

MTI > Master in Information Technology Management

# MTI-L Master in Information Technology Management

First Trimester Code Name CLLUCAS UDC EM4003 Transversal Pathways I 2 12 3 2.5 0 9 TI4048 Digital Transformation of Organizations 9 2 12 3 2.5 0 2.5 0 9 2 12 3 TI5041 Corporate Governance of Information Technologies 7.5 0 27 6 36 9 Second Trimester Code Name CL L U CA S UDC **OP4049** Transdisciplinary Elective 2.5 0 9 2 9 2 12 3 TI5042 Strategic Management of Corporate Performance 2.5 0 TI5043 Technological Architecture Models 2.5 0 9 2 12 3 7.5 0 27 6 24 6 Third Trimester CL L U CA S UDC Code Name EM4004 Transversal Pathways II 2.5 0 9 2 12 3 **OP5100 Elective I** 2.5 0 9 2 12 3 **OP5101 Elective II** 2.5 0 9 2 12 3 7.5 0 27 6 36 9 Fourth Trimester Code Name CLLUCAS UDC OP5102 Elective III 2.5 0 9 2 **OP5103 Elective IV** 9 2.5 0 2 TI5044 Capstone Project I 2.5 0 92 12 3 7.5 0 27 6 12 3 Fifth Trimester Code Name CL L U CAS UDC **OP5104 Elective V** 2.5 0 9 2 **OP5105 Elective VI** 2.5 0 9 2 TI5045 Capstone Project II 2.5 0 9 2 12 3 7.5 0 27 6 12 3

Academic credits

- **CL** The letter "CL" indicates the number of class-hours per week.
- L The letter "L" indicates the number of laboratory-hours per week.
- U The letter "U" represents the equivalent time in courses lasting 15 weeks (semester) and 12 weeks (trimester), of weekly work that the student dedicates to the course to meet its objectives. They include the "class hours", as well as the time dedicated to the student's independent work.

- **CA** The letters "CA" represents the number of semester
- credit hour of the course. S Semanas de duración

**UDC** Load Units

# **Program Outcomes**

# Justification

Changes in the economic, political, and social environment, increasingly international and globalized, and therefore more complex, have emphasized that the field of IT (Information Technology) is one of the most notable in terms of employability. Below are some factors that will help justify the importance and necessity of this program at Tec de Monterrey:

The global demand for professionals trained in information technology management is increasing rapidly. As companies in all sectors continue to digitize their operations, there is a growing need for people with specialized knowledge in the effective management of information technology resources.

The IT industry in Mexico has experienced solid growth in recent years, driven by factors such as government initiatives to promote digitization, the increasing adoption of cloud computing and the rise of e-commerce. This growth requires a workforce equipped with advanced IT management skills to drive innovation, efficiency, and competitiveness in the marketplace.

By offering a master's degree program in information technology management, our institution can contribute to the development of local, national, and even international talent by providing specialized education tailored to the needs of the IT industry. This not only addresses the skills gap but also improves the employability of graduates, thus supporting the economic development of Mexico and Latin America.

Establishing a master's degree program in information technology management will differentiate our institution from its competitors and strengthen its position as a leader in higher education. By offering a cutting-edge curriculum taught by industry experts, the institution can attract top talent both domestically and internationally, further enhancing its reputation and prestige.

The program was designed to align with emerging trends in information technology management, such as cloud services, data analytics, and digital transformation. By keeping abreast of industry developments and incorporating relevant topics into the curriculum, the institution ensures that graduates are well prepared to meet contemporary challenges and drive innovation in the field.

Our institution has a vibrant ecosystem of companies, organizations and research institutions, and the institution can leverage these connections to facilitate internships, research collaborations and technology project development, providing students with valuable real-world experience and networking opportunities.

Finally, a Master in Information Technology Management can attract students from diverse backgrounds, fostering a multicultural learning environment and enriching the educational experience for all participants. In addition, the institution has partnerships with international institutions for student exchange programs and joint research initiatives, further enhancing the global footprint for students.

### **Program Objectives**

The Master in Information Technology Management aims to train professionals with skills and knowledge to:

- Enhance, with a strategic vision of the organization, the generation of value through information and communication technologies.

- Be the means of communication between decision makers and designers of growth strategies with new technologies.

- Be a professional to communicate transversally and vertically within a company, managing and communicating the needs and solutions to problems related to emerging technologies.

#### **Target Audience**

- Professionals interested in specializing in IT management as a tool to transform transversal processes and strategically underpin the competitiveness of organizations.

- Professionals interested in technology management, understanding the value of technologies for organizations, mastering the necessary techniques for their management and the search for business opportunities.

- Professionals in the engineering area who wish to get into information and communication technologies as a tool to transform the processes and activities of the organization.

#### **Applicant Profile**

To study the Master in Information Technology Management at Tecnológico de Monterrey, the applicant is expected to have:

Knowledge:

It is important that the applicant has knowledge about information technologies, their use in companies or organizations; the applicant must personally have used technologies; and have basic knowledge of the business area.

#### Skills:

- Verbal and mathematical reasoning skills related to the ability to infer, analyze, and synthesize, complemented with the exploration of competencies to organize, obtain and understand information that generates innovative strategies.

- Skills in the use of information technologies, to be able to search for data and reports, as well as to use these tools to send and receive valuable information.

- Critical thinking to analyze and propose work projects.
- Basic argumentation skills to justify the results of work projects.
- Ability to communicate effectively, clearly, and coherently.

# Aptitudes:

Talented, enthusiastic, committed to the development of their environment and the welfare of society; people who have the potential to successfully complete their graduate program and become leaders with an entrepreneurial spirit, human sense and internationally competitive. Capable of leading and working as part of a team to successfully complete IT application projects, collaborating with professionals from other areas of the company or organization.

## Learning Outcomes

After graduating from the Master in Information Technology Management, the student will be able to:

Knowledge:

- Apply emerging information technologies to generate value in the organizations being leaders of the projects required for this purpose.

- Unify the global strategy of information technologies with an innovative scheme and above all with the understanding of the business model.

- Develop IT projects with the required resources, as well as lead the necessary changes in organizations, to increase their competitiveness in a globalized environment.

Skills:

- Develop critical thinking for understanding complex problems.

- Use technology and data to generate value and improve the management of information technologies in an organization.

- Lead teams and projects in local or digital environments, guiding the implementation of governance in information technologies and high impact technology projects.

- Have a strong commitment to sustainable development in the responsible use of information technologies in an organization.

- Innovate with the use of information technologies inside and outside the organization, generating change and value.

#### Attitudes:

- To be a leader with an entrepreneurial spirit, human sense and internationally competitive.

- To be an ethical, fair, equitable and socially responsible professional with a strong commitment to the community and the well-being of the organization.

# Campus that offer this program

Campus	Number of periods offered	From	Closed for new students
Programas en Línea	Complete	Trimester Sep - Dec 2025	

Last update: 09/May/2024