## Syllabus

## Directory

Basic knowledge		
Theoretical fundaments in Ergonomics	Cognitive Ergonomics	
Applied Anthropometry	Work physiology	
Biomechanics	Subjective evaluations	
Investigation methodology	Learning technologies	
Descriptive statistics	Inferential statistics	
Thesis workshop I	Thesis workshop II	

Applied knowledge		
Ergonomic Design I	Ergonomic Design II	
Simulation and experimentation I	Human Factors in Computer Science	
Ergonomics for special groups	Environmental factors	
Analysis of workstations I	Analysis of workstations II	
Thesis workshop III	Thesis workshop IV	

### Class Schedule

Variable.

#### Place

University Center of Art, Architecture and Design University of Guadalajara. Calzada Independencia Norte N° 5075, Col. Huentitán el Bajo, Guadalajara, Jalisco, México.



### University of Guadalajara

M. Itzcóatl Tonatiuh Bravo Padilla General Principal

Dr. Miguel Ángel Navarro Navarro Executive Vice-chancellor

M. José Alfredo Peña Ramos General Secretary

# University Center of Art, Architecture and Design

M. Ernesto Flores Gallo University Center Principal

M. Maria Dolores Del Rio Lopez Academic Secretary

M. Eva Guadalupe Osuna Ruiz Administrative Secretary

BA Angel Igor Lozada Rivera Melo Cultural Linkage and Dissemination Secretary

Dr. Lilia Roselia Prado León Master's Degree in Ergonomics Coordinator

### Contact

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### Objetives

- Provide participants with knowledge and skills for analysis, assessment, ergonomic design and optimization of objects-artifacts, machines and tools, products, graphic communication, living spaces, tasks, stations, industrial, business and institutional jobs, and socio- technicians systems in general.
- Develop the participants skills to design, organize, lead and communicate basic scientific and applied research in any field of study and specialized areas of Ergonomics.
- Form and increase educational-teaching aptitudes for planning, organization and implementation of teaching-learning processes about ergonomics high quality education at any level of the education system.

### Graduate profile

- Breadth and depth understanding of ergonomics as a field of multidisciplinary knowledge
- Knowledge and understanding of the various philosophical, methodological and technical currents of ergonomics in the world.
- Detailed understanding of the fields of basic knowledge in Ergonomics: Anthropometry, Work physiology, Occupational Biomechanics and Cognitive-Occupational Ergonomics.
- Domain of the various methods and procedures for the application in the areas of Occupational and Design Ergonomics.
- Domain of methodologies and appropriate scientific research techniques for the field of ergonomics, either design or occupational.
- Skills and teaching skills applied to the teaching of Ergonomics.

### **Teachers Teachers**

Local teachers, University of Guadalajara		
Dr. Lilia Roselia Prado León	PROMEP profile; SNI-I member; Ergono- mics Research Center, UDG more than 20 years of experience in teaching, research and application of Ergonomics.	
Dr. Rosa Amelia Rosales Cinco	Profile PROMEP; Member of the Research Center in Ergonomics, 20 years of experience in teaching, tutoring, research and application of Ergonomics, UDG.	
Dr. Elvia Luz González Muñoz	PROMEP profile; SNI-I member; Ergono- mics Research Center, UDG more than 15 years of experience in teaching, research and application of Ergonomics.	
Dr. Francisco J. González Madariaga	PROMEP profile; SNI-I member; Doctor's degree in Technological Innovation; Barcelona, Spain.	
Dr. Carlos Aceves González	PROMEP profile; Doctor's degree in Ergonomics in Loughbrough University, UK; Ergonomics Research Center, UDG; more than 10 years of experience in Ergonomics.	
M. John A. Rey Galindo	PROMEP profile; full time teacher Industrial Design teacher (ergonomics) UNAM.	
M. Enrique Herrera Lugo	PROMEP profile; more than 15 years of experience in teaching, research and application of Ergonomics.	
M. Zeferino Aguayo Álvarez	PROMEP profile; Master's degree in Learning Technologies, UDG; more than 15 years of experience on teaching on top-level education.	
Dr. María de Lourdes Preciado Serrano	PROMEP profile; SNI-I member; Dr. in Health sciences at work; more than 15 years of experience in teaching and research in Health at Work.	
Dr. Claudia Rueda Velázquez	SNI-I member; Doctor's degree in Architectural projects in Polytechnic University of Catalonia.	
Dr. Victor Hugo Gonzalez Becerra	PROMEP profile; Doctor's degree in Behavioral Sciences.	

