



Tecnológico
de Monterrey

TEC 21

Educational
Model



The Educational Model

At Tec we are aware that the current world requires the training of our young people and future professionals to have a strong emphasis on addressing the current problems that society demands to address. To achieve this we are sensitive to our society and the changes that are necessary to achieve a better life in Mexico and the world. This has allowed us to generate as a differentiating strategy our **TEC21 Educational Model**, which pays special attention to the competences that future professionals must develop in both the disciplinary and personal aspects and focuses efforts on the development of these competences through 4 pillars that promote student transformation. **The most important elements of the Model** are shown below.

The TEC21 Educational Model integrates the purposes of the vision, defines and links the actors and components that participate in the teaching-learning process, and takes advantage of opportunities to offer students a comprehensive education of international quality. Its objective is to **provide a comprehensive training and improve the competitiveness of students** in their professional field by enhancing the skills of future generations to develop the competences required to enable them to become the leaders who will face the challenges and opportunities of the 21st century.

1. THE DEVELOPMENT OF COMPETENCES

In the TEC21 Educational Model there are two categories of competences: disciplinary and transversal. Disciplinary competences refer to all the knowledge, skills, attitudes and values that are considered necessary for the professional practice. The development of disciplinary competences implies a gradual construction that starts from the fundamental competences and ends with the final competences of the discipline.

On the other hand, transversal competences are developed throughout the training process of any discipline, are useful for the life of the graduate and have a direct impact on the quality of the professional practice.

TEC21 EDUCATIONAL MODEL SEEKS TO DEVELOP THE FOLLOWING COMPETENCIES:

Self-knowledge and management:

It creates a personal and professional wellbeing project through responsible reflection and integration of emotional and intellectual resources.

Innovative entrepreneurship:

It generates innovative, versatile solutions in changing environments, which create value and have a positive impact on society.

Social intelligence:

It generates effective collaboration and negotiation environments in multicultural contexts with respect for and appreciation of the diversity of knowledge and people.

Commitment to ethics and citizenship:

It implements projects aimed at transforming the general environment and wellbeing, with moral awareness and social responsibility.

Reasoning to address complexity:

It integrates different types of reasoning to analyze, summarize and solve problems, with an aptitude for lifelong learning.

Communication:

It uses different languages and communication resources and strategies, in an effective, context-appropriate manner in professional and personal networks.

Digital transformation:

It optimizes solutions to problems in their professional field, intelligently incorporating state-of-the-art digital technologies.



DISCIPLINARY COMPETENCIES

2. COMPONENTS OF THE EDUCATIONAL MODEL

Our Tec 21 Model has 4 components to achieve the disciplinary and transversal competences that allow us to achieve our Vision.

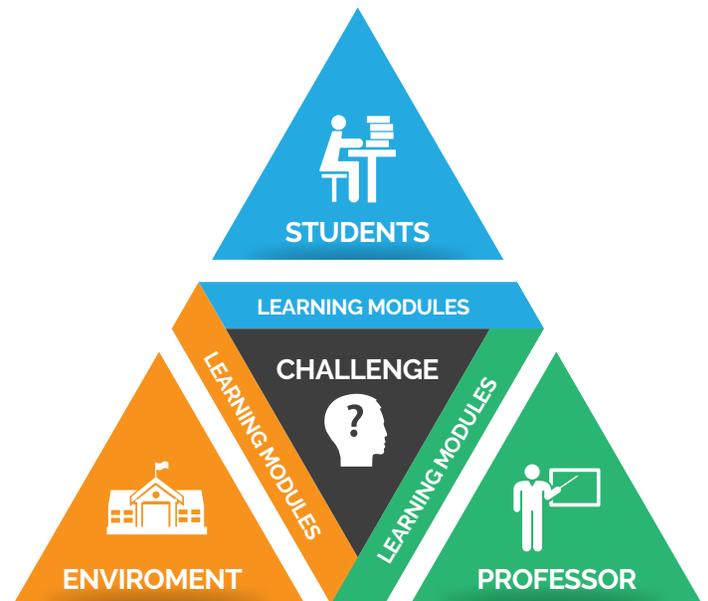
- Challenge-based Learning
- Flexibility in how and where to learn
- A memorable university experience
- Inspiring Professors



2.1 CHALLENGE-BASED LEARNING

A challenge is a life experience designed to expose the student to a challenging environment to achieve specific learning objectives. Challenges contribute to the development of disciplinary and transversal competences of the students, since they individually and collaboratively apply their knowledge, skills, attitudes and values.

