



MER-L

Master in Energy Management and Renewable Sources

(Edition 2025)

First Trimester

Code	Name	CL	L	U	CA	S	UDC
DS4020	Renewable Energy Applications	2.5	0	9	2	12	3
EM4003	Transversal Pathways I	2.5	0	9	2	12	3
TE4021	Energy Analysis Tools	2.5	0	9	2	12	3
		7.5	0	27	6	36	9

Second Trimester

Code	Name	CL	L	U	CA	S	UDC
DS4021	Regulation, Acquisition, and Financing of Energy Resources	2.5	0	9	2	12	3
OP4049	Transdisciplinary Elective	2.5	0	9	2		
TE4022	Efficient Use of Energy	2.5	0	9	2	12	3
		7.5	0	27	6	24	6

Third Trimester

Code	Name	CL	L	U	CA	S	UDC
EM4004	Transversal Pathways II	2.5	0	9	2	12	3
OP5100	Elective I	2.5	0	9	2	12	3
TE4023	Energy Management Systems	2.5	0	9	2	12	3
		7.5	0	27	6	36	9

Fourth Trimester

Code	Name	CL	L	U	CA	S	UDC
OP5101	Elective II	2.5	0	9	2	12	3
OP5102	Elective III	2.5	0	9	2		
OP5103	Elective IV	2.5	0	9	2		
		7.5	0	27	6	12	3

Fifth Trimester

Code	Name	CL	L	U	CA	S	UDC
OP5104	Elective V	2.5	0	9	2		
OP5105	Elective VI	2.5	0	9	2		
TE5029	Energy Project	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

Industries and organizations in general are facing a technical, economic, and social transformation that is part of the new way of interacting in a globalized world. While this transformation drives organizations to adapt and remain competitive, a large part of the new way of competing in the long term is now defined by sustainability. On the other hand, the need for energy resources for growth can only be addressed in two ways: the correct management and optimization of available resources, and the prioritization of the use of renewable sources.

The Master in Energy Management and Renewable Sources is an educational alternative that arises as a response to the need of local, national and international organizations for professionals specialized in the areas of energy management, renewable energies and energy innovation. Organizations need energy managers that stimulate innovation and reconfigure the market, as well as agents of change in the formulation of schemes in the energy strategy of organizations. A person with knowledge and skills to permeate, manage and inform the needs and solutions to the problems related to energy, renewable resources and emerging technologies in the energy sector to sustainably transform organizations, cities and communities.

Program Objectives

The objective of the program is to train qualified professionals for energy management, including the use of alternative and conventional sources; specifically, they are able to analyze the energy situation of a company or organization, know the alternatives to make its operation more efficient and sustainable, and establish energy project plans to generate value and competitiveness.

Target Audience

The Master in Energy Management and Renewable Sources is aimed at professionals in the energy area interested in:

- Specialize in energy management and energy efficiency processes developing strategic schemes in the organization that contribute to the sustainable energy vision at a global level.
- Solve problems in the use of energy to transform cities and communities.
- Develop and manage energy innovation technology projects to achieve the efficient and effective use of renewable resources.

Applicant Profile

To enter the Master in Energy Management and Renewable Sources at Tecnológico de Monterrey, applicants are expected to meet the following requirements:

Knowledge

- Knowledge of math, physics and processes, and their application in the energy field.

Skills

- Students possess verbal and mathematical reasoning skills that are related to the ability to infer, analyze and synthesize, additionally with competence to organize, obtain and understand information that generates innovative strategies.
- Be familiar with the use of information and communication technologies, so that they can search for data and do calculations, as well use these tools to get results.
- Basic argumentation capacity to justify results of working projects.
- Reading comprehension skills in English.

Attitudes

- 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.

Learning Outcomes

Graduates from the Master in Energy Management and Renewable Sources will be able to:

Knowledge

- Identify the impact of energy efficiency projects based on renewable energy systems by analyzing available natural resources.
- Propose sustainable alternatives of projects of energy efficiency.
- Evaluate the economic feasibility of energy projects.
- Understand the model, structure, conditions, and perspectives of the industry and unify the global energy strategy and the strategy of the organization under an innovative scheme.

Skills

- Develop critical thinking skills to understand complex problems.
- Use technology and data to inform and improve energy management.
- Lead teams and projects in public or private sectors, guiding the implementation of high-impact policies and projects.
- Generate value in organizations with broad leadership based on the application of energy strategies.

Attitudes

- 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 public service and social welfare.

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