









Summer School Courses 2019 - 2024

Industrial Engineering Department

IIND4231 Supply Chain and Analytical Systems Engineering



Course Instructor(s):

Sepideh Abolghasem, California State University, Northridge (USA)

Term dates: July 8 to 25, 2024

Language: Spanish 100% Format: Online (live) Credits: 4, master level

IIND4356 Leadership, systems thinking and strategy: a trilogy for 21st century problems



Course Instructor(s):

Roberto Villaseñor, Instituto Tecnológico de Monterrey (Mexico)

Term dates: July 8 to 12, 2024

Language: Spanish 100%

Format: Online (live)
Credits: 4, master level



IIND4133 Mastering Machine Learning



Course Instructor(s):

Ashish Mahaba, Center for Data Driven Discovery, California Institute of Technology (USA) Rafael Martínez, Harvard-Smithsonian Center for Astrophysics (USA)

Juan Fernando Pérez, Distinguished Professional, Universidad de los Andes (Colombia)

Term dates: July 17 to 27, 2024

Language: Spanish 50%, English 50%

Format: Hybrid





IIND4230 Simulation approaches with applications in Production and Logistics



Course Instructor(s):

Naly Rakoto, Associate Professor, IMT Atlantique - France Fidel Torres, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 13 to July 5, 2023

Hours: 42

Language: Spanish 50%, English 50%

Format: On Campus Credits: 4, master level



IIND4131 Mastering Machine Learning, Generative Models

Course Instructor(s):

Catalina Obando, Research Scientist, Airbus – France Rafael Martínez, Astrophysicist, Harvard-Smithsonian Center for Astrophysics - USA Juan Fernando Pérez, Distinguished Professional, Universidad de los Andes - Colombia Rubén Manrique, Assistant Professor, Universidad de los Andes - Colombia

Term dates: July 5 to 14, 2023

Hours: 44

Language: Spanish 100%

Format: On Campus Credits: 4, master level







IIND4132 Combinatorial Optimization for Machine Learning



Course Instructor(s):

Andrés Gómez, Assistant Professor, University of Southern California - USA Andrés Medaglia, Full Professor, Universidad de los Andes - Colombia

Term dates: June 15 to July 7, 2023

Hours: 35

Language: Spanish 100%

Format: On Campus Credits: 4, master level

IIND4355 Innovative Product Development



David Ochi, Executive Director Innovation Incubator, California State University - USA

Term dates: June 20 to July 12, 2023

Hours: 33

Language: English 100% Format: Online (live) Credits: 4, master level





IIND4357 Creativity and Systemic Management in the Circular Economy



Course Instructor(s):

José Rodrigo Córdoba, Senior Lecturer (Associate Professor), University of London (Royal Holloway) - England

Term dates: June 13 to 28, 2023

Hours: 30

Language: Spanish 100% Format: Online (live) Credits: 4, master level

IIND4358 Sustainable Systemic Innovation



Course Instructor(s):

Andrés Acero, Assistant Professor, Tecnológico de Monterrey (Campus Puebla) – Mexico

Catalina Ramírez, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 20 to 28, 2023

Hours: 35

Language: Spanish 100%

Format: On Campus Credits: 4, master level



MIIA-4410 Network Analytics in the Big Data Era



Course Instructor(s):

Jesús Gómez, Associate Professor, Universidad de Zaragoza - Spain David Soriano, Postdoctoral Researcher, Instituto Gulbenkian de Ciencia - Portugal Felipe Montes, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 10 to 23, 2023

Hours: 32

Language: Spanish 100%

Format: On Campus Credits: 4, master level



IIND4230 Simulation approaches with applications in Logistics and Production







Naly Rakoto, Associate Professor, Nantes School of Mines (IMT Atlantique) - France Fidel Torres, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 6 to July 5, 2022

Hours: 40

Language: Spanish 50%, English 50%

Format: Online (live)
Credits: 4, master level



IIND4354 Sustainable Innovation

Course Instructor(s):

Irene Bengo, Associate Professor, Politecnico di Milano - Italy Jorge Lozoya, Research Professor, Tecnológico de Monterrey - Mexico Fernando Jiménez, Associate Professor, Universidad de los Andes - Colombia Catalina Ramírez, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 13 to 24, 2022

Hours: 45

Language: Spanish 100%

Format: Blended (Online and On Campus)









IIND4355 Innovative Product Development



Course Instructor(s):

David Ochi, Executive Director Innovation Incubator, California State University - USA

Term dates: June 19 to July 18, 2022

Hours: 33

Language: English 100% Format: Online (live) Credits: 4, master level



IIND4356 Leadership, systems thinking and strategy: a trilogy for 21st century problems



Course Instructor(s):

