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KOLHAPUR INSTITUTE OF TECHNOLOGY'S
COLLEGE OF ENGINEERING KOLHAPUR
(EMPOWERED AUTONOMOUS)

Kolhapur Institute of Technology's

COLLEGE OF ENGINEERING (Autonomous), KOLHAPUR

Teaching-Learning Process and Practices:

At Kolhapur Institute of Technology's College of Engineering Kolhapur (Empowered Autonomous), student-centric teaching and learning is a core focus of the faculty. Institution has successfully implemented National Education Policy (NEP), 2020 and revised the curriculum w.e.f. 2023-24. The institution emphasizes holistic development and skill enhancement by adopting modern, student-oriented methodologies such as project-based learning, experiential learning, participative learning, and problem-solving approaches. Faculty members continuously strive to create an engaging and effective learning environment tailored to course-specific needs and student diversity.

Faculty members are well-versed in contemporary pedagogical practices that prioritize meaningful learning over rote memorization. These methodologies are integrated with the principles of Outcome-Based Education (OBE), ensuring that students not only acquire theoretical knowledge but also develop practical competencies relevant to industry and societal needs.

Project-Based Learning: Project Based Learning (PBL) in selected course in each semester is incorporated in the curriculum in the form of Course Level PBL and Multi Course PBL. In PBL, students are need to work over the given problem statement and should provide the solution by experimentation. The learning process in PBL emphasizes on problem solving techniques such as problem identification, defining the goals, conducting brainstorming sessions, identifying alternative solutions, choosing the right approach, applying the right technique to achieve the solutions and evaluating the results is a methodology that students adopt. Apart from the PBL students are also encouraged to go through workshops and training sessions on various tools for the effective learning through problem solving methodology. Problem solving skill is one of the most important skills that we are keen on imparting as it prepares the students to face not only workforce issues but also real-life situations with a solution finding approach. PBL Coordinators at all Departments are continuously monitoring the performance of the students individually as well as in a Team of 03 to 05 students. At the end of the Semester Institute conducts KIT PBL Day where students exhibit their projects and Industry Experts are invited to evaluate the project works. The Best 03 Project groups from each department are awarded during valedictory function of KIT PBL Day. This initiative has also helped students and faculty members to publish their work in peer reviewed conferences and journals.

Experiential Learning: The institute promotes experiential learning by enabling students to apply theoretical knowledge through hands-on activities and real-world applications. Regular assessments and concept-based evaluations are conducted to build confidence and deepen understanding. To bridge the gap between academic learning and industry expectations, faculty members often teach content beyond the prescribed syllabus. Students are encouraged to make use of virtual labs, online resources, and digital tools that supplement classroom instruction and strengthen subject mastery.

Participative Learning: Interactive teaching strategies such as case studies, debates, seminars, and student presentations are frequently used to foster engagement and encourage critical thinking. Curriculum has courses like mini projects and projects, where students have to work in group of 3 to 5. The project guides monitor as well as facilitate the project groups to complete their work and prepare a technical report.Collaborative and group-based learning activities, including project-based tasks and discussions, help improve communication skills and teamwork. Faculty members actively support student involvement in professional bodies such as ISTE (Indian Society for Technical Education), CSI (Computer Society of India), and various campus technical clubs like KITE and E-Cell. These associations provide opportunities for peer learning, knowledge sharing, and exposure to technological innovations.

Learning Management SystemPlatforms:VMEDULife Learning Management System (LMS) and MOODLE platforms are used to provide learning resources, lecture notes, presentations, e-learning resources, e-books, previous question papers, assessments, and interaction beyond the classroom. Every student is provided with his/her LMS account. Students can access learning resources shared by course coordinators through these LMS platforms.

Use of E-KIT Platform for Flipped Classroom Activities: Institute has initiated E-Content Development. Faculty Members have developed E-Content for different courses and are available on E-KIT YouTube Platform. Course Coordinators share their lecture videos with students. Students watch those lecture videos at their home. In-class time is devoted to interactive, student-centered learning activities.

Workshops and Hands on Trainings: Departments organize regular workshops, guest lectures, seminars and hands on trainings conducted by industry professionals to provide students with exposure to the latest trends and real-world challenges. The experiences are generated through ongoing interactions and engagement with the others, and learning is an inevitable product of experience.

Industry Projects/Internships: Departments have integrated industry-specific projects, internships into the curriculum, allowing students to apply classroom learning in real-world settings. There are four tracks provided for Internship viz. Tack – I: Full Time Industry Internship cum Project (4-6 Months); Track – II: Full Time Research Internship at Research Organization/Indian University/Foreign University; Track – III: Short Duration (8-12 Weeks) Internship in Industry with In House Project; and Track – IV: Internship Accounted through Incubation Centre(4-6 Months).

Site Exposure Visits: Departments organize site exposure visits to gain firsthand knowledge and understanding of a project, process, or operation by physically visiting a location, allowing individuals to observe real-world practices, learn from best practices implemented elsewhere, and identify potential areas for improvement or adaptation within their own context, often through direct interaction with key personnel at the site.

