

INSTITUTION BEST PRACTICES

Best Practices 1

Title of the Practice

Skill development lab for building employability skills among students.

Objectives of the Practice

The present day job market demands that the students be trained with new programming skills such as Python, Java, 3D studio, C, C++, Mysql, etc. which require computers with good configuration of RAM and SSD harddisks. To equip the students with these sought-after skills and render them technically skilled for the job market a skill-development lab sponsored by the industry has been set up in the institute.

The objective of a Skill Development Lab for building employability skills among students is to equip them with a diverse set of skills that are essential for success in the professional world. The primary goals of such a lab include:

1. **Enhancing Core Skills:** Develop and enhance fundamental skills such as communication, critical thinking, problem-solving, and creativity. These skills are crucial in almost every professional field.
2. **Technical Proficiency:** Provide hands-on training and practical experience in specific technical skills relevant to the students' chosen fields of study or industry requirements.
3. **Networking Opportunities:** Facilitate networking events, workshops, and interactions with industry professionals to help students build valuable connections and gain insights into various career paths.

4. **Digital Literacy:** Ensure that students are familiar with the latest technologies and tools relevant to their fields. This includes proficiency in using software, online platforms, and digital communication tools.
5. **Continuous Learning:** Instill a culture of lifelong learning by promoting the importance of staying updated on industry trends and acquiring new skills throughout one's career.
6. **Self-Efficacy:** Build confidence and self-efficacy among students by providing opportunities for them to apply their skills in real-world scenarios, reinforcing their belief in their ability to succeed in their chosen careers.

The Context

The institute is home to an industry sponsored skill development lab; the ‘Apple Mac lab’. It has been sponsored by TATA Capital and ICICI. To meet the technical demands of the industry, the institute has attempted to up-skill the students beyond the contents of the syllabus through this venture that involves an industry contribution.

The Practice

The Apple MAC lab is industry-sponsored and supported by TATA CAPITAL and ICICI foundation and is implemented to its full potential. The lab consists of 15 machines with configuration M1 8core CPU, 7core GPU with 8GB RAM and 256GB SSD sponsored by TATA CAPITAL .It also consists of 17 machines with configuration i5 processor with 8GB RAM and 240GB SSD sponsored by ICICI foundation. The lab is used by a significant number of students for a variety of academic purposes, including lectures, projects, training programs, and seminars. The existence of this lab has encouraged the institute to conduct certain skill-based courses such as ‘Applied Data Science and its Applications’. ‘LaTex workshop’, etc. The system programming capacity of the devices supports certain high-end

software that helps the students in making complex projects required for the subjects of SPCC, Green IT, IoT, Data Mining, etc. Moreover, the institute also conducted a special Python course for the first year students as well as provided training in Python to the staff and students of other institutes associated with it.

Ultimately, the objective is to prepare students not only for their first job but to empower them with a skill set that fosters continuous growth and adaptability in the ever-evolving job market.

1. **Apple Suite:** Numbers, Pages, Keynote.

2. **Communication and Collaboration Tools:**
 - Email Platforms (Outlook, Gmail)
 - Video Conferencing (Zoom, Microsoft Teams)
 - Document Collaboration (Google Docs, Microsoft SharePoint)

3. **Data Analysis and Visualization:**
 - Data Analysis (Excel, Google Sheets)
 - Statistical Analysis (R, Python)

4. **Programming Languages:**
 - Depending on the field, proficiency in languages like:
 - Python
 - Java
 - JavaScript
 - C++
 - Flutter

5. **Web Development:**
 - HTML/CSS
 - JavaScript

6. **Cybersecurity:**
 - Basic understanding of cybersecurity concepts
 - Familiarity with security tools and practices

7. **ERP Systems:**
 - Qualcampus

Evidence of Success

The usage of the lab was highest during the months of December and January, which coincides with the time during the semester break when final year students are working on their major projects, whereas the second and third year students used it for exploring new technologies compatible only with the iOS environment. The students have been able to learn skills beyond the syllabus through this skill-development venture, which has increased the placement ratio

Problems Encountered and Resources Required

Close monitoring of the premises is of utmost importance as the systems are prone to theft or damage whilst using them.

Best Practices 2

Inculcating confidence in the students through Course Summary Videos and Presentations

Objectives of the Practice

Interpersonal skills like self-confidence, public speaking, are just as crucial as the knowledge of a subject to create well-rounded individuals. The practice of creating and presenting course summary videos aims to form individuals who not only possess knowledge of the subject but can also convey them just as articulately.

