# Catalog 2017-2018 Academic Programs













CETYS Universidad is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC), 985 Atlantic Avenue, #100, Alameda, CA 94501, 510 -748-9001.



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**Dr. Fernando León**President of the
CETYS University
System



# Message from the President

# **Welcome to CETYS University**

Studying at CETYS University will be one of the most important decisions of your life. The education you will receive in our classrooms will give you an added value as an individual and as a professional, paving the way for better opportunities through our faculty, linkage with companies and the community, agreements with universities throughout the world, infrastructure, and other factors.

CETYS has the best academic offer in the region, providing students with the opportunity to prove their ability to stand out in a highly-competitive world. It is our commitment to provide strong support through scholarships, financial aid, and agreements with the best universities around the world, all while staying at the forefront with our academic offer, because we believe in the ability of human beings to achieve their dreams.

Our Institution was founded in 1961 with the firm idea that a region does not develop if there is no quality university education available. Today, with the 50th anniversary of the Institution, we can see more than ever that this is true. This idea reflects in our vision, which is expressed in the 2020 Institutional Development Plan and states that CETYS University will be a globally-competitive Institution with high educational quality that works as a Learning Community and is recognized by its Actions and Results in favor of Sustainable Development.

We want to take our institution to the highest levels of quality, making CETYS not only an institution that contributes to the current development needs of the region and anticipates future situations, but also that competes and transcends globally, making Baja California and Mexico proud.

#### Dr. Fernando León García

President of the CETYS University System

# Profile of the Institution

# The Government's Structure

Instituto Educativo del Noroeste, A.C. (IENAC) is a nonprofit organization which has sponsored Centro de Enseñanza Técnica y Superior (CETYS University) since its foundation in 1961. IENAC is composed by more than one hundred leaders of the region, who share the purposes reflected on the CETYS Mission and work to ensure their permanence and projection in our community.

# **Administration**

IENAC entrusts to the Presidency of CETYS University System the development and good progress of the Institution. The Presidency of CETYS University System is constituted and supported by the following members and functions for its regulations and operation in the State.

Dr. Fernando León García

**President** 

Dr. Alberto Gárate Rivera **Academic Vice President** 

Dr. Francisco Vélez

Dean of the College of Business and Administration

Dr. Jorge Sosa

**Dean of the College of Engineering** 

Dr. Cecilia Osuna

**Dean of the College of Social Sciences and Humanities** 

Dra. María del Carmen Echeverría del Valle **High School Dean** 

Mtro. Arturo Álvarez Soto

Finance Vice President

Mtro. Sergio Rebollar

Operations Vice President

Mtr. Francisco Reves Cervantes

**Director of Institutional Communication** 

Mtro. Mario Dipp Núñez Director of Mexicali Campus Mtra. Jessica Ibarra Ramonet

**Director of Tijuana and Ensenada Campus** 

Mtro. Carlos H. García

**Director of Institutional Relations** 

Dr. Scott Venezia

**Dean of Internationalization** 

Dr. Carlos A. González

Dean of Institutional Effectiveness and Accreditation

# **Mission y Vision**

#### Mission

(Synthesized Version)

It is purpose of Centro de Enseñanza Técnica y Superior to contribute towards the development of individuals with the necessary moral and intellectual character to participate in a prominent way in the economic, social, and cultural advancement of Mexico, consistently promoting: character building, general cultural training, and scientific training.

#### Vision

For the 2010-2020 period and as a part of the 2020 CETYS Plan, CETYS University will pursue to become a high quality education institution, globally competitive, functioning as a learning community, and recognized by its actions and results in favor of sustainable development.

# **History and Educational Model**

Centro de Enseñanza Técnica y Superior (CETYS University) is an educational institution of excellence, located in the State of Baja California, Mexico. Half a century ago, on September 20, 1961, with Fernando Macias Rendon as the first President, the CETYS High School was founded in a leased building downtown Mexicali. CETYS was established as a local university alternative for Baja California's youth, since back then, their only choice was to study in other parts of Mexico.

CETYS education labor was extended to Tijuana in 1972 and to Ensenada in 1975, providing the State with an alternative of high quality education under the auspices of a group of visionary entrepreneurs.

Throughout this half a century of educating leaders who have a ositive impact in this Mexico-United States bordering zone, over wenty-six thousand students have graduated from the undergraduate and graduate programs in the areas of Business and Administration, ngineering, and Humanities, as well as from the general and nternational High School programs.

CETYS is currently ranked as one of the best universities in the country. In addition, it is accredited by academic quality supervisory bodies, such as the Federation of Mexican Private Institutions of Higher Education (FIMPES), the Accreditation Council for Engineering Education (CACEI), Accreditation Council for Accounting and Management Education (CACECA), the National Council for Psychology Education and Research (CNEIP), and the Accreditation Council for Law Education (CONAED), and re cently obtained in the U.S. the international accreditation by the Western Association of Schools and Colleges (WASC).

With the pursuit of Excellence as a goal, the educational model consists of three essential components: philosophical principles, pedagogical principles, and fields.

Philosophical Principles: They determine the kind of person wanted to prepare, in this case, education has the dimension of a process clearly intentioned towards comprehensive training, and it is explicit and detailed in the CETYS Mission.

Pedagogical principles: They define the way the educational process is carried out:

- » Learning to Learn
- » Learning Skills and Abilities
- » Learning Knowledge
- » Learning to Coexist
- » Learning to Be and to Be Well

# **Campus and Facilities**

CETYS University has three campuses in the region: Ensenada, Mexicali and Tijuana.

# **Ensenada Campus**

Founded in 1975, ČETYS University, Ensenada Campus, began its work with high school. In 1979, the undergraduate programs started with the Accounting and Business Administration School. It currently offers General and Bilingual High School, ten undergraduate programs and seven graduate studies programs. In the first semester of 2014, 1035 students were registered in this campus.

At the Ensenada Campus, the patrimony has been permanently increasing, allowing the careful and planned growth of an infrastructure in which students have access to laboratories and specialized workshops, specific classrooms for cultural activities, library with over

15,000 copies, and well-equipped sports areas. In addition, wireless internet access is available thro ughout the campus .

Here, as in other campuses, student and academic life is offered positively marking the professional life, because there is the interest of maintaining a high quality in the training of its students and work has been done to have faculty experts and skillful in their area of teaching, as well as to maintain resources and educational tools updated for their students.

The Ensenada Campus is located in Road to Microondas Trinidad Km. 1, Ensenada, B.C., Mexico, Zip Code 22860 Tel. +52 (646) 222-2300

# Mexicali

CETYS University, Mexicali Campus, is the oldest and has the largest student population of the system. For the first half of 2014, there were 2958 students. To date, this campus offers the General High School, as well as 13 undergraduate programs and 6 graduate studies programs with a wide variety of concentrations of study .

The high academic level of our institution is comple mented by a vibrant student life full of activities, such as sports competitions, artistic and cultural exhibitions, confe rences, symposia and events such as Prom Queen and High School Weeks, and Transcendences .

The infrastructure of our campus comprises several computing rooms, sports fields, a gymnasium, an auditorium, a cafeteria, a well-stocked library, and pleasant green areas. All of this is built by the tena city of an academic community that has always been characte rized by its unity and its proximity, making studying at CETYS University a truly unique experience.

The Mexicali Campus is located in CETYS Blvd., Col. Rivera, Mexicali, B.C. Mexico, Zip Code 21259 Tel. +52 (686) 567-370 0.

#### Tijuana

CETYS Tijuana Campus began operations in 1972, with the High School and two years later it started two undergraduate programs: Public Accounting and Business Administration. Currently, this campus offers General and International High School, as well as 12 undergraduate programs. In the first semester of 2014, 2679 students attended this campus.

Over the years, the physical space of this campus has brought toge ther the ideal conditions for the learning of languages, including English, French, and Japanese. Nowadays, it offers the services of library, cafeteria, computer room, sports fields, and the Holistic Wellness Center.

In the facilities of the CETYS Tijuana Campus, the Student Development Center provides educational services to the academic community, with the objective of giving comprehensive support in the academic, vocational, and psychological area .

The Tijuana Campus is located in: CETYS Universidad Av. Fracc. El Lago, B.C., Mexico, Zip Code 22550. Tel. +52 (664) 903-1800











# 2020 CETYS Plan

In view of the development and improvement of CETYS University, ever since 2008, we have been working on the formulation, the approval in April/September 2010, and the eventual launching in January 2011 of the CETYS 2020 Plan. This plan defines the vision of the institution for the next few years and proposes a CETYS committed to its Mission and with the highest quality programs, which allows transcending from regional and national acknowledgement to an international one. The 2020 CETYS Plan will lead us towards a CETYS that honors the vision of its founders, celebrates the achievements of its graduates, and is a pride of Baja California and Mexico.

The 2020 CETYS plan intends to guide CETYS to become an institution of high quality education, competitive worldwide, functioning as a learning community, and acknowledged by its actions and results in favor of sustainable development. Six strategic objectives and initiatives are directed to meet the needs of the system and the campuses:

- 1) To promote an academic faculty of high level including the increase of doctors, that strengthen teaching excellence, but at the same time enabling substantial progress in applied research and bonding with the economic and social development.
- 2) To continue to promote comprehensive training through an educational model centered on the student which ensures the improvement of the fields (internationalization, entrepreneur development, and culture of the information), and student life.

- 3) To operate a multi-campus system which can rely on the physical infrastructure and services needed to support the kind of education that is expected to be achieved in the 2020 CETYS.
- 4) To integrate the best technology platforms and systems for the provision of educational services and quality support.
- 5) To promote innovation and diversify the educational offering.
- 6) To improve its structure and organization to achieve more efficiency, diversification and increased sources of financing.

In order to support the execution of the 2020 CETYS, with the joint assistance and work from the students, professors, managers, administrators, IENAC Counselors, and the community in general the Institution will seek for investing the following resources: from Capital Campaign, 50 million dollars; from Own Resources, 19 million dollars; and for Productive Patrimony, 50 million dollars.

# Acknowledgments and Accreditations

# Official Validity and Institution of Excellence

CETYS University is a private, nonprofit institution which operates with the Official Validity of Studies Acknowledgment (RVOE) protected by two general agreements:

- a) 21414 agreement issued by the Secretary of Public Education (SEP) at the Federal level and published in the Official Journal on December 26, 1974. This agreement grants CETYS University the right to offer any Technical, High School, Undergraduate, and Graduate program anywhere in the country and under any modality.
- b) Agreement without number issued by Secretary of Education and Welfare SEBS from the State Government and published in the official journal of the State of Baja California on October 10, 1983. This agreement grants CETYS University the same possibilities as in the 21414 Federal agreement statewide.

All CETYS programs are acknowledged either by SEBS, or SEP. In all cases, besides the general agreement, there is a particular written acknowledgment for each Bachelor's Degree, program, or curriculum offered in each campus. Find further information on www.cetys. mx/?page=387.

# **Acknowledgements**

CETYS University is acknowledged as Institution of Excellence by the State Government and High Academic Level by the Federal Government. At the same time, the Institution was recognized with the highest award given by Baja California Institute for Quality (IBCC) within the category of Education.

# **Institutional Accreditations**

Accreditations are related mainly to the improvement of the quality of education in Mexico and with the guarantee that, institutions and their accredited academic programs meet the established standards. They represent a public acknowledgement of the quality and constitute the guarantee that the program complies with adequate infrastructure and human capital to be offered with the highest efficiency.

The institutional accreditation is linked to the fulfillment of its mission, appropriate in the context of higher education and that offers the resources, programs, and adequate services for its fulfillment, all of this before local and international bodies, such as FIMPES.

Evaluation, an institutional accreditation, focuses on the implementation of the objectives of higher education institutions including as universal elements, comprehensive training, the creation, development and transmission of knowledge, and the contribution to the training of professionals and consolidation of the academic communities.

Also, it is focused on the achievement of institutional projects and in the relevant social, cultural, pedagogical projects; in addition, it attends to the way the institution faces the fulfillment of its core functions in the different fields of action of higher education, institutional climate, available resources, and the overall performance.

# a) Federation of Mexican Private Institutions of Higher Education (FIMPES)

CETYS University is the only institution of Baja California accredited by FIMPES for the third time with the highest distinction "Lisa y Ilana" valid 2013-2020.

With the FIMPES accreditation, our students are certain that they study in an institution with its own, proven quality model, in addition to the confidence in the education they will receive, for its quality, as well as for an educational environment suitable for the training in values combined with a vision of the Mexican reality and the opportunities of social participation and the prestige of belonging to a school committed to society.

# **International Accreditations**

# a) Western Association of Schools and Colleges (WASC)

As part of the process of increasing academic quality in international terms, in 2012 CETYS University became the first institution in Latin America to be accredited by the Western Association of Schools and Colleges (WASC).

WASC is one of the six most important certifying bodies in the United States, and being accredited by WASC, CETYS is at the same academic level as institutions like the University of California, Los Angeles (UCLA), University of Southern California (USC), Stanford University and San Diego State University (SDSU), among other 150 affiliated universities.

With this accreditation, students from CETYS can transfer credits to any accredited institution in the United States. This also facilitates the obtention of dual diplomas, international exchange, and credit transfer for CETYS students.

# b) Accrediting Board for Engineering and Technology (ABET)

On October 2013, the Accreditation Board of Engineering & Technology (ABET) awarded the Industrial Engineering program at Mexicali's Accreditation.

Industrial Engineering	3 Campuses
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# c) Accreditation Council for Business Schools and Programs (ACBSP)

On June 2014, the Accreditation Council for Business Schools and Programs (ACBSP), awarded at its annual conference held in California, the Certificate of Accreditation to CETYS University.

Bachelor of Arts in Business Administration	3 Campuses
Bachelor of Arts in International Business	3 Campuses
Masters of Business Administration	3 Campuses

# **National Accreditation Programs**

# a) National Council for Psychology Education and Research (CNEIP)

The National Council for Psychology Education and Research (CNEIP) is the body in the area of Human Behavior, whose function is to carry out processes of assessment and accreditation of educational programs in the following disciplines: Clinical, Educational, Organizational, and Child Psychology.CETYS educational programs assessed and in process of being reaccredited:

Clinical Psychology	Mexicali
, 0,	Tijuana
	,

# b) Accreditation Council for Engineering Education (CACEI)

The Accreditation Council for Engineering Education (CACEI) is the body that assesses and certifies the engineering programs that CETYS University offers. CETYS educational programs assessed and accredited:

Industrial Engineering	3 Campuses
Computer Science Engineering	Mexicali Tijuana
Mechanical Engineering	3 Campuses
Electronic Cybernetics Engineering	3 Campuses
Digital Graphic Design Engineering	3 Campuses
Mechatronics Engineering	3 Campuses
Software Engineering	Ensenada

# c) Accreditation Council for Accounting and Management Education (CACECA)

The Certification Council for Accounting and Management Education (CACECA) is the body that assesses and accredits some of the graduate programs that CETYS University offers. CETYS educational programs assessed and accredited:

Bachelor of Arts in Business Administration	3 Campuses
Bachelor of Arts in International Business	3 Campuses
Bachelor of Arts in Marketing Administration	3 Campuses
International Public Accounting	Mexicali Tijuana
Bachelor of Arts in Business Management	Ensenada

# d) Accreditation Council for Law Education (CONAED)

The Certification Council for Law Education (CONAED) is promoting the improvement of the quality of legal education, which through accreditation, the basic criteria of quality is established in order to verify that the schemes are consistent with advances in scientific and legal techniques, as well as the social requirements of a responsible and ethical practice.



# **CENEVAL**

The quality of education is a recurring theme in our society. Some bodies assess programs, others, inputs or processes, and some others emphasize the assessment based on results. The National Center for Higher Education Assessment (CENEVAL) deals with the assessment of people and provides information on the results of the educational action of schools, universities, companies, educational authorities, organizations of professionals of the country, and other governmental and private bodies.

Each year, the graduating students from the CETYS University System take the General Exam for Completion of the Bachelor's degree (EGEL), a test of national coverage applied by CENEVAL, which assesses the level of knowledge and academic skills of the newly graduates. With this, CETYS University seeks to provide increasingly better academic programs and to train more skillful students, since our prestige depends on it.

# **CONACYT Quality Graduate Studies Program**

CETYS University has registration and certification from the National Quality Graduate Program (PNPC) for two of its Graduate: Master in Business Administration (MBA) in their 10 concentrations: Marketing, Human Resources, Finance, Public Administration, Strategy Management, International Businesses, Supply Chain, Quality Management, Economic Development and Agribusiness; and Master of Engineering in three concentrations: Systems and Process, Design and Manufacturing Processes and Electronic Design and Applications Software. This allows students of high academic performance to apply for and receive a support grants for their studies. CETYS is the only private university in northwestern Mexico with this distinction.

# **Rankings**

CETYS MBAs in their Finance, Marketing, and Human Resources concentrations are highlighted in The Best MBAs in Mexico edition of lider magazine in the field of Expansion business.

# **Faculty**

Full Time professors per campus and per college.

# **Ensenada Campus**

# **College of Business Management**

# **Diana Esther Woolfolk Ruiz**

# **Director of School Business Management**

Doctorate in Business Administration with an emphasis in Strategic Management, CETYS University, Mexico.

#### Alicia León Pozo

Doctorate in Global Development, CETYS University.

# **Mayer Rainiero Cabrera Flores**

Doctorate in Global Studies, Autonomous University of Baja California, Mexico.

# **College of Engineering**

#### Lucia Beltran Rocha

# **Director of School of Engineering**

Doctorate in Engineering with emphasis in Manufacturing Systems, CETYS University with Arizona State University.

# **Isaac Azuz Adeath**

Doctorate in Ocean Science, Universidad Politécnica de Catalunya, España.

# Josué Aaron López Leyva

Doctorate in Science in Electronics and Telecommunications, CICESE.

# **College of Social Sciences and Humanities**

#### Cecilia Osuna Lever

#### **Dean of the College of Social Sciences and Humanities**

Doctorate in Education Sciences, UABC.

# **Mexicali Campus**

# **College of Business and Management**

### **Francisco Velez Torres**

# **Dean of School of Business Management**

Doctorate in Administration, CETYS University.

# Mónica Acosta Alvarado

Doctorate in Business, CETYS University.

# Carlos Humberto Castellanos León

Doctorate in Strategic Management, CETYS University.

#### Saida Pérez Córdova

Ernesto Carlos Master's in Business with emphasis in Supply Chain, CETYS Universidad.

# Paulina A. Vargas Larraguível

Master's in Marketing, CETYS Universidad.

### Ma. Eugenia Corella Torres

Master's in Corporate Finances.

