Koneru Lakshmaiah Education Foundation
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OFFICE OF DEAN ACADEMICS

Policy Document

KLEF/ODA/1.19/P11901/2022/V1.0 **Date: 06/08/2022**

Title: Project / Field work / Internships

1. Policy

All the departments of the university are required to ensure that the project/field work/internships are embedded at appropriate intervals in their programs offered. This is to ensure that the students gain necessary practical exposure in the industry context and apply the knowledge gained over the subjects. The students should be evaluated appropriate to the outcomes of the category and necessary analysis on the attainment of outcomes be carried out for remedial actions needed if any. Students willing to exit a course through the Multi exit option should be given necessary industrial exposure (appropriate to their program of study) in the form of extended internships (10 credits) to ensure that they are able to get the opportunities appropriate to their outcome attainment.

2.Outcomes

- Enhances the application of subject knowledge gained at regular intervals.
- Enables the students to address real problems through their discipline of study.
- Enhances the confidence of the students by creating the necessary exposure to the industrial context

3.Guidelines

3.1 Departments are required to include courses like Project, Internship, term paper, Field work etc. as mandatory courses into their program curriculum spanning across the semesters in turn helping students to hone their technical expertise through the culminating experience gained over the years of study.

3.2 Departments are required to identify number of projects and internships that are to be offered to students during their program of study. All such identified courses must meet the local, regional, national and international needs. Departments must guide students appropriately while choosing institutes or industries with which they can collaborate to do their projects or internships.

3.3 It is required to map all these courses to appropriate Program outcomes (POs)/Student outcome (SOs) in order to ensure that students acquire skills relating to effective communication, teamwork, lifelong learning and able to apply the skills as required.

3.4 Students must be encouraged to continue their study on the problem statements identified as part of the term paper which may cater the needs in excelling towards their career path. Further to that these projects must be taken up as per the specialization track in order to strengthen their technical skills and being capable of analyzing, designing, developing and testing the identified solution.

3.5 Students must be encouraged to take up projects/Internships/field work involving interdisciplinary / multidisciplinary study within the Institute or in collaboration with any higher education Institutes / research agencies / industry across the globe for getting global exposure. In cases where there is a collaborative work carried out by the students in inter / multidisciplinary domains, the projects/Internships/ field work will be considered as an advanced course and the students may gain additional credits for the successful completion of the same.

3.6 Departments should ensure that a dedicated review committee is formed and detailed guidelines as appropriate to the nature of the project or internship are given to the students well in advance. Schedule of the reviews planned along with the expectations from each review and the rubrics for evaluation should be shared to the students prior to the commencement of the semester in which the project or internship has to be registered by the students.

3.7 The formative and summative components should be clearly informed to the students well in advance along with the ways the slow learners are supported as a part of this process. Necessary documentation of the same must be maintained by the department for the attainment of outcomes stated for the projects/internships/field work etc.

3.8 Necessary capacity building programs should be conducted for the teachers to ensure that they have acquired project management skills and act as a facilitator or project manager for the projects that they are guiding.

3.9 Field work

Students are allowed to do field work as a part of a course to get better exposure in understanding the problem and its context. University Core Course like Design Thinking and Innovation have been introduced so as to enable all the students to approach a problem from a 360-degree perspective. Similarly, courses offered by the departments may also allow the students to undertake the fieldwork for better understanding of the problem and the necessary guidelines for the same should be shared by the Course Coordinator.

3.10 Projects

Projects play a vital role in enhancing the opportunities for the students as they highlight the extent to which the student has applied the culminative knowledge gained through the subjects. The following are the advantages of the project / field work.

- Collaboration: Allows the students to work together in a team, listening to the members and evaluating the ideas towards solving the problem. It allows the students to reinforce their learning through positive relationships developed by resolving the conflicts thereby enabling them to redefine the ways of solving the problem. Through projects the students will form communities with the people for whom the problem is being addressed and the resource persons from across the globe that will benefit them with their career in the long run. Project/field work courses supports students build their technical network and relations through collaborative studies they undergo while implementing the project. They are tuned to work effectively in groups by providing their input, listening to others, building positive relations thus reinforcing greater learning experience.

- Problem Solving: Project/field work courses support students to take up real world problems and derive feasible solutions by applying logical thinking, critical thinking, creative thinking and technical expertise they have acquired during their program study.
- Deep understanding of the problem: Students enhance their technical expertise in depth by applying their background knowledge and build their research skills.
- Self Confidence: Students exhibit their confidence to showcase their problem-solving abilities towards the identified problems in real world context.
- Critical thinking: Project/field work courses enhance critical thinking skills to understand the problem in multiple directions in order to derive a feasible solution.
- Perseverance: Students while working on the project or internship courses learn to manage obstacles effectively, often learning from failures and making necessary adjustments. They are also trained to manage projects and assignments efficiently.