The Context

In order to encourage thorough awareness of the curriculum and to enable plenty scope for syllabus revision among the students, the institute has introduced the practice of ‘Course Summary videos and Presentations’ wherein the students are expected to either present or submit a short video of themselves summarizing the contents of the syllabus of each subject that they have learned and submit it to the respective course-in-charges by the end of each semester.

The Practice

Since the last three years, the institute has promoted the practice of ‘Course Summary videos and presentations’ diligently among the students to foster a thoroughness of the syllabus and ensure complete understanding of all the concepts specified in it. The students are encouraged to submit a video or give a presentation in class summarizing all that they have learned through the subject in the course of the semester. This ensures that the students are well-aware of all the contents of the course and also gives them a chance to display their understanding. By creating the

summary videos and presentations, the students also revise the contents of the syllabus when speaking about it. This has enabled better knowledge of the subjects and aided in preparing for the university exams. These videos and presentations also serve as a platform for the students to hone their speaking skills and confidence as it allows them to articulately convey their understanding in a clear and concise manner. The best course summary in each subject is also rewarded thus serving as a positive reinforcement for students to submit their best and most confident summary of the subjects.

Asking students to prepare course summary videos and presentations can have several positive impacts on their learning experience, skill development, and overall engagement. Here are some potential benefits:

1. **Enhanced Understanding:**

- Creating a summary video or presentation requires students to review and consolidate the material covered in the course. This process enhances their understanding of key concepts.

2. **Active Learning:**

- Engaging in the creation of videos and presentations encourages active learning. Students move beyond passive consumption of information to actively organizing, synthesizing, and presenting knowledge.

3. **Communication Skills:**

- Students develop effective communication skills by articulating complex ideas in a concise and understandable manner. This includes improving verbal communication for videos and visual communication for presentations.

4. **Technology Proficiency:**

- Working on digital media projects helps students gain proficiency in using technology tools for content creation. This can include video editing software, presentation software, and other multimedia tools.

5. **Critical Thinking:**

- Crafting a summary requires students to think critically about the most important aspects of the course. They need to discern what information is essential and how to present it effectively.

6. **Self-Assessment:**

- In the process of creating a summary, students reflect on their own learning journey. This self-assessment can help them identify areas of strength and areas that may require further review or understanding.

7. **Peer Learning:**

- When students share their summary videos or presentations with their peers, it creates opportunities for peer learning. Classmates can benefit from different perspectives and approaches to summarizing the material.

8. **Confidence Building:**

- Presenting information in a video or presentation format allows students to showcase their knowledge and creativity. Successfully completing these projects can boost their confidence in their abilities.

9. **Ownership of Learning:**

- The act of summarizing the course material empowers students to take ownership of their learning. It encourages a sense of responsibility for understanding and conveying the content.

10. **Creativity and Innovation:**
 - Students have the opportunity to express their creativity and innovation in how they present the information. This can include using multimedia elements, storytelling techniques, or unique visualizations.

11. **Long-Term Retention:**
 - The process of summarizing and presenting information aids in long-term retention. Students are more likely to remember and understand concepts that they actively engage with and teach to others.

12. **Real-world Application:**
 - The skills developed through creating summary videos and presentations are applicable in real-world scenarios, mirroring tasks they may encounter in professional settings.

13. **Motivation and Engagement:**
 - Assigning creative projects like summary videos can increase motivation and engagement, as students may find the task more enjoyable and personally meaningful than traditional assessments.

14. **Digital Literacy:**
 - Working with digital media enhances students' digital literacy skills, which are increasingly important in today's technology-driven world.

15. **Portfolio Building:**
 - Students can add their course summary videos and presentations to their portfolios, showcasing their skills and accomplishments to potential employers or educational institutions.

Overall, incorporating the creation of course summary videos and presentations into the learning process can lead to a more dynamic, interactive, and student-centered

educational experience with lasting benefits for their academic and professional growth.

Evidence of Success

The overall understanding of the subject matter has improved among the students and has helped them score better in oral and practical exams. Students have also inculcated public speaking skills and display a rise in their confidence level through the comparison of their course summary videos over the years.

Problems Encountered and Resources Required

The submission of the videos is often taken online especially during the lockdown and requires a huge amount of storage cloud space. Due to storage limitations on ERP, an alternative submission method of accepting the submission on the local system through USB had to be devised.