#### Lisette Salgado Patiño

Doctorate in Management, CETYS University, ABD.

# Joaquín Castillo Cárdenas

Master's in Education, UVA.

# **College of Engineering**

# **Jorge Sosa**

# **Dean of College of Engineering**

Doctorate of Engineering with emphasis in Information Technology and Decision Analysis, UPAEP, Mexico.

# Guillermo Cheang León

Doctorate in Engineering with specialization in Communications Systems and Networks, CETYS University.

# Juan Manuel Terrazas Gaynor

Doctorate of Engineering, Autonomous University of Baja California, Mexico.

# Mauro Antonio Chávez López

Master's in Business with emphasis in Manufacturing, CETYS Universidad.

#### César Barraza Montoya

Master of Science in Operations Research, ITESM, and Master's in Business, CETYS Universidad.

# José Bernardo Valadez Rivera

Doctorate in Engineering with emphasis in Manufacturing Systems, Arizona State University, awarded by CETYS University, Mexico.

# Carlos A. Solorio Magaña

Doctorate in Industrial Engineering, Washington University.

# Gabriela Estrada Cadena

Doctorate in Engineering and Innovation, UPC, Barcelona, Spain.

# **College of Social Sciences and Humanities**

# Carmen Patricia Saracho Becerra

# **Director of School of Psychology**

Doctorate in Education, CETYS University.

#### **Basilio Martínez Villa**

#### Director of School of Law

Doctor of Philosophy, Logic and Aesthetics, Universidad de Salamanca, Spain.

# María Cecilia Angélica Contreras Trejo

Masters of Education, CETYS University, Mexico.

# Luis Enrique Linares Borboa

Doctorate of Education, CETYS University, Mexico.

# Teresita del Niño Jesús Higashi Villalvazo

Doctorate of Education, CETYS University, Mexico.

### Carlos Antonio González Palacios

Doctorate of Education, IBERO, Mexico.

# Jorge Arturo Ortega Acevedo

Doctorate of Philosophy with emphasis in Hispanic Philology, Autonomous University of Barcelona, Spain.

#### Julieta Bonilla

Doctorate of Education, Tijuana University, Mexico.

#### Marina Alvelais Alarcón

Doctorate of Behavioral Science, Guadalajara University, Mexico.

# **Campus Tijuana**

# **College of Business Management**

# Celsa Guadalupe Sanchez Velez Director of School of Business Management

Doctorate of Philosophy with emphasis in Economic Sectoral Strategic Development

#### Eduardo Raúl Díaz Gómez

Doctorate of Education, San Diego State University, USA.

#### **Eduardo Durazo Watanabe**

Doctorate of Philosophy with emphasis in Business, Autonomous University of Baja California, Mexico.

### Victor Mercader

Doctorate of Education, South Florida University, USA.

# Reina Alicia Castro Camacho

Doctorate of Education, Universidad del Valle Atemajac, Mexico.

# **Colleges of Engineering**

# Carlos Fabián Bautista Saucedo Director, School of Engineering

Master's Degree in Science and Arts for Design

#### **Salvador Chiu Tamayo**

Doctorate of Strategic Business, CETYS University-Alliant University.

#### **Adolfo Esquivel Martinez**

Doctorate of Philosophy with emphasis in Electronics, National Polytechnic Institute, Mexico.

#### **Roberto Salas Corrales**

Doctorate of Philosophy with emphasis in Digital Systems, National Polytechnic Institute, Mexico

#### Moisés Sánchez Adame

Doctorate of Engineering with emphasis in Computer Networks, University of Concordia, Spain, awarded by CETYS University, Mexico.

#### Ricardo Martínez Soto

Doctorate of Philosophy with emphasis in Engineering, Autonomous University of Baja California, Mexico.

# **Adan Hirales Carbajal**

Doctorate of Philosophy with emphasis in Computer Sciences, CICESE, Mexico.

# **College of Social Sciences and Humanities**

# Alberto Álvarez Noriega

Director of School of Psychology Doctorate of Psychology, CETYS University, Mexico.

# Yadira Ahumada Castro

Doctorate of Law, UPAEP, Mexico.

# Heberto X. Peterson Rodríguez

Doctorate of Education, IBERO.

# Jorge Francisco Sánchez López

Doctorate of Regional Studies, COLEF, Mexico.

# José de Jesús Torres Vera

Doctorate in Psychology, CETYS University.

# **Ingrid Kuri Alonso**

Doctorate of Social Sciences, Sonora Institute, Mexico.

# COMPREHENSIVE STUDENT DEVELOPMENT

# **Library and Learning Resources**

CETYS University system offers three Information Centers in its three campuses, the Norberto Corella Gil Samaniego Library in Mexicali, the Luis Fimbres Moreno Library in Tijuana, and the Community Library in Ensenada. Each one of them is open to members of the community in general with the purpose of promoting universal culture and the habit of reading in those who take part of any educational program in the institution. They are also intended to become important support tools in the teaching-learning process as well as a dynamic source of knowledge, whether it is in High School, Undergraduate, and Graduate studies, or in Extended Studies.

Our collection consists of over 100 thousand books, print and electronic; nearly 300 magazine titles; around 500 videos; almost 800 compact discs; and 8 data bases. The facilities, bibliographical material, and the technological equipment used in the Information Centers, contribute in a substantial way to the research labor, which is strongly enriched thanks to the close link between national and international libraries. The diversity in themes and information available, make knowledge universal.

# **Internationalization**

The internationalization program is a resource that intends to create a relevant environment in CETYS University, in order to develop a preparation and global mentality among students, which will allow them to perform as Mexican competitive professionals in the society of the XXI century.

Within this frame, the student exchange programs, three dual degree programs in the USA and Holland, field trips, mobility of teachers, courses abroad, and linguistic stays have as main objective to provide the student with the opportunity to obtain knowledge, practical experience, and cultural sensitivity in the international field. Therefore, with over 59 agreements, students have access to more than 100 universities and/or institutions worldwide.

The Academic Mobility University System (SUMA) is a National Exchange Program with a total of 17 Mexican private universities which are associated with FIMPES. Such universities are located in cities such as Mexico, Monterrey, Guadalajara, Morelia, Veracruz, Torreon, Leon, Tampico, Hermosillo, Puebla, and Fresnillo. The student has the opportunity to study a semester of his major at any of

the universities that take part of SUMA, getting credit for the studied subjects to his return. No additional fees are charged by the host university, thus, the student tuition is paid in the home university.

Applications are received twice a year; the first one, in February for the August-December term; the second, in September, for the January-June term of the following year.

# **International Exchange Programs**

As of international exchange programs, students may take from one semester up to a year whether in the United States, Canada, Chile, France, Italy, Holland, Spain, Argentina, Brazil, Finland, Sweden, Austria, Korea, Taiwan, or Japan.

- >> The requirements to take part of the program are:
- To be a student of the fourth semester or above during the January-June term.
- A minimum GPA of 8.5
- Obtaining a minimum score of 550 points in TOEFL ITP or 530
- For Spanish-speaking Universities
- Being a registered student at CETYS University
- Mastery of the language of the host University
- Documentation (original and copy)
- Filled out application form
- Recommendation letter by the Major Coordinator Academic record (Transcript)
- A letter stating the reasons (one page)
- » Engagement letter
- Copy of valid passport
- » One-page résumé, include academic and extracurricular activities
- » TOEFL ITP certification.

Applications are received once a year from October to February. During this term, students who will take part of the exchange program in the next academic year (August-December semester in the same year and/or the January-June semester in the year after) are selected.

# **Dual Degree**

CETYS University offers two Dual Degree programs for its Undergraduate students: San Diego State University in California since the early 1990s a d City University in Seattle Washington, since 2005.

Dual Degree schemes show a growing tendency, especially in the European Community, where they have gone from being an exception to becoming a rule. This points out the necessity for professionals to acquire, not only local and national experience, but a certification abroad, making them more competitive.

# Student Life

Excitement in CETYS student life is a result of the combination of all of our students' energy. Their great spirit is unveiled in conferences, academic contests, symposia, and lectures given by leader entrepreneurs, among other events.

Art exhibits, outdoor concerts, and cultural courses and workshops are other options offered to youngsters interested in extending their experiences out of the classroom.

Student life is also evident in the physical activities, thanks to our sports facilities perfectly equipped for the practice of athletics, soccer, football, and basketball, whether in internal tournaments or with our representative teams, that attend regional and international competitions.

Finally, community support is also a fundamental part of the student environment, distinctive of our university, with aims to promote social awareness as well as the CETYS values: liberty, justice, spirituality, beauty, the good, and the truth.

# **Entrepreneurship**

Undertaking is an attitude, a quality which should be lead in the youth so that a corporate culture is brought out of them. Promoting an undertaking spirit is a part of the strategies CETYS University has pursued throughout time; evidence of this is the linkage with bodies and institutions that also support this goal, such as Mexican Corporate Development (DESEM, 1979), EmpreSer de Mexico (2004), and Endeavor (2007).

Current actions are produced through the Corporate Development Center. This center is divided into three pillars: during Prelncubation, the undertaking spirit of the youth is promoted, developing corporate skills and attitudes as part of the curriculum under the sponsorship of Impulsa Program (Junior Achievement); Incubation has the goal of developing businesses based on new corporate ideas through the Intermediate Technology Incubator; finally, the third pillar projects the support of existing entrepreneurs with consulting and business acceleration services at Endeavor Center.

# **Social and Professional Linkages**

Social and Professional Linkages represents the development of an undertaking attitude at service of the exterior. Professional linkage, through two or more specific subjects will allow the student to get to know the labor market, understand its dynamics, and strengthen his security and sense of responsibility. Social linkage supports social values, particularly justice, and good. Linked to two subjects from the area of humanities, promotes the learning to coexist and to be.

# **Sports and Culture**

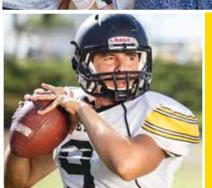
CETYS Unive rsity is committed to contribute to the training of people with moral and intellectual skills, necessary to relevant part of the economic, social, and cultural improvement of the country. This training needs an environment enriched with activities inside and outside the classroom.

At CETYS University, sports have a great influence in the student comprehensive development. Therefore, CETYS promotes sports and recreational activities in internal tournaments as well as a select number of sports to institutionally compete in local, regional, state, and national extramural tournaments. Traditionally, football and basketball have been of special interest. CETYS representative teams have stood out in local, state, and national tournaments for both man and woman categories, in the case of basketball. In the past few years other sports, such as athletics, baseball, and soccer, among others have been supported.

Regarding culture, the Department of Cultural Diffusion has been in charge of promoting and encouraging the participation of students in artistic and cultural activities. To achieve this, there are different representative groups in which Theater, Dance, Rondalla, and Orchestra stand out. Likewise, free artistic workshops such as Drawing and Painting, Photography, Vocalization, Creativity, Jazz Dance, among others, are offered to our students each semester. Offer varies on each campus and/or semester. On the other hand, all our commu nity can take part of art exhibitions, literary conferences, musicales, concerts, and a broad range of cultural activities promoted by CETYS University









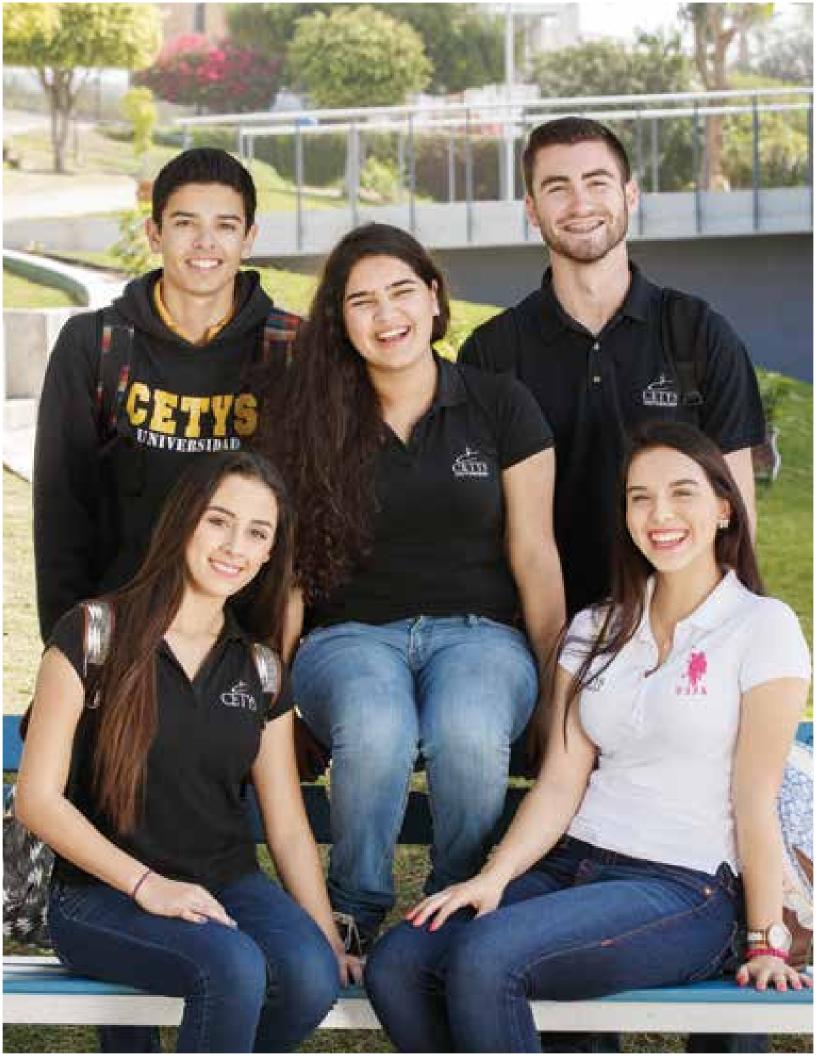












# **ADMISSION**

Admissions Requirements for Undergraduate Students.

# **Admissions Process**

#### 1. INFORMATION ABOUT CETYS

Once you have read the information sent to your home or school, call or visit us to request more information on the admission process.

#### 2. SCHEDULE A VISIT

An admission adviser will give you all the information you need to apply to CETYS.

# 3. PRE-REGISTRATION

You will be assigned with an Identification number, which you will use when paying your pre-registration fee. This includes: Pre-student Identification, admission test fee, study guide, and the right to take a preparation course. This fee will be accounted for in your registration fee; once you are admitted, pre-registration will allow you to reserve your place in CETYS as well as the financial aids granted.

# 4. ADMISSION TEST PREPARATION COURSE

Once you have pre-registered, you will be enrolled in the admission test preparation course. Admission tests are administered throughout the year in our three campuses, you should refer to our calendar in order to decide when and where to take it.

#### 5. PLACEMENT TEST FOR THE ENGLISH LANGUAGE

The objective of this test is to evaluate your English level of profeciency.

# 6. RESULTS AND ACADEMIC INTERVIEW

After passing the admission test, you will have to come to CETYS for an academic interview regarding the major you chose.

# **Admission Test**

In order to comply with the admission test requirement and take the big step of joining CETYS Universidad, here are some important aspects you should take into consideration before taking the test.

- It is the Scholastic Aptitude Test for Higher Education is sued by College Board, a North American organization internationally known for the elaboration of educational tests.
- » It does not measure your knowledge, but your abilities.
- Consists of two parts, one is for the assessment of your verbal reasoning, and the other is for the assessment of your mathematical reasoning.
- It is a multiple choice test. It is paper based and computer revised.

It consists of a total of 1600 points. A minimum of 1100 points is required. If you are applying for financial aid, test score will be relevant to the percentage and type of scholarship you will be granted.

The admission test is administered in the CETYS facilities on different dates.

You should arrive in the assigned place 15 minutes before the scheduled time. This is critical, since if you arrive once the test has started, you will not be allowed to go in.

After taking the test, within 7 days, staff from the Personalized Registration Department will contact you by phone to let you know about the results.

Although the test is administered several times a year, the sooner you take it, the more possibilities of getting a higher percentage in your scholarship will be.

# **Pre-registration**

Once the admission test results are received, you will be able to register in the major of your choice. For this, it is necessary to comply with the following requirements:

- Pay the pre-registration fee (in Mexican Pesos), an identification number will be assigned to you and you will formally be preregistered.
- Demonstrate a High School Grade Point Average of 8.5 (mexican raiting). This requirement is important if you have applied for any type of financial aid since it will determine the amount of scholarship or school loan you will receive. If your GPA is lower, you may be admitted, but the chances of getting financial aid will decrease. In order to verify your GPA, official transcripts issued by the High School you attended must be submitted.
- Do the admission test.
- Take the placement test for the English language. Due to the international approach in the education at CETYS University, as of the fifth semester some of the subjects are taught in English. Therefore, it is necessary that, before graduating, every student master an advanced level of proficiency in the language. Once you apply you must take the placement test which will determine your level of proficiency; if this is not the most advanced, you must take the English Course starting at the level your placement test established with a 100% scholarship (at CETYS University). If you demonstrate full mastery of the language, you may choose to learn a different one at your own expense.
- Purchase the medical insurance CETYS University offers or present evidence of the existence of a similar one.

- Purchase the tuition insurance, which will protect your High School or College education in case the person who pays your tuition should die.
  - \* The Institution reserves the right to accept or rescind any registration or pre-registration applications (Art. 4, Student Policies and Regulations).

# **Equivalence and Revalidation**

Students who have studied in other institutions, whether their national or international, and who wish to continue their studies at CETYS University may transfer their credits through equivalence and/or revalidation.

# **Equivalence**

This is for studies taken place in the National Education System.

Requirements (original and 2 copies):

- » Birth Certificate
- » High School Diploma
- » Partial studies certificate from the major been studied

# Revalidation

This is for studies taken place in the United States.

- » Birth Certificate
- » Official Transcript

# **Admission Requirements for Graduate Studies**

- » Fill out application form
- » Take the Graduate Students Admission Test
- » Interview with the Coordinator of the program of your choice

# **Academic Calendar**

In order to provide a better service to all our students and parents, the academic calendars set the dates and events of major importance in the institution.