Co-Curricular Activities (Activity Grade Points): Co-Curricular activities are an integral part of curriculum which provides educational activities to the students and thereby help in broadening their experiences. This course introduces students to a variety of co-curricular activities aimed at enhancing their professional and personal development within the field of engineering and technology. Through practical projects, competitions, workshops, and community engagement, students will develop teamwork, leadership, communication, and technical skills essential for success in their careers.

Table: Co-Curricular Activity Course Structure

Course Structure: (Refer Rules for Assigning Activity Points: Activity – Event Grade Point Scheme available on Institute Website: https://www.kitcoek.in/policyDocuments)		
Sr. No.	**Initiatives**	**Criteria, Activities and Assignments**
1	Introduction to Co-Curricular Activities	Orientation, Induction, Course Overview
2	National Initiatives Participation	Participation, Achievement Levels and Assigned Activity Points in NCC, NSS, Unnat Bharat/ Unnat Maharashtra Abhiyan, Ek Bharat Shreshtha Bharat (EBSB)
3	Sports and Games Participation	Participation, Achievement Levels and Assigned Activity Points in Sports and Games
4	Cultural Activities Participation	Participation, Achievement Levels and Assigned Activity Points in Music, Performing Arts, Literary Arts
5	Professional Self Initiatives	Participation, Achievement Levels and Assigned Activity Points in 1. Technical Events/Quiz/Paper Contest/Project Contest / Model Making etc. 2. MOOC/ NPTEL/ SWAYAM/ Coursera etc. 3. Competitions/ Events Conducted by Professional Societies (ISTE, IEI, CSI, IEEE, IETE, SAE, ISRO-IIRS, SWE, ISHRAE, ASM, ISNT etc.) 4. Attending Full time Conference/ Seminars/ Exhibitions/ Workshop/ STTP Conducted at IITs/ NITs/ Reputed Institutes/ Universities 5. Attending Full time Conference/ Seminars/ Exhibitions/ Workshop/ STTP Conducted at KITCoEK 6. Paper Presentation in National/ International Conference of High Repute 7. Poster Presentation in National/ International

		Conference of High Repute 8. Paper Publication in National/ International Journal of High Repute 9. Industrial Training/ Internship (at least for 04 Weeks) 10. Participation in Institute Level Student Clubs
6	Entrepreneurship and Innovation	Participation, Achievement Levels and Assigned Activity Points in 1. Prototype Developed and Tested 2. Awards for Products Developed 3. Innovative Technologies Developed and Used by Industries 4. Got Funding from Government/ Industry for Innovative Ideas 5. Patent-Filed/ Published/ Approved/ Licensed 6. Social Innovations
7	Leadership & Management of Clubs/ Activities	Participation, Achievement Levels and Assigned Activity Points in 1. Elected Student Representative of Student Council (University Representative, General Secretary, Cultural, Sports, NSS Secretary, Ladies Representative, Academic Toppers, Invitee Members) 2. Office Bearer of Professional Society Chapter (ISTE, IEI, CSI, IEEE, IETE, SAE, ISRO-IIRS, SWE, ISHRAE, ASM, ISNT etc.) 3. Office Bearer of Institute Level Student Club (Developer Student Club, Gaganvedhi, Walk With World, Team Mavericks, Cultural Club, Aura, Amateur Write Club, Rotaract Club of KIT Sunshine, Women Development and Gender Equality Cell, Shourya, Lead India etc.) 4. Office Bearer of Departmental Student Association 5. Office Bearer of ECell, Digital Content Lab etc. 6. Student Ambassador for Mayura AICTE IDEA Lab/ NIDHI iTBI etc. 7. Editorial Board Member of Annual Magazine 8. Editorial Board Member of E-Newsletter 9. Member of Governance Committee/ Statutory Committee
8	Culminating Event and Reflection	Final Presentations, Course Reflection, Documentation, Assessment and Evaluation

Smart Classrooms: Interactive Panels by Senses are being used by the Departments along with conventional blackboards. It enables teachers to teach concepts effectively, and students to experience active learning. The Institute has deployed such panels in all classrooms. These panels have in-built computers so they can be used for demonstration of software tools,

presentations, live programming, etc. Other features of these panels include - Screen Recording, Teaching on the Cloud, Supportive of different platforms, features to display complex ideas, Multiple-finger touch recognition and access.

Mayura AICTE Idea Lab and Incubation Centre: These facilities are provided with high end and industry grade equipment and devices for students to explore emerging technologies and create solutions to real-world problems, convert ideas into prototype. Financial support in the form of seed funding/ ignition grant is provided to the students.

In summary, KITCoEK's commitment to student-centric learning ensures that students are not only academically proficient but also industry-ready, self-motivated, and capable of continuous learning. Through dynamic teaching practices, the institution prepares students to thrive in a rapidly evolving world.