FREEDOM TO EXPLORE

Embedded learning is a contemporary educational trend and is popular in the academic and professional realms. In fact, this trend represents a shift towards interdisciplinary learning in the context of the role of technology in education. The interdisciplinary approach not only exposes students to a range of specialized disciplines, including the natural sciences, social sciences, humanities, communications, business, engineering, and the creative arts, but also helps them develop a broader understanding of the world around them. Technology in education is now embedded in the curriculum to expose students to professional ethics.

INDUSTRY EXPECTATIONS

Traditional learning models are expected to evolve in the context of contemporary and emerging technologies. Industry experts expect students to have the knowledge and skills to handle broader applications of an engineer's job profile—sustainability, safety, health, environmental and other professional issues including ethical considerations and economic consequences. An interdisciplinary approach to education that includes environmental sustainability and driving multi-disciplinary breadth, does not prepare students to navigate modern day problems.

AT A GLANCE: EMBEDDED LEARNING

As an interdisciplinary approach, embedded learning programs students not only in a specific area, but also in developing a broad-based learning foundation. A broad-based learning foundation is an educational experience that integrates humanities and social sciences into all professional programs. This ensures that students will enhance the professional preparedness of students.Discipline-centered, but non-problem-centered education.

M Gopal, Director, School of Engineering, Shiv Nadar University, on how embedded learning can equip students with disciplinary depth and multi-disciplinary breadth

INTELLECTUAL TOOLS

Current developments in technology have revolutionized the way we communicate, think, and interact with one another. Embedded learning is not only about technology but also about knowledge and wisdom. It requires students to think critically, analyze data, and make informed decisions. Embedded learning prepares students to navigate the complex world of today. Students must be equipped with intellectual tools to understand physical, biological, and social systems, advanced development and innovation.

Students need to develop an interdisciplinary approach that integrates the humanities and social sciences to address the real-world complexities of students. The curriculum must offer a range of courses to enhance critical thinking and problem-solving skills. Students must be encouraged to engage in discussions and debates that challenge their assumptions and broaden their perspectives. Embedded learning programs should focus on developing students' ability to think creatively, communicate effectively, and work collaboratively.

Students must be encouraged to think independently and critically. They must learn to question assumptions and challenge the status quo. Embedded learning programs should offer students opportunities to engage in research, internships, and other experiential learning experiences. These experiences will provide students with the skills and knowledge they need to succeed in today's increasingly complex world.

Students must be equipped with the intellectual tools to navigate the rapidly changing world of engineering. Embedded learning programs should offer a broad-based learning foundation that integrates humanities and social sciences into all professional programs. This ensures that students will be prepared to handle the challenges of the 21st century.