Check the calendar and the official schedules for both undergraduate and graduate programs at the following link: www.cetys.mx/calendarios







# FINANCIAL INFORMATION

# **Tuition**

# **Ensenada Campus**

Bachelor's Degrees in Business and Administration,
Psychology, and Humanities and Social Sciences areas

Bachelor's Degrees in Engineering

\$ 80,308.00
\$ 71,440.00

# **Mexicali and Tijuana Campuses**

Bachelor's Degrees in Business and Administration,
Psychology, and Humanities and Social Sciences areas

Bachelor's Degrees in Engineering
\$ 1,076.00

(1st. Semester quote does not include Medical Insurance)

# **Graduate Studies Tuition 2017**

# **Ensenada Campus**

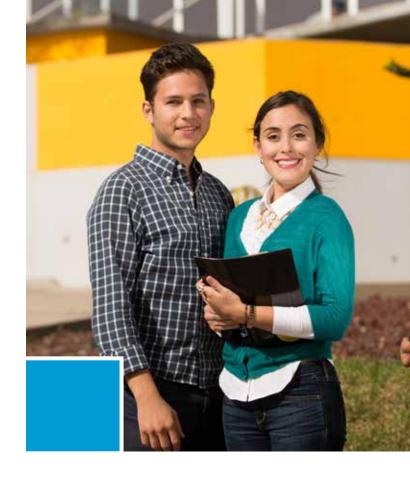
Program	Plan	Fee	Modality
Master of Administration	Trimester	\$14,000.00	Subject
Master of Engineering	Trimester	\$14,000.00	Subject
Master of Psychology	Trimester	\$11,870.00	Subject
Master of Education	Semester	\$11,870.00	Credit

# **Mexicali Campus**

Programa	Plan	Costo	Modality	
Master of Administration	Trimester	\$17,600.00	Subject	
Master of Engineering	Trimester	\$17,600.00	Subject	
Master of Psychology	Trimester	\$11,870.00	Subject	
Master of Corporate Law	Trimester	\$11,870.00	Subject	
Master of Criminology	Trimester	\$11,870.00	Subject	
Master of Education	Semester	\$11,870.00	Credit	

# Campus Tijuana

Programa	Plan	Costo	Modalidad	
Master of Administration Master of Engineering Master of Psychology	Trimester Trimester Trimester	\$14,250.00 \$14,250.00 \$11,870.00	Subject Subject Subject	
Master of Corporate Law Master of Criminology Master of Education	Trimester Trimester Semester	\$11,870.00 \$11,870.00 \$11,870.00	Subject Subject Credit	



# **Additional information**

- 2.5% discount for cash payment in trimester plan
- 3 1.5% discount for cash annual payment in Master's in Education and 1.5% per subject.
- » \$800 late registration fee
- 25% Annual Default Interest

# **Tuition Fees and Regulations**

- All our fees are in Mexican Pesos.
- If medical or tuition insurance is possessed, CETYS University insurance may be canceled by showing the corresponding valid policy by semester.
- Sports: We offer our students the possibility to take classes, participate in tournaments, or join our representative teams in a variety of sports, such as football, soccer, indoor soccer, basketball, volleyball, and some particular ones on each campus.
- » Access to all sports facilities, libraries, and student events.
- Computer services: Computer center and laboratories, videoconference room, computer equipment loan, wireless connection throughout campus, among others.

# **Scholarships and Grants**

CETYS University offers a wide variety of financial support to carry out your studies; Below is a brief description of the types of scholarships and discounts you can access.

# **Schoolarships**

There are different scholarships to support students with outstanding academic skills; some of these scholarships may be combined with educational credit.

# **Talent Scholarship**

It is designed for those students who enroll in any of the undergraduate programs, distinguished for their intellectual skills and High School academic record; demonstrate a GPA of 9.0 and a minimum score of 1120 points on their admission test. Scholarships go from 25% to 90%, including 10% educational credit.

# **Pro-Engineering Scholarship**

This 50% scholarship is intended for those students who wish to register in any Engineering program, distinguished for their intellectual skills and High School academic record; demonstrate a GPA of 8.5 and a minimum score of 1200 points on their admission test. Scholarships are from 50%, including 10%-15% educational credit.

# **PAFENI Scholarship**

It is a scholarship directed exclusively for students of New Entry to Campus Ensenada with outstanding academic skills; with a demonstrate a GPA of 8.5. Scholarships are from 25%.

# **Athletic Scholarship**

These financial aids are intended to motivate those students who apart from being distinguished athletes, are also outstanding students. IS necessary to get a physical exam performed by the coordinator of the sport the student will practice.

# **Grants**

Besides scholarships, CETYS offers different grants:

**Tuition Grants to CETYS Graduate Students' Children** 10% discount for children of students who have graduated from any CETYS school program.

#### **Tuition Grant to Alumni**

10% discount for students who have graduated from any CETYS school program and who wish to continue studying at CETYS (can not be accrued with the student discount).

# **Tuition Grant to Siblings**

To support families who have two or more children studying in any CEYS school program at the same time; the total of all scholarships and discounts can not exceed 50% to apply this discount. (It is subject to application and socio-economic study.)

Some aids might be used in combination with another. The total must not exceed 90%.\*

For any doubt it is necessary to consult the Scholarships Regulation and Discounts and the Regulation of Sports Scholarships.

The process to get financial aid requires you to fill out the application form and submit all the documents required. Once you have been granted financial aid you will have to agree on the terms; by accepting the benefits, you also consent to the responsibilities each support carnes.

# **Financial Aid**

To complete the financial aid, CETYS Universidad offers the Santander Student Loan and the Baja California State Government Loan.

#### Santander Student Loan

In order for you to study without any financial concerns, you may apply to this student loan with a 9.9% rate plus tax, free life insurance and no commission fix rate.

Ask for a Santander representative to provide you with all the requirements, fill out your application, and submit all your documents. You will get a response in only 5 days. For further information go to www.santanderuniversidades.com.mx

# **CETYS Student Loan**

CETYS Student Loan for new students requesting Academic Scholarships from the Comprehensive Financial Support Plan. They can be 10%, 12% or 15%, depending on the scholarship requested. The rate is 10% per year. A grace period of 1 semester is granted at the end of the degree to start paying. The student who obtains this credit must comply with both the Scholarship and Discount Regulations and the CETYS Educational Credit Regulations.

# **Baja California State Government Loan**

The government of Baja California, through the Credit and Education Support Institute, helps young people with limited financial resources from all over the state and who would like to begin, continue, or finish higher education studies. For further information go to www.creditoeducativobc.gob.mx

# **FAFSA (Free Application for Federal Student Aid)**

It is an educational credit that the US Federal Government grants to its students citizens or residents to undertake undergraduate or graduate studies at CETYS University. This authorized program is affiliated with the William D. Ford Direct Loan program, which is intended to help the student to cover all or part of the cost of their studies at a very low-interest rate. There are three types of FAFSA Credit: Subsidized, Unsubsidized and PLUS. Subject to FSA regulations for Foreign schools.



# ACADEMIC POLICIES

# **Students Rules and Regulations**

CETYS humanistic mission pursues the education of people with the necessary moral and intellectual skills to participate in a prominent way to the country's economic, social, and cultural advancement. In order to comply with its mission, all students registering to any CETYS undergraduate and graduate program are compelled to follow the institution regulations.

The Undergraduate and Graduate Studies Student Regulations will be given at the moment of registration and are made available at:

#### **Undergraduate Programs Regulations**

http://www.cetys.mx/en/userfiles/RulesRegulations/Reg\_Underg raduate\_2013\_014.pdf

# **Graduate Studies Regulations**

http://www.cetys.mx/en/userfiles/RulesRegulations/REGULATIONS\_FOR\_GRADUATE\_STUDIES\_STUDENTS.pdf

# **Code of Honor**

CETYS thinks of the importance of having and Code of Honor for students, teachers, employees, and officials, which inspires and reflects the ideal behavior of our decisions and everyday actions, and at the same time, it is built upon a reference and identification frame for those of us who are part of this institution. You are welcome to read it at:

www.cetys.mx/en/userfiles/RulesRegulations/Code\_of\_Honor.pdff

# **Graduation Requirements**

As of 2004, all CETYS University Bachelor's Degree studies a r e automatically awarded a degree once all the required subjects in the curriculum are accredited; there is no need for preparing a written assignment, nor taking a final examination. This is a result of the integration of the graduation requirements and procedures within required subjects for each major. Such requirements are:

- Community Service: It consists of completing 500 hours of community service. These hours integrated in Human Being, History, and Society, which is part of the common core.
- Internship: It involves the completion of 400 hours of internship in any activity related to the student's major. These hours are part of a subject linked to the productive sector, government, or society depending on the undergraduate's major.
- General Exam for Completion of the Bachelor's Degree (EGEL) by CENEVAL.

The National Evaluation Center (CENEVAL) administers the General Exam for Completion of the Bachelor's Degree to those graduating students who request it. Due to the existing agreement between CETYS and CENEVAL, this exam is administered at the end of the last semester of the major each graduating student is completing. For those majors for which CENEVAL has not designed a completion exam (Graphic Design and Digital Graphic Design Engineering), the corresponding College will prepare an equivalent general exam for completion and will be institutionally administered.

Upon completion of requirements - approval of all subjects in the curriculum, complying with the legal requisites (birth certificate, certificate of previous studies, photographs, etc.) you will be awarded a bachelor's degree.

# **ALUMNI**

Ever since its foundation, CETYS University has educated over 29,000 alumni: entrepreneurs, social and community leaders, corporate and government directors, area managers, and elective officials. All of them build an undisputed proof of the response the institution offers the community while creating true leaders of change. Thanks to the Alliance of many of our alumni's wills, great projects have come true to the benefit of our institution and that of the students it hosts. From the support for the flagpole to the launching of great campaigns, such as the ones for the Auditorium and football, alumni are a fundamental support piece to their Alma Mater.

# **PROGRAMS OF STUDY**

With the purpose of benefiting our students, the curricula of the Business and Management, Engineering, and Psychology Colleges have been updated, thus, the length of a major might be of 8 Semesters. If you register to one of them and take inter-semester courses, you may be able to complete your major in a period of 4 years.

Curriculum in these areas is comprised of three types of subjects:

# Common core for all majors

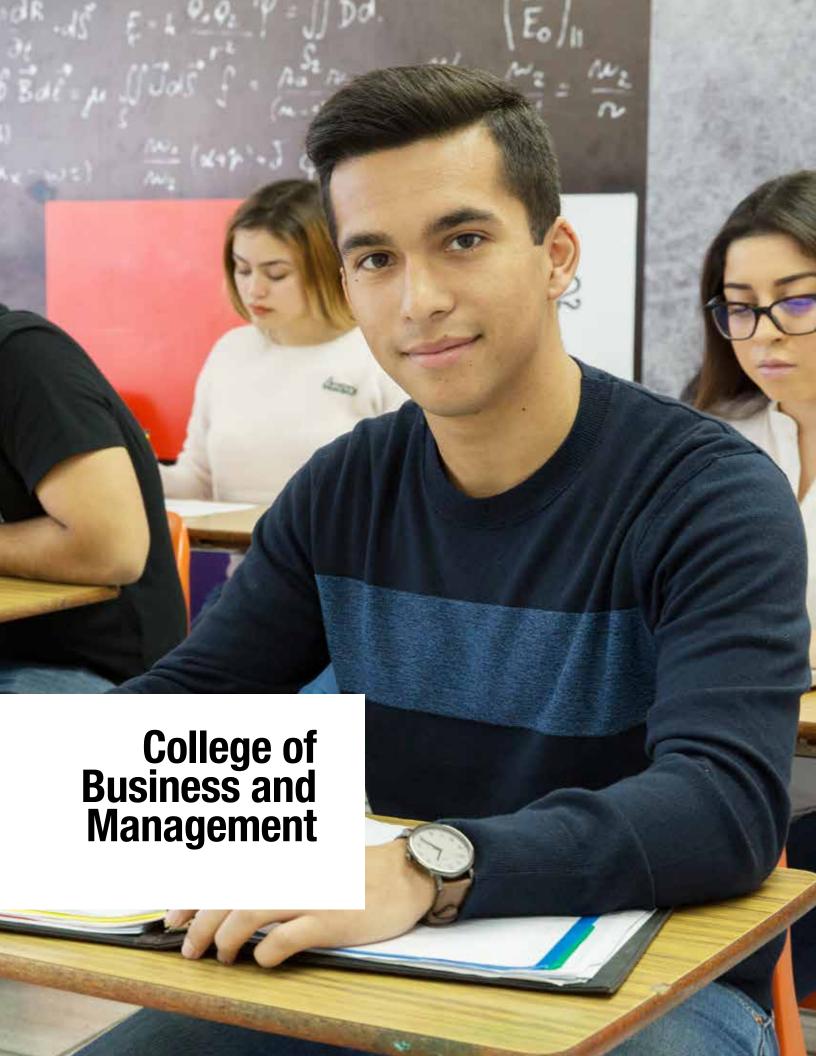
2 Common core for majors of each area

Business and Administration, Engineering, Law, Education, and Psychology.

Particular for each major







# **Educational offer**

Undergraduate Programs	Ensenada	Mexicali	Tijuana
Bachelor of Arts in Business Administration	•	•	•
Bachelor of Arts in Marketing Administration	•	•	•
Bachelor of Arts in International Business	•	•	•
Bachelor of Arts in International Public Accounting		•	•
Bachelor of Arts in Business Intelligence and Innovation	•	•	•
Bachelor of Arts in Graphic Design	•		
Bachelor of Arts in Business Management*	•	•	•
Bachelor of Arts in Business Management and Marketing*		•	•

<sup>\*</sup> For people over 24 years old.

Graduate Programs	Ensenada	Mexicali	Tijuana
Master's Degree in Business Administration	•	•	•

# **Directorio de Autoridades**

# **Francisco Velez Torres**

Dean, College of Business and Management Tel.: +52 (686) 567.3700 Ext: 3795 francisco.velez@cetys.mx

# **Diana Esther Woolfolk Ruiz**

Director of School of Business and Management Ensenada Campus Tel.: +52 (646) 222.2300 Ext. 111

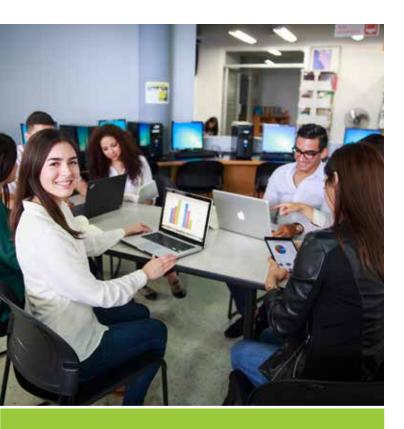
diana.woolfolk@cetys.mx

# **Carlos Castellano León**

Director of School Business and Management Mexicali Campus Tel.: +52 (686) 567.3700 Ext: 1242 carlos.castellanos@cetys.mx

# Celsa Guadalupe Sánchez Velez

Director of School Business and Management Tijuana Campus Tel.: +52 (664) 903.1828 Ext: 220 enrique.perez@cetys.mx



# Bachelor of Arts in **Business Administration**

The Bachelor's degree Business Administration is the professional capable of creating and developing an organization by integrating different functions of a company focusing on the global economy. He/she is highly prepared in the application of planning, organization, direction and control processes. and strategic management. With an entrepreneurial spirit, the Business Administrator optimizes the company's resources to achieve economic and social goals, focusing on continuous improvement.

# What are the areas or positions for a Business Administrator?

- As a manager or Business Administrator, general manager or human resources in farming companies, industrial, business & services, financial institutions, organizations, chambers and associations, government agencies, and educational institutions.
- You can work on the creation, organization, and management of businesses in different economic sectors. To work, as you get experience, in consulting agencies and services.
- You can also start a freelance career by meeting demand in management services or by being a planning director, an organization manager, or a store manager.

# What are the skills you will acquire at the end of the program?

At the end of the Bachelor's degree in Business Administration you will be able to:

- Analyze the company's operations and the politics, social, and economic atmosphere to develop decision making within the administration area, and for the development of the business.
- Develop human teams and the technology required by the company, and create an appropriate atmosphere so that the company functions properly.
- Prepare, implement, and run a Business Plan in the Company and the strategies for the Marketing, Finance, Human Resources, and Production areas.
- Prepare and set up corporate communication mechanisms and keep an adequate work environment.
- Prepare strategies to capitalize business opportunities in national and international areas.
- Manage human resources: select, hire, and train personnel and manage their monetary compensation.
- Develop leadership within the organization and the community.
- Prepare and implement the policies required by the company.

# What is the profile you need to study Business Administration?

If this is what you want to do, then your profile as a Business Administration student must meet the following characteristics:

- Interest and vocation towards the study of topics such as management, finances, and operations in organizations.
- Motivation towards company creation, carrying out negotiations, decision-making, and leadership.
- Tendency towards teamwork to face challenges from a multidisciplinary perspective.
- Interest on improving the status quo by innovating and making proposing.
- Inquisitive attitude and curiosity as to how companies work.
- Organizational capacity for decision making, and for interpersonal, oral, and written communication.

# Do you want to know which courses you will take in the Bachelor's degree in Marketing Administration?

The curriculum contains 42 required courses, distributed in 8 semesters and divided in 3 training axes.

- Common Axis
- Business Management Axis
- Business Administration Axis

# Curriculum Suggested Subjects per semester

1	CB400 AD400 DE400 CS400 EC400	Administration Private Law
2	CB401 MA400 CC415 EC401 CS401 CS403	Financial Accounting II Mathematics Management Information Systems Economy Thinking Skills Cultural I*
3	FZ400 MA407 MK400 DE401 HU400 CS404	Marketing Administration Labor Law and Social Security
4	C0400 RI400 DE401 MA408 AD401	Costs Human Resources Administration Human Behavior in the Organization Quantitative Models Small and Medium Business Manag.
5	CB402 IM400 MK401 CS402 ID400	Financial Framework
6	FZ401 II414 II415 II416 HU401	Financial Management Production Systems Management Supplier Development Methodology for System Improvement Man, History and Society
7	AD402 AD403 AD402 AD405 HU402	Entrepreneurial Development Project Management Business Auditing and Business Advising Man and Ethics
8	FZ402 AD406 AD407 AD408 AD409	Investment Project Management Philosophy Strategic Management Leadership Lessons High Administration Seminar
		ours per week: 4 / Units per course: 8 nours per week: 2 / Units per course: 4



# Bachelor of Arts in **Marketing Administration**

The Bachelor's Degree in Marketing and Business Management is a professional who meets efficiently product or service demand of an organization by achieving competitiveness and delivering value to customers. Has the ability to manage demand, and to seek and forecast marketing opportunities with the object of developing, modifying, and managing strategies in a global economy.

# What are the areas or positions for a Marketing Administrator?

- Public and private sectors such as government, business, industry, services, and in tourist and cultural sectors.
- Consulting agencies and specialized services such as marketing research, advertising, and sales promotion.
- Sales executives, marketing, and commercialization in business, industrial, and service companies.
- Brand Manager, Product Manager, Advertising Account Manager, Product Development Manager, Market Research, and Development Manager.
- Market analyst or Market Researcher
- Sales Manager, Sales Supervisor, Floor Leader, Purchase
- Manager, & Customer Service Manager.

