tech technological university

Awards the following

DIPLOMA

to

Mr. Erika Macedo Campante Fittipaldi To Macedo Campante Fittipaldi Torga, with identification number 164154804,
For having successfully passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Intestinal Microbiota

This is a qualification awarded by this University, equivalent to 18 ECTS credits
and 450 hours, with a start date of 2/24/2023 and an end date of 8/24/2023

TECH is a Private Institution of Higher Education recognized
by the Ministry of Public Education as of June 28, 2018.

On the 01 of September of 2023

Tere Guevara Navarro
Dean

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Postgraduate Diploma in Intestinal Microbiota

Erika Macedo Campante Fittipaldi To Macedo Campante Fittipaldi Torga, with identification number 164154804.

Qualifications

Subject Type	ECTS Credits
Compulsory (CO)	18
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 18

Subject	Grade
MODULE 1. MICROBIOTA. MICROBIOME. METAGENOMICS	7.50
MODULE 2. GUT MICROBIOTA I. INTESTINAL HOMEOSTASIS	8.34
MODULE 3. GUT MICROBIOTA II. INTESTINAL DYSBIOSIS	8.52

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Postgraduate Diploma in Intestinal Microbiota

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General Structure of the Syllabus

Subject Type	ECTS Credits
Compulsory (CO)	18
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 18

Year	Subject	Credits	Features
1º	**Module 1. Microbiota. Microbiome. Metagenomics** U1. Definition and relationship U2. Microbiota composition Genus U3. Different human microbiota. General information on their eubiosis and dysbiosis U4. Factors influencing the balance and imbalance of the microbiota	6	CO
1º	**Module 2. Gut Microbiota I. Intestinal homeostasis** U1. Gut Microbiota Studies. U2. Composition of the microbiota U3. Gut physiology. Composition of the microbiota U4. Functions of the gut microbiota: Metabolic, nutritional and trophic, protective and barrier, immunological U5. Intestinal Mucosa and Mucosal Immune System. U6. What is Intestinal Homeostasis. Role of Bacteria in Intestinal Homeostasis.	6	CO
1º	**Module 3. Gut Microbiota II. Intestinal Dysbiosis** U1. What is Intestinal Dysbiosis? Consequences. U2. Intestinal Barrier. Physiology. Function. Intestinal Permeability and Hyperpermeability. Relation between Dysbiosis and Intestinal Permeability and Hyperpermeability. U3. Relationship of Intestinal Dysbiosis and Other Types of Disorders: Immunological, Metabolic, Neurological and Gastric (Helicobacter Pylori). U4. Consequences of the Alteration of the Intestinal Ecosystem and its Relationship to Functional Digestive Disorders. U5. Alteration of the Intestinal Ecosystem and its Relationship with Intestinal Infections. U6. Composition of the Intestinal Microbiota in the Different Stages of Life. U7. Nutritional Modulation of Intestinal Dysbiosis and Hyperpermeability: Glutamine, U8. Techniques for Quantitative Analysis of Microorganisms in Feces. U9. Current Lines of Research.	6	CO

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