3.10.1 Entry Grad Capstone Project

Entry Grad Project requires students to analyze, design, develop (prototype), and test the appropriateness of the solution towards the problem. The Entry Grad project aims to build critical thinking of the students by devising solutions for less complex Engineering problems using technology.

For more details refer policy: KLEF/ODA/1.15/P11501/2022/V1.0

3.10.2 Mid Grad Capstone Project

The midgrade capstone project involves students designing, developing, and analyzing solutions to real-world problems. The midgrade project to be done in third year of study aims to be a multifaceted assignment that serves as a culminating academic and intellectual experience for students. It acts as a precursor to the students preparedness towards securing an internship opportunity with the industry relevant to the choice of their career category.

For more details refer policy: KLEF/ODA/1.14/P11401/2022/V1.0

3.10.3 Capstone Project

Capstone Project is a culminating assignment carried out by the students during the final year of the program which helps them to apply the knowledge gained over the previous years of study. Students should focus on designing solutions for complex engineering problems through technology.

For more details refer policy: KLEF/ODA/1.3/P13005/2022/V1.1

3.10.4 Practice School

Practice School is introduced to bridge the gap between classroom learning and real-life experience in an industry or any research organization to prepare engineering professionals. It is included in the final year of study in place of the project course for not more than a semester to impart experiential learning leading to better outcome attainment.

Practice school augments the students with enhanced core skills and provides an opportunity to develop soft skills in the work environment. The following are the outcomes students acquire through Practice school:

- Get exposed to practical applications relevant to the knowledge and skills gained over the period of study.
- Acquire hands-on experience on latest technologies and research domains
- Establish professional network
- Enhanced confidence on the domain of study

3.10.5 Multi-disciplinary Projects

Inter /Multi-Disciplinary Projects encourage students to address real-world problems in cross cutting domains like water and sanitation, energy, health, education etc. Through Inter-disciplinary/multi-disciplinary projects students get an opportunity to collaboratively work with teams formed from multiple disciplines sharing different expertise required to address the problem.

For more details refer policy: KLEF/ODA/1.18/P11801/2022/V1.0

3.10.6 M. Tech., Dissertation

M. Tech., dissertation is a culminating assignment carried out by the postgraduate students during the third and fourth semester of the program which helps them to apply the knowledge gained over the previous years of study. Students should focus on designing solutions for complex engineering problems through technology.

For more details refer policy: KLEF/ODA/KLEF/ODA/2.11/P220001/2022/V1.0

3.11 Term paper

Term Paper acts as a basis for the students who are interested in carrying out their major project in the final year of study on the career tracks viz. Employability, Entrepreneurship and Career Advancement. It also enhances the transferable skills required by the student in order to Understand, Analyze, design, and develop the solutions for the real problems using technology.

For more details refer policy: KLEF/ODA/1.17/P11701/2022/V1.0

3.12 Internship

Internship helps students to get themselves introduced to relevant Industry mapping towards their career tracks. Students can be hired by the industry for a defined period to provide them with the real work experience which they may need to undergo in future. Students can work as an Intern during their summer break (or as per the need) with due approval from their department. These Internships help students to understand the work environment and to explore their interests to form their career goal. Through Internships students get benefitted by acquiring the following:

- Job experience
- Research experience
- Build great confidence
- Mentorship skills
- Support to frame their career goals
- Create a professional network
- Secure good references and recommendations
- Transition towards placement in reputed companies

3.12.1 Social Internship

Social Internship is introduced to encourage students to applying Design thinking principles towards identifying and solving the needs of the communities. Students are required to complete Social Internship for a duration of 80 to 120 hours during the summer break of first year and it is to be registered in second year first semester.

For more details refer policy: KLEF/ODA/1.3/P13002/2022/V1.1

3.12.2 Technical Internship (stream specific internship)

Students are required to undergo technical internship for 160 – 200 hours during the summer vacation of 2nd year (Internship certificate should clearly mention the start and end date). Technical internship enables the students to use the technology relevant to their domain towards addressing a problem. During this internship, students hone their technical skills (appropriate to stream) in using them in a most appropriate way for solving a challenging problem.

For more details refer policy: KLEF/ODA/1.3/P13003/2022/V1.1

3.12.3 Industrial Internship

Students are required to undergo Industrial internship for 160 to 240 hours (where the internship certificate should clearly mention the start and end date) during the summer vacation of 3rd year. It helps them to upgrade the existing skills towards getting better opportunities for employment / entrepreneurship or career advancement. During the internship, the students get awareness on latest technologies (methods or techniques) and the ways to use them in Industrial context.

For more details refer policy: KLEF/ODA/1.3/P13003/2022/V1.1

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