# What are the skills you will acquire at the end of the program?

At the end of the Bachelor's degree in Marketing Administration you will be able to:

- Develop, implement, and manage an annual marketing plan for a product, a group of products, service, or business.
- Analyze the variables of the social, economic, and competitive environment to optimize marketing strategies.
- Predict consumers shopping behavior, forecast product demand, and participate in the strategic planning of a company.
- Design and manage promotion plans, personal sales, design management-advertising systems, media plans, sales promotion plans, personal sales, and manage corresponding distribution and logistics channels.
- Develop and manage a public relations program.
- Design and manage the sales process, sales force, and sales promotion programs of a company.
- Design and develop products or services considering market segmentation variables.
- Know about direct and online marketing, and to develop and manage online marketing programs.
- Develop and supervise visual, electronic, and Internet marketing.

# What is the profile you need to study Marketing Administration?

If this is what you want to do, then your profile as a Marketing Administration student must meet the following characteristics:

- Interest and vocation towards planning and strategic thinking
- Interest in obtaining professional training in Marketing
- Management supported by evidence.
- Motivation towards communication and behavior analysis targeted to meet satisfaction needs.
- Interest in microeconomics and the study of supply and demand, prices, and competition.
- Interest in statistics and market metrics
- Interest in teamwork to face challenges from a multidisciplinary perspective.
- Interest for improving the status quo by innovating and making proposing.
- Interest for acquiring skills for creativity, innovation, administration, and entrepreneurial leadership.
- Interest in improvement by proposing and innovating, as well as on acquiring skills for creativity, innovation, management, and entrepreneurial leadership.
- Inquisitive attitude and curiosity as to how purchasing decisions work, communities and the media, market research, sales, and promotion.
- Organizational skills for decision making, for interpersonal, oral, and written communication.

# Do you want to know which courses you will take in the Bachelor's degree in Marketing Administration?

The curriculum contains 42 required courses, distributed in 8 semesters and divided in 3 training axes.

- Common Axis
- Business Management Axis
- Marketing Management Axis

# Curriculum Suggested Subjects per semester

1	CB400 DE400 MK402 CS400 EC400	Financial Accounting I Private Law Intro to Marketing Advanced Comm. in Spanish Glob. and Economic Development
2	CB401 MA400 AD400 EC401 CS401 CS403	Financial Accounting II Mathematics Administration Economy Thinking Skills Cultural I
3	FZ400 MA407 MK400 CC415 HU400 CS404	Financial Analysis Statistics Marketing Administration Managerial Information Systems Man and Environment Cultural II
4	CO400 RI400 DE401 MK403 MK404	Costs Human Resources Administration Labor Law and Social Security Marketing Integral Comm. Visual Marketing
5	CB402 MK405 MK406 CS402 ID400	Administrative Accounting Consumer's Behavior Advertising Research Methodology Advanced Comm. in English
6	FZ401 MK407 MK408 CS409 HU401	Financial Management Marketing Strategies Market Research Detailed Marketing Man, History and Society
7	AD402 MK410 MK411 MK412 HU402	Entrepreneurial Development Dev of New Products and Brands Sales Promotion and Public Relations Administration Sales and Process Man and Ethics
8	MK413 MK414 MK415 MK416 MK417	Marketing Seminar Industrial and Services Marketing Marketing Decision Making Internet Marketing International Marketing
		rs per week: 4 / Units per course: 8 urs per week: 2 / Units per course: 4



# Bachelor of Arts in International Business

The Bachelor's of Arts in International Business is a professional with an entrepreneurial spirit, the ability to become a leader, and is trained on identifying, planning, and executing business projects for companies that expand far beyond international borders. This person has the ability to understand the distinctive traits of every culture that interacts in diverse economic blocks, takes advantage of the opportunities to commercialize goods and services abroad, foreign investment, and foreign products in Mexico.

# What are the areas or positions for an International Business student?

- As a manager or national and international import-export director businesses dedicated to commercial activities
- Multinational and international organizations such as
- UNESCO.
- Industries.
- As a manager in financial institutions.
- Customs brokers, embassies, and foreign relations bureaus.
- In government branches as officer in foreign trade and tourism agencies.
- Faculty in higher education and foreign trade institutions.
- Commercial Attaché in foreign countries.
- Internal or external consultant supporting trading companies

# What are the skills you will acquire at the end of the program?

At the end of the Bachelor's degree in International Business you will be able to:

- Have the strategic vision a company needs for international business.
- Obtain knowledge on market management and investments.
- Prepare national and international marketing strategies.
- Be aware of economic tendencies and mixed economies in the market.
- Know about International Business laws and regulations.
- Master personnel administration legal issues.
- Apply and describe the different international monetary systems.
- Develop an analysis for research and the diagnosis of solutions.
- Become an agent of change and innovation for organizations.
- Generate international relations.

# What is the profile you need to study Marketing Administration?

If this is what you want to do, then your profile as an International Business student must meet the following characteristics:

- To aspire to the perfection of English.
- Tendency to know other cultures.
- To have an entrepreneurial and leadership vision.
- To have the ability to engage in public relations easily.
- To master the ability to work in different environments.
- A high sense of ethics and freedom, as well as an acute sensibility to freedom, justice, and truth.
- Ability to show initiative and willingness towards constructive criticism.

# Do you want to know which courses you will take in the Bachelor's degree in Marketing Administration?

The curriculum contains 42 required courses, distributed in 8 semesters and divided in 3 training axes.

- Common Axis
- Administration and Business Axis
- International Business Axis

# Curriculum Suggested Subjects per semester

1	CB400 AD410 DE400 CS400 EC400	Financial Accounting I Intro to INT'L Business Private Law Advanced Comm. in Spanish Glob. and Economic Development
2	CB401 MA400 AD400 EC401 CS401 CS403	Financial Accounting II Mathematics Administration Economy Thinking Skills Cultural I *
3	FZ400 MA407 RI400 CS405 HU400 CS404	Financial Analysis Statistics Human Resource Management Compared Cultures Man and Environment Cultural II *
4	CO400 CC415 MK400 DE401 RI402	Costs Managment Information Systems Marketing Administration Labor Law and Social Security Transcultural Behavior
5	CB402 MK417 RI402 EC402 ID400	Administrative Accounting International Marketing Customs and Foreign Trade Research Mtehodology Advanced Comm. in English
6	FZ401 II414 II415 II416 HU401	Financial Management Business Financial Framework Supplier Development Methodology for Systems Improvement Man, History and Society
7	AD402 AD403 AD402 AD405 HU402	Int'l Commerce Entrepreneur Porject Management Business Auditing and Consuling Management Man and Ethics
8	FZ402 AD406 AD407 AD408 AD409	Int'l Business Proyect Management Philosophy Strategic Management Leadership Lessons Int'l Business Seminar
		ours per week: 4 / Units per course: 8 ours per week: 2 / Units per course: 4



# Bachelor of Arts in International Public Accounting

The Bachelor's of Arts in International Public Accounting is a professional with an entrepreneurial spirit and leadership attitude who is trained to identify, plan, and carry out business projects in companies whose activities go beyond national borders.

Covers the distinctive traits of the cultures that interact in different economic blocks; takes advantage of the opportunities for the commercialization of goods and services overseas and foreign investment, as well as foreign products in Mexico.

# What are the areas or positions for an International Public Accountant?

- As manager in industrial companies and those engaged in trading activities.
- As manager or director of service provider or agricultural businesses.
- Independent &comprehensive consulting firms.
- Agencies, companies, and institutions dedicated to foreign trade and financial institutions.
- Custom brokers, international market companies, and national and international corporate companies.
- International trading consortium, business organizations (chambers and associations), international economical organisms, & embassies in foreign countries.

# What are the skills you will acquire at the end of the program?

At the end of your bachelor's degree in International Public Accountant you will be able to:

- Develop a strategic vision of the company and its international business environment.
- Know the operations of foreign trade, the management and value of the stock market, the brokers, quotes, and the risk of investment.
- Carry out marketing strategies in the national and international environment.
- Know the market economic systems and mixed economies.
- Know the law and regulations of International Business.
- Master the legal topics for personnel management at national and international levels.
- Describe and apply the international monetary systems, as well as the national and international financial accounting information systems.
- Develop analytical ability for research, diagnosis, and solution of decision problems.
- Develop the ability to be an agent of change and innovation in the organization and to take over social responsibilities.
- Ability for international relations and flexibility to work with different work teams.
- Ability for the negotiation in multicultural organizational contexts.

- Know, speak, and write in the English language, and be able to speak another language, if desired by the student.
- Ability to carry out merchandise import- export tasks as well as capital investments and investments in banking services, publicity, tourism, retail, and construction; as well as in transactions that involve copyright, patents, trademarks, and technology.

# What is the profile you need to study International Public Accounting?

If this is what you want to do, then your profile as an International Public Accountant student must meet the following characteristics:

- An interest in learning about Public Accounting and especially how to apply it to companies and international negotiations.
- Motivation for learning English.
- Interest in teamwork to face diverse challenges from a multi- disciplinary perspective.
- Willingness to improve the status quo by innovating and making proposals.
- An inquisitive attitude and curiosity about how organizations work.
- Ability to research and to use computer technology, networks, and the Internet.
- Organization ability for documenting information and using it on the decision making process for the interpersonal, oral, and written communication.
- A high sense of honesty, sensibility towards classified information, and commitment to comply with the scheduled activities.

# Do you want to know which courses you will take in the International Public Accounting?

The curriculum contains 42 required courses, distributed in 8 semesters, and divided in 3 training axes:

- Common Axis
- Administration and Business Axis
- International Public Accounting Axis

# Curriculum Suggested Subjects per semester

1	CB400 AD400 DE400 CS400 EC400	Financial Accounting I Administration Private Law Advanced Comm. in Spanish Glob. and Economic Development
2	CB401 MA400 CC415 EC401 CS401 CS403	Financial Accounting II Mathematics Management Information Systems Economy Thinking Skills Cultural I*
3	FZ400 MA407 MK400 DE401 HU400 CS404	Financial Analysis Statistics Marketing Administration Labor Law and Social Security Man and Environment Cultural II*
4	CO400 CC415 MK400 DE401 RI402	Costs Human Resource Management Higher Accounting International Accounting Fiscal Law
5	CB402 CB405 DE402 CS402 ID400	Administrative Accounting Auditing I International Law and Customs Research Methodology Advanced Communication in English
6	FZ401 CB406 IM401 IM402 HU401	Financial Management Auditing II International Tax Issues I Corporte Income Tax Man, History and Society
7	AD402 FZ403 IM403 IM404 HU402	Entrepeneurial Development Planning and Financial Control International Tax Issues II People Income Tax Man and Ethics
8	FZ402 FZ404 FZ405 AD410 AD411	Investment Proyect Financial Markets International Finances Strategic Management Global Organization Management
		ours per week: 4 / Units per course: 8 ours per week: 2 / Units per course: 4



# Bachelor of Arts in **Business Intelligence** and Innovation

It is the professional capable of developing organizational intelligence to establish the strategic direction of companies, using technology and data to detect opportunities; propose technological solutions for organizational effectiveness and to establish business models under a vision of sustainability.

# What are the areas or positions for a Business Intelligence and Innovation student?

- Strategic consulting
- Competitive intelligence
- Market analysis and business environment
- Area of management information systems
- Planning and logistics
- New products and services
- Business Development Management
- Entrepreneur in innovation business

# What is the profile you need to study Business Intelligence and Innovation?

- Vocation to business and administration studies
- Ease for interpersonal relationships
- Negotiating skills
- Analytical-critical, abstraction and argumentation facility
- A taste for reading and knowledge in technical and business areas

# What are the skills you will acquire at the end of the program?

Analyze data and information that allow effective decision making in the organization. Determine the technological needs of the company, infrastructure, equipment, systems and software, for the development of business intelligence. Evaluate and develop technological solutions to optimize the functional areas of the company, and as part of the offer of products and services. Innovate in processes, systems and business model.

# What are the differentiating elements of CETYS?

- Internationalization
- Entrepreneurship and innovation
- Linkage to the community
- · Culture of information
- Sustainability
- Social responsibility

# Do you want to know which courses you will take in the Bachelor's degree in Business Intelligence and Innovation?

The curriculum contains 44 required courses, distributed in 8 semesters, divided in 3 training axes:

- General training
- Basic training in Administration
- Professional training in Business Intelligence and Innovation

# **Curriculum Suggested**

# Subjects per semester

1	Information management Oral and Written Communication in Spanish Financial Accounting Private law Fundamentals of Programming and Databases
2	Law Research methodology Intermediate Accounting Mathematics Economy Business Model
3	Globalization, Culture and Society Financial analysis Statistics Labor law and social security Marketing Management General Systems Theory
4	Contemporary Art and Culture Costs Human Talent Management nferential Statistics Business Information Systems Complex Systems
5	Oral and Written Communication in English Administrative Accounting Human Behavior in the organization Multivariate Analysis Software Engineering
6	Human Being and Society Financial administration Global citizenship Strategic management Methods and Models for decision-making Data mining
7	Human Being and Sustainability Entrepreneurs' Development Data Science Software Development Models Investment projects Optional I
8	Being Human and Ethical Business Systems Simulation Business intelligence Project management Optional II





# Bachelor of Arts in **Graphic Design**

A Graphics Designe is the professional who investigates, organizes, and interprets information giving a sense of order and creation to elements such as typography, image, color, structure, and visual messages according to the needs of the communications area.

This person develops creative projects that allow the receiver to understand them clearly, precisely, and objectively since the goal is to promote, inform, manage, clarify, educate, or entertain. The differentiating emphasis of the Graphics Design program of CETYS lies in the fact that it prepares the student to look at design from an administrative perspective, which it is conceived from a strategic perspective.

# What are the areas or positions for a Graphics Designer?

- Creative Director
- Graphics Design Manager
- Independent Designer
- Independent Consultant
- Entrepreneur
- Communications Director
- · Graphics Design Chief

# What are the skills you will acquire at the end of the program?

At the end of the Bachelor's degree in Graphics Design you will be able to:

- Project creative and innovative ideas.
- Develop integral processes of visual communication.
- Master all different phases of graphics design, from its designing to its development.
- Apply adequate technology in the process of graphics design.
- Design and organize effective presentations for products and services.
- Ability to grow in an entrepreneurial environment by working professionally with inter-disciplinary teams.
- Visualize design from an administrative prospective by conceiving it from a strategic point of view.
- Have the knowledge and entrepreneurial spirit needed to work independently as an entrepreneur in charge of you own agency or graphics design firm.

# What is the profile you need to have to study the Bachelor's degree in Graphics Design?

If this is what you want to do, then your profile as a Graphics Design student must meet the following characteristics:

- Ability to communicate ideas and information clearly.
- Ability to distinguish shapes and shadows.
- Special ability to recognize colors.
- Manual abilities and a preference for drawing.
- Good eye-hand coordination.
- Ability to edit and correct written works.
- Decision making decisions based on experience.
- Creativity.
- Interest in studying graphic arts.
- Innovative and the ability to take risks in the creation of new concepts.
- Ability to stand out with the best solutions for a better development in society.
- Never lose the ability to be amazed and to use the imagination.
- Capacity to express ideas in two and three dimensions.
- Understand narrative and sequences of images and texts.
- Ability of analytical and abstract observation.
- Development of intellectual and manual work.
- Ability to work in inter-disciplinary teams.

## Do you want to know which courses you will take in the Bachelor's degree in Business Intelligence and Innovation?

The curriculum contains 42 required courses, distributed in 8 semesters, divided in 3 training axes:

- Common Axis
- Basic field Axis
- Specific training Axis.

### **Curriculum Suggested**

#### Subjects per semester

1	DG401 Introduction to Design DG402 Theory of Color DG403 Drawing I CS401 Thinking Skills DG404 Publicity Writing
2	DG405 Visual Communication Theory DG406 Photography DG407 Typography I DG408 Drawing II CS400 Advanced Communication in Spanish DG409 History of Graphic Arts I *
3	MK400 Marketing Management DG410 Typography II DG411 Drawing of the Human Form DG412 Graphic Design ID400 Advanced Communication in English DG413 History of Graphic Arts II *
4	MK405 Consumer Behavior CS402 Research Methodology DG414 Introduction to Design by Computer DG415 Technical Drawing DG406 Signage
5	DG429 Visual Comm. Company Management DG417 Photography and Digital Studio DG418 Illustration DG419 Corporate Identity EC400 Globalization and Econom. Development
6	DG420 Brand Imaging DG421 Printing Systems DG422 Editorial Design DG423 Container, Labeling and Display HU400 Man and Environment
7	PU400 Advertising DG424 Digital Pre Press DG425 Internet Design DG426 Audiovisual Media HU402 Man and Society
8	DG430 Visual Proyect Management DG427 Professional Portfolio DG428 Multimedia HU402 Man and Ethics Elective I
	Class hours per week: 4 / Units per course: 8 * Class hours per week: 2 / Units per course: 4



# Bachelor of Arts in **Business Management**

It is the professional capable of achieving the maximum development and productivity of organizations through the implementation of best practices and a socially responsible culture that allows them to respond with value and congruence to the needs presented in business.

Quaterly plan for people over 24 years old: **3 hours, 3 days, 3 years.** 

#### Who is this program aimed at?

Adults over 24 who have completed high school or have uncontested undergraduate studies, who have acquired work experience in administrative areas and who need to complement their performance with a solid education that facilitates their professional development and increases the competitiveness of the company in the who works with or creates his own company.

## What are the areas or positions for a Business Management and Marketing student?

- Management of commercial, industrial and service companies
- Administrative management in manufacture industry
- · Managing positions in public agencies
- Director of the financial, administrative or human resources department
- Consulting and consulting firms
- Strategic Planning
- Financial Advising
- Regional Director of Corporate Firms
- Business Management Advisor

### What is the profile you need to study Business Management and Marketing?

- Interest in obtaining a professional training in the Business Department
- Proactive attitude to participate and contribute in regional, national and international economic development.
- Vocation to issues of business management, operation and development of organizations
- Motivation towards the creation and management of new companies



#### What are the skills you will acquire at the end of the program?

Efficient management of existing or newly created companies through the management and management of material resources, human capital, information tools and information generation to analyze the financial situation of the company, propose different scenarios and make the best decisions. Ethics from a perspective of profitability and social responsibility.

#### Do you want to know which courses you will take in the Bachelor's degree Business **Management?**

The curriculum contains 36 required courses, distributed in 12 quarters.