Challenge-based Learning is based on Experiential Learning, which is based on the principle that students learn best when they actively participate in open learning experiences, rather than passively intervening in structured activities.



The TEC21 Educational Model seeks to deepen, integrate and apply knowledge through different learning modules that are designed in accordance with the requirements of the challenge resolution and are offered before or during it.

This modularization represents a gradual and incremental change towards a new educational model different from the traditional curriculum, from which it is evolving and which is currently being developed through courses.

In the evolution towards a training based on the Challenge-based Learning of the TEC21 Educational Model, two initiatives stand out, the purpose of which is to expose students to experiences that are close to the challenges with the intention of developing in them the exit competences. **Week i and Semester i** are academic spaces that provide learning experiences outside a traditional environment.

Week i

It is a space of the semester in which students of all professional careers participate simultaneously in disciplinary, multidisciplinary and challenging learning activities. During this week, regular academic activities are stopped so that the students are involved full time in a learning experience.

2.1 CHALLENGE-BASED LEARNING

Semester i

It is a project or learning experience aimed at addressing an actual professional challenging situation, which allows the student to develop disciplinary competences and strengthen transversal competences. The experience lasts one semester and integrates the learning objectives of a set of subjects as part of the curriculum of the student, whose contents and way of working are organized exclusively on the basis of projects that allow students to engage in a challenging learning experience in order to develop transversal and disciplinary competences aligned with the graduation profile, which are supported by the learning modules.

2.2 FLEXIBILITY

Within the framework of the TEC21 Educational Model, flexibility offers the student significant choices about the what, how, when and where of their professional training process. These elements of flexibility are reflected in two major themes:

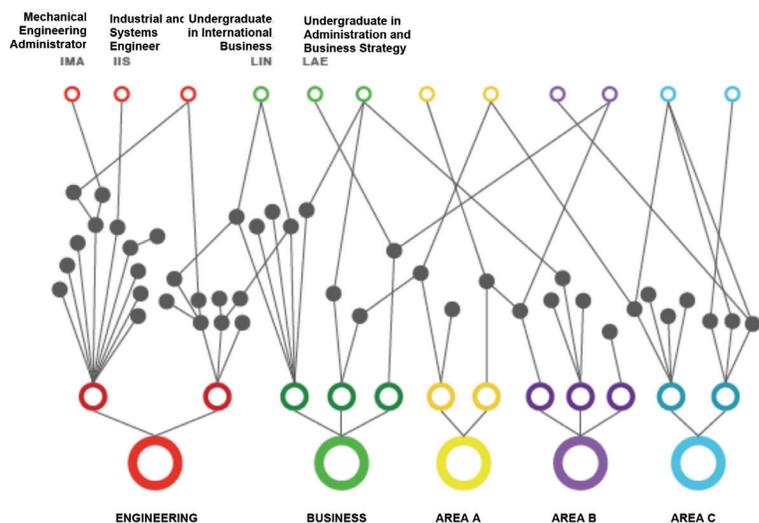
Curriculum flexibility

As opposed to a rigid curriculum, in a flexible scheme students have several opportunities to make decisions about their training. In the TEC21 Educational Model, this curriculum flexibility is reflected in the implementation of the curricular model of professional career paths.

The curricular model of career paths provides students with the opportunity to explore, decide and specialize throughout their training process.

The student will be able to start their university studies by choosing a disciplinary area, so from the first semester they will explore their profession and aspects of other careers, and will have the possibility of assessing various alternatives before making a final decision. From the student's point of view, they will live a model of "few entrances and many exits".

PATHS



2.2 FLEXIBILITY

With the Paths, the student will live a flexible educational experience because their curriculum will reflect their interests. An advisory professor will provide them with personalized guidance from their registration to their graduation. In addition, they will have the support of specialized advisors who will recommend the best way to adapt their study program by addressing their skills and personal and professional passions.

