

### 1. Title of the Practice:

Innovation in Teaching-Learning - Continuous Improvement in Teaching Methods and Students' Lifelong Learning

### 2. Goal:

To achieve continuous professional development of faculty and the lifelong learning of our students through integrated, coherent learning experiences that contributes towards their personal, academic and professional learning and development.

Development of a comprehensive course materials and resources – course file

Implementing a learner centric approach – producing self-learning students – Learning to learn

### 3. The Context:

Teachers strive to meet the principles of good practice in an effort to provide the best learning experience for their students. Teachers are responsible and accountable for designing and delivering a high quality of learning and teaching practice.

The fundamental purpose of curriculum design and development is should focus on how the educational experience contributes to students' development and their lifelong learning. They must be related to the conceptual frameworks, language and practices of the student's field of study through quality learning experiences.

Usage of ICT resources and incorporating the latest technology enabled tools & aids in the teaching learning process engages students in higher order thinking, design, analysis, and creativity.

Developing the comprehensive course material and resources which accommodates continuous improvement in teaching methods, techniques and the course materials are the need of the hour for development of faculty and students.

### 4. The Practice:

The course file is the one prepared by the course instructor for a particular course. It contains the syllabus, the objectives and outcomes expected of this course. It provides comprehensive information about the course in relevance to the programme connected with.

Course Delivery Plan: The dates and total period required to complete every unit of the course are planned meticulously in advance in accordance with internal assessment exams. Special topics were identified for seminar, assignments, interactive, collaborative and self-learning.

Assessment: The students are informed about the assessment methods followed, like three internal exams for internal assessment (20%) and university examination (80%). Continuous assessment of students through tests, projects, presentations, Internships, assignments, Seminars, Quiz, Group discussions, Study visit etc are carried out to test students' outcome in comparison with program outcome. These assessment tools and strategies are aligned to the learning outcomes.

Teaching Learning process:

Information and Communication Technology (ICT) enabled teaching tools are used by the faculty members in their teaching process.

Guest lectures from industry are arranged for the students to fill the gap of latest advancement in the industry

Moodle learning classes are arranged for students to acquire the knowledge from domain experts.

We encourage our staff and students to make use of E-learning facilities through SWAYAM and NPTEL which provide online Web and Video courses in the Engineering, Humanities & Sciences and Management streams.

Our faculties are encouraged to publish e-content of their course, research papers with students, applying for students' project proposals, minor and major project proposal with funding agencies which takes teaching learning experience to a higher order level.

Our students are motivated to publish research papers along with staff, convert their final year project as a project proposal to funding agencies which inculcates the habits of lifelong learning in our students.

Network Resource Base: our Local Area Network (LAN) has all the course materials uploaded by the course instructors. Students are permitted to make use these study materials like units notes, ppts, Question Bank and so on. Students have access to internet at any computer labs at no charge.

*Feedback:* Students' mid-sem feedback on teaching and result analysis, end-sem feedbacks on the curriculum are used to understand the learning level and to change the teaching strategy and further enriching the course. The final exit survey assesses the course outcome experienced by the students.

## 5. Evidence of Success:

This practice is related to the conceptual frameworks, language and practices of the student's field of study through quality learning experiences and continuous improvement in teaching learning process.

Tendency of faculties to use modern tools and ICT in their teaching practices

Teachers strive to meet the principles of good practice in an effort to provide the best learning experience for their students

Many faculty and students had enrolled and completed several courses in area of teaching learning and in their technical domain in SWAYAM.

The development of course file helps in continuous improvement in teaching learning process

Lecture notes and study materials are uploaded on the college network.

Timely and appropriate response and feedback from students on teaching learning

Appropriately paced and timely completion of syllabus and content beyond syllabus
Increased attendance in the classes
Improvement in Placement record of our students.

## 6. Problems Encountered and Resources Required:

Understanding the students and knowing what interests and life constraints conflict with their academic priorities are itself a major challenges of an instructor. Implementing resource development for teaching and learning through comprehensive course file system needs time and resources for preparation. If we fail to prepare systematically the deliverables in teaching and learning process, we will fail in our course outcome. Continuous updating of the course file with present trends, examination evaluation pattern, and model question papers is very much needed to draw the benefits of achieving the outcome.
Development of animation based power point presentations in teaching, particularly in technical subjects, The demand for ICT resources, the fast paced technological advancement like IoT, Machine and Deep Learning and so on, technology adoption by teachers, have been major challenge. The want of such an in – house technical expertise demands quick attention.