### **Curriculum Suggested**

#### Subjects per trimester

	Oubjects	3101		
1	Effective Communication Techniques Administration Financial Accounting		7	Financial administration Financial analysis Strategic management
2	Information management Marketing Management Introduction to Mathematics for Business		8	Marketing Strategies Administration of SMEs and Franchises Estimates
3	Investigation methodology Advanced Mathematics for Business Intermediate Accounting		9	Entrepreneurs development Project management Human behavior in the organization
4	Human Capital Management Probability and statistics Fiscal framework		10	Interpretation of market studies Intelligence and Sales Management Optional I
5	Economy Business law Costs		11	Investment Projects Business Leadership Lessons Optional II
6	Globalization, culture and society Labor law and social security Administrative accounting		12	Sustainable Business Senior Management Seminar Integrative project
OPTIONAL SUBJECTS			Supply C Developr Banking	guistic programming in sales hain Management nent of new products and Financial Services

Training, skills and labor productivity Audit and administrative consultancy



# Bachelor of Arts in **Business Management and Marketing**

Bachelor's degree in Management and Marketing it's the professional capable of directing the commercial department of an organization through the administration and administration of resources, human capital, information and promotional tools, application of avant-garde knowledge and skills to promote the movement of goods and services, in order to increase the value, profitability of a company or organization in an ethical and socially responsible manner.

Quaterly plan for people over 24 years old: **3 hours, 3 days, 3 years.** 

#### Who is this program aimed at?

Adults over 24 who have completed high school or have unfinished undergraduate studies, who over the years have acquired work experience in the commercial and marketing areas and require to complement their performance with a solid educational background that facilitates their professional development and Increase the competitiveness of companies.

## What are the areas or positions for a Business Management and Marketing student?

- Commercial Management
- Marketing Management
- Sales
- Market Research
- Administrative Management

### What is the profile you need to study Business Management and Marketing?

- Interest in obtaining professional training in marketing
- Vocation to topics related to marketing, service and customer service
- Decision-making capacity
- Interest in developing sales strategies
- Negotiation skills and teamwork

## Curriculum Suggested Subjects per trimester

1	Effective communication techniques Administration Financial accounting	7	Strategic management Financial analysis Sales promotion
2	Information Management Marketing Management Introduction to Mathematics for Business	8	Estimates Neuro-linguistic programming in sales Advertising
3	Research Methodology Advanced Mathematics for Business Foundations of Business Management and Sales	9	Market Research Retail Marketing Supply Chain Management
4	Human capital management Probability and statistics Consumer behavior	10	Laboratory of marketing strategies Intelligence and sales management Optional I
5	Economics Business law Sales techniques and dissertation	11	Organization of the sales force Credit and collection management Optional II
6	Globalization, culture and society Labor law and social security Negotiation skills in marketing	12	Loyalty strategies and after-sales service Seminar of high direction



The CETYS MBA forms leaders with a global vision and highly competitive, able to direct, optimize, and to have innovative ideas for start ups in the world of business.

- 1. Develop and direct projects that include continuous improvement and innovation within an organization
- 2. Have the ability to start up their own projects
- 3. Have a solid formation in the fields of Strategic Administration, Accounting, Finance, Human Resources, Marketing and Economics.
- 4. Apply their knowledge and leadership skills and management.
- 5. They are committed to their environment and are an agent of positive change.

### What is the profile you need to study this MBA?

This program is aimed at professionals from different disciplines that want to deepen their knowledge towards a better professional and personal development according to their specialization areas in the public, social and private sector.

## Do you want to know the courses you will take in the Master's Degree in Business Administration?

The program is composed of 16 courses divided in 4 Axes in which each course has 6 academic credits. The courses will have face-to-face classes and independent activities guided by the instructor.

#### **COMMON AXES**

- **High Administration**
- **Finances**
- Marketing
- **Human Resources**
- **Public Management**
- **Supply Chain**
- **Business Strategy**
- Entrepreneurship

#### **CONCENTRATION AXES**

#### HIGH ADMINISTRATION

- **Projects Management**
- Strategic Administration
- International Strategic Admnistration
- Transcultural Administration
- **High Administration**
- Strategic Consulting
- Corporate Law
- **Business rights**
- **Family Business**

- Transnational Direction and Corporate Strategy
- Leadership and Sustainable Development
- Business plans and models Design
- Contemporary Topics of **High Administration**
- Selected High Administration Topics

#### **FINANCES**

- Risk Management
- Working Capital
- International accounting
- **Corporate Finances**
- International finances
- Formulation and evaluation of projects
- **Financial Engineering**

- **Business Tax Framework**
- Money and Capital Markets
- **Contemporary Finance**
- Selected Finance Topics
- Theory and Financial Analysis

#### MARKETING

- Consumer Behavior
- **Business Communication**
- Design and Innovation of **Products and Services**
- Innovation with Digital **Business**
- **Price Strategies**
- Sales Promotion Strategies
- Market Research
- Global Marketing
- Political marketing
- Social Marketing

- Agribusiness Marketing
- Services Marketing
- Advertising and Communication in Marketing
- Advertising and Sales Promotion
- **Advanced Sales Systems**
- **Contemporary Marketing Topics**
- Selected Marketing **Themes**

#### **BUSINESS STRATEGY**

- Subject I from Optional Subjects
- Subject II from Optional Subjects
- Subject III from Optional Subjects
- Subject IV from Optional Subjects

#### **HUMAN RESOURCES**

- Training and Development
- **Labor Competencies**
- Organizational Development
- Productivity and Labor Quality
- Organizational Psychology
- Psychology of Mexican
- Labor relations
- Salaries and Compensations
- Contemporary Human **Resources Topics**
- Selected Human Resources Topics

#### **PUBLIC MANAGEMENT**

- **Public Administration**
- Political Science
- Regional Economic Development
- Public Finances
- Geoeconomics
- **Public Politics**
- Advanced Industrial

- Promotion
- **Economic Development** Planning
- Contemporary Topics of Public Management
- Selected Topics of Public Management

**Quality Systems and** 

Contemporary topics of

Operations and Supply

#### SUPPLY CHAIN

- Operative administration Control of production floor
- **Operations Direction**
- Manufacturing Strategies
- Operational Excellence
- International Logistics
- Distribution Logistics

Slender Manufacturing

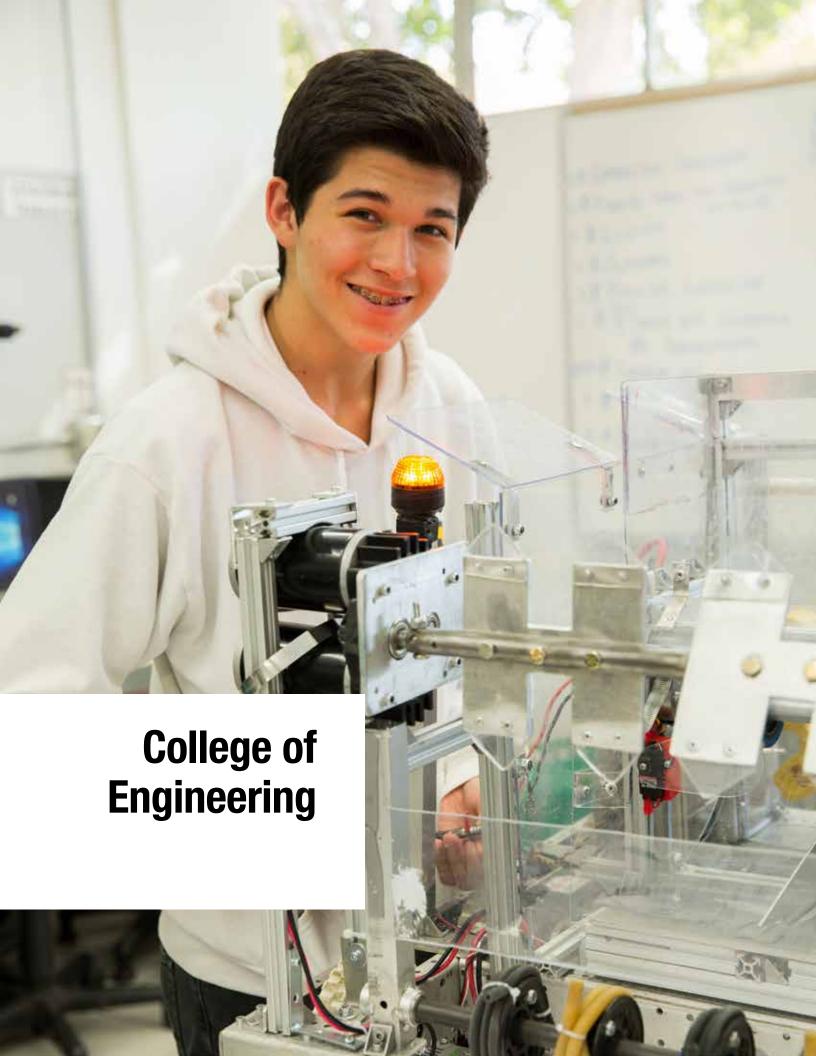
Chain Selected topics of

Standards

Operations and Supply Chain

#### **ENTREPRENEURSHIP**

- Fiscal and legal aspects of Entrepreneurship
- Development of Entrepreneurship
- Business plans and models' Design
- Financing of Enterprises
- Entrepreneurial Opportunities, Innovation and Design Thinking
- **Business Escalation and** Acceleration
- Design and Innovation Thinking
- Contemporary topics of Entrepreneurship
- Selected Entrepreneurship **Topics**
- Sales and Marketing of Enterprises



### **Educational offer**

Ingenierías	Ensenada	Mexicali	Tijuana
Computer Science Engineering		•	•
Electronic Cybernetics Engineering	•	•	•
Industrial Engineering	•	•	•
Digital Graphic Design Engineering	•	•	•
Mechatronics Engineering	•	•	•
Mechanical Engineering	•	•	•
Software Engineering	•		
Renewable Energy Engineering	•	•	•

Posgrados	Ensenada	Mexicali	Tijuana
Master's Degree of Engineering and Innovation	•	•	•

#### **Directorio de Autoridades**

#### Jorge Sosa López

Dean, College of Engineering and Science Teléfono: 52 (686) 567 3700 Extensión: 1151 jorge.sosa@cetys.mx

#### **Lucia Beltran Rocha**

Director, School of Engineering Ensenada Campus Tel.: +52 (646) 222.2300 Ext: 133 lucia.beltran@cetys.mx

#### **Guillermo Cheang León**

Director, School of Engineering Mexicali Campus Tel.: +52 (686) 567 3700 Ext: 1211 guillermo.cheang@cetys.mx

#### **Fabian Bautista**

Director, School of Engineering
Tijuana Campus
Tel.: +52 (664) 903.1800 Ext: 362

fabian.bautista@cetys.mx



### Computer Science Engineering

A Computer Science Engineers are highly qualified in software development.

They participate in the designing and implementing computer software and technology for the solution of problems related to process integration and information analysis.

#### **Emphasis options:**

- Video Game Design and Animation.
- Software Development.
- Business Processes and Applications.
- Multidisciplinary.

## What are the areas or positions for Computer Science Engineers?

- Software Development Companies that work with computer networks and the internet.
- Public and private organizations.
- Academic institutions and research centers at the systems, software development, or computer systems support departments, among others.
- Freelancing, working in their own businesses in different areas such as software development, networks and the internet, development and consulting related to information systems, and consulting in computer technology.
- Technical Support Engineer or Computer Center Director.

## What skills will you gain in the Computer Science Engineering?

By the end of the Computer Science Engineering program, you will be competent in:

- Designing, implementing, and integrating software for: intelligent systems, information systems, computer networks and the internet.
- · Handling Software Engineering for designing,
- implementing, and integrating software: computer graphics, compilers, and object-oriented software development.

## What characteristics go you need to have to study Computer Science Engineering?

If this is what you want to do, your Computer Science Engineering student profile must have the following characteristics:

Knowledge related to the fundamental areas of engineering:

- Mathematics (Algebra, Trigonometry, Geometry, Calculus).
- Physics (Static, Dynamics), Chemistry Fundamentals, Electricity, and Magnetism.
- Information Technology (Use of software and knowledge about programming language).

Skills: Organized thinking, study habits, creativity, fondness for programming and software.

Attitudes: Proactive, inquisitive, disposition to work in teams, desire to grow.

## What courses will you take in the Computer Science Engineering program?

The Computer Science Engineering program is composed of 42 courses distributed in 8 semesters and three education axes, plus 4 additional emphasis elective courses.

- General Education Axis.
- Engineering Education Axis.
- Computer Science Engineering Education Axis.
- Emphasis Elective

### Curriculum

### Suggested courses per semester

1	MA400 CC400 CC401 CS401 EC400	Mathematics Programming Methods I Introduction to Computer Science Thinking Skills Globalization and Economic Development
2	MC400 MA401 CC402 FI400 CC403 CS403	Computer Ai d e d Design Differential Calculus Programming Methods II Physics I Computer Systems and Components Cultural I *
3	MA402 FI401 MA403 CC404 CS400 CS404	
4	MA404 CC405 FI402 SI400 CE400	Probability Algorithms Design and Analysis Physics III Database Design Computer Controlling
5	MA405 MA406 CC406 CC407 ID400	Statistics Inference Multivariable Calculus Operating Systems Advanced Programming Advanced Communication in English
6	CC408 CC409 CC410 CS402 HU400	Information Systems Design and Analysis Database Systems Automation Theory Research Methodology Human Being and the Environment
7	SI401 CC411 CE401 HU401	Software Development Process Compiler Design Computer Networks Human Being, History and Society Elective I
8	CC412 CC413 CE402 HU402	Distributed System Topics Artificial Intelligence Computer Network Applications Human Being and Ethics Elective II  its per course: 8   *Class hours per week: 2 / Units per course: 4



### Electronic Cybernetics Engineering

An Electronic Cybernetics Engineer is a professional who designs and implements computer systems and equipment to facilitate communication between people, information management, or process automation in public and private organizations.

- Emphasis options:
- Microelectronics and Semiconductors
- Robotics and Industrial Control
- Bioengineering
- Multidisciplinary

## What are the areas or positions for Electronic Cybernetics Engineers?

- Public or private organizations, academic institutions, research centers, telecommunication companies, banks, brokerage firms, research institutes and universities – providing support in the development and maintenance of computer networks.
- Manufacturing and production industry (automotive, aerospace, companies that manufacture electronic equipment and components) – designing and operating automated electronic processes for areas such as production and management.
- Technology development companies providing support in equipment innovation.
- · Consulting firms offering advice and maintenance
- services for networks, processes and computer equipment, as well as selling components and computer equipment.
- Research and higher education institutions teaching and carrying out research activities in the area of cybernetics.
- Freelancing offering advice and maintenance services for networks, processes and computer equipment.
- Teaching.

## What skills will you gain in the Electronic Cybernetics Engineering program?

By the end of the Electronic Cybernetics Engineering program, you will be competent in:

- Designing and starting up digital circuits, microprocessors, microcontrollers, and programmable logic controllers that support activities in different areas of human activity (industry, medicine, architecture, and music, among others.)
- Developing and operating specialized electronic devices and interfaces for computer equipment, process control and automation, computer networks, and instrumentation applications.
- Designing electronic computer systems that serve management and decision-making tools in companies.
- Developing and mastering the sophisticated use of software for applications related to process control and computer networks.
- Participating in research about the development and application of technology in the solution of problems in different aspects of human life.

## What characteristics do you need to have to study the Electronic Cybernetics Engineering program?

If this is what you want to do, your Electronic Cybernetics Engineering student profile must have the following characteristics:

- Disposition and skills for mathematics (Algebra, Trigonometry, Geometry, and Calculus)
- Interest for Physics (Static, Dynamics, Magnetism), Chemistry, and Electricity.
- Basic knowledge about programing and disposition to master this skill.
- Study habits.
- Skills to think in an organized way.
- Proactive attitude to participate in the solution of problems that affect the development of human activities.
- Analytical skills.
- Fondness for manual activities.
- Disposition to work in teams.

## What courses will you take in the Electronic Cybernetics Engineering program?

The Electronic Cybernetics Engineering program is composed of 42 courses distributed in 8 semesters and three education axes, plus 4 additional emphasis elective courses.

- General education axis.
- Engineering education axis.
- Electronic Cybernetics Engineering education axis.
- Emphasis options.

### Curriculum

#### Suggested courses per semester

1	MA400 CC400 CE403 CS401 EC400	Mathematics Programming Methods I Introduction to Electronic Cybernetics Thinking Skills Globalization and Economic Development	
2	MC400 MA401 CC402 FI400 CE404 CS403	Computer Aided Design Differential Calculus Programming Methods II Physics I Digital Electronics I Culture I *	
3	MA402 FI401 MA403 CE405 CS400 CS404	Integral Calculus Physics II Numerical Methods Digital Electronics II Advanced Communication in Spanish Culture II *	
4	MA404 MA407 FI402 CE406 CE407	Probability Differential Equations Physics III Computer Architecture Electric Circuits	
5	MA405 CC404 CC406 CE408 ID400	Statistics Inference Data Structure Operating Systems Analog Electronics I Advanced Communication in English	
6	CE409 CE410 CE411 CS402 HU400	Design with Microprocessors Analog Electronics II Control Systems Research Methodology Human Being and the Environment	
7	SI401 CE412 CE414 HU401	Interface Design Compiler Design Power Electronics Human Being, History and Society Elective I	
8	CC414 CE402 CE415 HU402	Select Programming Topics Computer Networks Applications Mechatronics Human Being and Ethics Elective II	
Class hours per week: 4 / Units per course: 8   *Class hours per week: 2 / Units per course: 4			



# **Industrial Engineering**

A professional whose primary functions are to create, operate, supervise and improve the systems used to create products or services in a company. An Industrial Engineer specializes in the design of productive processes, efective search and management of raw material for the manufacture and production goods, in compliance with the costumer's quality requirements.

#### **Emphasis options:**

- Logistics and Operations.
- Strategic Management of manufacturing.
- Multidisciplinary.

## What are the areas or positions for Industrial Engineers?

- Process or Quality Engineer at manufacturing and production companies (national or transnational), such as automotive, aerospace, metal-mechanic, assembly or manufacturing of electronic components and medical products.
- Director of service companies (national or transnational).
- Consulting firms or own consulting business, providing advice for the creation of new businesses, design of productive systems and management and logistics strategies.
- Public organizations, carrying out project management activities, design and supervision of production systems, quality control, supply chain management, human resources, among others.
- Financial institutions (banks, brokerage firms), providing advice regarding the efficient use of the economic resources in their production systems, and economic investment in some of their processes.
- Quality Control or Production Manager.