An example of this curricular model is the LAEt Paths curriculum, which is described as a dynamic and flexible experience. In this context, students can explore the subjects in the business area they wish to learn about.

Then, starting from the fourth semester, they have the possibility of deciding the career path on which they wish to graduate (LAE or other), so that they can study subjects focused on the chosen career.

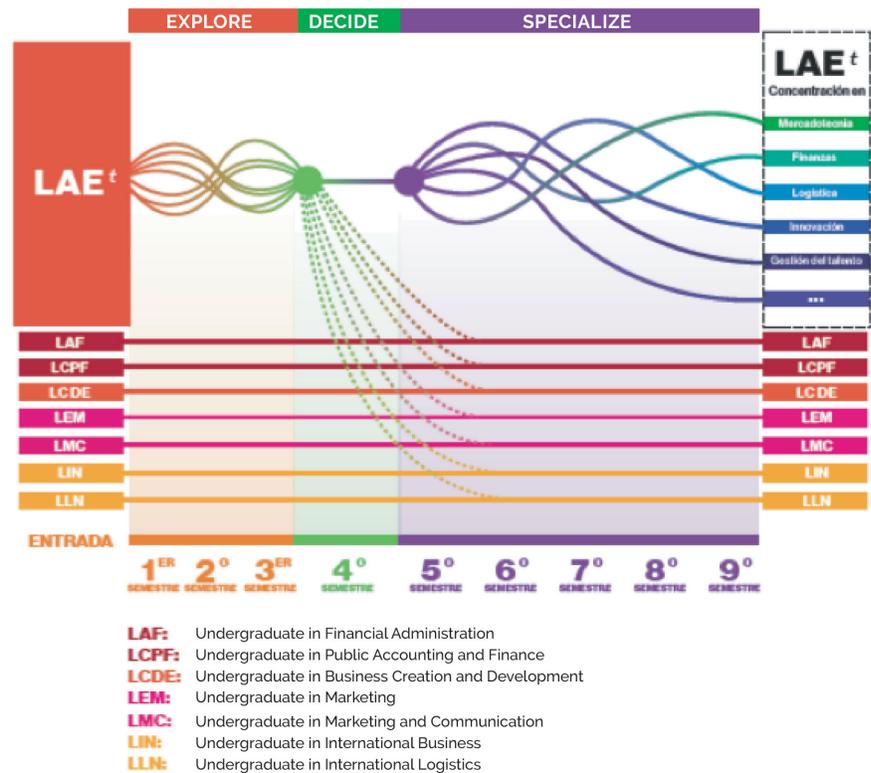
Finally, from the seventh semester, they can select subjects according to their interests to carry out the concentration of the specialty that will help to strengthen their profile in the business area: finance, talent management, marketing, logistics, innovation, quality and productivity.