## 7. Contact Details

Name of the Principal           : Dr. J. Maheswaran
Name of the Institution   : St. Xavier's Catholic College of Engineering
City                           : Nagercoil
Pin Code                    : 629003

Accredited Status        : "A"
Work Phone                        : 04652- 232560    Fax     : 04652- 259664
Website                    : www.sxcce.edu.in
E-mail                            : principal@sxcce.edu.in
Mobile                     : 9842799973

# Best Practice-II

## 1. Title of the Practice:

Comprehensive Value Education System for the Total Development of the Students

## 2. Goal:

- To work for the total development of students and to prepare them to achieve the vision of the institution of developing a technically empowered humane society
- To animate the students to have a noble vision and a right value system for their life, avoiding all possible dissipations, so that they become pro-social technocrats and professionals who contribute to the world with humanism and a successful fulfilling life.
- To make the students into positive mature persons, who know their unique selves, the vagaries of the society, the potentialities of their profession and have the ability to relate with others maturely and contribute to industrial and human development.
- To give the students opportunities to experience the realities of our society and practice their leadership and values that they become reinforced in a value based life.

## 3. The Context:

Our contemporary Indian society is experiencing a big churning,- while people are very earnest to develop their life by making use of the new opportunities being opened, they are also facing a lot of confusion and tension, violation of human rights and a resurging phenomenon of degradation of life and nature because of wrong priorities and lopsided approaches. With judiciary taking its time for justice, women and children are the major victims in this media saturated world. The social menaces like eve teasing and caste discrimination, and the deep rooted corruption are still a nagging concern to all. Dissipating attractions like drugs, alcohol and even fundamentalism are threats to the healthy development of the students. Helping students to have personal vision for life and healthy relationships and sensitizing them with values such as honesty, hard work, social commitment and patriotism are important. When the staff and the experts sat together with the management to discuss about the total formation of our students, systematic value education program emerged as a task of paramount importance. A clear cut syllabus was developed with a credible strategy to execute it.

## 4. The Practice:

Providing service oriented high quality education in a wholesome manner for the marginally deprived society with discipline and human touch without

discrimination is our goal. Value education starts from the practice of having a five minute prayer, with readings and song every day at the beginning of the college. The Value Education Program courses have been systematically designed to run parallel with the academic curriculum in three phase every year. (Details of curriculum is given in the Table in section 7).

Separate hours have been allotted in the regular schedules for such trainings. Bringing in eminent trainers periodically, for intensive special trainings is in vogue. Recently a comprehensive life planning program has been ushered in from the first year.

Shaping one's life and navigating them in their late teens by exposing their own potentials and helping them to be aware of themselves and their uniqueness and accept themselves as they are and helping them find a fitting place for themselves on the global stage are the initial challenges for wholesome education.

Guiding them to fix their vision and dreams realistically in accordance with their personality makes them self-directed. Developing healthy relationship among peers and with complementary gender without intriguing emotional attachments are imported to develop the right attributes, attitudes and responses to work together. Attaining autonomy to take care of themselves and independence to take responsible decision for their own problems are instilled in the minds of the young.

Adapting to the changing environments and getting along with others in spite of differences, surviving and thriving in an atmosphere of competition are emphasized in their 2nd and 3rd years. They are asked to uphold the meaning of 'Universality', as unity in diversity, which is further stated as unity is not uniformity. Personal commitment and leadership skills are inducted to develop their personality to take up social responsibilities and group/team activities with a deep understanding of the dynamics of the society by social analysis. Exposure programs like village visits, social work camps, eco-friendly activities, and programs for school children help them explore their values. Opportunities for choosing the appropriate platforms to groom and nurture their own individual skills and leadership styles are provided for wholesome development.

While CETA (the training cell), Students Welfare Cell, and Counselling Cell come together in the training of the students, NCC, NSS, Women's Cell, Girl Rising, Eco-Club, Science Forum and other many professional associations help animating students and often form platform for the exercise of the values they learn.