Visiting teachers, International		
Dr. Guadalupe Hernández Escobed	Profile PROMEP; PhD. In Information  Behavior and Cognitive Engineering at the University of Leeds, UK; More than 20 years in teaching, research and application of Industrial Engineering in ITT.	
Dr. Gustavo Rosal López	Industrial Engineer. Ergonomist. Secretary of the Spanish Association of Ergonomics. More than 15 years of experience in Human Factor Engineering.	

Visiting teachers, International		
Dr. Marcelo Soares	U. of Pernambuco, Brasil; PhD. in Ergonomics, U. Loughborough, U.K; Former President of Brazilian Ergono- mics Association.	
Dr. Elías Apud Simon	Doctor's Degree in Ergonomics in Univer- sity of Loughbrough, UK; more than 40 years of experience in teaching, research and aplication of Ergonomics.	
PHD. Gabriel Ibarra Mejía	M. in Ergonomic C., U. of Lulea, Sweden; PhD. Environmental Sc. & Engin, Pos-PhD Health Promotion, U. of Texas; more than 25 years of experience in Ergonomics.	
Dr. Miguel E. Acevedo Álvarez	Occupational physician, Ergonomist, - Epidemiologist, MSP, Academic Director, Diplomat in Ergonomics and occupa- tional health, U. Mayor, Santiago de Chile; Ergonomics Unity, Work Security Institute; Former President of Chilean Ergonomics Association.	
Dr. Julio A. Lillo Jover	Dr. in Psychology, Universidad Complu tense de Madrid, more than 30 years of experience in Ergonomics.	
M. Jean Paul Becker	Industrial Engineer, UAM; Master's Degree in Ergonomics, Polytechnic U. of Cataluña, Spain; Consultant in Ergo- nomics; more than 20 years of experien- ce in Ergonomics.	
Dr. Rosa Maria Reyes	Dr. in Health Sciences in the Workplace, UDG; More than 10 years of experience in Ergonomics.	
Dr. Carolina Escobar Tello	MSc degree in Sustainable Product Design, Bournemouth University, UK; expert in Design for Happiness, Sustainable Product Service Systems and other areas.	

### **Laboratory Equipment**

- · Anthropometric equipment type Martin
- Mechanic weighing machine 444.4 pounds
- · Electronic weighing machine 444.4 pounds
- Plicometers
- Goniometers
- Sedentary Measurements Tables
- · Worksurface Simulator
- Heliodon

### Software

- Ergomet 2.2 Jet
- Psico-Map 2.0 Jack
- · Ergo IBV

- · Manual Dynamometer
- · Dynamometry equipment type Jackson
- · Three chanels
- Electromyometrium
- · Heart rate monitor
- Tachistoscope · Sound Level Meter
- Lux Meter
- Sound Doser
- · Environmental thermometer
- · Videotaping equipment

### Subscriptions

- · Applied Ergonomics
- · Industrial Ergonomics
- · Ergonomics in Design

# **Entry Requirements**

### Administrative

- Copy of Bachelor's degree in Design areas (Industrial, Graphic, Interior, Architecture, Urban), Engineering, Medicine, Psychology, Hygiene and industrial security, Biology, Anthropology, Sociology.
- Original Bachelor's degree with a minimum average of 80.
- Certificate of Reading-Understanding of English language (recent).
- Original and recent Birth Certificate (3 months).
- Foreign people, all documents legalized or apostilled.

### Academic

- Movitation letter.
- Preliminary investigation (It could be developed during the Propaedeutic course)
- Attendance to the Propaedeutic course
- Interview with the Academic Board.
- Ceneval EXANI-III.

### Fees

Aspiration cost of Master's degree Propaedeutic course

\$700.00 MXN \$2,000.00 MXN

Semester fee	National	Foreign
Enrollment	\$1,817.00 MXN	\$23,144.00 MXN
Other contributions	\$570.00 MXN	\$570.00 MXN
Credits	8 monthly minimum wage m.z.	
	\$16,824.00 MXN	\$16,824.00 MXN
Total (biannual)	\$19,211.00 MXN	\$40,538.00 MXN

<sup>\*</sup>Annual Increase 5%

Dates		
Registration to Propaedeutic course	Dates to be confirmed.	
Propaedeutic course	Dates to be confirmed.	
Online registration (www.escolar.udg.mx)	May 22 to June 23.	
Documents delivery at Academic Control offices (administrative requirements	May 22 to July 19.	
Publication of Admission List (Mastery coordination)	July 24.	
Fees payment	Dates to be confirmed.	
Courses start	August 14.	