Flexibility in learning experiences

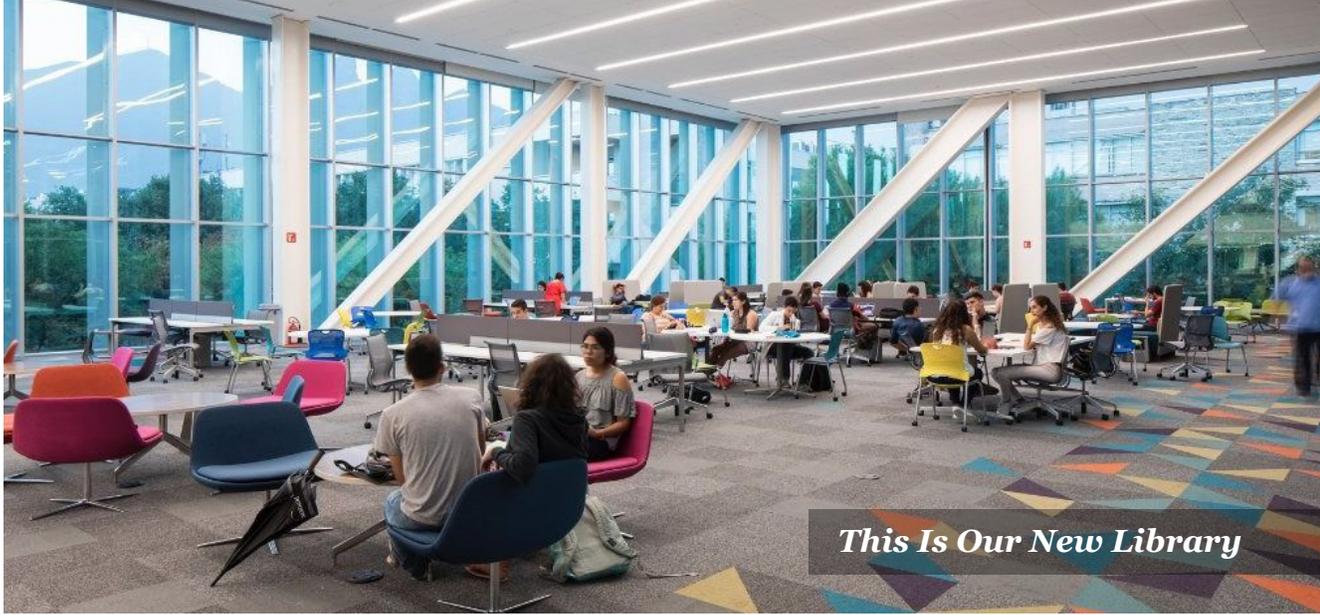
In the case of learning modules, there will be a variety of delivery modalities for these modules, such as on-site, online, or hybrid.

In addition, with the support of information technologies, the learning modules can be enriched in their pedagogy so that the student can personalize and maximize their learning experience.

LAEt CURRICULUM



2.3 A MEMORABLE UNIVERSITY EXPERIENCE



With the purpose of training entrepreneurial leaders with a human sense and international competitiveness, the TEC21 Educational Model offers students an experience that turns their stay in the institution into an experience of personal and professional growth through **co-curricular programs** that offer different levels of participation, which allows students to decide according to their interest and availability whether they attend as spectators, whether they register as students in special classes or workshops, whether they act as organizers or direct managers, or whether they wish to make proposals for new activities within these programs.

On the other hand, the component of **internationalization** is a fundamental pillar for the construction of a memorable university life; the Tecnológico de Monterrey has collaboration agreements with more than 500 universities in five continents, which gives students ample opportunities to carry out part of their studies abroad so that they can integrate into a global, diverse and multicultural learning community.

In addition, the student has the opportunity to get involved in different activities to **develop the entrepreneurial spirit**, such as the Human Sense Entrepreneurial Challenge, which promotes innovation, opportunity identification, risk taking and resilience development in the student. The profits obtained from the implementation of this type of projects are used for social initiatives.

Other co-curricular experiences focused on **the development of the human sense** in which students are involved are the participation in the Hult Prize and the INCMty entrepreneurship festival; teaching adults how to read; collaborating in PrepaNet and in various social projects.

2.4 INSPIRING PROFESSORS



Tecnológico de Monterrey has decided to update its educational model through a new approach on the teaching-learning process that recognizes the need to define a new professor profile. To ensure that the professors at Tecnológico de Monterrey meet this profile, five characteristics for their development are mentioned below:

- **Inspiring**
- **Updated**
- **Involved**
- **Innovative**
- **Technology user**



In the TEC21 Educational Model, the role of the professor is fundamental when exercising different functions oriented to accompany the student in the learning process and in the development of competences through the experience of challenges. The roles that will be necessary to carry out in the context of the TEC21 Educational Model are as follows:

Tutor, Evaluator, Mentor, Challenge Designer and Professor.

Professor classification and professor development avenues

Professor development throughout their careers is clearly associated with the Professor Classification System as a guide for the development of the professor's career. Through the professor classification system, avenues are specified in which the professor can specialize and develop within the institution; all these avenues are aligned to the professor's profile.



The development avenues recognized by the Professor Classification System are:

- A. Teaching Professor:** specializes in educational innovation to enrich the teaching-learning process.
- B. Consulting Professor:** focuses on self-financing linking projects with external organizations.
- C. Research Professor:** focuses on the generation, dissemination, transfer and application of knowledge.
- D. Entrepreneurial Professor:** focuses on business entrepreneurship activities and is linked to the entrepreneurship ecosystem of the institution.
- E. Clinical Professor:** focuses on the formation of competences based on learning focused on patient care through clinical practice.