## What skills will you gain in the Industrial Engineering program?

By the end of the Industrial Engineering program, you will be competent in:

- Planning, designing, integrating, operating, controlling, and improving production systems.
- Having a comprehensive vision of the supply chain, from the detection of the costumer's needs, to the delivery of the product or service.
- Determining the most adequate distribution of the equipment and facilities in the design of a production system.
- Developing time and motion studies for efficient functioning of the manufacturing processes.
- Carrying out economic studies to assess the feasibility of manufacturing businesses.
- Having a comprehensive vision of the company, taking into account not only the production and administration of manufacturing, but also the needs of the personnel and the environmental impact that could be generated.
- Designing and managing production systems that respond to the competitiveness strategies of the company.

## What characteristics do you need to have to study the Industrial Engineering program?

If this is what you want to do, your Industrial Engineering student profile must have the following characteristics:

- Disposition and skills for mathematics (Algebra, Trigonometry, Geometry, and Calculus)
- Creativity, inventiveness, proactive attitude to participate in the solution of problems that affect the productive activities of society.
- Interest to learn how the systems of human activity work.
- Motivation to study the development of new products or services and their manufacturing processes.
- Skills to lead others and work in teams.
- Interest to improve the state of things.
- Inquisitive and analytic attitude regarding functioning of the systems of human activity.

## What courses will you take in the Industrial Engineering program?

The Industrial Engineering program is composed of 42 courses distributed in 8 semesters and three education axes, plus 4 additional courses from the emphasis options.

- General education axis.
- Engineering education axis.
- ndustrial Engineering education axis.
- Emphasis options.

### **Curriculum**

#### Suggested courses per semester

1	MA400 CC400 II400 CS401 EC400	Mathematics Programming Methods I Introduction to Industrial Engineering Thinking Skills Globalization and Economic Development
2	MC400 MA401 CC402 FI400 MF400 CS403	Computer Aided Design Differential Calculus Programming Methods II Physics I Material Properties Culture I *
3	MA402 FI401 MA403 MF401 CS400 CS404	Integral Calculus Physics II Numerical Methods Material Manufacturing Advanced Communication in Spanish Culture II *
4	MA404 MA407 FI402 II401 II402	Probability Differential Equations Physics III Industrial Chemistry Industrial Management
5	MA405 MA406 II403 II404 ID400	Statistical Inference Multivariable Calculus Industrial Electronics Methods Engineering Advanced Communication in English Emphasis Elective I**
6	II405 II406 II407 CS402 HU400	Production Systems Engineering I Quality Engineering I Operations Research Models I Research Methodology Human Being and the Environment Emphasis Elective II**
7	II408 II409 II410 HU401	Production Systems Engineering II Design of Experiments Operations Research Models II Human Being, History and Society Emphasis Elective III** Elective I
8	II411 II412 II413 HU402	Production Systems Engineering III Engineering Economy Systems Simulation Human Being and Ethics Emphasis Elective IV** Elective II  sper course: 8   *Class hours per week: 2 / Units per course: 4



## Digital Graphic Design Engineering

A Digital Graphic Design Engineer is a professional with international education in the basic areas of engineering. Specializing in design, they master every visual environment in 2 to 3 dimensions, and are a solid support in the digital era for any organization and their global projections. Using technology as a basic tool, Digital Graphic Design Engineers are specialized professionals in the development of applied digital images that are sustained in the creative process, providing value and highly qualified results in the aesthetic-functional aspect of every objective.

## What are the areas or positions for Digital Graphic Design Engineers?

- Creative Director at companies that work on special effects for movies and television.
- Virtual scale modeling businesses.
- Electronic visual communication.
- Creating corporate image and global image manuals.
- Architectural and interior illustration in 3D.
- Freelance Digital Graphic Design consultant.
- Software creator in any area.
- Video and multimedia producer in organizations.

### What skills will you gain in the Digital Graphic Design Engineering program?

By the end of the Digital Graphic Design Engineering program, you will be competent in:

- Developing digital advanced communication models.
- Having acute judgment based on analysis and visual perception.
- Implementing organizational culture based on high levels of communication.
- Formulating organizational visual communication schemes.
- Planning, analyzing, and implementing didactic systems.
- Develop information systems and databases for decisionmaking.
- Designing and implementing networks and graphic systems, establishing sophisticated communication channels.

## What characteristics do you need to have to study the Digital Graphic Design Engineering program?

- If this is what you want to do, your Digital Graphic Design
- Engineering student profile must have the following characteristics:
- Dedication to study Physics and Mathematics.

- Ability to develop interpersonal skills.
- Being able to learn how to work in interdisciplinary teams.
- Dedication to study.
- Analytic and abstraction skills.
- Drawing skills.
- Pleasure for the arts.
- Fondness for desk work.

## What courses will you take in the Digital Graphic Design Engineering program?

The Digital Graphic Design Engineering program is composed of 42 courses distributed in 8 semesters and three education axes:

- General education axis.
- Engineering education axis.
- Digital Graphic Design Engineering education axis.

### **Curriculum**

#### Suggested courses per semester

1	DG400 CC400 MA400 MC400 CS401	Introduction to Digital Graphic Design Eng. Programming Methods I Mathematics Computer Aided Design Thinking Skills
2	CC402 MA411 DG431 DG432 CS400 CS403	Programming Methods II Select Topics in Mathematics I Contemporary Styles Natural Drawing Advanced Communication in Spanish Culture I *
3	MA412 CC416 DG433 DG442 ID400 CS404	Select Topics in Mathematics II Multimedia Programming Visual Composition 2D Illustration and Animation Advanced Communication in English Culture II *
4	DG441 FI403 CC421 DG434 CC403	Design Methodology Conceptual Physics Computer Graphics General Typography Computer Systems and Components
5	DG435 DG436 CC404 MA413 EC400	Global Image Manual Digital Photography Data Structure Probability and Statistics Globalization and Economic Development
6	SI403 DG437 MK400 CS402 HU400	Databases Design for Electronic Media Marketing Management Research Methodology Human Being and the Environment
7	DG418 DG438 CC406 DG419 HU401	Video Production Digital Modeling Operating Systems Multimedia Human Being, History and Society
8	DG420 CE417 DG439 DG440 HU402	3D Animation Networks and Data Transmission E-Commerce Strategic Business Human Being and Ethics



## Mechatronic Engineering

Mechatronic Engineers are professionals who know how to solve issues arising from manufacturing process control, material management, process automation for massive production, the execution of tasks that require high precision, through the application of sensors, mechanical devices, computer aided design, and system analysis.

## What are the areas or positions for Mechatronic Engineers?

- Raw material transformation companies (public or private), such as automotive, aerospace, metal-mechanic, assembly or manufacturing of electronic components, biotechnology, plastic products, food, textile, and medical equipment Carrying out tasks such as: robotics development; design of mechatronic systems and products for agile and lean manufacturing; integration of electronic, hydraulic, pneumatic, sensor, and acting devices to programmable computer interfaces for manufacturing processes; design and integration of computer network systems to manufacturing and service environments.
- Consulting firm (own or established) providing consulting services in design, operation, and investment in the context of using technology to increase the efficiency, quality, and competitiveness of companies.
- Higher education or research institution carrying out studies about technology development and application.

## What skills will you gain in the Mechatronic Engineering program?

By the end of the Mechatronic Engineering program, you will be competent in:

- Projecting and executing the fabrication of electronic machinery and their components or devices.
- Analyzing, assessing, and starting up automated systems that involve electronic equipment in industrial plants.
- Mastering specialized software for the design and operation of devices, machines, mechanisms, and tools.
- Designing, selecting or modifying automated fabrication alternatives in a production system.
- Searching and analyzing options to increase the efficiency and quality of the equipment and machinery's functioning to reduce operation costs or improve user safety.
- Designing electronic circuits, apparatuses, and robotic devices to execute mechanical tasks that require high precision or extreme speed.
- Developing intelligent systems, manipulators, sensors, and other technologic tools.
- Generating human-machine or machine-human interfaces.

## What characteristics do you need to have to study the Mechatronic Engineering program?

Profile must have the following characteristics:

- Disposition to learn about the application of exact science (Physics and Mathematics) and technology (Electronics and Computers).
- Ability for logical, analytical, and practical reasoning.
- Audacious attitude to experiment with technology and mechanical devices.
- Aptitude to work with computer tools.
- Creativity, inventiveness, and proactive attitude to participate in the solution of problems that affect the productive activities of society.
- Disposition to work in multidisciplinary teams.
- Interest to improve the state of things.
- Interest to solve problems related to process and equipment involved in product manufacturing.
- Desire to expand the use of technology for the benefit of society.
- High sense of responsibility and commitment with the community.

## What courses will you take in the Mechatronic Engineering program?

The Mechatronic Engineering program is composed of 42 courses distributed in 8 semesters and three education axes:

- General education axis.
- Engineering education axis.
- Mechatronic Engineering education axis.

### Curriculum

#### Suggested courses per semester

1	MA400 CC400 CE058 CS401 CS400	Mathematics Programming Methods I Introduction to Mechatronics Thinking Skills Advanced Communication in Spanish
2	MC400 MA401 CC402 FI400 MF400 CS403	Programming Methods II Physics I Properties of Materials
3	MA402 FI401 MA403 MF401 ID400 CS404	Material Manufacturing Advanced Communication in English
4	MA404 MA407 FI402 MC402 MF402	Differential Equations Physics III Materials Mechanics
5	MC415 MA406 MC410 CE059 EC400	Mechanism Dynamics
6	MC407 CE060 CE061 CS402 HU400	Electronic Systems II Industrial Automation and Robotics Research Methodology
7	CE414 CE062 CE063 HU401 CE401	Propulsion Electronics Programmable Controllers Sensors and Actuators Human Being, History and Society Computer Networks
8	MC414 CE402 CE064 HU402 CE063	Heat Transference Computer Network Analysis Mechatronic Prototype Modeling Man and Ethics Microcontroller Design  ts per course: 8   *Class hours per week: 2 / Units per course: 4



## Mecanical Engineer

Mechanical Engineers are professionals with the necessary experience and skills to analyze, understand, and apply scientific and practical knowledge to the solution of engineering problems that involve the design, construction, and integration of machines and machine elements to optimize manufacturing and/or service systems. Mechanical Engineers are also trained to operate manual and computerized technology to solve problems in an optimal way.

#### **Emphasis Options:**

- Aerospace Design.
- Automotive Design.
- Multidisciplinary.

## What are the areas or positions for Mechanical Engineers?

- Quality or Production Supervisor at companies that work in the transformation of raw material, assembly, and electronics.
- lant Engineer at companies that manufacture plastic products, fishing industry, cement industry, metal- mechanic industry, smelting industry, manufacturing industry, and companies that assemble components for any kind of machinery.
- Project or Maintenance Manager.
- Freelance Consultant in design and operation of mechanical equipment.
- Research and Economic Development Manager.

## What skills will you gain in the Mechanical Engineering program?

By the end of the Mechanical Engineering program, you will be competent in:

- Designing, creating, and interpreting manufacturing blueprints.
- Analyzing and experimentally assessing stress and strain in different mechanical elements and systems.
- Designing and integrating elements of machines, mechanisms, and tools through specialized software.
- Operating manual and numerical control machines in a basic way.
- Calculating thermodynamic cycles.
- Designing and installing heat exchangers.
- Designing, selecting, and/or modifying manufacturing alternatives.
- Modifying the properties of materials through the application of appropriate thermal treatments.
- Designing and implementing industrial maintenance systems.

## What characteristics do you need to have to study the Mechanical Engineering program?

If this is what you want to do, your Mechanical Engineering student profile must have the following characteristics:

Vocation for studying Physics and Mathematics.

- Interest to obtain a professional education in engineering science.
- Motivation to learn the principles of machines and machine components functioning from a mechanical point of view.
- Interest for design and optimization of products, processes, machines, and equipment in companies that produce goods and services.
- Interest for solving engineering problems in multidisciplinary teams.
- Fondness for collaborating in the comprehensive development of society.

## What courses will you take in the Mechanical Engineering program?

The Mechanical Engineering program is composed of 42 courses distributed in 8 semesters and three education axes, plus 4 additional emphasis elective courses.

- General education axis.
- Engineering education axis.
- Mechanical Engineering education axis.
- Emphasis options.

### **Curriculum**

#### Suggested courses per semester

1	MA400 CC400 MC401 CS401 EC400	Mathematics Programming Methods I Introduction to Mechanical Engineering Thinking Skills Globalization and Economic Development
2	MC400 MA401 CC402 FI400 MF400 CS403	Computer Aided Design Differential Calculus Programming Methods II Physics I Properties of Material Cultural I *
3	MA402 FI401 MA403 MF401 CS400 CS404	Integral Calculus Physics II Numerical Methods Materials Manufacturing Advanced Communication in Spanish Cultural II *
4	MA404 MA407 FI402 MC402 MF402	Probability Differential Equations Physics III Material Mechanics Computer Manufacturing
5	MA406 MC403 MC404 MC405 ID400	Multivariable Calculus Mechanics of Fluids Introduction to Design Physical Metallurgy Advanced Communication in English
6	MC406 MC407 MC408 CS402 HU400	Finite Modeling Eletro-pneumatics and Hydraulics Thermodynamics Research Methodology Human Being and the Environment
7	MC409 MC410 MC411 HU401	Engineering Design Mechanism Dynamics Automation and Control Man, History and Society Elective I
8	MC412 MC413 MC414 HU402	Mechanical Experimental Analysis Plant Engineering Heat Transference Man and Ethics Elective II



# Software Engineering

Software Engineers are professionals on Information Technology who design, produce, assess, integrate, modify, test and maintain quality software applications for the solution of problems that arise in organizations. These organizations that aim to increase their competitiveness require a professional to formulate, plan, implement, integrate and maintain software technologies with high service levels, improving the communication between their funtional areas.

#### **Emphasis options:**

- Video game animation and design
- Business processes and aplications
- Multidisciplinary

## What are the areas or positions for Software Engineers?

- National and international software development companies in different fields: financial services, education, health, entertainment, telecommunications, marketing, supply chain management, etc.
- Businesses working in any field (government, commerce, finance, education, health, entertainment, manufacturing, marketing, legal consulting, distribution and storage of raw material and product, etc.) that require developing their own high-quality and functionality applications in open source or proprietary platforms.
- Freelance consultant and developer of software.
- Applications for business units in any of the aforementioned fields and government institutions, in either open source or proprietary platforms.

### What skills will you gain in the Software Engineering program?

By the end of the Software Engineering program, you will be competent in:

- Creating commercial applications in different software development platforms.
- Analyzing requirements at process and user level.
- Consulting with users to identify application software requirements.
- Programming application software design.
- Developing software design specifications.
- Developing quality and technical standards for application software validation.
- Designing and managing quality models in software development.
- Documenting software products.
- Managing software projects.
- Developing, implementing, and documenting testing plans and programs for application software.

## What characteristics do you need to have to study the Software Engineering program?

If this is what you want to do, your Software Engineering student profile must have the following characteristics:

- Fondness for working with computers and other digital devices in the solution of information process problems in their different forms (audio, video, and text).
- Interest to use computers in their different modalities (smartphones, audio, and video equipment) on a daily basis in your academic, productive, amusement, and communication activities, as well as in your personal/family relationships.
- Vocation for Mathematics, Science, Physics, and program development.
- Being a frequent user of internet technologies.
- Favorable attitude and disposition toward working in interdisciplinary teams, independently, and mediated by technology.

## What courses will you take in the Software Engineering program?

The Mechanical Engineering program is composed of 42 courses distributed in 8 semesters and three education axes, plus 4 additional emphasis elective courses.

- General education axis.
- · Engineering education axis.
- Mechanical Engineering education axis.
- Emphasis options.

### Curriculum

#### Suggested courses per semester

1	MA400 CC400 MC401 CS401 EC400	Mathematics Programming Methods I Introduction to Software Engineering Thinking Skills Globalization and Economic Development	
2	MC400 MA401 CC402 FI400 CC403 CS403	Computer Sketching Differential Calculus Programming Methods II Physics I Computer Systems and Components Cultural I *	
3	MA402 FI401 MA403 MF401 CS400 CS404	Data Structure Advanced Communication in English	
4	MA404 MA407 FI402 CC082 SI400	Probability Differential Equations Physics III Software Engineering I Database Design	
5	MA405 CC084 CS406 CS083 EC400	Statistic Inference Software Engineering II Operating Systems Mobile Programming Globalization and Economic Development	
6	CC090 CC409 CC085 CS402 HU400	Software Project Management Database Systems Software Engineering III Research Methodology Human Being and the Environment	
7	CC087 CC091 CE401 HU401	Intelligent Business Systems Agile Development of Systems Computer Networks Human Being, History and Society Elective I	
8	CC092 CE066 CC088 HU402	Information Technology Management Network and Security Management Distributed Computer Technologies Human Being and Ethics Elective II	
Class hours per week: 4 / Units per course: 8   *Class hours per week: 2 / Units per course: 4			



# Renewable Energy Engineering

An Renewable Energy Engineer is a professional who faces the challenges of promoting, designing, implementing and managing the use of clean energy from organic materials, the sun and air, with a sustainable vision.

## What are the areas or positions for Renewable Energy Engineers?

- In the energy sector, both governmental and private
- Engineer of energy systems design and efficient management
- Eco-efficient product designer
- In the design and implementation of green and self-sustaining infrastructure projects
- Consultant in the administration and efficient management in the energy-saving

## What characteristics do you need to have to study the Renewable Energy Engineering program?

- Vocation for the study of Physical-Mathematical sciences
- Creativity and resourcefulness
- Analysis and synthesis
- Human relations management
- Problem solving skills

## What skills will you gain in the Renewable Energy Engineering program?

Apply the knowledge of mathematics, science and engineering to study and solve problems related to your profession. Design and conduct experiments to study problems or phenomena within the scope of Renewable Energy Engineering.