**5. Evidence of Success:**

- Increasing participation of our students for the social causes such as helping the needy, visiting old age homes, empowering girl child, adopting orphanages, voters awareness programs, blood donations, celebrating national festivals in under-privileged village atmosphere, etc. is a very encouraging sign of success.
- The cordial relationship that exists among the students of various backgrounds and departments, and between the staff and students is encouraging.
- It is pleasing to see our alumni have developed themselves into wholesome persons taking life's success and challenges equally. Their professional leadership with amiable and loyal attitudes have received appreciation from their bosses and recruiting companies and have increased the effectiveness in their domain of influence. That is one of the reasons why placement record of our colleges is steadily on the increase.
- It is motivating and encouraging to find that none of our alumni has been accused of involving in any sort of corruption or anti-social activities. The testimony by their recruiters and especially by their spouses about their pleasing character, is the success of this movement.
- Some students take up projects that are connected with the enhancement of the lives of ordinary people.
- Agreeing to disagree, values of tolerance, harmony and peace at any cost, values for cooperation, etc. are some of the professional ethical values they have adopted from these initiatives.
- Students practice life principles like humility, simplicity, love, peace, interdependency among human beings, etc. in their own home to have a fulfilling life.

## 6. Problems Encountered and Resources Required:

All good things come at a price. Getting resource persons who only give a talk is easy; but the one who walks the talk is more important to make a lasting impression in the minds of the younger generation, who are watchful and evaluate critically. Providing right models to emulate is very powerful and contagious. Lack of conducive environment and resources for nurturing these ideal ethics such as social environment, human resources, financial resources and appropriate time for training is a challenge. Due to the presence of more day scholar students in the institution, we struggle to find appropriate slots to have lengthy workshops with practice in real life situations. Moreover, balancing the pressures of academic curriculum and professional growth along with these very much needed value based courses and activities is a challenge for the students, mainly because of the constraints in time and residence.

## 7. Notes: Curriculum Details:

Curriculum for the co-curricular activities for the total development of students:

| Year | Phase – I | Phase - II | Phase - III |
|---|---|---|---|
| 1st Importance of Life | Understanding oneself and one's uniqueness, Self-awareness, Self-acceptance, Self-esteem, Self-confidence, Sense of gratitude. | Understanding one's purpose of life and finding a place in the universe (identity) and accordingly fixing vision/dreams for one's own life. | Manners and etiquettes, Respecting superiors and peers, Mature communication, Healthy relationships with institution, authorities, peers and opposite gender, Gender quality. |
| 2nd Developing of Value System | Attaining personal autonomy, Self-determination to study well and develop into good engineer, Independent decision making. | Knowing the place of technology in the society, choosing what is right and developing a set of personal values and priorities to practice one's vision of life. | Being genuine and serene, Facing challenges of life, Emotional management (EQ), Personal problem solving skills, Eco friendliness. |
| 3rd Experimen-tation and Leadership | Taking up responsibilities and developing leadership, learning technology with social commitment to ameliorate the pains of others and for industrial development. | Developing social awareness by social analysis and exposure programs, understanding peoples' need, Conviction of social harmony and inclusive development, Social Commitment. | Organizing groups, evolving programs for social activities through college professional associations, using technology to empower ordinary people and find solutions for them etc. |
| 4th Beginning Life of Fullness | Foretasting professional life, Planning for a long professional life, Planning for life in adulthood, Learning to balance personal, Professional and social challenges of life, Loyalty to the institutions. | Learning mature social relationships, Developing projects and programs for social development and harmony, Planning to make use of education and profession to achieve personal vision and find meaning in life. | Learning to develop professional networking, Support systems for social contributions, making a difference by Innovation and pro-social entrepreneurship, Finding meaning in life. |

## 8. Contact Details:

Name of the Principal    : Dr. J. Maheswaran
Name of the Institution   : St. Xavier's Catholic College of Engineering
City                            : Nagercoil
Pin Code                  : 629003
Accredited Status        : "A"
Work Phone            : 04652- 232560     Fax     : 04652- 259664
Website                 : www.sxcce.edu.in
E-mail                  : principal@sxcce.edu.in
Mobile                 : 9842799973