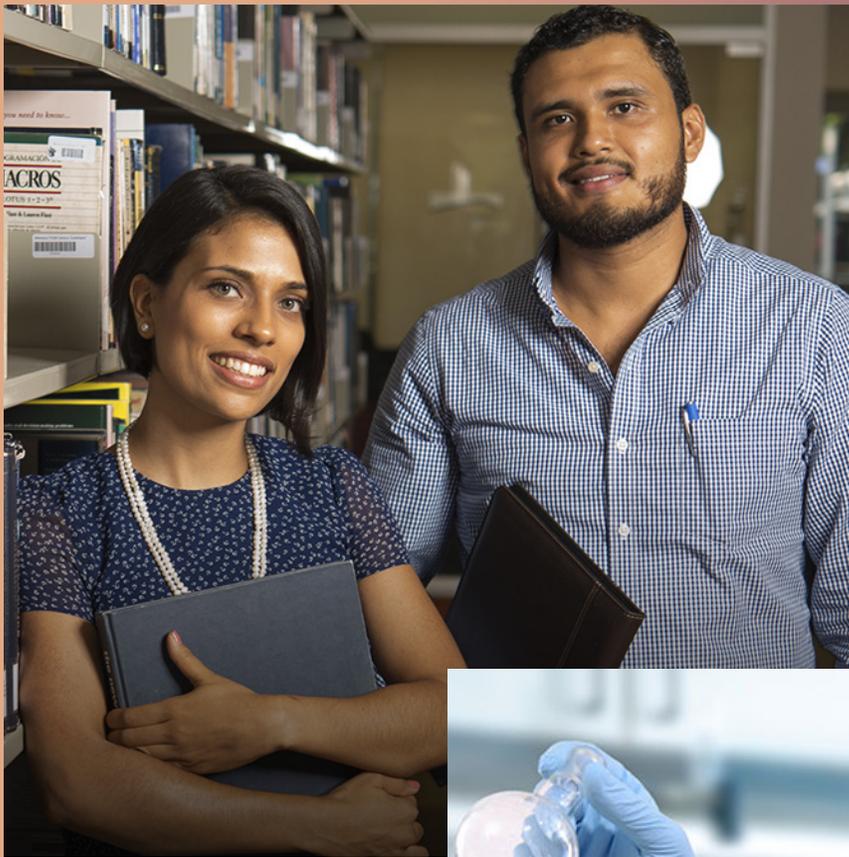
In each development avenue there are classification categories that can be aspired to as a sign of the development and involvement of the professor in the Educational Model. In each category, a specific level of performance is expected, implying different responsibilities and recognitions, considering their teaching activities, intellectual vitality, service and leadership, according to the desired profile for the professors of Tecnológico de Monterrey.

The categories a professor aspires to are the following

- A. Assistant Professor:** one who demonstrates commitment to higher education, and in particular to the Educational Model of Tecnológico de Monterrey. In addition, they show potential for development in some of the areas promoted by Tecnológico de Monterrey for their intellectual vitality. The quality of their performance is recognized by their colleagues and students.

- B. Associate Professor:** one who proves to be constant and outstanding in their academic and professional performance. Their performance is such that their colleagues see in them a clear example of the characteristics desired in the professors of Tecnológico de Monterrey, as indicated in the Vision and Tec21 Model. The quality of their work is manifested in the recognition given by their students, in their achievements in educational innovation, research, consultancy or entrepreneurship, and in their active participation in their profession and institutional life.
- C. Full Professor:** one who is recognized as an example of the excellence to which we are committed by the Tecnológico de Monterrey's Vision and the Profile of the Tec21 Professor. They stand out as leaders in their specialty and have an attitude of constant improvement and service. The recognition of every Full Professor transcends institutional boundaries. Their achievements reflect their capacity to formulate initiatives and projects, lead working groups and attract resources for the development of institutional programs for teaching, research, consulting or entrepreneurship. They are recognized nationally and internationally for their human quality and level of achievement, and have deserved several honors that manifest this recognition.





TEC21

EDUCATIONAL MODEL



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