### What are the differentiating elements of CETYS?

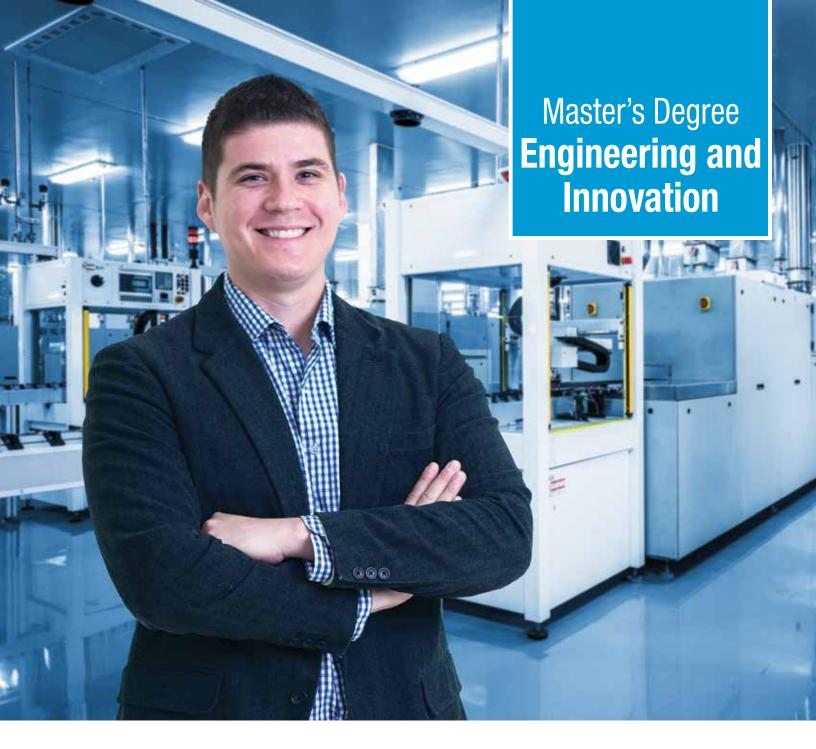
- Internationalization
- Entrepreneurship and innovation
- Linkage to the community
- Information Culture
- Sustainability
- Social responsibility

We count with a collaboration network with more than 100 universities around the world, which favors the student exchange and will allow you to live an international experience.

### **Curriculum**

### Suggested courses per semester

oug	gostou courses per somester
1	Information management Programming Methods Mathematical Foundations for Engineering Static Introduction to Renewable Energies
2	Oral and written communication in Spanish Advanced Programming Differential calculus Dynamics Chemical Industry
3	Globalization Culture and Society Electrical Circuits I Integral calculus Energy History Electricity and magnetism
4	Contemporary Art and Culture Electrical Circuits II Differential equations Renewable energy sources Electrochemistry for Renewable Energies Probability and Statistics
5	Oral and written communication in English Electromechanical Energy Conversion Electronics Advanced Mathematics for RE Investigation methodology Fluid mechanics
6	Human Being and Society Electrical Power Control and Monitoring Systems Solar Energy Thermodynamics Optional I
7	Human Being and Sustainability Power Electronics Wind power Materials for Renewable Energy Applications Power Cycles Optional II
8	Human Being and Ethics Electric Power Conversion Systems Biomass Energy Renewable Energy Project Heat transfer Optional III
Class hours per	week: 4 / Units per course: 8   *Class hours per week: 2 / Units per course: 4



# The MEI forms highly-trained leaders, who are prepared to apply innovational design techniques to solve problems in the field of engineering in a global context.

- 1.- Propose solutions to problems, focusing on the improvement of processes and products, in the contexts of industrial and service organizations, applying innovations and design techniques.
- 2.- Apply the research methodology for solving problems in selected fields of knowledge in the areas of: Information Systems and Technologies, Design and Manufacturing Processes, Industrial Systems and Processes, Sustainability and Renewable Energies.
- 3.- It exerts leadership in the solution of problems through the design and development of applied research projects.

#### Format of the program

- Quarterly
- 15 subjects

#### LINE OF GENERATION AND APPLICATION OF KNOWLEDGE

Design and Manufacturing Systems

Systems and Information Technology

Sustainability and Renewable Energies

Systems and Industrial Processes

#### **AREAS OF EMPHASIS**

- Design and Manufacturing Processes
- Aerospace Design
- Advanced Materials
- Networks and Distributed Systems
- Radio Frequency Systems
- Robotics and Automation
- Environmental Management
- Sustainable Development
- Renewable Energy Systems
- Quality Systems
- Manufacturing Systems
- Supply Chain Administration

#### **SUBJECTS**

- Advanced Mathematics and Mathematical Models
- Materials Engineering
- Advanced Materials Mechanic
- Thermofluids Fundamentals
- Design and Thermal Systems Application
- Electroplating
- Process Analysis and Energetic Tool Design
- Mechanical Vibrations
- Thermal Treatments
- Prototype Generation
- Aerodynamics
- Turbomachinery and Gas Turbines
- Conceptual Aerospace
- Generation of Aerospace Prototypes
- -Composite materials
- Examination analysis
- Introduction to Materials
   Science
- -Unions, Structures and Crystallography
- Thermodynamics of Materials
- Materials and phase transformations
- Physical and mechanical properties
- Thermodynamic processing
- Materials' Characterization

- Advanced Objects Programming
- Funds of Control Systems
- Wireless networks
- Security in Network Environments
- Instrumentation and Processes' Control
- Digital Controllers Laboratory
- Robotics and Industrial automation
- Software Platforms Process Control
- Networks and Distributed Systems
- Architecture and Software Development
- Distributed Systems Design
- Mobile Computing
- Principles and RF Applications
- RF Integrated Circuits
- RF Systems Design for Wireless Applications
- Terms and antenna design
- Microwave Testing and Measurement
- Introduction to OFDMA and 4G Systems
- Microwave Transmission
- Engineering

- Environmental pollution
- Politics and Environmental Legislation
- Environmental management
- Industrial Ecology
- Environmental impact
- Environmental Security
- Sustainability Indicators
- Globalization and Environment
- Environmental economics
- Organizational Sustainability
- Systems of Management and Energy Efficiency
- Renewable Energy Application Laboratory
- Electrical Systems Foundations
- Electrical Systems Application
- Electric Circuits
   Foundations

- Quality Systems
- Supply Chain
- Manufacturing Strategies' Administration
- Discovery of Manufacturing Systems
- Inventories Administration
- Logistics and Distribution
- Quality Engineering
- Experiments Design
- Systems Simulation
- •



### **Educational offer**

Undergraduate Programs	Ensenada	Mexicali	Tijuana
Bachelor of Arts in Law		•	•
Bachelor of Arts in Clinical Psychology		•	•
Bachelor of Arts in Educational Psychology		•	•
Bachelor of Arts in Child Psychology		•	•
Bachelor of Arts in Organizational Psychology		•	•

Graduate Programs	Ensenada	Mexicali	Tijuana
Master's Degree in Psychology Organizational Development Clinical Family Counseling	•	•	•
Master's Degree in Education Organizational Development Special Education Mathematical Competences	•	•	•
Master's degree in Law		•	•
Master's degree in Neuropsicology		•	•
Doctorate in Education	•	•	•

#### **Directorio de Autoridades**

#### **Cecilia Osuna Lever**

Dean, College of Social Sciences and Humanities Tel.: +52 (686) 222.2300 Ext.: 183 cecilia.osuna@cetys.mx

#### **María Cecilia Contreras Trejo**

Coordinator, Humanities Department Mexicali Campus Tel.: +52 (686) 567.3700 Ext.: 1738 cecilia.contreras@cetys.mx

#### **Patricia Saracho Becerra**

School of Psychology
Mexicali Campus
Tel.: +52 (686) 567.3700 Ext.:17899
patricia.saracho@cetys.mx

#### **Alberto Álvarez Noriega**

School of Psychology
Tijuana Campus
Tel.: +52 (664) 903.1839 Ext.: 222
alberto.alvarez@cetys.mx

#### **Heberto X. Peterson**

Coordinator, Humanities Department Tijuana Campus Tel.: +52 (664) 903.1800 Ext.: 224 heberto.peterson@cetys.mx



## Bachelor's Degree in **Law**

It is the professional highly qualified in the various branches of Law; being able to plan, prevent, negotiate, and solve all kinds of situations in the judicial field by representing his/her individual clients and companies with quality, ethics, and efficiency focused on new tendencies, challenges, and opportunities that arise from a globalized world.

## What are the areas or positions for a Lawyer?

- Legal Department of decentralized organizations or of government participation.
- Legal Department of private, national, or international corporations.
- Legal Department of Financial Institutions.
- Corporate Law and Private Consulting.
- Attorney at Law.
- Public charges in the judicial branch.
- Research and Legal Education.

### What are the skills you will acquire at the end of the program?

At the end of the Bachelor's Degree in Law you will be able to: Prevent and solve legal problems.

- Advice corporation and public companies on legal matters.
- Represent parties in diverse legal processes.
- Carry out legal auditing in private and public institutions.
- Perform legal planning in diverse corporate areas.
- Have active participation in legal events at a global level.
- Apply diverse problem solving alternatives in legal matters.
- Ability to produce arguments and to express himself/herself.
- Interpretation and analysis of diverse legal tendencies.
  Have a high sense of ethics and justice.
- Perform legal research.
- Able to communicate in English with an emphasis in legal terms.

## What is the profile you need to study the Bachelor's degree in Law?

If this is what you want to do, then your profile as a Law student must meet the following characteristics:

- Dedication to the study of Law and Social Sciences in general.
- Ability to develop interpersonal relations. Lawyers have constant and direct contact with people of different levels: employees, clients, managers, technicians, and professionals from other areas.

- Ability to negotiate and solve conflict between parties.
- Ability to learn how to work in teams of various disciplines.
- In your professional life you will have to interact with professionals of other disciplines; therefore, you will have to understand and analyze problems from the perspective and methodology of other areas.
- Ability to communicate verbally and in written form.
- Ability to be critical-analytical, abstract, and argumentative.

## Do you want to know which courses you will take in the Bachelor's degree in Law?

The curriculum contains 42 required courses, distributed throughout 8 semesters and divided into 3 training axes:

- Common Axis
- Basic field Axis
- Specific training Axis.

### Curriculum

#### Suggested subjects per semester

1	DE406 DE407 DE408 CS401 CS400	Roman Law Contemporary Legal Systems Thinking Skills
2	DE409 DE410 DE411 DE412 EC400 CS403	Family and Succession Law Criminal Law I Labor Law I Theory of State Globalization and Econo. Development Cultural I *
3	DE413 DE414 DE415 DE416 ID400 CS404	Contitutional Law General Theory of Process
4	DE417 DE418 DE419 DE420 DE421	Commercial Law I
5	DE422 DE423 DE424 DE425 CS402	Commercial Law II Orders of Protection I Administrative Law and Social Security
6	DE426 DE427 DE405 DE428 HU401	Orders of Protection II Fiscal Law
7	DE429 DE430 DE431 OP400 HU400	Fiscal and Administrative Procedural Law Customs and Foreign Trade Law Philosophy of Law Elective I Man and Environment
8	DE432 DE433 DE434 HU402	Copyright Law Alternative Methods for Conflict Resolution Treaties and Commercial Agreements Man and Ethics Elective II
		ours per week: 4 / Units per subject: 8 ours per week:2 / Units per subject: 4

## Bachelor's degree in **Clinical Psychology**

Clinic | Organizational Educational | Child

Psychology, as professional training arena, has an important history and an established tradition of academic quality in our institution, in our city, and certainly in the northwest region of the country. The Bachelor's Degree in Psychology was started as a professional program at CETYS Universidad on February 11, 1980. Later, in 1996 the Doctoral Degree in Psychology was opened, a flexible syllabus that offered the possibility of obtaining a specialization, master's degree, doctoral degrees in Psychology. In 2001, the Master's degree in Family Therapy program was opened and in 2004 the Master's degree in Psychology with 5 concentrations was program designed. These last two graduate programs are still being offered to date.





## Bachelor's degree in Clinical Psychology

This academic program trains professionals in the study and analysis of problems related to psychological adaptation. The clinical psychologist's main objective is to use his/her knowledge and skills to improve and promote the psychological welfare of people.

This bachelor's degree trains interested psychologists in understanding the different ways people interact with each other in their given environment and the different ways in which these relationships affect their behavior.

## What are the areas or positions for a Clinical Psychologist?

- Higher Education Institutions and universities.
- Rehab Centers.
- Teaching.
- As a private psychologist, either providing psychological services directly or managing psychological services programs for the community.
- Nongovernmental organizations that provide their services in mental health areas.
- Governmental and nongovernmental organizations that carry out Personal and Social Development Programs.
- Director of rehabilitation institutions or of nongovernmental organizations.

## What are the skills you will acquire at the end of the program?

At the end of your Bachelor's degree in Clinical Psychology program you will be able to:

- Design fundamental psychological interventions based on the usage of psychological assessment instruments, either psychometric or as a forecast.
- To be a person familiar with descriptive systems of emotional upheavals as well as with the research related to the effectiveness of different treatments applied to them.

- To carry out diagnostic integrations to formulate therapeutic hypothesis that helps them design, apply, and evaluate treatment plans for different emotional upheavals.
- To be able to promote meaningful changes in people by providing competent psychological guidance to them in different stages of their development.

## What is the profile you need to study Clinical Psychology?

If this is what you want to do, then your profile as a student of Clinical Psychology must meet the following characteristics:

- Interest in establishing interpersonal relationships and to have the willingness to support others, and to have abilities to work with groups of people in a collaborative way.
- Ability to express ideas in a verbal, graphic, and written way before different audiences.
- Fond of reading, observing, researching, and reflecting.
- Interest in the different cultural expressions, diversity, and communication in other languages, especially English.
- Interest in your own personal developmental process and to have willingness to get involved in the personal therapeutic process as a means to provide the best therapeutic attention to people in need of your professional services.

## Bachelor's degree in **Educational Psychology**

The Bachelor's degree in Educational Psychology is a professional capable of analyzing educational situations in different levels of social examination from a psychological perspective and to formulate problem and work hypothesis that allow the design of psychological intervention oriented to their solution in different educational and community settings. It provides spaces so the student can obtain competencies in the development of skills for the solution of fundamental problems in the teaching-learning process.

## What are the areas or positions for an Educational Psychologist?

In higher secondary educational institutions and in universities.

- Rehab Centers.
- Teaching.
- Private Practice by either evaluating and designing curriculum and tutoring in Educational Psychology or administering educational and psychological service programs in the community.
- Non-governmental organizations oriented to provide attention to learning, motor, sensory, or intellectual disabilities.
- Governmental and non-governmental organizations that develop support programs for the attention of autism.
- Counselor, director, faculty, educational institutions, parents, and social service practitioners linked to diverse educational situations

## What are the skills you will acquire at the end of the program?

At the end of this Bachelor's degree in Educational Psychology, you will be able to:

- Conceptualize the group of psychological problems related to the development of the processes presented in an educational community.
- Diagnose educational and especial education problems as well as to tutor directors, faculty, educational institutions, parents, and service providers linked to diverse educational situations.
- They will be able to design and carry out career orientation programs.

## What is the profile you need to study Educational Psychology?

- If this is what you want to do, then your profile as a student of Educational Psychology must meet the following characteristics:
- Interest in establishing interpersonal relationships and have

- the willingness to support others, and to have abilities to work with groups of people in a collaborative way.
- Ability to express ideas verbally, graphically, and through writing before different audiences.
- Fond of reading, observing, researching, and reflecting.
- Interest in the different cultural expressions, diversity, and communication in other languages, especially English.
- Interest in your own personal developmental process and to have willingness to get involved in the personal therapeutic process as a means to provide the best therapeutic attention to people in need of your professional services.

# Bachelor's degree in **Organizational Psychology**

The Bachelor's degree in Organizational Psychology studies and designs psychological interventions in work related problems. They specialize in two main areas: a) organizations development through diagnosis, planning, systematization, and coordination of activities from the areas dedicated to the promotion of human capital in companies, and b) the processes of organizational behavior. This academic program provides spaces for the student to obtain competencies in the development of skills for the solution of fundamental problems in organizations.

## What are the areas or positions for an Organizational Psychologist?

- In Organization Development Departments and in human resources in different companies and institutions.
- Teaching.
- Private Practice whether it be providing organizational tutoring services in the development of psychological intervention programs (organizational environment studies, new system of recruiting, selecting and

training human capital in a company, and others), or administering psychological service programs for different companies.

- Director of psychological services programs for different companies.
- Human Resources Manager.

## What are the skills you will acquire at the end of the program?

At the end of this Bachelor's degree in Organizational Psychology, you will be able to:

- Conceptualize the group of psychological problems related to the development of organizations as systems and individuals that form their human capital.
- Use the tools and the development diagnosis methodologies in the field of organizational psychology.
   They will be able to advice company personnel in order to look for solutions to problems related to organizational situations.
- Design and carry out primary and secondary prevention programs in the area of health in different companies.

## What is the profile you need to study Organizational Psychology?

If this is what you want to do, then your profile as a student of Organizational Psychology must meet the following characteristics:

- To show interest in establishing interpersonal relationships and have the willingness to support others and to have abilities to work with groups of people in a collaborative way.
- Ability to express ideas verbally, graphically, and through writing before different audiences.
- Fond of reading, observing, research, and reflecting.
- Interest in the different cultural expressions, diversity, and communication in other languages, especially English.
- To show interest in your own personal developmental process and to have the willingness to get involved in

the personal therapeutic process as a means to provide the best therapeutic attention to people in need of your professional services.

## Bachelor's degree in **Child Psychology**

The Child Psychologist professional is able to apply the conceptual, methodological, technical, contextual, integrative, adaptive, and ethical competencies as well as the assessing and intellectual qualities of the Institutional Educational Model in the professional practice of research, evaluation, planning, and intervention in the field of child behavior.

## What are the areas or positions for a Child Psychologist?

- Initial level educational institutions: preschool, elementary, and junior high school.
- Health Institutions.
- Welfare Institutions.
- Institutions of social readjustment for minors.
- Private practice.

## What are the skills you will acquire at the end of the program?

At the end of this Bachelor's degree in Child Psychology, you will be able to:

- Prepare Diagnostic Integrations for Children.
- Apply psychological evaluation techniques for children.
- Design brief psychological interventions.
- Provide psychological orientation.
- Use psychological evaluation tools.
- Carry out family orientation.
- Take care of especial educational needs.

- Intervene in child behavior problems.
- Give advice regarding child sexual development.
- Get involved in providing attention to minors in risky situations.

## What is the profile you need to study Child Psychology?

If this is what you want to do, then your profile as a student of Child Psychology must meet the following characteristics:

- · Observation, communication and team work skills.
- Computer literate.
- Low intermediate English level.
- Fond of reading.
- Interest in research.
- To have interest in general culture and cultural expressions.
- Emotional stability.
- He/she is interested in working with children and/or adolescents.

Do you want to know which courses you will take in the Bachelor's degree in Psychology in its clinic, educational, organizational, or child concentrations?