Roberto Villaseñor, Associate Director of the Regional Department - Industrial and Systems Engineering, Tecnológico de Monterrey - Mexico

Term dates: June 13 to 24, 2022

Hours: 30

Language: Spanish 100% Format: Online (live) Credits: 4, master level



IIND4129 Mastering Machine Learning





Course Instructor(s):

Elkin García, Principal Firmware Systems Architect, Synaptics Incorporated- USA Rafael Martínez, Astrophysicist, Harvard-Smithsonian Center for Astrophysics - USA Juan Fernando Pérez, Distinguished Professional, Universidad de los Andes - Colombia

Term dates: June 28 to July 2, 2022

Hours: 37

Language: Spanish 100%

Format: On Campus (Bogotá, Colombia)

Credits: 4, master level

MIIA4409 Operations Analytics



Course Instructor(s):

Raha Akhavan, Professor of Operations Management & Business Analytics, Sabanci Business School - Turkey

Term dates: July 1 to 12, 2022

Hours: 30

Language: Spanish 50%, English 50% **Format:** On Campus (Bogotá, Colombia)





IIND4352 Social Entrepreneurship





Course Instructor(s):

Homero Murzi, Assistant Professor, Virginia Tech. University – USA Catalina Ramírez, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 21 to July 2, 2021

Hours: 40

Language: Spanish 100% Format: Online (live) Credits: 4, master level

IIND4230 Simulation approaches with applications in Logistics and Production



Naly Rakoto, Associate Professor, Nantes School of Mines (IMT Atlantique) - France Fidel Torres, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 8 to July 12, 2021

Hours: 40

Language: Spanish 50%, English 50%

Format: Online (live)
Credits: 4, master level





MIIA4408 Supply Chain Analytics



Course Instructor(s):

Luis José Novoa, Assistant Professor, James Madison University - USA

Term dates: July 6 to 30, 2020

Hours: 30

Language: Spanish 100% Format: Online (live) Credits: 4, master level



IIND4229 Digital Twin Simulation of Modern Manufacturing Systems



Luca Fumagalli, Assistant Professor, Politecnico di Milano - Italy

Elisa Negri, Postdoc Researcher (Manufacturing Group), Politecnico di Milano - Italy

Term dates: June 16 to July 3, 2020

Hours: 36

Language: English 100% Format: Online (live) **Credits:** 4, master level





IIND4351 Sustainable Engineering with Social Impact





Course Instructor(s):

Pedro Reynolds, Research Assistant, Massachusetts Institute of Technology - USA Riccardo Mereu, Assistant Professor, Politecnico di Milano - Italy

Term dates: June 16 to 24, 2020

Hours: 30

Language: Spanish 100%

Format: Online (live)
Credits: 4, master level



MIIA4407 Building Sucessful Data-driven Strategies







Eduardo Rodríguez, Assistant Professor of Business, University of Wisconsin - USA Benjamin Ardila, Business Analytics Manager, Kernel Analytics - Spain

Term dates: July 13 to 26, 2019

Hours: 36

Language: Spanish 100%

Format: On Campus (Bogotá, Colombia)

Credits: 4, master level



IIND4348 Methodologies for Engineering with Impact: Population Migration Case



Course Instructor(s):

Richard Arias, Instructor, The University of British Columbia - Canada Catalina Ramírez, Associate Professor, Universidad de los Andes - Colombia

Term dates: June 13 to 22, 2019

Hours: 30

Language: Spanish 100%

Format: On Campus (Bogotá, Colombia)



IIND4350 Systemic Advanced Modeling



Course Instructor(s):

Roberto Villaseñor, Associate Director of the Regional Department - Industrial and Systems Engineering, Tecnológico de Monterrey – Mexico Karina Rosas, Associate Director of the Regional Department - Industrial and Systems Engineering, Tecnológico de Monterrey – Mexico



Term dates: June 17 to 21, 2019

Hours: 30

Language: Spanish 100%

Format: On Campus (Bogotá, Colombia)

Credits: 4, master level

IIND4127 Achieving Smart Maintenance through Reliability Analysis and Data Analytics



Course Instructor(s):

Luca Fumagalli, Assistant Professor, Politecnico di Milano - Italy

Term dates: July 2 to 19, 2019

Hours: 36

Language: English 100%

Format: On Campus (Bogotá, Colombia)



IIND4349 Computational Complex Systems Methods for Data Analytics





Jesús Gómez, Associate Professor, Universidad de Zaragoza - Spain Felipe Montes, Associate Professor, Universidad de los Andes - Colombia

Term dates: July 22 to 31, 2019

Hours: 36

Language: Spanish 100%

Format: On Campus (Bogotá, Colombia)









INDUSTRIAL ENGINEERING DEPARTMENT