# **Curriculum**Suggested subjects per semester

			H. Clase	H. Lab	Unid.	LPC	LPE	LP0	LPI
	CS400	Advanced Communication in Spanish	4	0	8				
	CS401	Thinking Skills	4	0	8	•	•	•	•
	HU400	Man and Environment	4	0	8	•	•	•	•
1	PB400	Psychobiology	4	0	8	•	•	•	•
	PG400	Human Processes	4	0	8	•	•	•	
	PB404	Child Psychology I	4	0	8				•
	HU401	Man, History and Society	4	0	8	•	•	•	•
	CS402	Research Methodology	4	0	8	•	•	•	•
	CS403	Cultural I	2	0	4	•	•	•	•
	PG407	Theory of Personality	4	0	8	•	•	•	
2	PB401	Psychological Development	4	0	8	•	•	•	
	PS400	Social Development	4	0	8	•	•	•	
	PG401	Psychological Theories	4	0	8				•
	PB407	Child Development II	4	0	8				•
	PS410	Child Socialization and Affectiveness I	4	0	8				•
	ID400	Advanced Communication in English	4	0	8	•	•	•	•
	CS404	Cultural II	2	0	4		•		•
	MA415	Social Science Statistics	4	0	8	•	•	•	•
	AC404	Prevention Strategies	4	0	8	•	•	•	
3	EV404	Psychological Interview	4	0	8	•	•	•	
	PG408	Psychopathology	4	0	8	•	•	•	
	EV400	Psychology Assessment Techniques	4	0	8				•
	PB405	Physical and Motor Development I	4	0	8				•
	PB403	Child Sexual Development	4	0	8				•
	AC403	Intervention Design	4	0	8	•	•	•	
	PS406	Social-Community Psychology	4	0	8	•	•	•	
	PB402	Human Sexuality	4	0	8	•	•	•	
	CS406	Social Research	4	0	8	•	•	•	
	VI420	Supervised Practicum in Prev. and Treatment of Family Violence Learning Supervised Practicum	4	0	8	•			
	VI425	Organizational Communication Supervised Practicum	4	0	8		•		
4	VI430	Child Psychology Practicum I	4	0	8			•	
	VI415	Child's Socialization and Affectiveness II	4	0	8				•
	PB412	Physical and Motor Development II	4	0	8				•
	PB408	Psychological Assessments Instruments I	4	0	8				•
	EV401	Cognitive-Behavior Intervention	4	0	8				•
	AC400		4	0	8				•
	EC400	Glob. and Economical Development	4	0	8	•	•	•	•
	PG404	Criminological Psychology	4	0	8	•	•	•	
	EV401	Psychological Assessment Instruments II	4	0	8	•	•	•	
_	AC406	Brief Therapy	4	0	8	•			
5	PG400	Supervised Practicum in Addictions Prevention and	4	0	8	•			
	PB409	Treatment Neuropsychology	0	0	8		•		
	1 5703	Hourspayonology	4	8	8		•		
			7	U	U				

# **Curriculum**Suggested subjects per semester

		H. Clase	H. Lab	Unid.	LPC	LPE	LP0	LPI
VI426	Assessment and Curricular Design Supervised	0	8	8	•	_, _	0	
RI413	Practicum Labor Psychology Assitance	4	0	8		•		
VI431	Human Source Supervised Practicum	0	8	8		•		
AE407	Children in Risky Situations	4	0	8				•
EV402	Psychological Assessment Instrument	4	0	8				•
II AC401		4	4	8				•
VI416	Child Psychology Practicum II	4	4	8				•
HU402	Man and Ethics	4	0	8	•	•	•	
PS401	Group Facilitation	4	0	8	•	•	•	
EV402	Psychological Assessment Instruments II	4	0	8	•	•	•	
AC400 VI422	Cognitive-Behavior Intervention Supervised Practicum in Education Orientation	4 4	0 0	8 8				
V1422 V1427	Supervised Practicum in Education Orientation V	0	8	8		•		
1432	Supervised Practicum in Personnel Recuitment and Selection	0	8	8			•	
AE402	Special Education Needs	4	0	8				•
PG406	Child Psychopathology	4	0	8				•
EV403	Diagnostic Integration							•
AC402	Psychodynamic Intervention	4	0	8				•
VI417	Child Psychology Practicum III	4	0	8				•
AC405	Family Orientation	4	0	8	•	•	•	
EV405	Psychological Integration Studies	4	0	8	•	•	•	
AC401	Humanist Intervention	4	0	8	•	•	•	
VI423	Supervised Practicum in Group Therapy	4	0	8	•			
VI428 VI433	Supervised Practicum in Learning Disability Supervised Practicum in Organizational Development	0 0	8 8	8 8				
AC411	Child Behavior Problems	4	0	8			•	
AC403	Intervention Design	4	Õ	8				•
AC404	Preventive Strategies	4	0	8				•
VI418	Child Psychology Practicum IV	4	0	8				•
	Elective I	4	0	8				•
PG405	Gerontology Psychology	4	0	8	•	•	•	
AE400	Education Technology	4	0	8	•	•	•	
AC401	Psychodynamic Intervention	4	0	8	•	•	•	
VI424	Supervised Practicum in Family Therapy	4	0	8	•			
VI429	Supervised Practicum in Integrative Education	0	8	8	•	•	•	•
VI434 HU402	Supervised Practicum in Training and Development Man and Ethics	0 4	8 0	8 8		•		
AC405	Family Orientation	4	0	8 8			•	
AC403 AC412	Brief Child Therapy	4	0	8				•
VI419	Child Psychology Practicum V	4	0	8				•
	Elective II	4	0	8				•





CETYS' MPsy forms highly trained leaders, who in a global context, are able to improve the quality of life through their intervention in the individual, group, family and work environment.

- 1.- Understand the concepts, approaches and current problems of social psychology, community, clinical, organizational and family both at home and abroad.
- 2.- They're oriented towards primary prevention and the design, implementation and evaluation of programs of psychological intervention at various levels of social analysis with the support of technical and valid reliable instruments.

- 3.-Understand the qualitative methodologies used in the social sciences and constructs measurement instruments according to their labor needs.
- 4.-They're able to participate in work teams, both teaching and researching, in public or private institutions.
- 5.- Apply psychology main concepts as well as the different disorders and medical conditions for preparing analyzes.
- 6.- Compare and differentiate different types of psychological assessment techniques.
- 7.- They develop ethically in professional practice.

# **BASIC AREA**

- Research Methodology
   Instruments Design

- 3. Developmental Psychology4. Basic Psychological Processes

CONCENTRATION AREA				
ORGANIZATIONAL DEVELOPMENT	Organizational behavior Tools for Continuous Improvement Organizational Diagnosis Human Talent Management Organizational Development Training and Development Occupational Health Supervised Practice I Supervised Practice II			
CLINICAL	Psychopathology Seminar Psychoanalytic Therapy Cognitive Behavioral Therapy Neuropsychology Diagnostic Evaluation and Integration Gerontological Psychology Violence Supervised Practice in Group Therapy Supervised Practice in Individual Therapy			
FAMILY COUNSELING	Theoretical Foundations of Family Counseling Family Diagnosis Interview Contemporary Approaches to Family Counseling Problematics of the Contemporary Family Intervention in Family Crisis Couple Counseling Family Counseling Supervised Practice in Couple Counseling Supervised Practice in Family Counseling			

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Supervised Practice I

Supervised Practice II

Integration Seminar



CETYS University's Master's Program in Education is framed in the new international and national trends in education and is oriented towards the development of teaching and professional competences in three broad areas: Organizational Development, Special Education and Mathematical Competences.

#### ORGANIZATIONAL DEVELOPMENT

Deals with the analysis of the problems of educational organizations atrophied by multiple failures and mistakes, to project organizational development, institutionalized education. This specialty is recommended for those teachers who have leadership positions in educational institutions (school directors, inspectors, coordinators, supervisors, etc.).

#### **SPECIAL EDUCATION**

Oriented to analyze the main aspects related to special education and develop in a theoretical and

applied way, the assimilation of the key variables involved in this process. By providing teachers with adequate tools to address cases of students with special educational needs, in order to promote their integration or immediate inclusion to the group of students in a class.

#### MATHEMATICAL COMPETENCES

This option focuses on training mathematics teachers and related areas, with the necessary teaching tools to effectively respond to the problems of low achievement of children and young people in math subject, so that the teacher collaborates decisively to improve their teaching practice in the field of this discipline.

# **COMMON AXIS**

21st Century Education Curricular and Instructional Development Learning Facilitation Technology Driven Learning Educational psychology Educative Administration General Didactics

# **OPTIONAL AXIS**

Optional II Optional III Optional IV

CONCENTRATION AREA					
ORGANIZATIONAL DEVELOPMENT	Organizational behavior Tools for Continuous Improvement Organizational Diagnosis Human Talent Management Organizational Development Training and Development Occupational Health Supervised Practice I Supervised Practice II				
SPECIAL EDUCATION	Developmental Psychology Family Functionality and Dysfunctionality Assessment and Diagnosis in Special Education Comparative Analysis of Models of Special Education Problems of Learning and Low School Performance Development of Cognitive Processes Workshop on Strategies for Teaching I Workshop on Strategies for Teaching II				
MATHEMATICAL COMPETENCES	Didactics of Basic Mathematics Didactics of Mathematics Media Didactics of Advanced Mathematics Didactics of probability and statistics Selected Mathematics Topics				

### **TERMINAL AXIS**

Integrator Seminar



The CETYS' ML forms dynamic and highly competitive leaders at the forefront of the legal sector in the public or private sector, capable of generating strategies and solutions in the development of their professional work.

- 1. Applies international law as the fundamental norm of structure of the Mexican law and legal deontology, through the constitution, Legislation, criteria of jurisprudence, doctrine and other sources of law.
- 2. Analyzes other existing legal systems that allow it to be compatible to different models in a global context.
- 3. Designs strategies and solutions through the study of practical cases to anticipate, confront and resolve situations of legal relevance.

  4. Applies litigation and oral techniques in jurisdictional proceedings with creativity and innovation, through the alternative means of solution of controversies in matters of public and private law.

- 5. Advises public and private companies in the Constitutional Reforms, Protection of human rights and the environment.
- 6. Develop effective information, technology and communication skills adapting to different contexts and responding to the current demands of the local and global environment.
- 7. It is an agent of change in the social environment through values and ethics professional, seeking to influence the formation of a global, fair and equitable citizenship.

#### **PROGRAM FORMAT**

14 Subjects:

- Basic Area (5)
- Concentration Area (7)
- Terminal Area (2)

	CONCENTRATION AREA
BASIC AREA	<ul> <li>Constitutional theory and human rights:</li> <li>Legal Argumentation.</li> <li>Fiscal Law.</li> <li>Individual and collective labor relations.</li> <li>Alternative means of National and International dispute settlement.</li> </ul>
CONCENTRATION AREA	<ul> <li>Constitutional Rights and Law Protection:</li> <li>Federal system and Powers' Division principles.</li> <li>Mechanisms of Constitutional control and conventionality.</li> <li>Substance of Protection trial.</li> <li>Selected issues of social, civil and administrative protection.</li> <li>Collective actions.</li> <li>State Constitutional law.</li> <li>Administrative litigation procedure.</li> </ul> Corporate International Law: <ol> <li>Legal framework for business and corporations</li> <li>Commercial Code and Securities</li> <li>Intellectual property law</li> <li>Environmental law</li> <li>Ficscal Right Strategies</li> <li>Legal regime of foreign trade and customs and commercial treaties</li> <li>Energy and telecommunications law</li> </ol>
TERMINAL AXIS	Legal Ethics     Application Project



CETYS' MNPs forms highly qualified leaders, who in an international context improve people's life quality through the development of competences in evaluation, intervention and rehabilitation of neurodevelopmental and neuropsychological disorders in children and / or adults.

- 1.- Applies techniques and evaluation instruments aimed at diagnosing the cognitive and affective processes in the different stages of development, as well as the cognitive and behavioral repercussions of a brain injury.
- 2.- Works in multidisciplinary teams for the analysis of cases and to support the differential diagnosis between psychiatric and neurological syndromes.
- 3.- Plans neuropsychological interventions from the evaluation to optimize affective cognitive processes in the different development stages, minimizing the cognitive and behavioral repercussions of a brain injury.

- 4.- Evaluates the effectiveness of prevention strategies and / or intervention in mental health related to neurobiological aspects.
- 5.- Uses qualitative and quantitative methodology to carry out investigation protocols that improve the quality of life and the mental health of the people.
- 6.- Assumes an ethical stance during a process of investigation, evaluation and / or neuropsychological intervention, adhering to national and international protocols.
- 7.- Produces reports of research and specialized articles in an effective way.

#### **PROGRAM FORMAT**

15 Subjects:

- Basic Area (6)
- Clinical Area (4)
- Investigation Area (5)

Includes clinical residences in the main institutions of mental health of the state

	AREAS
BASIC AREA	Theoretical models in neuropsychology.  Neuropsychology and brain functions.  Neurodevelopment of childhood and adolescence.  Neurodevelopment of adulthood.  Neuropsychology of cognitive and affective processes.  Neuropsychology of behavior, personality and executive functions.
CLINICAL AREA	Neuropsychological evaluation instrument.  Mental Disorders and Brain Damage Clinic.  Neuropsychological evaluation: integration and elaboration of the report.  Neuropharmacology.
INVESTIGATION AREA	Neuropsychological research methods.  Methods and techniques neuropsychological intervention.  Data Analysis Techniques.  Introduction of methodology applied in neuropsychology.  Methodology applied in neuropsychology.



CETYS' DEd aims to train specialists in the field of education able to: design, develop, implement and evaluate research and management in education, creating applicable knowledge in social, educational, cultural areas, and business, both region and at an international level.

# What characteristics does a candidate must have to study the Doctorate in Education?

#### **Abilities**

- Demonstrates basic thinking skills such as: ability to analyze, synthesize, relate, interpret, evaluate and search for information.
- Possess skills for handling computational tools at an advanced level, so that research, both quantitative and qualitative, is supported by different means.
- Possess skills to develop teamwork, both in person and online.
- Will have clear competencies to search, find and use printed information and through online, particularly handling the ability to extract information from databases.

#### **Attitudes**

It is necessary for the candidate to show willingness to work in terms of discipline in his own process, as well as openness to criticism, willingness to dialogue and a sense of collaboration.

- The search for truth, an adequate experience of freedom and justice, are necessary values to deepen the educational field; with them our one candidate base formation to give your search a sense of good and greater solidarity with their society.
- Will have an open disposition to interact in multicultural environments, with teachers, institutions and situations that, from different cultures, can enrich their vision of education

#### Knowledge

- Candidate must demonstrate knowledge of the disciplinary field of education; Its main models, its historical development, as well as the current trends in the field.
- Must have sufficient competences in a particular field of education, demonstrated when presenting a preliminary research project.
- Candidate should know the fundamentals of various academic management models.

#### **Education and Values**

Develop the skills necessary to design, develop, implement and evaluate research projects in the field of values, using quantitative or qualitative methodologies, using different paradigms and educational models, whose results can contribute to the transformation of society.

#### **Education Management**

Train professionals with leadership skills and educational management who can organize and coordinate interdisciplinary work teams, design and implement educational policies, and manage the resources, relationships and conditions necessary for an educational project to be successfully developed.

The graduates of this program will be able to conceptually, philosophically and methodologically design, apply, direct and evaluate research projects and links that bring new knowledge to the field of education, which, however, serve as a platform for the formulation of programs in the area. To do this, they must acquire the following profile:

#### **Abilities**

- Conduct research that provides theoretical and practical knowledge in the education systems of the region.
- Incorporate in its professional activities the use of modern communication technologies that strengthen the collaborative work with colleagues from other regions of the country and the world.
- Develop didactic-pedagogical skills that allow him / her to interact with undergraduate and postgraduate students in a framework conducive to comprehensive training.

- Plan, design, implement and evaluate institutional projects aimed at consolidating educational models that have philosophical coherence.
- Plan, design, implement and evaluate educational programs aimed at the formation of values and attitudes.
- Will be part of interdisciplinary teams with national and international colleagues who formulate projects for the promotion of education.
- manage the resources needed for an educational institution to develop their own projects in a sustainable way.
- Plan, design, implement and evaluate research projects aimed at improving the management of educational institutions at various levels and environments.

#### **Attitudes**

Will assess the need to share their own skills and experience with those who are developing a process of training in the field of education.

- Seek the projects in which they are involved are always developed in such a way that education will generate quality results clearly visible in their community.
- Will commit itself to the institutional philosophy of CETYS, in particular with its value system, which will enable it to live and foster attitudes that foster both its own well-being and that of the community.
- Develop an openness to dialogue and appreciation of other cultures and ways of thinking.
- Will seek that its behavior is oriented to propose an educative leadership in agreement with the present society.
- Encourage openness to learning and innovation.

#### Knowledge

Identify and diagnose the needs of educational institutions, government agencies and civil organizations in their educational models.

- Will have methodological knowledge to ease the construction of educational research and innovation projects.
- Will have solid knowledge of current educational theories, as well as cutting-edge educational topics.
- Will handle solid arguments on the foundations of various positions in the axiological field.
- Will integrate a global vision that allows him/herto understand the environment in which education takes place today.
- Will have a mastery of the education sciences that allows him to anticipate the social trends of knowledge.

#### **CURRICULUM**

#### 1st Semester

- School and society in the contemporary world.
- Quantitative methods in educational research.

#### 2nd Semester

- Current educational models and educational policies.
- Qualitative methods in educational research.

#### **3re Semester**

- Design of research projects.
- Subject from the Concentration Area.

#### 4th Semester

- Theoretical basis in research.
- Subject from the Concentration Area

#### 5th Semester

- Methodological model in research.
- Subject from the Concentration Area.

#### 6th Semester

- Description and analysis of research results.
- Subject from the concentration Area.

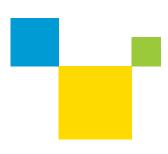
#### **CONCETRATIONS**

#### **Education and Values**

- Values in a globalized society.
- Citizen education and exclusion.
- Intercultural education and migration.
- Pedagogy of alterity and moral education.

### **Education Management**

- Educational leadership.
- Project management.
- Educational Administration.
- Institutional Evaluation.



# **CONTACT US**

# Ensenada Campus

Km. 1 Camino Microondas Trinidad Apartado Postal 2727 Tel. 01 (646) 222.2300

# Mexicali Campus

Calzada CETYS s/n Colonia Rivera Apartado Postal 3-797 P.O. Box 2808 Calexico, CA. 92231 P.O. Box 8513 Calexico, CA. 92231 Tel. 01 (686) 567.3700 / 567.335

## Tijuana Campus

Av. CETYS Universidad s/n Fracc. El Lago C.P. 22550 Apartado Postal 4012 Tel. 01 (664) 903.1800

www.cetys.mx